# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION 

Washington, D.C. 20549
FORM 10-Q
$\triangle \quad$ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2018
or
$\square \quad$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

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

(Exact Name of Registrant as Specified in its Charter)

## 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) 482-3000Indicate 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 $\begin{aligned} & \text { No } \\ & \square\end{aligned}$

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 $\boxtimes$ No $\square$

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No $\boldsymbol{X}$
As of May 4, 2018 the Registrant had outstanding $94,346,682$ 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 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | March 31, |  |  |  |
|  | 2018 |  | 2017 |  |
| Statements of Income: |  |  |  |  |
| Net sales | S | 1,690.6 | \$ | 1,536.5 |
| Cost of sales |  | (1,334.5) |  | $(1,198.3)$ |
| Gross profit |  | 356.1 |  | 338.2 |
| Selling, general and administrative expenses |  | (134.9) |  | (127.8) |
| Other expense, net |  | (8.3) |  | (7.0) |
| Income from operations |  | 212.9 |  | 203.4 |
| Interest expense, net and other |  | (26.3) |  | (24.3) |
| Income before taxes |  | 186.6 |  | 179.1 |
| Provision for income taxes |  | (46.5) |  | (61.7) |
| Net income | \$ | 140.1 | \$ | $\underline{117.4}$ |
|  |  |  |  |  |
| Net income per common share: |  |  |  |  |
| Basic | \$ | 1.48 | \$ | 1.25 |
| Diluted | \$ | 1.48 | \$ | $\underline{1.24}$ |
| Dividends declared per common share | \$ | 0.63 | \$ | 0.63 |
|  |  |  |  |  |
| Statements of Comprehensive Income: |  |  |  |  |
| Net income | \$ | 140.1 | \$ | 117.4 |
| Other comprehensive income, net of tax: |  |  |  |  |
| Foreign currency translation adjustment |  | (0.1) |  | (0.2) |
| Reclassification adjustments to cash flow hedges included in net income, net of tax of $\$ 0.4$ million and $\$ 0.5$ million |  | 1.0 |  | 0.9 |
| Amortization of pension and postretirement plans actuarial loss and prior service cost, net of tax of $\$ 1.0$ million and $\$ 1.2$ million |  | 3.0 |  | 2.2 |
| Other comprehensive income |  | 3.9 |  | 2.9 |
| Comprehensive income | \$ | 144.0 | \$ | 120.3 |

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)

|  | $\begin{gathered} \text { March 31, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2017 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |
| Current assets: |  |  |  |  |
| Cash and cash equivalents | \$ | 102.4 | \$ | 216.9 |
| Accounts receivable, net of allowance for doubtful accounts and customer deductions of $\$ 13.1$ million and $\$ 12.6$ million as of March 31, 2018, and December 31, 2017, respectively |  | 860.2 |  | 830.7 |
| Inventories |  | 766.4 |  | 762.5 |
| Prepaid expenses and other current assets |  | 55.0 |  | 35.5 |
| Federal and state income taxes receivable |  | 48.6 |  | 69.5 |
| Total current assets |  | 1,832.6 |  | 1,915.1 |
| Property, plant, and equipment, net |  | 2,961.4 |  | 2,924.9 |
| Goodwill |  | 883.2 |  | 883.2 |
| Other intangible assets, net |  | 399.6 |  | 410.0 |
| Other long-term assets |  | 63.0 |  | 64.3 |
| Total assets | \$ | $\underline{6,139.8}$ | \$ | 6,197.5 |
| LIABILITIES AND STOCKHOLDERS' EQUITY |  |  |  |  |
| Current liabilities: |  |  |  |  |
| Current maturities of long-term debt | \$ | - | \$ | 150.0 |
| Capital lease obligations |  | 1.4 |  | 1.3 |
| Accounts payable |  | 427.3 |  | 402.9 |
| Dividends payable |  | 60.6 |  | 60.5 |
| Accrued liabilities |  | 157.0 |  | 203.2 |
| Accrued interest |  | 27.3 |  | 14.8 |
| Total current liabilities |  | 673.6 |  | 832.7 |
| Long-term liabilities: |  |  |  |  |
| Long-term debt |  | 2,481.2 |  | 2,480.4 |
| Capital lease obligations |  | 18.6 |  | 19.0 |
| Deferred income taxes |  | 256.7 |  | 239.5 |
| Compensation and benefits |  | 373.0 |  | 372.5 |
| Other long-term liabilities |  | 62.9 |  | 70.8 |
| Total long-term liabilities |  | 3,192.4 |  | 3,182.2 |
| Commitments and contingent liabilities |  |  |  |  |
| Stockholders' equity: |  |  |  |  |
| Common stock, par value $\$ 0.01$ per share, 300.0 million shares authorized, 94.3 million shares issued as of March 31, 2018, and December 31, 2017 |  | 0.9 |  | 0.9 |
| Additional paid in capital |  | 476.3 |  | 471.2 |
| Retained earnings |  | 1,949.6 |  | 1,867.4 |
| Accumulated other comprehensive loss |  | (153.0) |  | (156.9) |
| Total stockholders' equity |  | 2,273.8 |  | 2,182.6 |
| Total liabilities and stockholders' equity | \$ | 6,139.8 | \$ | 6,197.5 |

See accompanying condensed notes to unaudited quarterly consolidated financial statements.

## Packaging Corporation of America

## Consolidated Statements of Cash Flows

(unaudited, dollars in millions)

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Cash Flows from Operating Activities: |  |  |  |  |
| Net income | \$ | 140.1 | \$ | 117.4 |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |
| Depreciation, depletion, and amortization of intangibles |  | 108.1 |  | 92.5 |
| Amortization of deferred financing costs |  | 2.3 |  | 2.0 |
| Share-based compensation expense |  | 5.1 |  | 4.6 |
| Deferred income tax provision |  | 15.9 |  | 12.2 |
| Pension and post retirement benefits expense, net of contributions |  | 3.9 |  | 1.1 |
| Other, net |  | (1.0) |  | (1.8) |
| Changes in operating assets and liabilities: |  |  |  |  |
| Increase in assets - |  |  |  |  |
| Accounts receivable |  | (22.9) |  | (44.1) |
| Inventories |  | (8.4) |  | (20.9) |
| Prepaid expenses and other current assets |  | (17.0) |  | (15.4) |
| Increase (decrease) in liabilities - |  |  |  |  |
| Accounts payable |  | (1.0) |  | 25.6 |
| Accrued liabilities |  | (42.9) |  | (48.5) |
| Federal and state income taxes payable / receivable |  | 20.3 |  | 39.4 |
| Net cash provided by operating activities |  | 202.5 |  | 164.1 |
| Cash Flows from Investing Activities: |  |  |  |  |
| Additions to property, plant, and equipment |  | (108.0) |  | (57.8) |
| Additions to other long term assets |  | (1.9) |  | (2.9) |
| Proceeds from disposals |  | 0.1 |  | 1.7 |
| Other, net |  | 2.6 |  | 1.2 |
| Net cash used for investing activities |  | (107.2) |  | (57.8) |
| Cash Flows from Financing Activities: |  |  |  |  |
| Repayments of debt and capital lease obligations |  | (150.3) |  | (31.7) |
| Common stock dividends paid |  | (59.4) |  | (59.4) |
| Shares withheld to cover employee restricted stock taxes |  | (0.1) |  | (0.5) |
| Net cash used for financing activities |  | (209.8) |  | (91.6) |
| Net increase (decrease) in cash and cash equivalents |  | (114.5) |  | 14.7 |
| Cash and cash equivalents, beginning of period |  | 216.9 |  | 239.3 |
| Cash and cash equivalents, end of period | \$ | 102.4 | \$ | 254.0 |

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 papers, including communication-based papers and pressure sensitive papers. 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 18 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

The consolidated financial statements of PCA as of March 31, 2018 and for the three months ended March 31, 2018 and 2017 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 Regulation S-X of the Securities and Exchange Commission (SEC). 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 months ended March 31, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31 , 2018. These consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2017

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

## 2. New and Recently Adopted Accounting Standards

## Recently Adopted Accounting Standards

Effective January 1, 2018, the Company adopted Accounting Standards Update ("ASU") 2014-09 (Topic 606): Revenue from Contracts with Customers. This ASU supersedes the revenue recognition requirements in Topic 605 Revenue Recognition (Topic 605) and requires entities to recognize revenue when control of the promised goods or services is transferred to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The ASU requires additional disclosure about the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and estimates, and changes in those estimates. The Company adopted the standard utilizing the modified retrospective method, in which case the cumulative effect was recognized at the date of initial application on January 1, 2018. The adoption of the standard did not have a material effect on the Company's financial position or results of operations; however, the following adjustment and reclassification of certain costs were made for the three months ended March 31, 2018:
a. The Company ships a portion of its products to customers under consignment agreements. These products do not have an alternative use, and, under the new standard, revenue associated with these products is required to be recognized earlier than under prior revenue recognition standards. Utilizing the modified retrospective method, the cumulative impact of adopting the new standard resulted in an increase of approximately $\$ 1.6$ million, net of tax, to opening retained earnings as of January 1,2018
b. The new revenue standard also provides additional clarity concerning contract fulfillment costs, which resulted in certain costs being classified as cost of sales rather than selling, general and administrative expenses beginning January 1, 2018. For the three months ended March 31, 2018, this amount totaled $\$ 6.2$ million.

