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

FORM 10-Q

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

For the quarterly period ended July 31, 2020

OR

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

Commission File Number 001-00566

PACKAGING SUCCESS TOGETHER™

GREIF, INC.
(Exact name of registrant as specified in its charter)

Delaware	**31-4388903**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

425 Winter Road	**Delaware**	**Ohio**	**43015**
(Address of principal executive offices)			**(Zip Code)**

Registrant's telephone number, including area code (740) 549-6000

Not Applicable
Former name, former address and former fiscal year, if changed since last report.

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Class A Common Stock	GEF	New York Stock Exchange
Class B Common Stock	GEF-B	New York Stock Exchange

The number of shares outstanding of each of the issuer's classes of common stock as of the close of business on August 24, 2020:

Class A Common Stock	26,441,986 shares
Class B Common Stock	22,007,725 shares

PART I. FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

GREIF, INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED)

	Three Months Ended July 31,		Nine Months Ended July 31,	
(in millions, except per share amounts)	2020	2019	2020	2019
Net sales	$ 1,083.0	$ 1,252.6	$ 3,353.7	$ 3,362.9
Cost of products sold	863.3	973.2	2,670.7	2,662.0
Gross profit	219.7	279.4	683.0	700.9
Selling, general and administrative expenses	120.4	138.9	376.9	377.0
Restructuring charges	19.1	9.1	26.8	20.3
Acquisition and integration related costs	3.6	5.8	13.5	22.2
Non-cash asset impairment charges	15.5	—	16.9	2.1
Gain on disposal of properties, plants and equipment, net	(0.3)	(1.3)	(2.1)	(7.1)
(Gain) loss on disposal of businesses, net	(0.5)	1.3	37.9	3.0
Operating profit	61.9	125.6	213.1	283.4
Interest expense, net	29.8	34.5	89.8	80.1
Debt extinguishment charges	—	0.1	—	22.0
Non-cash pension settlement income	—	—	(0.1)	—
Other (income) expense, net	1.1	(1.1)	3.5	1.0
Income before income tax expense and equity earnings of unconsolidated affiliates, net	31.0	92.1	119.9	180.3
Income tax expense	6.9	26.8	44.8	58.3
Equity earnings of unconsolidated affiliates, net of tax	(0.3)	(2.2)	(1.2)	(2.4)
Net income	24.4	67.5	76.3	124.4
Net income attributable to noncontrolling interests	(3.7)	(4.8)	(11.9)	(18.4)
Net income attributable to Greif, Inc.	$ 20.7	$ 62.7	$ 64.4	$ 106.0
Basic earnings per share attributable to Greif, Inc. common shareholders:				
Class A common stock	$ 0.35	$ 1.06	$ 1.09	$ 1.80
Class B common stock	$ 0.52	$ 1.59	$ 1.62	$ 2.68
Diluted earnings per share attributable to Greif, Inc. common shareholders:				
Class A common stock	$ 0.35	$ 1.06	$ 1.09	$ 1.80
Class B common stock	$ 0.52	$ 1.59	$ 1.62	$ 2.68
Weighted-average number of Class A common shares outstanding:				
Basic	26.4	26.3	26.4	26.2
Diluted	26.4	26.3	26.4	26.2
Weighted-average number of Class B common shares outstanding:				
Basic	22.0	22.0	22.0	22.0
Diluted	22.0	22.0	22.0	22.0
Cash dividends declared per common share:				
Class A common stock	$ 0.44	$ 0.44	$ 1.32	$ 1.32
Class B common stock	$ 0.66	$ 0.66	$ 1.97	$ 1.97

See accompanying Notes to Condensed Consolidated Financial Statements

GREIF, INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (UNAUDITED)

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
Net income	$ 24.4	$ 67.5	$ 76.3	$ 124.4
Other comprehensive income (loss), net of tax:				
Foreign currency translation	59.6	(0.9)	4.2	(10.4)
Derivative financial instruments	2.0	(5.0)	(20.9)	(20.7)
Minimum pension liabilities	(2.4)	2.3	20.6	2.2
Other comprehensive income (loss), net of tax	59.2	(3.6)	3.9	(28.9)
Comprehensive income	83.6	63.9	80.2	95.5
Comprehensive income attributable to noncontrolling interests	0.9	6.1	3.5	18.7
Comprehensive income attributable to Greif, Inc.	$ 82.7	$ 57.8	$ 76.7	$ 76.8

See accompanying Notes to Condensed Consolidated Financial Statements

GREIF, INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(in millions)	July 31, 2020	October 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	$ 98.5	$ 77.3
Trade accounts receivable, less allowance of $8.4 in 2020 and $6.8 in 2019	624.5	664.2
Inventories:		
Raw materials	251.5	238.4
Work-in-process	5.7	11.3
Finished goods	92.4	108.5
Assets held for sale	5.5	4.1
Assets held by special purpose entities	50.9	—
Prepaid expenses	49.0	44.0
Other current assets	127.9	101.2
	1,305.9	1,249.0
Long-term assets		
Goodwill	1,505.3	1,517.8
Other intangible assets, net of amortization	726.2	776.5
Deferred tax assets	14.3	15.9
Assets held by special purpose entities	—	50.9
Pension asset	38.1	35.4
Operating lease assets	318.1	—
Other long-term assets	97.1	90.9
	2,699.1	2,487.4
Properties, plants and equipment		
Timber properties, net of depletion	272.5	272.4
Land	169.3	178.0
Buildings	521.3	531.0
Machinery and equipment	1,928.4	1,866.2
Capital projects in progress	122.6	170.4
	3,014.1	3,018.0
Accumulated depreciation	(1,425.3)	(1,327.7)
	1,588.8	1,690.3
Total assets	$ 5,593.8	$ 5,426.7

See accompanying Notes to Condensed Consolidated Financial Statements

GREIF, INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

(in millions)	July 31, 2020	October 31, 2019
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 436.0	$ 435.2
Accrued payroll and employee benefits	86.3	142.4
Restructuring reserves	20.0	11.3
Current portion of long-term debt	99.7	83.7
Short-term borrowings	2.6	9.2
Liabilities held by special purpose entities	43.3	—
Current portion of operating lease liabilities	53.2	—
Other current liabilities	173.8	143.6
	914.9	825.4
Long-term liabilities		
Long-term debt	2,535.3	2,659.0
Operating lease liabilities	267.5	—
Deferred tax liabilities	301.1	313.0
Pension liabilities	138.2	177.6
Postretirement benefit obligations	11.4	12.2
Liabilities held by special purpose entities	—	43.3
Contingent liabilities and environmental reserves	19.7	18.7
Mandatorily redeemable noncontrolling interests	8.4	8.4
Long-term income tax payable	27.8	27.8
Other long-term liabilities	160.0	128.9
	3,469.4	3,388.9
Commitments and contingencies (Note 11)		
Redeemable noncontrolling interests (Note 17)	18.6	21.3
Equity		
Common stock, without par value	169.7	162.6
Treasury stock, at cost	(134.4)	(134.8)
Retained earnings	1,527.4	1,539.0
Accumulated other comprehensive income (loss), net of tax:		
Foreign currency translation	(285.4)	(298.0)
Derivative financial instruments	(33.6)	(12.7)
Minimum pension liabilities	(102.4)	(123.0)
Total Greif, Inc. shareholders' equity	1,141.3	1,133.1
Noncontrolling interests	49.6	58.0
Total shareholders' equity	1,190.9	1,191.1
Total liabilities and shareholders' equity	$ 5,593.8	$ 5,426.7

See accompanying Notes to Condensed Consolidated Financial Statements

GREIF, INC. AND SUBSIDIARY COMPANIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(in millions)	Nine Months Ended July 31, 2020	2019
Cash flows from operating activities:		
Net income	$ 76.3	$ 124.4
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation, depletion and amortization	182.4	146.8
Non-cash asset impairment charges	16.9	2.1
Non-cash pension settlement income	(0.1)	—
Gain on disposals of properties, plants and equipment, net	(2.1)	(7.1)
Loss on disposals of businesses, net	37.9	3.0
Unrealized foreign exchange (gain) loss	(0.2)	2.6
Deferred income tax benefit	(5.3)	(12.7)
Transition tax expense	—	2.4
Debt extinguishment charges	—	14.0
Non-cash lease expense	43.0	—
Other, net	(1.8)	5.4
Increase (decrease) in cash from changes in certain assets and liabilities:		
Trade accounts receivable	9.4	5.5
Inventories	(22.5)	(20.8)
Deferred purchase price on sold receivables	—	(6.9)
Accounts payable	25.9	(37.2)
Restructuring reserves	8.5	7.0
Operating leases	(42.4)	—
Pension and post-retirement benefit liabilities	(17.3)	(10.7)
Other, net	(54.3)	(23.7)
Net cash provided by (used in) operating activities	254.3	194.1
Cash flows from investing activities:		
Acquisitions of companies, net of cash acquired	—	(1,857.9)
Purchases of properties, plants and equipment	(98.8)	(103.8)
Purchases of and investments in timber properties	(4.0)	(4.1)
Purchases of equity method investments	(3.6)	—
Proceeds from the sale of properties, plants, equipment and other assets	7.8	13.8
Proceeds from the sale of businesses	82.9	3.9
Proceeds from insurance recoveries	0.9	0.2
Net cash used in investing activities	(14.8)	(1,947.9)
Cash flows from financing activities:		
Proceeds from issuance of long-term debt	1,083.6	3,470.7
Payments on long-term debt	(1,156.9)	(1,596.7)
Proceeds (payments) on short-term borrowings, net	(6.9)	3.3
Proceeds from trade accounts receivable credit facility	64.3	59.0
Payments on trade accounts receivable credit facility	(119.4)	(59.4)
Dividends paid to Greif, Inc. shareholders	(78.2)	(77.9)
Dividends paid to noncontrolling interests	(12.1)	(9.2)
Payments for debt extinguishment and issuance costs	—	(44.1)
Purchases of redeemable noncontrolling interest	—	(11.9)
Cash contribution from noncontrolling interest holder	—	1.6
Net cash provided by (used in) financing activities	(225.6)	1,735.4
Reclassification of cash to assets held for sale	—	—
Effects of exchange rates on cash	7.3	—

Net increase (decrease) in cash and cash equivalents	21.2	(18.4)
Cash and cash equivalents at beginning of period	77.3	94.2
Cash and cash equivalents at end of period	$ 98.5	$ 75.8

See accompanying Notes to Condensed Consolidated Financial Statements

GREIF, INC. AND SUBSIDIARY COMPANIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1 — BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The interim condensed consolidated financial statements have been prepared in accordance with the U.S. Securities and Exchange Commission ("SEC") instructions to Quarterly Reports on Form 10-Q and include all of the information and disclosures required by accounting principles generally accepted in the United States ("GAAP") for interim financial reporting. The preparation of financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the amounts reported in the interim condensed consolidated financial statements and accompanying notes. Actual amounts could differ from those estimates.

The fiscal year of Greif, Inc. and its subsidiaries (the "Company") begins on November 1 and ends on October 31 of the following year. Any references to years or to any quarter of those years, relates to the fiscal year or quarter, as the case may be, ended in that year, unless otherwise stated.

The information filed herein reflects all adjustments that are, in the opinion of management, necessary for a fair presentation of the interim condensed consolidated balance sheets as of July 31, 2020 and October 31, 2019, the interim condensed consolidated statements of income and comprehensive income for the three and nine months ended July 31, 2020 and 2019 and the interim condensed consolidated statements of cash flows for the nine months ended July 31, 2020 and 2019 of the Company. The interim condensed consolidated financial statements include the accounts of Greif, Inc., all wholly-owned and consolidated subsidiaries and investments in limited liability companies, partnerships and joint ventures in which it has controlling influence or is the primary beneficiary. Non-majority owned entities include investments in limited liability companies, partnerships and joint ventures in which the Company does not have controlling influence and are accounted for using either the equity or cost method, as appropriate.

The unaudited interim condensed consolidated financial statements included in the Quarterly Report on Form 10-Q (this "Form 10-Q") should be read in conjunction with the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for its fiscal year ended October 31, 2019 (the "2019 Form 10-K").

COVID-19

The preparation of financial statements requires management to make estimates and assumptions that affect the amounts of assets, liabilities, revenues and expenses reported in such financial statements. The estimates and assumptions used in the preparation of the financial statements contained in this Form 10-Q do not reflect material changes to the estimates and assumptions disclosed in the 2019 Form 10-K. Nevertheless, the Company's actual results and outcomes during the three and nine months ended July 31, 2020 have been impacted by the COVID-19 pandemic, which has caused an economic downturn on a global scale, as well as significant market disruption and volatility. Because the scope, duration and magnitude of the effects of the COVID-19 pandemic continue to evolve, the Company cannot, at this time, predict the impact the pandemic will have on its future consolidated financial position, cash flows or results of operations; however, the impact could be material. The Company's future financial results and operations depend in part on the duration and severity of the pandemic and what actions are taken to mitigate the outbreak.

Newly Adopted Accounting Standards

In February 2016 and July 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-02 and ASU 2018-11, "Leases (Topic 842)," or Accounting Standards Codification ("ASC") 842, which amends the lease accounting and disclosure requirements in ASC 840, "Leases." The objective of this update is to increase transparency and comparability among organizations recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about lease arrangements. The Company adopted ASU 2018-11 on November 1, 2019, utilizing a modified retrospective approach and did not adjust its comparative period financial information. The Company adopted the practical expedient package which permits the Company to not reassess previous conclusions whether a contract is or contains a lease, lease classification, or treatment of indirect costs for existing contracts as of the adoption date. The Company also adopted the short-term lease recognition exemption and the practical expedient allowing for the combination of lease and non-lease components for all leases except real estate, for which these components are presented separately. The Company has completed the lease collection and evaluation process, implemented a technology tool to assist with the accounting and reporting requirements of the new standard, and designed new processes and controls around leases. On the day of adoption, the Company capitalized onto the balance sheet \$301.2 million of right-of-use assets and \$305.8 million of lease liabilities related to operating leases. The adoption did not have a material impact on the Company's financial position, results of operations, comprehensive income, cash flows, or disclosures, other than as set forth above and in Note 13 to the Interim Condensed Consolidated Financial Statements.

In March 2020, the FASB issued ASU 2020-04, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting." The objective of this ASU is to provide optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments in ASU 2020-04 were effective for all entities as of March 12, 2020 and will generally no longer be available to apply after December 31, 2022. The Company adopted this ASU as of the effective date and will utilize the optional expedients to the extent that they apply to the Company. The Company currently applies expedient guidance related to hedging relationships, which allowed the Company to amend hedge documentation, without dedesignating and redesignating, for all outstanding hedging relationships linked to expiring reference rates. The Company also has long-term debt and interest rate derivatives, as described in Notes 6 and 7 to the Interim Condensed Consolidated Financial Statements, respectively, which rely upon use of LIBOR. The Company intends to apply additional practical expedients to these relationships during the remaining relief period. The adoption did not have a material impact on the Company's financial position, results of operations, comprehensive income, cash flows, or disclosures.

Recently Issued Accounting Standards

In June 2016, the FASB issued ASU 2016-13, “Financial Instruments – Credit Losses.” This ASU sets forth a current expected credit loss model which requires the Company to measure all expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions, and reasonable supportable forecasts. This replaces the existing incurred loss model and is applicable to the measurement of credit losses on financial assets measured at amortized cost and applies to some off-balance sheet credit exposures. This ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, with early adoption permitted. The Company will adopt this ASU on November 1, 2020. The Company is in the process of determining the potential impact of adopting this guidance on its financial position, results of operations, comprehensive income, cash flows and disclosures.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes", which is intended to simplify various aspects related to accounting for income taxes. This ASU is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years, with early adoption permitted. The effective date for the Company to adopt this ASU is November 1, 2021. The Company is in the process of determining the potential impact of adopting this guidance on its financial position, results of operations, comprehensive income, cash flow and disclosures.

NOTE 2 — ACQUISITIONS AND DIVESTITURES

Acquisitions

The Company accounts for acquisitions in accordance with ASC 805, "Business Combinations." The estimated fair values of all assets acquired and liabilities assumed in the acquisitions are provisional and may be revised as a result of additional information obtained during the measurement period of up to one year from the acquisition date.

Caraustar Acquisition

The Company completed its acquisition of Caraustar Industries, Inc. and its subsidiaries (“Caraustar”) on February 11, 2019 (the “Caraustar Acquisition”). Caraustar is a leader in the production of coated and uncoated recycled paperboard, which is used in a variety of applications that include industrial products (tubes and cores, construction products, protective packaging, and adhesives) and consumer packaging products (folding cartons, set-up boxes, and packaging services). The total purchase price for this acquisition, net of cash acquired, was $1,834.9 million.

The following table summarizes the consideration transferred to acquire Caraustar and the final valuation of identifiable assets acquired and liabilities assumed at the acquisition date, as well as measurement period adjustments made since the acquisition in 2019 through the close of measurement period:

(in millions)	Amounts Recognized as of the Acquisition Date	Measurement Period Adjustments (1)	Amount Recognized as of Acquisition Date (as Adjusted)
Fair value of consideration transferred			
Cash consideration	$ 1,834.9	$ —	$ 1,834.9
Recognized amounts of identifiable assets acquired and liabilities assumed			
Accounts receivable	$ 147.0	$ —	$ 147.0
Inventories	103.9	(4.4)	99.5
Prepaid and other current assets	21.5	(9.3)	12.2
Intangibles	717.1	8.4	725.5
Other long-term assets	1.3	4.3	5.6
Properties, plants and equipment	521.3	(17.6)	503.7
Total assets acquired	1,512.1	(18.6)	1,493.5
Accounts payable	(99.5)	—	(99.5)
Accrued payroll and employee benefits	(42.9)	(7.2)	(50.1)
Other current liabilities	(21.8)	4.5	(17.3)
Long-term deferred tax liability	(185.7)	52.0	(133.7)
Pension and postretirement obligations	(67.1)	—	(67.1)
Other long-term liabilities	(12.7)	(7.5)	(20.2)
Total liabilities assumed	(429.7)	41.8	(387.9)
Total identifiable net assets	$ 1,082.4	$ 23.2	$ 1,105.6
Goodwill	$ 752.5	$ (23.2)	$ 729.3

(1) The measurement adjustments were primarily due to refinement to third party appraisals and carrying amounts of certain assets and liabilities, as well as adjustments to certain tax accounts based on, among other things, adjustments to deferred tax liabilities. The net impact of the measurement period adjustments resulted in a net $23.2 million decrease to goodwill. The measurement adjustments recorded did not have a significant impact on the Company's interim condensed consolidated statements of income for the three and nine months ended July 31, 2020.

The Company recognized goodwill related to this acquisition of $729.3 million. The goodwill recognized in this acquisition is attributable to the acquired assembled workforce, expected synergies, and economies of scale, none of which qualify for recognition as a separate intangible asset. Caraustar is reported within the Paper Packaging & Services segment to which the goodwill was assigned. The goodwill is not expected to be deductible for tax purposes.

The cost approach was used to determine the fair value for buildings, improvements and equipment, and the market approach was used to determine the fair value for land. The cost approach measures the value by estimating the cost to acquire, or construct, comparable assets and adjusts for age and condition. The Company assigned buildings and improvements a useful life ranging from 1 year to 20 years and equipment a useful life ranging from 1 year to 15 years. Acquired property, plant and equipment are being depreciated over its estimated remaining useful lives on a straight-line basis.

The fair value for acquired customer relationship intangibles was determined as of the acquisition date based on estimates and judgments regarding expectations for the future after-tax cash flows arising from the revenue from customer relationships that existed on the acquisition date over their estimated lives, including the probability of expected future contract renewals and revenue, less a contributory assets charge, all of which is discounted to present value. The fair value of the trade name intangible assets were determined utilizing the relief from royalty method which is a form of the income approach. Under this method, a royalty rate based on observed market royalties is applied to projected revenue supporting the trade names and discounted to present value using an appropriate discount rate.