See Note 3, Revenue, for more information.

Effective January 1, 2018, the Company adopted ASU 2017-07, Compensation: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The guidance in this update requires that an employer disaggregate the service cost component from the other components of net benefit cost. Non-service cost components of net periodic benefit cost are required to be presented in the income statement separately from the service cost component and outside the subtotal of operating income. The update also allows only the service cost component to be eligible for capitalization for internally developed capital projects. The amendments in this update are applied retrospectively for the income statement presentations and prospectively for the capitalization of service costs.

The adoption of this ASU retrospectively resulted in a $\$ 0.3$ million reclassification between cost of sales and selling, general and administrative expenses (both components of income from operations) and interest expense, net and other (a component outside of income from operations) for the three months ended March 31, 2017.

Effective January 1, 2018, the Company adopted ASU 2017-09 Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting, which clarifies what changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718 . This ASU will be applied prospectively when changes to the terms or conditions of a share-based payment award occur.

Effective January 1, 2018, the Company adopted ASU 2017-01 (Topic 805), Clarifying the Definition of a Business, which amends the guidance in ASC 805 , "Business Combinations". The ASU changes the definition of a business to assist entities with evaluating when a set of transferred assets and activities is a business. Under the new guidance, an entity first determines whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If this threshold is met, the set is not a business. If it is not met, the entity then evaluates whether the set meets the requirements that a business include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. The ASU defines an output as "the result of inputs and processes applied to those inputs that provide goods or services to customers, investment income (such as dividends or interest), or other revenues." The ASU will be applied prospectively to any transactions subsequent to adoption.

Effective January 1, 2018, the Company adopted ASU 2016-15 (Topic 230), Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments. This ASU adds or clarifies guidance on the classification of certain cash receipts and payments in the statement of cash flows. The adoption of this guidance did not have a material impact on the Company's financial condition, results of operations, or cash flows.

## New Accounting Standards Not Yet Adopted

In February 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-02 (Topic 220): Income Statement - Reporting Comprehensive Income Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which allows for optional reclassification from accumulated other comprehensive income to retained earnings for the stranded tax effects resulting from the enactment of H.R. 1 (P.L. 115-97), originally known as the "Tax Cuts and Jobs Act," in December 2017. An entity that elects to reclassify these amounts must reclassify stranded tax effects related to the change in federal tax rate for all items accounted for in other comprehensive income (e.g., pension and postretirement benefits and cash flow hedges). Entities may also elect to reclassify other stranded tax effects that relate to the Act but do not directly relate to the change in the federal tax rate (e.g., state taxes). Upon adoption of ASU 2018-02, entities are required to disclose their policy for releasing the income tax effects from accumulated other comprehensive income. ASU 2018-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. The Company does not expect this ASU to have a material impact on the Company's financial position, results of operations, or cash flow.

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 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, and early adoption is permitted. This ASU is required to be adopted using a modified retrospective approach. We are in the process of implementing changes to our systems and processes in conjunction with our review of existing lease agreements. We will adopt Topic 842 effective January 1, 2019 and expect to elect certain available transitional practical expedients. We are still in the process of determining the effects on our financial statements but do expect to recognize a liability and corresponding asset associated with in-scope operating leases.

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.

## 3. Revenue

## Revenue Recognition

Revenue is recognized when control of the promised goods or services is transferred to customers in an amount that reflects the consideration expected to be entitled in exchange for those goods or services. Sales, value added, and other taxes collected concurrently with revenue-producing activities are excluded from revenue.

The following table presents our revenues disaggregated by product line (dollars in millions):

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 (a) |  |
| Packaging | \$ | 1,402.9 | \$ | 1,257.0 |
| Paper |  | 269.4 |  | 259.2 |
| Corporate and other |  | 18.3 |  | 20.3 |
| Total revenue | \$ | 1,690.6 | \$ | 1,536.5 |

[^0]
## Packaging Revenue

Our containerboard mills produce linerboard and semi-chemical corrugating medium which are papers primarily used in the production of corrugated products. The majority of our containerboard production is used internally by our corrugated products manufacturing facilities. The remaining containerboard is sold to outside domestic and export customers. Our corrugated products manufacturing plants produce a wide variety of corrugated packaging products and retail merchandise displays. We sell corrugated products to national, regional and local accounts, which are broadly diversified across industries and geographic locations.

The Company recognizes revenue for its packaging products when performance obligations under the terms of a contract with a customer are satisfied. This occurs with the transfer of control of our products at a specific point in time. Based on our express terms and conditions of the sale of products to our customers, as well as terms included in contractual arrangements with our customers, we do not have an enforceable right of payment that includes a reasonable profit throughout the duration of the contract for products that do not have an alternative use. Revenue is recognized when the product is shipped from the mill or from our manufacturing facility to our customer. Certain customers may receive volume-based incentives which are accounted for as variable consideration. We estimate these amounts based on the expected amount to be provided to customers and reduce revenue recognized.

Certain customers receive a portion of their packaging products as consigned inventory with billing triggered once the customer uses or consumes the designated product Prior to invoicing, these amounts are handled as unbilled receivables. Total unbilled receivables, which are immaterial in amount, are included in the accounts receivable financial statement caption.

## Paper Revenue

We manufacture and sell a range of white papers, including communication papers and pressure sensitive papers. Communication papers consist of cut-size office papers, and printing and converting papers. Pressure sensitive papers, including release liners, are used for specialty applications such as consumer and commercial product labels.

The Company recognizes revenue for its paper products when performance obligations under the terms of a contract with a customer are satisfied. This occurs with the transfer of control of our products at a specific point in time. Revenue is recognized when the product is shipped from the mill or from our manufacturing facility or distribution center to our customer. Certain customers may receive volume-based incentives which are accounted for as variable consideration. We estimate these amounts based on the expected amount to be provided to customers and reduce revenue recognized.

## Corporate and Other Revenue

Revenue in this segment primarily relates to Louisiana Timber Procurement Company, L.L.C. (LTP), a variable-interest entity that is $50 \%$ owned by PCA and $50 \%$ owned by Boise Cascade Company (Boise Cascade). 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. See Note 17, Transactions With Related Parties, for more information related to LTP.

The Company recognizes revenue within this segment when performance obligations under the terms of a contract with a customer are satisfied. This occurs with the transfer of control of our products at a specific point in time.

## Practical Expedients and Exemption

Shipping and handling fees billed to a customer are recorded on a gross basis in "Net sales" with the corresponding shipping and handling costs included in "Cost of sales" in the concurrent period as the revenue is recorded. We expense sales commissions when incurred because the amortization period is one year or less. Sales commissions are recorded in "Selling, general, and administrative expenses".

We do not disclose the value of unsatisfied performance obligations for contracts with an original expected duration of one year or less.

## 4. Acquisitions

## Sacramento Container Acquisition

On October 2, 2017, PCA acquired substantially all of the assets of Sacramento Container Corporation, and $100 \%$ of the membership interests of Northern Sheets, LLC and Central California Sheets, LLC (collectively referred to as "Sacramento Container") for a purchase price of \$274 million, including working capital adjustments. Funding for the $\$ 274$ million purchase price came from available cash on hand. Assets acquired include full-line corrugated products and sheet feeder operations in both McClellan, California and Kingsburg, California. Sacramento Container provides packaging solutions to customers serving portions of California's strong agricultural market. Sacramento Container's financial results are included in the Packaging segment from the date of acquisition.

The Company accounted for the Sacramento Container acquisition using the acquisition method of accounting in accordance with ASC 805 , Business Combinations. The total purchase price has been preliminarily allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values, as follows (dollars in millions):

|  | $\mathbf{1 2 / 3 1 / 2 0 1 7}$ Allocation |  |
| :--- | ---: | ---: |
| Goodwill | $\$$ | 151.1 |
| Other intangible assets | 72.6 |  |
| Property, plant and equipment | 26.7 |  |
| Other net assets | $\$$ | 23.4 |
| Net assets acquired |  | 273.8 |

The purchase price above is preliminary and is subject to finalization of various valuations and assessments, primarily related to property, plant, and equipment and intangible assets. Our current estimates and assumptions may change as more information becomes available. We expect to finalize the valuation within the $12-\mathrm{month}$ period following the acquisition date.

Goodwill is calculated as the excess of the purchase price over the fair value of the net assets acquired. Among the factors that contributed to the recognition of goodwill were Sacramento Container's commitment to continuous improvement and regional synergies, as well as the expected increases in PCA's containerboard integration levels. Goodwill is deductible for tax purposes.

Other intangible assets, primarily customer relationships, were assigned an estimated weighted average useful life of 9.7 years.
Property, plant, and equipment were assigned estimated useful lives ranging from one to 13 years.

## 5. 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):

|  |  |  |
| :--- | :--- | ---: | :--- |
|  |  |  |

## 6. Other Income (Expense), Net

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

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Asset disposals and write-offs | \$ | (5.1) | \$ | (2.3) |
| Wallula mill restructuring (a) |  | (0.7) |  | - |
| Facilities closure, integration-related, and other costs (b) |  | (0.1) |  | (0.8) |
| DeRidder mill incident (c) |  | - |  | (5.0) |
| Hexacomb working capital adjustment (d) |  | - |  | 2.3 |
| Other |  | (2.4) |  | (1.2) |
| Total | \$ | (8.3) | \$ | (7.0) |

(a) Includes charges related to our determination to discontinue production of uncoated free sheet and coated one-side grades at the Wallula, Washington mill in the second quarter of 2018 and convert the No. 3 paper machine to a high-performance $100 \%$ virgin kraft linerboard machine.
(b) For 2018, includes charges consisting of closure costs related to corrugated products facilities. For 2017, includes charges consisting of closure costs related to corrugated products facilities, integration costs related to the TimBar Corporation and Columbus Container Inc. acquisitions, and costs related to a lump sum settlement payment of a multiemployer pension plan for one of our corrugated products facilities.
(c) Includes costs for the property damage and business interruption insurance deductible corresponding to the February 2017 explosion at our DeRidder, Louisiana mill.
(d) Includes income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

## 7. Income Taxes

On December 22, 2017, the President signed into law H.R. 1 (P.L. 115-97), originally known as the "Tax Cuts and Jobs Act" (the "Tax Act"). The Tax Act significantly revises the U.S. tax code by, among other items, reducing the federal corporate tax rate from $35 \%$ to $21 \%$, providing for the full expensing of certain depreciable property, eliminating the corporate alternative minimum tax, limiting the deductibility of interest expense, further limiting the deductibility of certain executive compensation, limiting the use of net operating loss carryforwards created in tax years beginning after December 31, 2017, and implementing a territorial tax system imposing a deemed repatriation transition tax ("Transition Tax") on earnings of foreign subsidiaries.

The SEC staff issued Staff Accounting Bulletin ("SAB") 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act, which provides guidance on accounting for the effects and includes a measurement period that ends when a company has obtained, prepared, and analyzed the information necessary to finalize its accounting of the Tax Act, which cannot extend beyond one year. In accordance with SAB 118, the Company recorded provisional estimates of the income tax effects of the Tax Act in our 2017 Form 10-K.

During the three months ended March 31, 2018, we have not recorded any measurement period adjustments to the provisional estimates recorded at December 31, 2017. Final accounting for the income tax effects of the Tax Act will occur after the completion of our 2017 federal and state income tax returns in the fourth quarter of 2018.

For the three months ended March 31, 2018 and 2017, we recorded $\$ 46.5$ million and $\$ 61.7$ million of income tax expense and had an effective tax rate of $24.9 \%$ and $34.5 \%$, respectively. The decrease in our effective tax rate for the three months ended March 31, 2018 compared with the same period in 2017, was primarily due to federal tax reform (P.L. 115-97), which included a reduction in the federal tax rate of $14.0 \%$ offset by the loss of the Domestic Production Activities Deduction benefit of about $3.2 \%$ and a reduction in the federal benefit of state tax deductions of about $0.8 \%$.

Our effective tax rate may differ from the federal statutory income tax rate of $21.0 \%$, due primarily to the effect of state and local income taxes. During the three months ended March 31, 2018 and 2017, cash paid for taxes, net of refunds received, was $\$ 10.3$ million and $\$ 9.7$ million, respectively.

During the three months ended March 31, 2018 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 2017 Annual Report on Form 10-K.

## 8. 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):

|  | $\begin{gathered} \text { March 31, } \\ 2018 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2017 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Raw materials | \$ | 293.9 | \$ | 279.8 |
| Work in process |  | 14.4 |  | 12.6 |
| Finished goods |  | 202.2 |  | 217.0 |
| Supplies and materials |  | 255.9 |  | 253.1 |
| Inventories | \$ | 766.4 | \$ | 762.5 |

## 9. Property, Plant, and Equipment

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

|  | $\begin{gathered} \text { March 31, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2017 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Land and land improvements | \$ | 158.0 | \$ | 156.0 |
| Buildings |  | 734.4 |  | 729.8 |
| Machinery and equipment |  | 5,212.0 |  | 5,162.5 |
| Construction in progress |  | 239.0 |  | 194.5 |
| Other |  | 70.9 |  | 68.4 |
| Property, plant and equipment, at cost |  | 6,414.3 |  | 6,311.2 |
| Less accumulated depreciation |  | $(3,452.9)$ |  | $(3,386.3)$ |
| Property, plant, and equipment, net | \$ | 2,961.4 | \$ | 2,924.9 |

Depreciation expense for the three months ended March 31, 2018 and 2017 was $\$ 94.6$ million and $\$ 82.4$ million, respectively. During the three months ended March 31 , 2018, we recognized $\$ 8.3$ million incremental depreciation expense from shortening the useful lives of certain assets related to the Wallula mill restructuring and a corporate administration facility.

At March 31, 2018 and December 31, 2017, purchases of property, plant, and equipment included in accounts payable were $\$ 55.2$ million and $\$ 29.8$ million, respectively.

## 10. 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 March 31, 2018 and December 31, 2017 we had $\$ 828.0$ million of goodwill recorded in our Packaging segment. At both March 31, 2018 and December 31, 2017, we had $\$ 55.2$ million of goodwill recorded in our Paper segment.

## 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):

|  | March 31, 2018 |  |  |  |  | December 31, 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Weighted Average Remaining Useful Life (in Years) | Gross <br> Carrying <br> Amount |  | Accumulated <br> Amortization |  | Weighted Average Remaining Useful Life (in Years) | Gross Carrying Amount |  | Accumulated <br> Amortization |  |
| Customer relationships (a) | 11.6 | \$ | 497.8 | \$ | 118.6 | 11.8 | \$ | 497.8 | \$ | 109.8 |
| Trademarks and trade names (a) | 10.0 |  | 32.9 |  | 14.6 | 9.8 |  | 32.9 |  | 13.2 |
| Other (a) | 3.4 |  | 4.3 |  | 2.2 | 3.6 |  | 4.3 |  | 2.0 |
| Total intangible assets (excluding goodwill) | 11.5 | \$ | 535.0 | \$ | 135.4 | 11.7 | \$ | 535.0 | \$ | 125.0 |

(a) In connection with the October 2017 acquisition of Sacramento Container, the Company recorded intangible assets of $\$ 68.4$ million for customer relationships, $\$ 4.1$ million for trade names, and $\$ 0.1$ million for other intangibles.

During the three months ended March 31, 2018 and 2017, amortization expense was $\$ 10.4$ million and $\$ 8.3$ million, respectively.