Acquired intangible assets are being amortized over the estimated useful lives, primarily on a straight-line basis. The following table summarizes the final purchase price allocation and weighted average remaining useful lives for identifiable intangible assets acquired:

(in millions)	Final Purchase Price Allocation	Weighted Average Estimated Useful Life
Customer relationships	$ 708.0	15.0
Trademarks	15.0	3.0
Other	2.5	4.6
Total intangible assets	$ 725.5	

As of April 30, 2020, the Company had completed the determination of the fair value of assets acquired and liabilities assumed related to the Caraustar Acquisition. The Company continues to execute on synergies and location rationalization, including the closure of the Company's Mobile, Alabama Mill announced on June 3, 2020.

Divestitures

During the second quarter of 2020, the Company completed its divestiture of a U.S. business in the Paper Packaging & Services segment, the Consumer Packaging Group ("CPG") business, for $85.0 million, before preliminary adjustments at closing of $3.4 million and subject to final adjustments, for current net cash proceeds of $81.6 million, of which $35.6 million was allocated to goodwill.

The loss on sale of business, net for the nine months ended July 31, 2020 was $37.9 million.

NOTE 3 — GOODWILL AND OTHER INTANGIBLE ASSETS

The following table summarizes the changes in the carrying amount of goodwill by segment for the nine months ended July 31, 2020:

(in millions)	Rigid Industrial Packaging & Services	Paper Packaging & Services	Total
Balance at October 31, 2019	$ 731.7	$ 786.1	$ 1,517.8
Goodwill allocated to divestitures	(0.7)	(35.6)	(36.3)
Goodwill adjustments related to acquisitions	0.9	2.8	3.7
Currency translation	20.1	—	20.1
Balance at July 31, 2020	$ 752.0	$ 753.3	$ 1,505.3

The $36.3 million in adjustments related to divestitures was mainly composed of $35.6 million for the CPG divestiture in the Paper Packaging & Services segment. The $3.7 million in adjustments related to acquisitions was mainly composed of $2.8 million for measurement period adjustments related to the Caraustar Acquisition in the Paper Packaging & Services segment. See Note 2 to the Interim Condensed Consolidated Financial Statements for additional disclosure of goodwill adjustments by acquisitions and divestitures.

The following table summarizes the carrying amount of net intangible assets by class as of July 31, 2020 and October 31, 2019:

(in millions)	Gross Intangible Assets	Accumulated Amortization	Net Intangible Assets
July 31, 2020:			
Indefinite lived:			
Trademarks and patents	$ 13.5	$ —	$ 13.5
Definite lived:			
Customer relationships	887.4	191.2	696.2
Trademarks, patents and trade names	27.2	13.5	13.7
Non-compete agreements	2.3	1.9	0.4
Other	21.1	18.7	2.4
Total	$ 951.5	$ 225.3	$ 726.2

(in millions)	Gross Intangible Assets	Accumulated Amortization	Net Intangible Assets
October 31, 2019:			
Indefinite lived:			
Trademarks and patents	$ 13.1	$ —	$ 13.1
Definite lived:			
Customer relationships	890.6	150.3	740.3
Trademarks and patents	27.0	9.3	17.7
Non-compete agreements	2.3	0.7	1.6
Other	21.9	18.1	3.8
Total	$ 954.9	$ 178.4	$ 776.5

Gross intangibles assets decreased by $3.4 million for the nine months ended July 31, 2020. The decrease was attributable to $0.9 million of impairments and $8.3 million of write-offs of fully-amortized assets, offset by $5.8 million of currency fluctuations.

Amortization expense was $17.2 million and $17.1 million for the three months ended July 31, 2020 and 2019, respectively. Amortization expense was $52.1 million and $35.5 million for the nine months ended July 31, 2020 and 2019, respectively. Amortization expense for the next five years is expected to be $69.1 million in 2020, $66.5 million in 2021, $58.5 million in 2022, $56.0 million in 2023 and $52.7 million in 2024.

Definite lived intangible assets for the periods presented are subject to amortization and are being amortized using the straight-line method over periods that are contractually, legally determined, or over the period a market participant would benefit from the asset.

NOTE 4 — RESTRUCTURING CHARGES

The following is a reconciliation of the beginning and ending restructuring reserve balances for the nine months ended July 31, 2020:

(in millions)	Employee Separation Costs	Other Costs	Total
Balance at October 31, 2019	$ 9.5	$ 1.8	$ 11.3
Costs incurred and charged to expense	22.0	4.8	26.8
Costs paid or otherwise settled	(12.6)	(5.5)	(18.1)
Balance at July 31, 2020	$ 18.9	$ 1.1	$ 20.0

The focus for restructuring activities in 2020 is to optimize and integrate operations in the Paper Packaging & Services segment related to the Caraustar Acquisition and to rationalize operations and close underperforming assets in the Rigid Industrial Packaging & Services and the Flexible Products & Services segments.

During the three months ended July 31, 2020, the Company recorded restructuring charges of $19.1 million, as compared to $9.1 million of restructuring charges recorded during the three months ended July 31, 2019. The restructuring activity for the three months ended July 31, 2020 consisted of $16.9 million in employee separation costs and $2.2 million in other restructuring costs, primarily consisting of professional fees and other fees associated with restructuring activities.

During the nine months ended July 31, 2020, the Company recorded restructuring charges of $26.8 million, as compared to $20.3 million of restructuring charges recorded during the nine months ended July 31, 2019. The restructuring activity for the nine months ended July 31, 2020 consisted of $22.0 million in employee separation costs and $4.8 million in other restructuring costs.

The following is a reconciliation of the total amounts expected to be incurred from open restructuring plans or plans that are being formulated and have not been announced as of the filing date of this Form 10-Q. Remaining amounts expected to be incurred were $22.4 million as of July 31, 2020:

(in millions)	Total Amounts Expected to be Incurred	Amounts Incurred During the nine months ended July 31, 2020	Amounts Remaining to be Incurred
Rigid Industrial Packaging & Services			
Employee separation costs	$ 27.2	$ 17.0	$ 10.2
Other restructuring costs	5.5	2.4	3.1
	32.7	19.4	13.3
Flexible Products & Services			
Employee separation costs	1.4	0.5	0.9
Other restructuring costs	2.4	0.8	1.6
	3.8	1.3	2.5
Paper Packaging & Services			
Employee separation costs	4.5	4.5	—
Other restructuring costs	8.2	1.6	6.6
	12.7	6.1	6.6
	$ 49.2	$ 26.8	$ 22.4

NOTE 5 — CONSOLIDATION OF VARIABLE INTEREST ENTITIES

The Company evaluates whether an entity is a variable interest entity (“VIE”) whenever reconsideration events occur and performs reassessments of all VIEs quarterly to determine if the primary beneficiary status is appropriate. The Company consolidates VIEs for which it is the primary beneficiary. If the Company is not the primary beneficiary and an ownership interest is held, the VIE is accounted for under the equity or cost methods of accounting, as appropriate. When assessing the determination of the primary beneficiary, the Company considers all relevant facts and circumstances, including: the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance; and the obligation to absorb the expected losses and/or the right to receive the expected returns of the VIE.

Significant Nonstrategic Timberland Transactions

In 2005, the Company sold certain timber properties to Plum Creek Timberlands, L.P. (“Plum Creek”) in a series of transactions that included the creation of two separate legal entities that are now consolidated as separate VIEs. One is an indirect subsidiary of Plum Creek (the “Buyer SPE”), and the other is STA Timber LLC, an indirect wholly owned subsidiary of the Company (“STA Timber”).

As of July 31, 2020, and October 31, 2019, consolidated assets of the Buyer SPE consisted of $50.9 million of restricted bank financial instruments which are expected to be held to maturity, scheduled for November 5, 2020. The balance as of July 31, 2020 is presented in 'Assets held by special purpose entities' on the interim condensed consolidated balance sheets. For both of the three months ended July 31, 2020 and 2019, Buyer SPE recorded interest income of $0.6 million. For both of the nine month periods ended July 31, 2020 and 2019, Buyer SPE recorded interest income of $1.8 million.

As of July 31, 2020, and October 31, 2019, STA Timber had consolidated liabilities of $43.3 million, and the maturity date of the consolidated liabilities is November 5, 2020. The balance as of July 31, 2020 is presented in 'Liabilities held by special purpose entities' on the interim condensed consolidated balance sheets. For both of the three months ended July 31, 2020 and 2019, STA Timber recorded interest expense of $0.5 million. For both of the nine months ended July 31, 2020 and 2019, STA Timber recorded interest expense of $1.7 million. The intercompany borrowing arrangement between the two VIEs is eliminated in consolidation. STA Timber is exposed to credit-related losses in the event of nonperformance by an issuer of a deed of guarantee in the transaction.

Flexible Packaging Joint Venture

In 2010, Greif, Inc. and one of its indirect subsidiaries formed a joint venture (referred to herein as the “Flexible Packaging JV” or “FPS VIE”) with Dabbagh Group Holding Company Limited and one of its subsidiaries, originally National Scientific

Company Limited and now Gulf Refined Packaging for Industrial Packaging Company LTD. The Flexible Packaging JV owns the operations in the Flexible Products & Services segment. The Flexible Packaging JV has been consolidated into the operations of the Company as of its formation date in 2010.

The Flexible Packaging JV is deemed to be a VIE since the total equity investment at risk is not sufficient to permit the legal entity to finance its activities without additional subordinated financial support. The major factors that led to the conclusion that the Company was the primary beneficiary of this VIE were that (1) the Company has the power to direct the most significant activities due to its ability to direct the operating decisions of the FPS VIE, which power is derived from the significant CEO discretion over the operations of the FPS VIE combined with the Company’s sole and exclusive right to appoint the CEO of the FPS VIE, and (2) the significant variable interest through the Company’s equity interest in the FPS VIE.