## 11. Accrued Liabilities

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

|  | $\begin{gathered} \text { March 31, } \\ 2018 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2017 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Compensation and benefits | \$ | 78.4 | \$ | 127.5 |
| Medical insurance and workers' compensation |  | 25.5 |  | 23.9 |
| Customer volume discounts and rebates |  | 16.8 |  | 23.4 |
| Franchise, property, sales and use taxes |  | 15.5 |  | 16.0 |
| Environmental liabilities and asset retirement obligations |  | 4.4 |  | 4.0 |
| Severance, retention, and relocation |  | 3.3 |  | 3.1 |
| Other |  | 13.1 |  | 5.3 |
| Total | \$ | 157.0 | \$ | 203.2 |

## 12. Debt

At March 31, 2018 and December 31, 2017, our long-term debt and interest rates on that debt were as follows (dollars in millions):

|  | March 31, 2018 |  |  | December 31, 2017 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | Interest Rate | Amount |  | Interest Rate |
| 6.50\% Senior Notes due March 2018 | \$ | - | -\% | \$ | 150.0 | 6.50\% |
| $2.45 \%$ Senior Notes, net of discount of $\$ 0.5$ million as of March 31, 2018 and December 31, 2017, due December 2020 |  | 499.5 | 2.45\% |  | 499.5 | 2.45\% |
| $3.90 \%$ Senior Notes, net of discount of $\$ 0.2$ million as of March 31, 2018 and December 31, 2017, due June 2022 |  | 399.8 | 3.90\% |  | 399.8 | 3.90\% |
| 4.50\% Senior Notes, net of discount of $\$ 1.1$ million and $\$ 1.2$ million as of March 31, 2018 and December 31, 2017, respectively, due November 2023 |  | 698.9 | 4.50\% |  | 698.8 | 4.50\% |
| $3.65 \%$ Senior Notes, net of discount of $\$ 0.8$ million as of March 31, 2018 and December 31, 2017, due September 2024 |  | 399.2 | 3.65\% |  | 399.2 | 3.65\% |
| 3.40\% Senior Notes, net of discounts of $\$ 1.6$ million as of March 31, 2018 and December 31, 2017 due December 2027 |  | 498.4 | 3.40\% |  | 498.4 | 3.40\% |
| Total |  | 2,495.8 | 3.64\% |  | 2,645.7 | 3.80\% |
| Less current portion |  | - | -\% |  | 150.0 | 6.50\% |
| Less unamortized debt issuance costs |  | 14.6 |  |  | 15.3 |  |
| Total long-term debt | \$ | 2,481.2 | 3.64\% | \$ | 2,480.4 | 3.64\% |

During the three months ended March 31, 2018, we used cash on hand to repay debt outstanding of $\$ 150.0$ million under the $6.50 \%$ Senior Notes due March 2018 . For the three months ended March 31, 2018 and 2017, cash payments for interest were $\$ 12.5$ million and $\$ 18.0$ million, respectively.

Included in interest expense, net, are amortization of treasury lock settlements and amortization of financing costs. For both the three months ended March 31,2018 and 2017, amortization of treasury lock settlements was $\$ 1.4$ million. For the three months ended March 31, 2018 and 2017, amortization of financing costs was $\$ 0.7$ million and $\$ 0.5$ million, respectively.

At March 31, 2018, we have $\$ 2,495.8$ million of fixed-rate senior notes outstanding. The fair value of our fixed-rate debt was estimated to be $\$ 2,515.0$ 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 2017 Annual Report on Form 10-K.

For more information on our long-term debt and interest rates on that debt, see Note 9, Debt, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2017 Annual Report on Form 10-K.

## 13. 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 March 31, |  |  |  |
|  | 2018 |  | 2017 |  |
| Service cost | \$ | 6.2 | \$ | 6.1 |
| Interest cost |  | 10.6 |  | 10.4 |
| Expected return on plan assets |  | (14.2) |  | (13.5) |
| Net amortization of unrecognized amounts |  |  |  |  |
| Prior service cost |  | 1.8 |  | 1.5 |
| Actuarial loss |  | 2.3 |  | 1.9 |
| Net periodic benefit cost | \$ | 6.7 | \$ | 6.4 |

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). From time to time, PCA may make additional discretionary contributions based on the funded status of the plans, tax deductibility, income from operations, and other factors. During the three months ended March 31, 2018 and 2017, payments to our nonqualified pension plans were insignificant. For the three months ended March 31, 2018, we made contributions of $\$ 2.2$ million to our qualified pension plans. We made contributions of $\$ 3.7$ million to our qualified plans during the three months ended March 31, 2017. We expect to contribute at least the estimated required minimum contributions to our qualified pension plans of approximately $\$ 4.6$ million in 2018 .

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

|  | Postretirement Plans |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Three Months Ended March 31, |  |  |  |
|  | 2018 |  | 2017 |  |
| Service cost | \$ | 0.1 | \$ | 0.1 |
| Interest cost |  | 0.1 |  | 0.1 |
| Net amortization of unrecognized amounts |  |  |  |  |
| Prior service cost |  | (0.1) |  | - |
| Net periodic benefit cost | \$ | 0.1 | \$ | 0.2 |

## 14. 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 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 March 31, 2018, 1.0 million shares were available for future grants 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 three months ended March 31, 2018:

|  | Restricted Stock |  |  | Performance Units |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shares | Weighted Average GrantDate Fair Value |  | Shares | Weighted Average GrantDate Fair Value |  |
| Outstanding at January 1,2018 | 739,732 | \$ | 77.23 | 226,558 | \$ | 77.07 |
| Granted | - |  | - | - |  | - |
| Vested | $(3,194)$ |  | 74.23 | - |  | - |
| Forfeitures | $(1,182)$ |  | 78.05 | - |  | - |
| Outstanding at March 31,2018 | 735,356 | \$ | 77.24 | 226,558 | \$ | 77.07 |

## 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 March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Restricted stock | , | 3.9 | \$ | 3.4 |
| Performance units |  | 1.2 |  | 1.2 |
| Total share-based compensation expense |  | 5.1 |  | 4.6 |
| Income tax benefit |  | (1.3) |  | (1.8) |
| Share-based compensation expense, net of tax benefit | \$ | 3.8 | \$ | 2.8 |

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 March 31, 2018 was as follows (dollars in millions):

|  | March 31, 2018 |  |  |
| :---: | :---: | :---: | :---: |
|  | Unrecognized Compensation Expense |  | Remaining Weighted Average Recognition Period (in years) |
| Restricted stock | \$ | 26.7 | 2.3 |
| Performance units |  | 8.7 | 2.6 |
| Total unrecognized share-based compensation expense | \$ | 35.4 | 2.4 |

## 15. Stockholders' Equity

## Dividends

During the three months ended March 31, 2018, we paid $\$ 59.4$ million of dividends to shareholders. On February 27, 2018, PCA's Board of Directors announced a regular quarterly cash dividend of $\$ 0.63$ per share of common stock, which was paid on April 13, 2018 to shareholders of record as of March 15, 2018. The dividend payment was $\$ 59.4$ million.

## Repurchases of Common Stock

On February 25, 2016, PCA announced that its Board of Directors authorized the repurchase of $\$ 200.0$ 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.

The Company did not repurchase any shares of its common stock under this authority during the three months ended March 31, 2018. At March 31, 2018, \$193.0 million of the authorized amount remained available for repurchase of the Company's common stock.

## Accumulated Other Comprehensive Income (Loss)

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

|  | Foreign Currency Translation Adjustments |  | Unrealized Loss On Treasury Locks, Net |  | Unrealized Loss on Foreign Exchange Contracts |  | Unfunded <br> Employee Benefit Obligations |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at January 1, 2018 | \$ | (0.3) | \$ | (14.2) | \$ | (0.3) | \$ | (142.1) | \$ | (156.9) |
| Amounts reclassified from AOCI, net of tax |  | (0.1) |  | 1.0 |  | - |  | 3.0 |  | 3.9 |
| Balance at March 31, 2018 | \$ | (0.4) | \$ | (13.2) | \$ | (0.3) | \$ | (139.1) | \$ | (153.0) |

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

| Details about AOCI Components | Amounts Reclassified from AOCI |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Three Months Ended March 31, |  |  |  |  |
|  | 2018 |  | 2017 |  |  |
| Unrealized loss on treasury locks, net (a) | \$ | (1.4) | \$ | (1.4) | See (a) below |
|  |  | 0.4 |  | 0.5 | Tax benefit |
|  | \$ | (1.0) | \$ | (0.9) | Net of tax |
| Unfunded employee benefit obligations (b) |  |  |  |  |  |
| Amortization of prior service costs | \$ | (1.7) | \$ | (1.5) | See (b) below |
| Amortization of actuarial gains / (losses) |  | (2.3) |  | (1.9) | See (b) below |
|  |  | (4.0) |  | (3.4) | Total before tax |
|  |  | 1.0 |  | 1.2 | Tax benefit |
|  | \$ | (3.0) | \$ | $\stackrel{(2.2)}{ }$ | Net of tax |

(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 $\$ 5.2$ million ( $\$ 3.9$ million after tax). For a discussion of treasury lock derivative instrument activity, see Note 13, Derivative Instruments and Hedging Activities, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2017 Annual Report on Form 10-K.
(b) These AOCI components are included in the computation of net pension and postretirement benefit costs. See Note 13, Employee Benefit Plans and Other Postretirement Benefits, for additional information.

## 16. Concentrations of Risk

Our Paper segment has 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 $7 \%$ of our total Company sales revenue for the three months ended March 31, 2018 and 2017 and approximately $45 \%$ and $44 \%$ of our Paper segment sales revenue for both of those periods, respectively. At March 31, 2018 and December 31, 2017, we had $\$ 75.1$ million and $\$ 33.3$ million of accounts receivable due from Office Depot, which represents $9 \%$ and $4 \%$ of our total Company accounts receivable for both of those periods, respectively. The increase in accounts receivable corresponds to a negotiated extension of credit terms effective during the first quarter of 2018.

For full year 2017, sales to Office Depot represented $43 \%$ 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.

## 17. 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 non-inventory working capital items) on our Consolidated Balance Sheets were $\$ 2.9$ million at March 31, 2018 and $\$ 3.0$ million at December 31, 2017. During the three months ended March 31, 2018 and 2017, we recorded $\$ 20.5$ million and $\$ 23.5$ 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".

During the three months ended March 31, 2018 and 2017, fiber purchases from related parties were $\$ 4.0$ million and $\$ 5.0$ million, respectively. 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.

## 18. 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 certain 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 March 31, 2018 | Sales, net |  |  |  |  |  | Operating Income (Loss) (a) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Inter-segment |  | Total |  |  |  |
| Packaging | \$ | 1,396.6 | \$ | 6.3 | \$ | 1,402.9 | \$ | 224.7 (b) |
| Paper |  | 269.4 |  | - |  | 269.4 |  | 7.2 (b) |
| Corporate and other |  | 24.6 |  | 29.0 |  | 53.6 |  | (19.0) (b) |
| Intersegment eliminations |  | - |  | (35.3) |  | (35.3) |  | - |
|  | \$ | 1,690.6 | \$ | - | \$ | 1,690.6 |  | 212.9 |
| Interest expense, net and other |  |  |  |  |  |  |  | (26.3) |
| Income before taxes |  |  |  |  |  |  | \$ | 186.6 |


| Three Months Ended March 31, 2017 | Sales, net |  |  |  |  |  | $\begin{aligned} & \text { Operating Income } \\ & \text { (Loss) (a) } \\ & \hline \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Trade |  | Inter-segment |  | Total |  |  |  |
| Packaging | \$ | 1,251.3 | \$ | 5.7 | \$ | 1,257.0 | \$ | 192.5 (c) |
| Paper |  | 259.2 |  | - |  | 259.2 |  | 27.9 |
| Corporate and Other |  | 26.0 |  | 28.2 |  | 54.2 |  | (17.0) (c) |
| Intersegment eliminations |  | - |  | (33.9) |  | (33.9) |  | - |
|  | \$ | 1,536.5 | \$ | - | \$ | 1,536.5 |  | 203.4 |
| Interest expense, net and other |  |  |  |  |  |  |  | (24.3) |
| Income before taxes |  |  |  |  |  |  | \$ | 179.1 |

(a) Effective January 1, 2018, the Company adopted ASU 2017-07, Compensation: Improving the Presentation of Net Periodic Pension Cost and Net Periodic

Postretirement Benefit Cost and applied this standard retrospectively to the prior period reflected herein. This new standard requires the presentation of non-service cost components of net periodic benefits expense to be shown separately outside the subtotal of operating income in the income statement. See Note 2, New and Recently Adopted Accounting Standards, for more information.

The components of our financial statements affected by the change in presentation of operating and non-operating pension expense as originally reported in 2017 and as adjusted for the requirements per the new standard are as follows (dollars in millions):

| Segment income (loss) | March 31, 2017 As Reported |  | Non-Operating Pension Adjustment |  | March 31, 2017 <br> Adjusted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packaging | \$ | 190.8 | \$ | 1.7 | \$ | 192.5 |
| Paper |  | 29.8 |  | (1.9) |  | 27.9 |
| Corporate |  | (17.5) |  | 0.5 |  | (17.0) |
| Income from operations |  | 203.1 |  | 0.3 |  | 203.4 |
| Interest expense, net and other |  | (24.0) |  | (0.3) |  | (24.3) |
| Income before taxes | \$ | 179.1 | \$ | 三 | \$ | 179.1 |

(b) Includes $\$ 0.3$ million of charges consisting of closure costs related to corrugated products facilities and a corporate administration facility and $\$ 8.8$ million of charges related to the announced second quarter 2018 discontinuation of uncoated free sheet and coated one-side grades at the Wallula, Washington mill associated with the conversion of the No. 3 paper machine to a high-performance $100 \%$ virgin kraft linerboard machine.
(c) Includes the following:

1. $\$ 0.8$ million of charges consisting of closure costs related to corrugated products facilities, integration costs related to the TimBar Corporation and Columbus Container Inc. acquisitions, and costs related to a lump sum settlement payment of a multiemployer pension plan withdrawal liability for one of our corrugated products facilities.
2. $\$ 5.0$ million of costs for the property damage and business interruption insurance deductible corresponding to the February 2017 explosion at our DeRidder, Louisiana mill.
3. $\$ 2.3$ million of income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

## 19. 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 9, Debt, and Note 18, 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 2017 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 March 31, 2018, 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.

## DeRidder Mill Incident

On February 8, 2017, a tank located in the pulp mill at the Company's DeRidder, Louisiana facility exploded, resulting in three contractor fatalities and other injuries. The Company has been served with multiple lawsuits involving the decedents and other allegedly injured parties, alleging negligence on the part of the Company and claiming compensatory and punitive damages. The Company is vigorously defending these lawsuits. The Company believes that these suits are covered by its liability insurance policies, subject to an aggregate $\$ 1.0$ million deductible. The incident remains under investigation and all lawsuits are in the early stages. Accordingly, the Company is unable to estimate a range of reasonable possible losses at this time.

The Company has also incurred property damage and business interruption losses and has claimed these losses, subject to a $\$ 5.0$ million deductible, under its property damage and business interruption insurance policy. As of December 31, 2017, the Company finalized the claim with the insurance carrier and received $\$ 17.0$ million in insurance proceeds during the first quarter of 2018. The insurance proceeds are included in net cash provided by operating activities ( $\$ 14.5$ million) and in net cash used for investing activities ( $\$ 2.5$ million) based on the nature of the reimbursement.

The Company is cooperating with investigations from the U.S. Occupational Health and Safety Administration, the U.S. Chemical Safety Board and the U.S. Environmental Protection Agency relating to the incident.

## Legal Proceedings

We are also a party to various legal actions arising in the ordinary course of our business. These legal actions include commercial liability claims, premises liability claims, 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

## 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 statements that are not historical in nature, 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 2017 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 products and the third largest producer of uncoated freesheet paper in North America. We operate five containerboard mills, three paper mills, and 94 corrugated products manufacturing plants. Our containerboard mills produce linerboard and corrugating medium, which are papers primarily used in the production of corrugated products. 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 are headquartered in Lake Forest, Illinois and 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 2017 Annual Report on Form 10-K.

## Executive Summary

First quarter net sales were $\$ 1.69$ billion in 2018 and $\$ 1.54$ billion in 2017 . We reported $\$ 140$ million of net income, or $\$ 1.48$ per diluted share, during the first quarter of 2018, compared to $\$ 117$ million, or $\$ 1.24$ per diluted share, during the same period in 2017. Net income included $\$ 7$ million of expense for special items (discussed below) in the first quarter of 2018 , compared to $\$ 2$ million in 2017. Excluding special items, we recorded $\$ 147$ million of net income, or $\$ 1.55$ per diluted share, during the first quarter of 2018 , compared to $\$ 120$ million, or $\$ 1.27$ per diluted share, in the first quarter of 2017. The increase was driven primarily by higher prices and mix and volumes in our Packaging segment, higher volumes in our Paper segment, and a favorable tax rate resulting from Tax Reform changes. These items
were partially offset by lower prices and mix in our Paper segment, higher operating and converting costs, higher freight and annual outage expenses, and higher depreciation and interest expense. For additional detail on special items included in reported GAAP results, see "Item 2. Reconciliations of Non-GAAP Financial Measures to Reported Amounts."