All entities contributed to the Flexible Packaging JV were existing businesses acquired by one of the Company's indirect subsidiaries that were reorganized under Greif Flexibles Asset Holding B.V. and Greif Flexibles Trading Holding B.V.

The following table presents the Flexible Packaging JV total net assets:

(in millions)	July 31, 2020	October 31, 2019
Cash and cash equivalents	$ 21.9	$ 16.9
Trade accounts receivable, less allowance of $0.8 in 2020 and $0.7 in 2019	45.9	51.2
Inventories	40.2	46.4
Properties, plants and equipment, net	22.8	22.3
Other assets	27.6	29.3
Total assets	$ 158.4	$ 166.1
Accounts payable	$ 31.9	$ 28.9
Other liabilities	22.3	23.6
Total liabilities	$ 54.2	$ 52.5

Net income attributable to the noncontrolling interest in the Flexible Packaging JV for the three months ended July 31, 2020 and 2019 was $2.2 million and $2.3 million, respectively; and for the nine months ended July 31, 2020 and 2019 was $5.3 million and $10.8 million, respectively.

Paper Packaging Joint Venture

In 2018, Greif, Inc. and one of its indirect subsidiaries formed a joint venture (referred to herein as the “Paper Packaging JV” or "PPS VIE") with a third party. The Paper Packaging JV has been consolidated into the operations of the Company since its formation date of April 20, 2018.

The Paper Packaging JV is deemed to be a VIE because the equity investors at risk, as a group, lack the characteristics of a controlling financial interest. The structure of the Paper Packaging JV has governing provisions that are the functional equivalent of a limited partnership whereby the Company is the managing member that makes all the decisions related to the activities that most significantly affect the economic performance of the PPS VIE. In addition, the third party does not have any substantive kick-out rights or substantive participating rights in the Paper Packaging JV. The major factors that led to the conclusion that the Paper Packaging JV is a VIE was that all limited partnerships are considered to be VIE's unless the limited partners have substantive kick-out rights or substantive participating rights.

The following table presents the Paper Packaging JV total net assets:

(in millions)	July 31, 2020
Cash and cash equivalents	$ 0.9
Trade accounts receivable, less allowance of $0.0 in 2020	4.6
Inventories	6.2
Properties, plants and equipment, net	35.1
Other assets	0.6
Total assets	$ 47.4
Accounts payable	$ 4.2
Other liabilities	1.3
Total liabilities	$ 5.5

Net loss attributable to the noncontrolling interest in the Paper Packaging JV for the three and nine months ended July 31, 2020 was $0.5 million and $1.5 million. There was no net income (loss) for the three and nine months ended July 31, 2019 as the PPS JV was in the startup phase and had not yet commenced operations.

Non-United States Accounts Receivable VIE

As further described in Note 6 to the Interim Condensed Consolidated Financial Statements, Cooperage Receivables Finance B.V. is a party to the European RFA, as defined in Note 6 to the Interim Condensed Consolidated Financial Statements. Cooperage Receivables Finance B.V. is deemed to be a VIE since this entity is not able to satisfy its liabilities without the financial support from the Company. While this entity is a separate and distinct legal entity from the Company and no ownership interest in this entity is held by the Company, the Company is the primary beneficiary because it has (1) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance, and (2) the obligation to absorb losses of the VIE that could potentially be significant to the VIE. As a result, Cooperage Receivables Finance B.V. has been consolidated into the operations of the Company.

NOTE 6 — LONG-TERM DEBT

Long-term debt is summarized as follows:

(in millions)	July 31, 2020	October 31, 2019
2019 Credit Agreement - Term Loans	$ 1,549.4	$ 1,612.2
Senior Notes due 2027	494.9	494.3
Senior Notes due 2021	235.5	221.7
Accounts receivable credit facilities	301.2	351.6
2019 Credit Agreement - Revolving Credit Facility	65.4	76.1
Other debt	0.2	0.4
	2,646.6	2,756.3
Less: current portion	99.7	83.7
Less: deferred financing costs	11.6	13.6
Long-term debt, net	$ 2,535.3	$ 2,659.0

2019 Credit Agreement

On February 11, 2019, the Company and certain of its subsidiaries entered into an amended and restated senior secured credit agreement (the "2019 Credit Agreement") with a syndicate of financial institutions. The Company's obligations under the 2019 Credit Agreement are guaranteed by certain of its U.S. and non-U.S. subsidiaries.

The 2019 Credit Agreement provides for (a) an $800.0 million secured revolving credit facility, consisting of a $600.0 million multicurrency facility and a $200.0 million U.S. dollar facility, maturing on February 11, 2024, (b) a $1,275.0 million secured term loan A-1 facility with quarterly principal installments commencing on April 30, 2019 and continuing through maturity on

January 31, 2024, and (c) a $400.0 million secured term loan A-2 facility with quarterly principal installments commencing on April 30, 2019 and continuing through maturity on January 31, 2026. In addition, the Company has an option to add an aggregate of $700.0 million to the secured revolving credit facility under the 2019 Credit Agreement with the agreement of the lenders. The revolving credit facility is available to fund ongoing working capital and capital expenditure needs, for general corporate purposes, and to finance acquisitions.

The 2019 Credit Agreement contains certain covenants, which include financial covenants that require the Company to maintain a certain leverage ratio and an interest coverage ratio. The leverage ratio generally requires that, at the end of any quarter, the Company will not permit the ratio of (a) its total consolidated indebtedness, to (b) its consolidated net income plus depreciation, depletion and amortization, interest expense (including capitalized interest), income taxes, and minus certain extraordinary gains and non-recurring gains (or plus certain extraordinary losses and non-recurring losses) and plus or minus certain other items for the preceding twelve months (as used in this paragraph only, “EBITDA”) to be greater than 4.75 to 1.00 and stepping down annually by 0.25 increments beginning on July 31, 2020 to 4.00 on July 31, 2023. The interest coverage ratio generally requires that, at the end of any fiscal quarter, the Company will not permit the ratio of (a) its consolidated EBITDA, to (b) its consolidated interest expense to the extent paid or payable, to be less than 3.00 to 1.00, during the applicable preceding twelve month period. As of July 31, 2020, the Company was in compliance with the covenants and other agreements in the 2019 Credit Agreement.

As of July 31, 2020, $1,614.8 million was outstanding under the 2019 Credit Agreement. The current portion of such outstanding amount was $99.7 million, and the long-term portion was $1,515.1 million. The weighted average interest rate for borrowings under the 2019 Credit Agreement was 2.91% for the nine months ended July 31, 2020. The actual interest rate for borrowings under the 2019 Credit Agreement was 1.95% as of July 31, 2020. The deferred financing costs associated with the term loan portion of the 2019 Credit Agreement totaled $9.1 million as of July 31, 2020 and are recorded as a direct deduction from the balance sheet line Long-Term Debt. The deferred financing costs associated with the revolver portion of the 2019 Credit Agreement totaled $6.6 million as of July 31, 2020 and are recorded within Other Long-Term Assets.

Senior Notes due 2027

On February 11, 2019, the Company issued $500.0 million of 6.50% Senior Notes due March 1, 2027 (the "Senior Notes due 2027"). Interest on the Senior Notes due 2027 is payable semi-annually commencing on September 1, 2019. The Company's obligations under the Senior Notes due 2027 are guaranteed by its U.S. subsidiaries that guarantee the 2019 Credit Agreement. The deferred financing cost associated with the Senior Notes due 2027 totaled $2.4 million as of July 31, 2020 and are recorded as a direct deduction from the balance sheet line Long-Term Debt.

Senior Notes due 2021

On July 15, 2011, Greif, Inc.’s wholly-owned subsidiary, Greif Nevada Holdings, Inc., S.C.S., issued €200.0 million of 7.375% Senior Notes due July 15, 2021 (the "Senior Notes due 2021"). The Senior Notes due 2021 are guaranteed on a senior basis by Greif, Inc. Interest on the Senior Notes due 2021 is payable semi-annually.

United States Trade Accounts Receivable Credit Facility

On September 24, 2019, the Company amended and restated the existing receivable financing facility (the "U.S. Receivables Facility") maturing on September 24, 2020. Greif Receivables Funding LLC, Greif Packaging LLC, for itself and as servicer, and certain other U.S. subsidiaries of the Company entered into a Third Amended and Restated Transfer and Administration Agreement, dated as of September 24, 2019 (the "Third Amended TAA"), with Bank of America, N.A., as the agent, managing agent, administrator and committed investor, and various investor groups, managing agents, and administrators, from time to time parties thereto. The Third Amended TAA provides a $275.0 million U.S. Receivables Facility that is secured by certain U.S. accounts receivable. The $223.5 million outstanding balance under the U.S. Receivables Facility as of July 31, 2020 is reported in 'Long-term debt' on the interim condensed consolidated balance sheets because the Company intends to refinance this obligation on a long-term basis and has the intent and ability to consummate a long-term refinancing.

The financing costs associated with the U.S. Receivables Facility are $0.1 million as of July 31, 2020, and are recorded as a direct deduction from 'Long-term debt' on the interim condensed consolidated balance sheets.

International Trade Accounts Receivable Credit Facility

On April 17, 2020, Cooperage Receivables Finance B.V. and Greif Coordination Center BVBA, an indirect wholly owned subsidiary of Greif, Inc., amended and restated the Nieuw Amsterdam Receivables Financing Agreement (the "European RFA") with affiliates of a major international bank. The amended and restated European RFA will mature April 17, 2021. The

European RFA provides an accounts receivable financing facility of up to €100.0 million ($117.9 million as of July 31, 2020) secured by certain European accounts receivable. The $77.7 million outstanding on the European RFA as of July 31, 2020 is reported as 'Long-term debt' on the interim condensed consolidated balance sheets because the Company intends to refinance these obligations on a long-term basis and has the intent and ability to consummate a long-term refinancing by exercising the renewal option in the respective agreement or entering into new financing arrangements.