Packaging segment income from operations was $\$ 225$ million in the first quarter of 2018, compared to $\$ 193$ million in the first quarter of 2017. Packaging segment earnings before interest, taxes, depreciation, amortization, and depletion (EBITDA) excluding special items was $\$ 308$ million in the first quarter of 2018 compared to $\$ 274$ million in the first quarter of 2017. The increase was due to higher containerboard and corrugated products prices and mix and sales and production volumes driven by strong demand, partially offset by higher operating costs, and higher annual outage, freight, and depreciation expenses.

Paper segment income from operations was $\$ 7$ million in the first quarter of 2018, which includes $\$ 9$ million of Wallula mill restructuring charges, compared to income of $\$ 28$ million in the first quarter of 2017. Paper segment EBITDA excluding special items was $\$ 31$ million in the first quarter of 2018, compared to $\$ 42$ million in the first quarter of 2017. The decrease was due to lower prices and mix, higher input and operating costs, and higher depreciation expense, partially offset by higher sales volumes.

During the third quarter of 2017, the Company announced that it will discontinue production of uncoated freesheet and coated one-side grades at its Wallula, Washington mill in the second quarter of 2018 to begin the conversion of the No. 3 paper machine to a 400,000 ton-per-year virgin kraft linerboard machine. The Company incurred charges in the Paper segment relating to these activities during the first quarter of 2018 as described below under "Special Items and Earnings per Diluted Share, Excluding Special Items," and will incur future charges. The total capital cost of the conversion is expected to be approximately $\$ 150$ million.

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

A reconciliation of reported earnings per diluted share to earnings per share, excluding special items, for the three months ended March 31,2018 and 2017 are as follows:

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Earnings per diluted share, as reported | \$ | 1.48 | \$ | 1.24 |
| Special items: |  |  |  |  |
| Wallula mill restructuring (a) |  | 0.07 |  | - |
| DeRidder mill incident (b) |  | - |  | 0.03 |
| Facilities closure, integration-related, and other costs (c) |  | - |  | 0.01 |
| Hexacomb working capital adjustment (d) |  | - |  | (0.01) |
| Total special items |  | 0.07 |  | 0.03 |
| Earnings per diluted share, excluding special items | \$ | 1.55 | \$ | 1.27 |

(a) For 2018, includes $\$ 8.8$ million of charges related to our determination to discontinue production of uncoated free sheet and coated one-side grades at the Wallula, Washington mill in the second quarter of 2018 and convert the No. 3 paper machine to a high-performance $100 \%$ virgin kraft linerboard machine.
(b) Includes $\$ 5.0$ million of costs for the property damage and business interruption insurance deductible corresponding to the February 2017 explosion at our DeRidder, Louisiana mill.
(c) For 2018, includes $\$ 0.3$ of charges consisting of closure costs related to corrugated products facilities and a corporate administration facility. For 2017, includes $\$ 0.8$ million of closure costs related to corrugated products facilities, integration costs related to the TimBar Corporation and Columbus Container Inc. acquisitions, and a lump sum settlement of a multiemployer pension plan withdrawal liability for one of our corrugated products facilities.
(d) Includes $\$ 2.3$ million of income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

Included in this Item 2 are various non-GAAP financial measures, including diluted EPS excluding special items, segment income excluding special items and EBITDA excluding 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 financia measures and should not be used as such.

## Industry and Business Conditions

Trade publications reported North American industry-wide corrugated products shipments with one less working day increased $1.0 \%$, and shipments per day were up $2.6 \%$ during the first quarter of 2018 compared to the same quarter in 2017. Reported industry containerboard production increased $0.5 \%$ compared to the first quarter of 2017. Reported industry containerboard inventories at the end of the first quarter of 2018 were approximately 2.4 million tons, up slightly compared to the same period in 2017; however, weeks of supply decreased to 3.8 from 3.9. Reported containerboard export shipments were down $6.7 \%$ compared to the first quarter of 2017. During March 2018, trade publications reported a $\$ 50$ per ton price increase on domestic linerboard and corrugating medium.

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 North American uncoated freesheet paper shipments were flat in the first quarter of 2018, compared to the same quarter in 2017. Average prices reported by a trade publication for cut size office papers were higher by $\$ 18$ per ton, or $1.9 \%$, in the first quarter of 2018, compared to the first quarter of 2017.

## Outlook

Looking ahead to the second quarter of 2018, we expect continued strong demand in our Packaging segment to result in higher corrugated products and containerboard shipments, and we will continue to implement our previously announced Packaging segment price increases. In our Paper segment, we expect volumes to be lower as we begin the conversion of the No. 3 machine in Wallula from paper to linerboard, and we will continue implementing the previously announced paper price increases. We also anticipate continued price inflation in chemical and freight costs, incremental wage pressure with a tighter labor market, but slightly lower recycled fiber costs and improving energy costs as we move into seasonally milder weather. Scheduled maintenance outage costs should move lower, and we expect a slightly lower tax rate as well. Considering these items, we expect second quarter earnings, excluding special items, to be higher than first quarter 2018.

## Results of Operations

## Three Months Ended March 31, 2018, compared to Three Months Ended March 31, 2017

The historical results of operations of PCA for the three months ended March 31, 2018 and 2017 are set forth below (dollars in millions):

|  | Three Months Ended March 31, |  |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |  |  |
| Packaging | \$ | 1,402.9 | \$ | 1,257.0 | \$ | 145.9 |
| Paper |  | 269.4 |  | 259.2 |  | 10.2 |
| Corporate and Other |  | 53.6 |  | 54.2 |  | (0.6) |
| Intersegment eliminations |  | (35.3) |  | (33.9) |  | (1.4) |
| Net sales | \$ | 1,690.6 | \$ | 1,536.5 | \$ | 154.1 |
|  |  |  |  |  |  |  |
| Packaging | \$ | 224.7 | \$ | 192.5 (b) |  | 32.2 |
| Paper |  | 7.2 |  | 27.9 (b) |  | (20.7) |
| Corporate and Other |  | (19.0) |  | (17.0) (b) |  | (2.0) |
| Income from operations | \$ | 212.9 | \$ | 203.4 | \$ | 9.5 |
| Interest expense, net and other |  | (26.3) |  | (24.3) (b) |  | (2.0) |
| Income before taxes |  | 186.6 |  | 179.1 |  | 7.5 |
| Income tax provision |  | (46.5) |  | (61.7) |  | 15.2 |
| Net income | \$ | 140.1 | \$ | 117.4 | \$ | 22.7 |
| Non-GAAP Measures (a) |  |  |  |  |  |  |
| Net income excluding special items | \$ | 146.9 | \$ | 119.6 | \$ | 27.3 |
| Consolidated EBITDA |  | 321.0 |  | 295.9 (b) |  | 25.1 |
| Consolidated EBITDA excluding special items |  | 321.8 |  | 299.4 (b) |  | 22.4 |
| Packaging EBITDA |  | 307.8 |  | 269.7 (b) |  | 38.1 |
| Packaging EBITDA excluding special items |  | 307.9 |  | 273.9 (b) |  | 34.0 |
| Paper EBITDA |  | 30.6 |  | 41.9 (b) |  | (11.3) |
| Paper EBITDA excluding special items |  | 31.3 |  | 41.9 (b) |  | (10.6) |

[^1]
## Net Sales

Net sales increased $\$ 154$ million, or $10.0 \%$, to $\$ 1,691$ million during the three months ended March 31,2018 , compared to $\$ 1,537$ million during the same period in 2017 .
Packaging. Net sales increased $\$ 146$ million, or $11.6 \%$, to $\$ 1,403$ million, compared to $\$ 1,257$ million in the first quarter of 2017 due to increased containerboard and corrugated products volume ( $\$ 84$ million) and higher domestic and export containerboard and corrugated products prices and mix ( $\$ 62$ million). In the first quarter of 2018 , our domestic containerboard prices increased $8.0 \%$, and export prices increased $27.5 \%$, compared to the same period in 2017. In the first quarter of 2018, containerboard outside shipments increased $15.1 \%$, and total corrugated products shipments were up $6.0 \%$, compared to the first quarter of 2017. Prices reported by trade publications increased by $\$ 50$ per ton for linerboard and corrugating medium during March 2018.

Paper. Net sales during the three months ended March 31, 2018 increased $\$ 10$ million, or $3.9 \%$, to $\$ 269$ million, compared to $\$ 259$ million in the first quarter of 2017 , due to increased volume ( $\$ 16$ million), partially offset by unfavorable changes in prices and mix ( $\$ 6$ million).