NOTE 7 — FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS

Recurring Fair Value Measurements

The following table presents the fair value for those assets and (liabilities) measured on a recurring basis as of July 31, 2020 and October 31, 2019:

	July 31, 2020 Fair Value Measurement				
(in millions)	**Level 1**	**Level 2**	**Level 3**	**Total**	**Balance Sheet Location**
Interest rate derivatives	—	(49.0)	—	(49.0)	Other current liabilities and other long-term liabilities
Foreign exchange hedges	—	0.8	—	0.8	Other current assets
Foreign exchange hedges	—	(1.2)	—	(1.2)	Other current liabilities
Insurance annuity	—	—	21.3	21.3	Other long-term assets
Cross currency swap	—	8.4	—	8.4	Other current assets and other long-term assets
Total	$ —	$ (41.0)	$ 21.3	$ (19.7)	

	October 31, 2019 Fair Value Measurement				
(in millions)	**Level 1**	**Level 2**	**Level 3**	**Total**	**Balance Sheet Location**
Interest rate derivatives	$ —	$ 1.3	$ —	$ 1.3	Other long-term assets and other current assets
Interest rate derivatives	—	(25.0)	—	(25.0)	Other long-term liabilities and other current liabilities
Foreign exchange hedges	—	0.9	—	0.9	Other current assets
Foreign exchange hedges	—	(0.2)	—	(0.2)	Other current liabilities
Insurance annuity	—	—	20.0	20.0	Other long-term assets
Cross currency swap	—	10.6	—	10.6	Other current assets and other long-term assets
Total	$ —	$ (12.4)	$ 20.0	$ 7.6	

The carrying amounts of cash and cash equivalents, trade accounts receivable, accounts payable, current liabilities and short-term borrowings as of July 31, 2020 and October 31, 2019 approximate their fair values because of the short-term nature of these items and are not included in this table.

Interest Rate Derivatives

The Company has various borrowing facilities which charge interest based on the one month U.S. dollar LIBOR rate plus a spread.

In 2020, the Company entered into four forward starting interest rate swaps with a total notional amount of $200.0 million effective July 15, 2021. The Company receives variable rate interest payments based upon one month U.S. dollar LIBOR, and in return the Company is obligated to pay interest at a weighted-average interest rate of 0.90% plus a spread. This effectively converted the borrowing rate on an amount of debt equal to the outstanding notional amount of the interest rate swap from a variable rate to a fixed rate.

In 2019, the Company entered into six interest rate swaps with a total notional amount of $1,300.0 million that amortize to $200.0 million over a five year term. The outstanding notional amount as of July 31, 2020 is $1,000.0 million. The Company receives variable rate interest payments based upon one month U.S. dollar LIBOR, and in return the Company is obligated to pay interest at a weighted-average interest rate of 2.49% plus a spread. This effectively converted the borrowing rate on an amount of debt equal to the outstanding notional amount of the interest rate swap from a variable rate to a fixed rate.

In 2017, the Company entered into an interest rate swap with a notional amount of $300.0 million. The Company receives variable rate interest payments based upon one month U.S. dollar LIBOR, and in return the Company is obligated to pay interest at a fixed rate of 1.19% plus a spread. This effectively converted the borrowing rate on an amount of debt equal to the outstanding notional amount of the interest rate swap from a variable rate to a fixed rate.

These derivatives are designated as cash flow hedges for accounting purposes. Accordingly, the gain or loss on these derivative instruments are reported as a component of other comprehensive income and reclassified into earnings in the same line item associated with the forecasted transactions and in the same period during which the hedged transactions affect earnings. See Note 15 to the Interim Condensed Consolidated Financial Statements for additional information. The assumptions used in measuring fair value of these interest rate derivatives are considered level 2 inputs, which are based upon observable market rates, including LIBOR and interest paid based upon a designated fixed rate over the life of the swap agreements.

Gains (losses) reclassified to earnings under these contracts were $(6.4) million and $0.7 million for the three months ended July 31, 2020, and 2019, respectively. Gains (losses) reclassified to earnings under these contracts were $(11.1) million and $2.5 million for the nine months ended July 31, 2020, and 2019, respectively. A derivative loss of $18.6 million, based upon interest rates at July 31, 2020, is expected to be reclassified from accumulated other comprehensive income (loss) to earnings in the next twelve months.

Foreign Exchange Hedges

The Company conducts business in various international currencies and is subject to risks associated with changing foreign exchange rates. The Company's objective is to reduce volatility associated with foreign exchange rate changes. Accordingly, the Company enters into various contracts that change in value as foreign exchange rates change to protect the value of certain existing foreign currency assets and liabilities, commitments and anticipated foreign currency cash flows. As of July 31, 2020, and October 31, 2019, the Company had outstanding foreign currency forward contracts in the notional amount of $143.3 million and $275.0 million, respectively. Adjustments to fair value are recognized in earnings, offsetting the impact of the hedged profits. The assumptions used in measuring fair value of foreign exchange hedges are considered level 2 inputs, which are based on observable market pricing for similar instruments, principally foreign exchange futures contracts.

Realized gains recorded in other expense, net under fair value contracts were $1.7 million and $2.8 million for the three months ended July 31, 2020, and 2019, respectively. Realized gains (losses) recorded in other expense, net under fair value contracts were $(0.5) million and $3.3 million for the nine months ended July 31, 2020, and 2019, respectively. The Company recognized in other expense, net an unrealized net loss of $2.2 million and $0.3 million during the three months ended July 31, 2020 and 2019, respectively. The Company recognized in other expense, net an unrealized net gain (loss) of $(0.4) million and $1.5 million during the nine months ended July 31, 2020 and 2019, respectively.

Cross Currency Swap

The Company has operations and investments in various international locations and is subject to risks associated with changing foreign exchange rates. On March 6, 2018, the Company entered into a cross currency interest rate swap agreement that synthetically swaps $100.0 million of fixed rate debt to Euro denominated fixed rate debt at a rate of 2.35%. The agreement is designated as a net investment hedge for accounting purposes and will mature on March 6, 2023. Accordingly, the gain or loss on this derivative instrument is included in the foreign currency translation component of other comprehensive income until the net investment is sold, diluted or liquidated. Interest payments received for the cross currency swap are excluded from the net investment hedge effectiveness assessment and are recorded in interest expense, net on the interim condensed consolidated statements of income. For the three months ended July 31, 2020 and 2019, gains recorded in interest expense, net under the cross currency swap agreement were $0.6 million and $0.6 million. For the nine months ended July 31, 2020 and 2019, gains recorded in interest expense, net under the cross currency swap agreement were $1.8 million and $1.8 million. See Note 15 to the Interim Condensed Consolidated Financial Statements for additional information. The assumptions used in measuring fair value of the cross currency swap are considered level 2 inputs, which are based upon the Euro to United States Dollar exchange rate market.

Other Financial Instruments

The fair values of the Company's 2019 Credit Agreement, U.S. Receivables Facility and European RFA (collectively, "Accounts Receivable Credit Facilities") do not materially differ from carrying value as the Company's cost of borrowing is variable and approximates current borrowing rates. The fair values of the Company's long-term obligations are estimated based on either the quoted market prices for the same or similar issues or the current interest rates offered for the debt of the same remaining maturities, which are considered level 2 inputs in accordance with ASC Topic 820, "Fair Value Measurements and Disclosures."

The following table presents the estimated fair values of the Company's Senior Notes and Assets held by special purpose entities:

(in millions)	July 31, 2020	October 31, 2019
Senior Notes due 2021 estimated fair value	$ 248.6	$ 248.1
Senior Notes due 2027 estimated fair value	533.6	537.9
Assets held by special purpose entities estimated fair value	51.3	51.9

Non-Recurring Fair Value Measurements

The Company recognized asset impairment charges of $16.9 million and $2.1 million during the nine months ended July 31, 2020 and 2019, respectively.

The following table presents quantitative information about the significant unobservable inputs used to determine the fair value of the impairment of long-lived assets held and used and net assets held for sale for the nine months ended July 31, 2020 and 2019:

	Quantitative Information about Level 3 Fair Value Measurements			
(in millions)	Fair Value of Impairment	Valuation Technique	Unobservable Input	Range of Input Values
July 31, 2020				
Impairment of Long Lived Assets	$ 16.9	Discounted Cash Flows; Indicative Bids	Discounted Cash Flows; Indicative Bids	N/A
Total	$ 16.9			
July 31, 2019				
Impairment of Net Assets Held for Sale	$ 2.1	Indicative Bids	Indicative Bids	N/A
Total	$ 2.1			

Long-Lived Assets

As necessary, based on triggering events, the Company measures long-lived assets at fair value on a non-recurring basis. The Company recorded $16.9 million of impairment charges related to both properties, plants and equipment, net and intangible assets and no impairment charges during the nine months ended July 31, 2020 and 2019, respectively.

The assumptions used in measuring fair value of long-lived assets are considered level 3 inputs, which include bids received from third parties, recent purchase offers, market comparable information and discounted cash flows based on assumptions that market participants would use.

Assets and Liabilities Held for Sale

During the nine months ended July 31, 2020, the Company recorded no impairment charges related to assets and liabilities held for sale. During the nine months ended July 31, 2019, one asset group was reclassified to assets and liabilities held for sale, resulting in recognized asset impairment charges of $2.1 million.

The assumptions used in measuring fair value of assets and liabilities held for sale are considered level 3 inputs, which include recent purchase offers, market comparables and/or data obtained from commercial real estate brokers.

NOTE 8 – STOCK-BASED COMPENSATION

Stock-based compensation is accounted for in accordance with ASC 718, "Compensation – Stock Compensation," which requires companies to estimate the fair value of share-based awards on the date of grant using an option-pricing model.

During the second quarter of 2020, the Company's stockholders approved the 2020 Long-Term Incentive Plan (the "2020 LTIP") replacing the Company's Amended and Restated Long-Term Incentive Plan ("Long-Term Incentive Plan") for all periods commencing November 1, 2019 and thereafter. The 2020 LTIP provides key employees incentive compensation based upon consecutive and overlapping three-year performance periods that commence at the start of each fiscal year. Participants may be granted restricted stock units ("RSUs") or performance stock units ("PSUs") or a combination thereof.

Restricted Stock Units

The Company grants RSUs based on a three-year vesting period on the basis of service only. The RSUs are an equity-classified plan measured at fair value on the grant date recognized ratably over the service period. Dividend-equivalent rights may be granted in connection with an RSU award and are recognized in conjunction with the Company's dividend issuance and settled upon vesting of the award.

The Company granted 147,325 RSUs on February 25, 2020, for the service period commencing on November 1, 2019 and ending October 31, 2022. The weighted average fair value of the RSUs granted on that date was $37.42.

Performance Stock Units

The Company grants PSUs for a three-year performance period based upon service, performance criteria and market conditions. The performance criteria are based on targeted levels of earnings before interest, taxes, depreciation, depletion and amortization and total shareholder return as determined by the Special Subcommittee of the Company's Compensation Committee of the Board of Directors (the "Special Subcommittee"). The PSUs are a liability-classified plan wherein the fair value of the PSUs awarded is determined at each reporting period using a Monte Carlo simulation. A Monte Carlo simulation uses assumptions including the risk-free interest rate, expected volatility of the Company's stock price and expected life of the awards to determine a fair value of the market condition throughout the vesting period.

The Company accrued for the targeted performance awards, an expected total of 258,519 PSUs, on February 25, 2020, for the performance period commencing on November 1, 2019 and ending October 31, 2022. For the three and nine months ended July 31, 2020, the Company recognized SG&A expense of $1.2 million and $2.0 million, respectively, related to the PSUs.

NOTE 9 — INCOME TAXES

The Company completed the Caraustar Acquisition on February 11, 2019 and has recorded a net deferred tax liability of $133.7 million, which is primarily related to intangible assets that cannot be amortized for tax purposes. See Note 2 to the Interim Condensed Consolidated Financial Statements for additional information.

Income tax expense for the quarter and year to date was computed in accordance with ASC 740-270 "Income Taxes - Interim Reporting." Under this method, losses from jurisdictions for which a valuation allowance has been provided have not been included in the amount to which the ASC 740-270 rate was applied. Income tax expense of the Company fluctuates primarily due to changes in losses and income from jurisdictions for which a valuation allowance has been provided, the timing of recognition of the related tax expense under ASC 740-270, and the impact of discrete items in the respective quarter.

For the nine months ended July 31, 2020, income tax expense was $44.8 million compared to $58.3 million for the nine months ended July 31, 2019. The decrease in income tax expense for the nine months ended July 31, 2020 was primarily attributable to changes in the expected mix of earnings among tax jurisdictions, discrete items, and non-deductible goodwill for tax purposes related to the sale of the CPG business within the Paper Packaging & Services segment.

On March 18, 2020, the Families First Coronavirus Response Act (the "FFCR Act"), and on March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), were each enacted into law in response to the COVID-19 pandemic. The FFCR Act and the CARES Act contain numerous income tax provisions, such as reducing limitations on the deductibility of interest, the use of net operating losses arising in taxable years beginning after December 31, 2017, and additional depreciation deductions related to qualified improvement property. The Company performed an analysis of these provisions and believes that the FFCR Act and CARES Act will not have a material impact on the Company's income taxes for the current year.

NOTE 10 — POST RETIREMENT BENEFIT PLANS

During the nine months ended July 31, 2020, two United States defined benefit plans were combined and lump sum payments totaling $44.3 million were made to United States defined benefit plan participants who agreed to such payments, representing the current fair value of the participant's respective pension benefit. The payments were made from plan assets resulting in a decrease in the fair value of both the plan assets and the projected benefit obligation of $44.3 million and non-cash pension settlement income of $0.1 million of unrecognized net actuarial gain included in accumulated other comprehensive income.

As a result of the two events described above, two United States defined benefit plans were remeasured as of December 31, 2019, resulting in a $19.0 million decline in aggregate projected benefit obligations and a $9.3 million aggregate decline in the fair value of plan assets. These reductions were due to an increase in discount rates to 3.38%, from the Company's year-end disclosures and a decline in the combined expected return on assets to 5.00%.

The components of net periodic pension cost include the following:

	Three Months Ended July 31,		Nine Months Ended July 31,	
(in millions)	2020	2019	2020	2019
Service cost	$ 3.6	$ 3.8	$ 9.6	$ 10.1
Interest cost	7.2	8.7	19.4	22.6
Expected return on plan assets	(10.5)	(11.0)	(28.7)	(28.2)
Amortization of prior service cost	3.4	1.8	9.8	5.4
Net periodic pension cost	$ 3.7	$ 3.3	$ 10.1	$ 9.9

Contributions, including benefits paid directly by the Company, to the pension plans were $27.0 million and $19.7 million, in the nine months ended July 31, 2020 and 2019, respectively.

The components of net periodic post-retirement benefit include the following:

	Three Months Ended July 31,		Nine Months Ended July 31,	
(in millions)	2020	2019	2020	2019
Interest cost	$ 0.1	$ 0.1	$ 0.3	$ 0.3
Amortization of prior service benefit	(0.1)	(0.4)	(0.4)	(1.2)
Net periodic post-retirement benefit	$ —	$ (0.3)	$ (0.1)	$ (0.9)

The components of net periodic pension cost and net periodic post-retirement benefit, other than the service cost components, are included in the line item "Other expense (income), net" in the interim condensed consolidated statements of income.

NOTE 11 — CONTINGENT LIABILITIES AND ENVIRONMENTAL RESERVES

Litigation-related Liabilities

The Company may become involved from time-to-time in litigation and regulatory matters incidental to its business, including governmental investigations, enforcement actions, personal injury claims, product liability, employment health and safety matters, commercial disputes, intellectual property matters, disputes regarding environmental clean-up costs, litigation in connection with acquisitions and divestitures, and other matters arising out of the normal conduct of its business. The Company intends to vigorously defend itself in such litigation. The Company does not believe that the outcome of any pending litigation will have a material adverse effect on its interim condensed consolidated financial statements.

The Company may accrue for contingencies related to litigation and regulatory matters if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Because litigation is inherently unpredictable and unfavorable resolutions can occur, assessing contingencies is highly subjective and requires judgments about future events. The Company regularly reviews contingencies to determine whether its accruals are adequate. The amount of ultimate loss may differ from these estimates.

The Company is currently involved in legal proceedings outside of the United States related to various wrongful termination lawsuits filed by former employees and benefit claims filed by some existing employees of the Company's Flexible Products &

Services segment. The lawsuits include claims for severance for employment periods prior to the Company's ownership in the business. As of July 31, 2020, and October 31, 2019, the estimated liability recorded related to these matters were consistent at $0.6 million. The estimated liability has been determined based on the number of active cases and the settlements and rulings on previous cases. It is reasonably possible the estimated liability could increase if additional cases are filed or adverse rulings are made.

Since 2017, three reconditioning facilities in the Milwaukee, Wisconsin area that are owned by Container Life Cycle Management LLC ("CLCM"), the Company's U.S. reconditioning joint venture company, have been subject to investigations conducted by federal, state and local governmental agencies concerning, among other matters, potential violations of environmental laws and regulations. As a result of these investigations, the United States Environmental Protection Agency ("U.S. EPA") and the Wisconsin Department of Natural Resources ("WDNR") have issued notices of violations to the Company and CLCM regarding violations of certain federal and state environmental laws and regulations. The remedies being sought in these proceedings include compliance with the applicable environmental laws and regulations as being interpreted by the U.S. EPA and WDNR and monetary sanctions. The Company has cooperated with the governmental agencies in these investigations and proceedings. As of August 27, 2020, no material citations have been issued or material fines assessed with respect to any violation of environmental laws and regulations. Since these proceedings are in their investigative stage, the Company is unable to predict the outcome of these proceedings or estimate a range of reasonable possible monetary sanctions or costs associated with any remedial actions that may be required or requested by the U.S. EPA or WDNR.

In addition, on November 8, 2017, the Company, CLCM and other parties were named as defendants in a punitive class action lawsuit filed in Wisconsin state court concerning one of CLCM's Milwaukee reconditioning facilities. The plaintiffs are alleging that odors from this facility have invaded their property and are interfering with the use and enjoyment of their property and causing damage to the value of their property. Plaintiffs are seeking compensatory and punitive damages, along with their legal fees. The Company and CLCM are vigorously defending themselves in this lawsuit. The Company is unable to predict the outcome of this lawsuit or estimate a range of reasonably possible losses.

Environmental Reserves

As a result of the Caraustar Acquisition, the Company acquired The Newark Group, Inc., a subsidiary of Caraustar ("Newark"), and became subject to Newark's Lower Passaic River environmental and litigation liability. By letters dated February 14, 2006 and June 2, 2006, the United States Environment Protection Agency ("EPA") notified Newark of its potential liability under Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") relating to the Diamond Alkali Superfund Site, which includes a 17-mile stretch of the Lower Passaic River that EPA has denominated the Lower Passaic River Study Area ("LPRSA"). Newark is one of at least 70 potentially responsible parties identified in this case. The EPA alleges that hazardous substances were released from Newark's now-closed Newark, New Jersey recycled paperboard mill into the Lower Passaic River. The EPA informed Newark that it may be potentially liable for response costs that the government may incur relating to the study of the LPRSA and for unspecified natural resource damages.

In April 2014, EPA issued a Focused Feasibility Study that proposed alternatives for the remediation of the lower 8 miles of the Lower Passaic River. On March 3, 2016, EPA issued its Record of Decision for the lower 8 miles of the Lower Passaic River, which presented a bank-to-bank dredging remedy selected by the agency for the lower 8 miles and which EPA estimates will cost approximately $1,380.0 million to implement. Newark is participating in an allocation process to determine its allocable share.