## Gross Profit

Gross profit increased $\$ 18$ million during the three months ended March 31, 2018, compared to the same period in 2017. The increase was driven primarily by higher containerboard and corrugated products prices and mix and sales and production volumes, and higher Paper segment volumes, partially offset by lower Paper segment prices and mix, and higher operating costs. In the three months ended March 31, 2018, gross profit included special items of $\$ 8$ million related to the conversion of the No. 3 machine at the Wallula Mill; there were no special items impacting gross profit in the same period last year.

## Selling, General, and Administrative Expenses

Selling, general, and administrative expenses ("SG\&A") increased $\$ 7$ million during the three months ended March 31, 2018, compared to the same period in 2017. The increase was primarily due to employee salaries and fringes ( $\$ 5$ million), the Sacramento Container acquisition ( $\$ 3$ million), and various other administrative expenses individually insignificant ( $\$ 5$ million). These increases were partially offset by certain expenses that were previously recorded in SG\&A for the first quarter of 2017 which are now recorded in cost of sales for the first quarter 2018 (\$6 million). Effective January 1, 2018, the Company adopted ASU 2014-09 (Topic 606): Revenue from Contracts with Customers using the modified retrospective method. The new standard provides additional clarity concerning contract fulfillment costs, which resulted in certain costs being classified as cost of sales rather than SG\&A for 2018.

## Other Income (Expense), Net

Other income (expense), net, for the three months ended March 31, 2018 and 2017 are set forth below (dollars in millions):

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Asset disposals and write-offs | \$ | (5.1) | \$ | (2.3) |
| Wallula mill restructuring |  | (0.7) |  | - |
| Facilities closure, integration-related, and other costs |  | (0.1) |  | (0.8) |
| DeRidder mill incident |  | - |  | (5.0) |
| Hexacomb working capital adjustment |  | - |  | 2.3 |
| Other |  | (2.4) |  | (1.2) |
| Total | \$ | (8.3) | \$ | $\stackrel{\text { (7.0) }}{ }$ |

We discuss these items in more detail in Note 6, Other Income (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 $\$ 10$ million, or $4.7 \%$, during the three months ended March 31, 2018, compared to the same period in 2017. The first quarter of 2018 included $\$ 9$ million of expense for special items related to the conversion of the Wallula No. 3 paper machine. First quarter 2017 included $\$ 4$ million of special items including expense of $\$ 5$ million for the property damage and business interruption insurance deductible related to the DeRidder mill incident, $\$ 1$ million related to facility closures, a lump sum settlement payment of a multiemployer pension plan withdrawal liability, and integration related costs, and $\$ 2$ million of income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

Packaging. Packaging segment income from operations increased $\$ 32$ million to $\$ 225$ million, compared to $\$ 193$ million during the three months ended March $31,2017$. The increase related primarily to higher containerboard and corrugated products prices and mix ( $\$ 56$ million), higher containerboard and corrugated products sales and production volumes ( $\$ 28$ million), and lower recycled fiber costs ( $\$ 5$ million), partially offset by higher operating and converting costs ( $\$ 31$ million), higher annual outage expense ( $\$ 21$ million), higher freight
expense ( $\$ 6$ million), and higher depreciation expense ( $\$ 3$ million). There were an insignificant amount of special items in the Packaging segment in the first three months of 2018. Special items for the first quarter 2017 included an expense of $\$ 5$ million for the property damage and business interruption insurance deductible related to DeRidder mill incident, $\$ 1$ million related to facility closures, a lump sum settlement payment of a multiemployer pension plan withdrawal liability, and integration related costs, and $\$ 2$ million of income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

Paper. Paper segment income from operations decreased $\$ 21$ million to $\$ 7$ million, compared to income of $\$ 28$ million during the three months ended March 31 , 2017. The decrease primarily related to lower prices and mix ( $\$ 7$ million), higher input and operating costs ( $\$ 10$ million), higher freight ( $\$ 3$ million) and depreciation expense ( $\$ 1$ million), partially offset by higher volumes ( $\$ 3$ million) and lower annual outage expense ( $\$ 5$ million). Special items during the first quarter of 2018 included expense of $\$ 9$ million related to the conversion of the Wallula No. 3 machine to virgin kraft linerboard. There were no special items in the same period of 2017.

## Interest Expense and Income Taxes

Interest expense, net, and other increased $\$ 2$ million during the three months ended March 31, 2018, compared to the same period in 2017. The increase in interest expense was primarily due to interest on the new notes related to the December 2017 refinancing, partially offset by no term loan interest as these were repaid in December 2017 .

During the three months ended March 31, 2018, we recorded $\$ 47$ million of income tax expense, compared to $\$ 62$ million of expense during the three months ended March 31, 2017. The effective tax rate for the three months ended March 31, 2018 and 2017 was $24.9 \%$ and $34.5 \%$, respectively. The decrease in our effective tax rate was primarily due to federal tax reform as a result of H.R. 1 (P.L. 115-97), originally known as the "Tax Cuts and Jobs Act", which the President signed into law on December 22, 2017.

## 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 March 31 , 2018, we had $\$ 102$ million of cash and $\$ 327$ 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, acquisitions, debt service, 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):

|  | Three Months Ended March 31, |  |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |  |  |
| Net cash provided by (used for): |  |  |  |  |  |  |
| Operating activities | \$ | 202.5 | \$ | 164.1 | \$ | 38.4 |
| Investing activities |  | (107.2) |  | (57.8) |  | (49.4) |
| Financing activities |  | (209.8) |  | (91.6) |  | (118.2) |
| Net increase (decrease) in cash and cash equivalents | \$ | (114.5) | \$ | 14.7 | \$ | (129.2) |

## Operating Activities

Our operating cash flow is primarily driven by our earnings and changes in operating assets and liabilities, such as accounts receivable, inventories, accounts payable and other accrued liabilities, as well as factors described below. 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.

During the three months ended March 31, 2018, net cash provided by operating activities was $\$ 202$ million, compared to $\$ 164$ million in the same period in 2017, an increase of $\$ 38$ million. Cash from operations excluding changes in cash used for operating assets and liabilities increased $\$ 46$ million, primarily due to higher income from operations as discussed above. Cash decreased by $\$ 8$ million due to changes in operating assets and liabilities. The decrease was primarily due to the following: (a) a decrease in in accounts payable levels related to the timing of payments in the first quarter, and (b) a smaller increase in taxes payable primarily due to a lower federal tax rate beginning in 2018 as a result of tax reform. These changes were partially offset by the following: (a) a smaller increase to accounts receivable primarily related to the timing of collections, as well as the receipt of the DeRidder insurance proceeds in the first quarter of 2018, and (b) a smaller increase in inventory related to higher sales volumes in the Paper segment in the first quarter of 2018.

## Investing Activities

We used $\$ 107$ million for investing activities during the three months ended March 31,2018 compared to $\$ 58$ million during the same period in 2017. We spent $\$ 108$ million for internal capital investments during the three months ended March 31, 2018, compared to $\$ 58$ million during the same period in 2017.

We expect capital investments in 2018 to be between $\$ 440$ million and $\$ 460$ million, including $\$ 134$ million for the Wallula No. 3 paper machine conversion to kraft linerboard. These expenditures could increase or decrease as a result of a number of factors, including our financial results, strategic opportunities, future economic conditions, and our regulatory compliance requirements. We currently estimate capital expenditures to comply with environmental regulations will be about $\$ 8$ million in 2018. 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 2017 Annual Report on Form 10-K.

## Financing Activities

During the three months ended March 31, 2018, net cash used for financing activities was $\$ 210$ million, compared to $\$ 92$ million during the same period in 2017 . The increase primarily relates to the $\$ 150$ million repayment of our $6.5 \%$ senior notes that were due March 2018. During the comparable period in 2017, we made $\$ 32$ million of principal payments on long-term variable rate debt and capital leases.

For more information about our debt, see Note 9, Debt, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2017 Annual Report on Form 10-K.