On June 30, 2018, Occidental Chemical Corporation ("Occidental") filed litigation in the U.S. District Court for the District of New Jersey styled Occidental Chemical Corp. v. 21st Century Fox America, Inc., et al., Civil Action No. 2:18-CV-11273 (D.N.J.), that names Newark and approximately 119 other parties as defendants. Occidental's Complaint alleges claims under CERCLA against all defendants for cost recovery, contribution, and declaratory judgment for costs Occidental allegedly has incurred and will incur at the Diamond Alkali Superfund Site. The litigation is in its early stages, and the Company intends to vigorously defend itself in this litigation.

As of July 31, 2020, the Company has accrued $11.2 million for the Diamond Alkali Superfund Site. It is possible that there could be resolution of uncertainties in the future that would require the Company to record charges that could be material to future earnings.

As of July 31, 2020, and October 31, 2019, the Company's environmental reserves were $19.7 million and $18.7 million, respectively. These reserves are principally based on environmental studies and cost estimates provided by third parties, but also take into account management estimates. The estimated liabilities are reduced to reflect the anticipated participation of other potentially responsible parties in those instances where it is probable that such parties are legally responsible and financially capable of paying their respective shares of relevant costs. For sites that involve formal actions subject to joint and several liabilities, these actions have formal agreements in place to apportion the liability.

Aside from the Diamond Alkali Superfund Site, other environmental reserves of the Company as of July 31, 2020 and October 31, 2019 included $3.3 million and $3.3 million, respectively, for various European drum facilities acquired from Blagden and Van Leer; $0.1 million and $0.1 million, respectively, for its various container life cycle management and recycling facilities acquired in 2011 and 2010; $0.9 million and $0.3 million, respectively, for remediation of sites no longer owned by the Company; $2.2 million and $2.0 million, respectively, for landfill closure obligations in the Company's Paper Packaging & Services segment; $0.4 million and $0.0 million, respectively, for various other accruals in the Company's Paper Packaging & Services segment; and $1.6 million and $1.8 million, respectively, for various other facilities around the world.

The Company's exposure to adverse developments with respect to any individual site is not expected to be material. Although environmental remediation could have a material effect on results of operations if a series of adverse developments occur in a particular quarter or year, the Company believes that the chance of a series of adverse developments occurring in the same quarter or year is remote. Future information and developments will require the Company to continually reassess the expected impact of these environmental matters.

NOTE 12 — EARNINGS PER SHARE

The Company has two classes of common stock and, as such, applies the "two-class method" of computing earnings per share ("EPS") as prescribed in ASC 260, "Earnings Per Share." In accordance with this guidance, earnings are allocated in the same fashion as dividends would be distributed. Under the Company's articles of incorporation, any distribution of dividends in any year must be made in proportion of one cent a share for Class A Common Stock to one and one-half cents a share for Class B Common Stock, which results in a 40% to 60% split to Class A and B shareholders, respectively. In accordance with this, earnings are allocated first to Class A and Class B Common Stock to the extent that dividends are actually paid and the remainder is allocated assuming all of the earnings for the period have been distributed in the form of dividends.

The Company calculates EPS as follows:

$$\text{Basic Class A EPS} = \frac{40\% * \text{Average Class A Shares Outstanding}}{40\% * \text{Average Class A Shares Outstanding} + 60\% * \text{Average Class B Shares Outstanding}} * \frac{\text{Undistributed Net Income}}{\text{Average Class A Shares Outstanding}} + \text{Class A Dividends Per Share}$$

$$\text{Diluted Class A EPS} = \frac{40\% * \text{Average Class A Shares Outstanding}}{40\% * \text{Average Class A Shares Outstanding} + 60\% * \text{Average Class B Shares Outstanding}} * \frac{\text{Undistributed Net Income}}{\text{Average Diluted Class A Shares Outstanding}} + \text{Class A Dividends Per Share}$$

$$\text{Basic Class B EPS} = \frac{60\% * \text{Average Class B Shares Outstanding}}{40\% * \text{Average Class A Shares Outstanding} + 60\% * \text{Average Class B Shares Outstanding}} * \frac{\text{Undistributed Net Income}}{\text{Average Class B Shares Outstanding}} + \text{Class B Dividends Per Share}$$

*Diluted Class B EPS calculation is identical to Basic Class B calculation

The following table provides EPS information for each period, respectively:

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
Numerator for basic and diluted EPS				
Net income attributable to Greif, Inc.	$ 20.7	$ 62.7	$ 64.4	$ 106.0
Cash dividends	(26.2)	(26.1)	(78.2)	(77.9)
Undistributed net income attributable to Greif, Inc.	$ (5.5)	$ 36.6	$ (13.8)	$ 28.1

The Class A Common Stock has no voting rights unless four quarterly cumulative dividends upon the Class A Common Stock are in arrears. The Class B Common Stock has full voting rights. There is no cumulative voting for the election of directors.

Common Stock Repurchases

The Board of Directors has authorized the Company to repurchase shares of the Company's Class A Common Stock or Class B Common Stock or any combination of the foregoing. As of July 31, 2020, and 2019 the remaining amount of shares that may be repurchased under this authorization was 4,703,487 and 4,703,487, respectively. There were no shares repurchased under this program from November 1, 2018 through July 31, 2020.

The following table summarizes the Company’s Class A and Class B common and treasury shares as of the specified dates:

	Authorized Shares	Issued Shares	Outstanding Shares	Treasury Shares
July 31, 2020				
Class A Common Stock	128,000,000	42,281,920	26,441,986	15,839,934
Class B Common Stock	69,120,000	34,560,000	22,007,725	12,552,275
October 31, 2019				
Class A Common Stock	128,000,000	42,281,920	26,257,943	16,023,977
Class B Common Stock	69,120,000	34,560,000	22,007,725	12,552,275

The following is a reconciliation of the shares used to calculate basic and diluted earnings per share:

	Three Months Ended July 31,		Nine Months Ended July 31,	
	2020	2019	2020	2019
Class A Common Stock:				
Basic shares	26,441,986	26,257,943	26,363,123	26,166,612
Assumed conversion of restricted shares	609	—	54	—
Diluted shares	26,442,595	26,257,943	26,363,177	26,166,612
Class B Common Stock:				
Basic and diluted shares	22,007,725	22,007,725	22,007,725	22,007,725

NOTE 13 — LEASES

The Company leases certain buildings, warehouses, land, transportation equipment, operating equipment, and office equipment with remaining lease terms from less than one year up to 22 years. The Company reviews all options to extend, terminate, or purchase a right of use asset at the time of lease inception and accounts for options deemed reasonably certain.

The Company combines lease and non-lease components for all leases, except real estate, for which these components are presented separately. Leases with an initial term of twelve months or less are not capitalized and are recognized on a straight-line basis over the lease term. The implicit rate is not readily determinable for substantially all of the Company's leases, therefore the initial present value of lease payments is calculated utilizing an estimated incremental borrowing rate determined at the portfolio level based on market and Company specific information.

Certain of the Company’s leases include variable costs. As the right of use asset recorded on the balance sheet was determined based upon factors considered at the commencement date, changes in these variable expenses are not capitalized and are expensed as incurred throughout the lease term.

As of July 31, 2020, the Company has not entered into any significant leases which have not yet commenced.

The following table presents the balance sheet classification of the Company’s lease assets and liabilities as of July 31, 2020:

(in millions)	**Balance Sheet Classification**	**July 31, 2020**
Lease Assets		
Operating lease assets	Operating lease assets	$ 318.1
Finance lease assets	Other long-term assets	5.0
Total lease assets		$ 323.1
Lease Liabilities		
Current operating lease liabilities	Current portion of operating lease liabilities	$ 53.2
Current finance lease liabilities	Other current liabilities	1.8
Total current lease liabilities		55.0
Non-current operating lease liabilities	Operating lease liabilities	267.5
Non-current finance lease liabilities	Other long-term liabilities	3.2
Total non-current lease liabilities		270.7
Total lease liabilities		$ 325.7

The following table presents the lease expense components for the three and nine months ended July 31, 2020:

	Three Months Ended July 31,	**Nine Months Ended July 31,**
(in millions)	**2020**	**2020**
Operating lease cost	$ 17.2	$ 50.0
Finance lease cost	0.4	1.1
Variable lease cost*	5.5	19.3
Total lease cost	$ 23.1	$ 70.4

*Amount includes short-term lease costs.

Future maturity for the Company's lease liabilities, during the next five years, and in the aggregate for the years thereafter, are as follows:

(in millions)	**Operating Leases**	**Finance Leases**	**Total expected payments**
2020	$ 66.7	$ 1.4	$ 68.1
2021	62.5	1.4	63.9
2022	54.7	1.2	55.9
2023	46.7	0.9	47.6
2024	38.6	0.5	39.1
Thereafter	172.1	0.3	172.4
Total lease payments	$ 441.3	$ 5.7	$ 447.0
Less: Interest	(120.6)	(0.7)	(121.3)
Lease liabilities	$ 320.7	$ 5.0	$ 325.7

The following table presents the weighted-average lease term and discount rate as of July 31, 2020:

Weighted-average remaining lease term (years):	
Operating leases	11.3
Finance leases	3.8
Weighted-average discount rate:	
Operating leases	3.61 %
Finance leases	3.33 %

The following table presents other required lease related information for the three and nine months ended July 31, 2020:

	Three Months Ended July 31,	Nine Months Ended July 31,
(in millions)	2020	2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows used for operating leases	$ 16.9	$ 52.2
Financing cash flows used for finance leases	0.3	1.0
Leased assets obtained in exchange for new operating lease liabilities	0.8	63.9
Leased assets obtained in exchange for new finance lease liabilities	0.1	0.4

In compliance with ASC 842, the Company must provide the prior year disclosures required under the previous lease guidance for comparative periods presented herein.