## Contractual Obligations

There have been no 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 2017 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 months ended March 31, 2018 and 2017 follow (dollars in millions):

|  | Three Months Ended March 31, |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  |  |  |  |  | 2017 |  |  |  |  |  |
|  | Income before Taxes |  | Income Taxes |  | Net Income |  | Income before Taxes |  | Income Taxes |  | Net Income |  |
| As reported in accordance with GAAP | \$ | 186.6 | \$ | (46.5) | \$ | 140.1 | \$ | 179.1 | \$ | (61.7) | \$ | 117.4 |
| Special items: |  |  |  |  |  |  |  |  |  |  |  |  |
| Facilities closure, integration-related, and other costs (a)(b) |  | 0.3 |  | (0.1) |  | 0.2 |  | 0.8 |  | (0.3) |  | 0.5 |
| Wallula mill restructuring (a) |  | 8.8 |  | (2.2) |  | 6.6 |  | - |  | - |  | - |
| DeRidder mill incident (b) |  | - |  | - |  | - |  | 5.0 |  | (1.9) |  | 3.1 |
| Hexacomb working capital adjustment (b) |  | - |  | - |  | - |  | (2.3) |  | 0.9 |  | (1.4) |
| Total special items |  | 9.1 |  | (2.3) |  | 6.8 |  | 3.5 |  | (1.3) |  | 2.2 |
| Excluding special items | \$ | 195.7 | \$ | (48.8) | \$ | 146.9 | \$ | 182.6 | \$ | (63.0) | \$ | 119.6 |

(a) The three months ended March 31, 2018 include the following:

1. $\$ 0.3$ million of charges consisting of closure costs related to corrugated products facilities and a corporate administration facility.
2. $\quad \$ 8.8$ million of charges related to the announced second quarter 2018 discontinuation of uncoated free sheet and coated one-side grades at the Wallula, Washington mill in preparation for the conversion of the No. 3 paper machine to a high-performance $100 \%$ virgin kraft linerboard machine.
(b) The three months ended March 31, 2017 include the following:
3. $\$ 0.8$ million of charges consisting of closure costs related to corrugated products facilities, integration costs related to the TimBar Corporation and Columbus Container Inc. acquisitions, and costs related to a lump sum settlement payment of a multiemployer pension plan withdrawal liability for one of our corrugated products facilities
4. $\$ 5.0$ million of costs for the property damage and business interruption insurance deductible corresponding to the February 2017 explosion at our DeRidder, Louisiana mill.
5. $\$ 2.3$ million of income related to a working capital adjustment from the April 2015 sale of our Hexacomb corrugated manufacturing operations in Europe and Mexico.

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

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Net income | \$ | 140.1 | \$ | 117.4 |
| Interest expense, net and other |  | 26.3 |  | 24.3 |
| Income tax provision |  | 46.5 |  | 61.7 |
| Depreciation, amortization, and depletion |  | 108.1 |  | 92.5 |
| EBITDA | \$ | 321.0 | \$ | 295.9 |
| Special items: |  |  |  |  |
| Facilities closure, integration-related, and other costs |  | 0.1 |  | 0.8 |
| Wallula mill restructuring |  | 0.7 |  | - |
| DeRidder mill incident |  | - |  | 5.0 |
| Hexacomb working capital adjustment |  | - |  | (2.3) |
| Total special items |  | 0.8 |  | 3.5 |
| EBITDA excluding special items | \$ | 321.8 | \$ | 299.4 |

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

|  | Three Months Ended March 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| Packaging |  |  |  |  |
| Segment income | \$ | 224.7 | \$ | 192.5 |
| Depreciation, amortization, and depletion |  | 83.1 | \$ | 77.2 |
| EBITDA |  | 307.8 |  | 269.7 |
| Facilities closure, integration-related, and other costs |  | 0.1 |  | 0.8 |
| DeRidder mill incident |  | - |  | 5.0 |
| Hexacomb working capital adjustment |  | - |  | (1.6) |
| EBITDA excluding special items | \$ | 307.9 | \$ | 273.9 |
|  |  |  |  |  |
| Paper |  |  |  |  |
| Segment income | \$ | 7.2 | \$ | 27.9 |
| Depreciation, amortization, and depletion |  | 23.4 |  | 14.0 |
| EBITDA |  | 30.6 |  | 41.9 |
| Wallula mill restructuring |  | 0.7 |  | - |
| EBITDA excluding special items | \$ | 31.3 | \$ | 41.9 |
|  |  |  |  |  |
| Corporate and Other |  |  |  |  |
| Segment loss | \$ | (19.0) | \$ | (17.0) |
| Depreciation, amortization, and depletion |  | 1.6 |  | 1.3 |
| EBITDA |  | (17.4) |  | (15.7) |
| Hexacomb working capital adjustment |  | - |  | (0.7) |
| EBITDA excluding special items | \$ | (17.4) | \$ | $\stackrel{(16.4)}{ }$ |
|  |  |  |  |  |
| EBITDA | \$ | 321.0 | \$ | 295.9 |
|  |  |  |  |  |
| EBITDA excluding special items | \$ | 321.8 | \$ | 299.4 |

## 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. We were not a party to any derivatives-based arrangements at March 31, 2018. For a discussion of derivatives and hedging activities, see Note 13, Derivative Instruments and Hedging Activities, of the Notes to Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of our 2017 Annual Report on Form 10-K.

At March 31, 2018 interest rates on 100\% of PCA's outstanding debt are fixed.

## Off-Balance-Sheet Activities

The Company does not have any off-balance sheet arrangements as of March 31, 2018.

## 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 2017 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 business combinations, pensions and other postretirement benefits, goodwill and intangible assets, long-lived asset impairment, environmental liabilities, 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 2017 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 three months of 2018.

## New and Recently Adopted Accounting Standards

For a listing of our new and recently adopted accounting standards, see Note 2, 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. Forwardlooking statements include statements about our expectations regarding our future liquidity, earnings, expenditures, and financial condition. 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;
- 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, 2017.

## Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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 March 31, 2018. 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 March 31, 2018.

## Changes in Internal Control over Financial Reporting

On October 2, 2017, PCA acquired Sacramento Container Corporation ("Sacramento Container"). We are currently in the process of evaluating and integrating Sacramento Container's controls over financial reporting which may result in changes or additions to PCA's internal control over financial reporting. Under guidelines established by the SEC, companies are permitted to exclude acquisitions from their assessment of internal control over financial reporting during the first year of an acquisition while integrating the acquired company. We excluded Sacramento Container from the assessment of internal control over financial reporting at March 31, 2018. Except as may relate to the integration of the Sacramento Container acquisition, there were no other changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the most recent fiscal quarter ended March 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. As of and for the quarter ended March 31, 2018, Sacramento Container accounted for approximately $5 \%$ of the Company's consolidated total assets and $3 \%$ of consolidated net sales.

## PART II

## OTHER INFORMATION

## Item 1. LEGAL PROCEEDINGS

The disclosure set forth under the caption "Legal Proceedings" in Note 19, 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, 2017.

## 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 repurchase plans authorized by PCA's Board of Directors, and shares withheld to cover taxes on vesting of equity awards, during the three months ended March 31, 2018:

| Issuer Purchases of Equity Securities |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Total <br> Number of Shares Purchased (a) | Average Price Paid Per Share |  | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Approximate Dollar Value of Shares <br> That May Yet Be Purchased Under the Plans or Programs (in millions) |  |
| January 1-31, 2018 | - | \$ | - | - | \$ | 193.0 |
| February 1-28, 2018 | - |  | - | - |  | 193.0 |
| March 1-31, 2018 | 388 |  | 117.32 | - |  | 193.0 |
| Total | 388 | \$ | $\underline{117.32}$ | - | \$ | 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
Certification of Chief Executive Officer, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. $\dagger$
31.1
31.2

The following financial information from Packaging Corporation of America's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Income and Comprehensive Income for the three months ended March 31, 2018 and 2017, (ii) Consolidated Balance Sheets at March 31, 2018 and December 31, 2017, (iii) Consolidated Statements of Cash Flows for the three months ended March 31, 2018 and 2017, 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 |
| :--- |
| $/ \mathrm{s} /$ MARK W. KowLZAN |
| Mark W. Kowlzan |
| Chairman and Chief Executive Officer |
| $/ \mathrm{s} /$ ROBERT P. MUNDY |
| Robert P. Mundy |
| Senior Vice President and Chief Financial Officer |

Date: May 9, 2018

## CEO CERTIFICATION PURSUANT TO SECTION 302

## 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
Chairman and Chief Executive Officer

Date: May 9, 2018

## 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: May 9, 2018

## CERTIFICATIONS 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

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 March 31, 2018 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 |
| Chairman and Chief Executive Officer |

Date: May 9, 2018

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 March 31, 2018 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/ Robert P. Mundy |
| :--- |
| Robert P. Mundy |
| Senior Vice President and Chief Financial Officer |

Date: May 9, 2018


[^0]:    (a) Prior periods have not been adjusted under the modified retrospective method for Topic 606.

[^1]:    (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
    (b) Effective January 1, 2018, the Company adopted ASU 2017-07, Compensation: Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost and applied this standard retrospectively to the prior period reflected herein. See Note 2, New and Recently Adopted Accounting Standards and Note 18, Segment Information, for more information.