The table below contains information related to the Company's rent expense as disclosed within the 10-K for the period ended October 31, 2019:

	Year Ended October 31,		
(in millions)	2019	2018	2017
Rent Expense	$ 86.2	$ 47.1	$ 41.0

The following table provides the Company's minimum rent commitments under operating leases in the next five years and the remaining years thereafter as disclosed within the 10-K for the period ended October 31, 2019:

(in millions)	Operating Leases	Capital Leases
Year(s):		
2020	$ 64.8	$ 1.8
2021	57.0	1.6
2022	48.7	1.3
2023	40.1	1.0
2024	31.6	0.6
Thereafter	117.5	0.3
Total	$ 359.7	$ 6.6

Minimum rent commitments under capital leases in 2020 and thereafter are attributable to addition of capital leases through the Caraustar Acquisition.

NOTE 14 — EQUITY EARNINGS OF UNCONSOLIDATED AFFILIATES, NET OF TAX AND NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS

Centurion Container LLC

The Company acquired a minority interest in Centurion Container LLC ("Centurion"), a U.S.-based company involved in IBC rebottling, reconditioning and distribution, on March 31, 2020 for $3.6 million. The investment in Centurion is accounted for under the equity method because the Company has the ability to exercise significant influence through its board participation.

At any time prior to October 31, 2022, the Company has the option to acquire an 80% ownership interest in Centurion at a formulaic price, as set forth in the operating agreement. Provided such interest is acquired, the Company then has the option to acquire 100% ownership of Centurion beginning on March 31, 2025 at a formulaic price set forth in the operating agreement.

NOTE 15 — EQUITY AND COMPREHENSIVE INCOME (LOSS)

The following table summarizes the changes in equity for the three and nine months ended July 31, 2020 (Dollars in millions, shares in thousands)

	Three Months Ended July 31, 2020								
	Capital Stock		Treasury Stock						
	Common Shares	Amount	Treasury Shares	Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Greif, Inc. Equity	Non controlling interests	Total Equity
As of April 30, 2020	48,450	$ 169.2	28,392	$ (134.4)	$ 1,531.8	$ (483.4)	$ 1,083.2	$ 52.0	$ 1,135.2
Net income					20.7		20.7	3.7	24.4
Other comprehensive income (loss):									
Foreign currency translation						62.4	62.4	(2.8)	59.6
Derivative financial instruments, net of $6.7 million of income tax benefit						2.0	2.0		2.0
Minimum pension liability adjustment, net of immaterial income tax expense						(2.4)	(2.4)		(2.4)
Comprehensive income							82.7		83.6
Current period mark to redemption value of redeemable noncontrolling interest					1.1		1.1		1.1
Net income allocated to redeemable noncontrolling interests							—	0.3	0.3
Dividends paid to Greif, Inc. shareholders ($0.44 and $0.66 per Class A share and Class B share, respectively)					(26.2)		(26.2)		(26.2)
Dividends paid to noncontrolling interests and other							—	(3.6)	(3.6)
Share based compensation	—	0.5	—	—			0.5		0.5
As of July 31, 2020	48,450	$ 169.7	28,392	$ (134.4)	$ 1,527.4	$ (421.4)	$ 1,141.3	$ 49.6	$ 1,190.9

	Nine Months Ended July 31, 2020								
	Capital Stock		Treasury Stock						
	Common Shares	Amount	Treasury Shares	Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Greif, Inc. Equity	Non controlling interests	Total Equity
As of October 31, 2019	48,266	$ 162.6	28,576	$ (134.8)	$ 1,539.0	$ (433.7)	$ 1,133.1	$ 58.0	$ 1,191.1
Net income					64.4		64.4	11.9	76.3
Other comprehensive income (loss):									
Foreign currency translation						12.6	12.6	(8.4)	4.2
Derivative financial instruments, net of $6.7 million income tax benefit						(20.9)	(20.9)		(20.9)
Minimum pension liability adjustment, net of $7.5 million of income tax expense						20.6	20.6		20.6
Comprehensive income							76.7		80.2
Current period mark to redemption value of redeemable noncontrolling interest					2.2		2.2		2.2
Net income allocated to redeemable noncontrolling interests							—	0.2	0.2
Dividends paid to Greif, Inc. shareholders ($1.32 and $1.97 per Class A share and Class B share, respectively)					(78.2)		(78.2)		(78.2)
Dividends paid to noncontrolling interests and other							—	(12.1)	(12.1)
Long-term incentive shares issued	153	5.0	(153)	0.3			5.3		5.3
Share based compensation	—	1.0	—	—			1.0		1.0
Restricted stock, executive	3	0.1	(3)	0.1			0.2		0.2
Restricted stock, directors	28	1	(28)	—			1.0		1.0
As of July 31, 2020	48,450	$ 169.7	28,392	$ (134.4)	$ 1,527.4	$ (421.4)	$ 1,141.3	$ 49.6	$ 1,190.9

The following table summarizes the changes in equity for the three and nine months ended July 31, 2019 (Dollars in millions, shares in thousands):

Three Months Ended July 31, 2019	Capital Stock		Treasury Stock						
	Common Shares	Amount	Treasury Shares	Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Greif, Inc. Equity	Non controlling interests	Total Equity
As of April 30, 2019	48,266	$ 162.6	28,576	$ (134.8)	$ 1,460.2	$ (401.4)	$ 1,086.6	$ 49.8	$ 1,136.4
Net income					62.7		62.7	4.8	67.5
Other comprehensive income (loss):									
Foreign currency translation						(2.2)	(2.2)	1.3	(0.9)
Derivative financial instruments, net of income tax benefit of $2.2 million						(5.0)	(5.0)		(5.0)
Minimum pension liability adjustment, net of immaterial income tax						2.3	2.3		2.3
Comprehensive income							57.8		63.9
Current period mark to redemption value of redeemable noncontrolling interest					2.3		2.3		2.3
Net income allocated to redeemable noncontrolling interests							—	(0.5)	(0.5)
Dividends paid to Greif, Inc. shareholders ($0.44 and $0.66 per Class A share and Class B share, respectively)					(26.1)		(26.1)		(26.1)
Dividends paid to noncontrolling interests							—	(0.4)	(0.4)
As of July 31, 2019	48,266	$ 162.6	28,576	$ (134.8)	$ 1,499.1	$ (406.3)	$ 1,120.6	$ 55.0	$ 1,175.6

Nine Months Ended July 31, 2019	Capital Stock		Treasury Stock						
	Common Shares	Amount	Treasury Shares	Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Greif, Inc. Equity	Non controlling interests	Total Equity
As of October 31, 2018	47,949	$ 150.5	28,893	$ (135.4)	$ 1,469.8	$ (377.1)	$ 1,107.8	$ 46.4	$ 1,154.2
Net income					106.0		106.0	18.4	124.4
Other comprehensive income (loss):									
Foreign currency translation						(10.7)	(10.7)	0.3	(10.4)
Derivative financial instruments, net of income tax benefit of $3.4 million						(20.7)	(20.7)		(20.7)
Minimum pension liability adjustment, net of immaterial income tax						2.2	2.2		2.2
Comprehensive income							76.8		95.5
Adoption of ASU 2016-16					(2.1)		(2.1)		(2.1)
Current period mark to redemption value of redeemable noncontrolling interest					3.3		3.3		3.3
Net income allocated to redeemable noncontrolling interests							—	(1.8)	(1.8)
Dividends paid to Greif, Inc. shareholders ($1.32 and $1.97 per Class A share and Class B share, respectively)					(77.9)		(77.9)		(77.9)
Dividends paid to noncontrolling interests							—	(8.3)	(8.3)
Restricted stock, directors	25	1.1	(25)				1.1		1.1
Long-term incentive shares issued	292	11.0	(292)	0.6			11.6		11.6
As of July 31, 2019	48,266	$ 162.6	28,576	$ (134.8)	$ 1,499.1	$ (406.3)	$ 1,120.6	$ 55.0	$ 1,175.6

The following table provides the rollforward of accumulated other comprehensive income (loss) for the nine months ended July 31, 2020:

(in millions)	Foreign Currency Translation	Derivative Financial Instruments	Minimum Pension Liability Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance as of October 31, 2019	$ (298.0)	$ (12.7)	$ (123.0)	$ (433.7)
Other Comprehensive Income (Loss)	12.6	(20.9)	20.6	12.3
Balance as of July 31, 2020	$ (285.4)	$ (33.6)	$ (102.4)	$ (421.4)

The following table provides the rollforward of accumulated other comprehensive income (loss) for the nine months ended July 31, 2019:

(in millions)	Foreign Currency Translation	Derivative Financial Instruments	Minimum Pension Liability Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance as of October 31, 2018	$ (292.8)	$ 13.4	$ (97.7)	$ (377.1)
Other Comprehensive Income (Loss)	(10.7)	(20.7)	2.2	(29.2)
Balance as of July 31, 2019	$ (303.5)	$ (7.3)	$ (95.5)	$ (406.3)

The components of accumulated other comprehensive income (loss) above are presented net of tax, as applicable.

NOTE 16 — BUSINESS SEGMENT INFORMATION

The Company has eight operating segments, which are aggregated into four reportable business segments: Rigid Industrial Packaging & Services; Paper Packaging & Services; Flexible Products & Services; and Land Management.

The Company’s reportable business segments offer different products and services. The accounting policies of the reportable business segments are substantially the same as those described in the “Basis of Presentation and Summary of Significant Accounting Policies” note in the 2019 Form 10-K.

On April 1, 2020, the Company completed the divestiture of the CPG business within the Paper Packaging & Services segment.

The following tables present net sales disaggregated by geographic area for each reportable segment for the three and nine months ended July 31, 2020:

	Three Months Ended July 31, 2020			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 194.4	$ 258.3	$ 95.8	$ 548.5
Paper Packaging & Services	451.5	—	7.8	459.3
Flexible Products & Services	7.4	54.0	7.9	69.3
Land Management	5.9	—	—	5.9
Total net sales	$ 659.2	$ 312.3	$ 111.5	$ 1,083.0

	Nine Months Ended July 31, 2020			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 617.0	$ 798.5	$ 304.3	$ 1,719.8
Paper Packaging & Services	1,394.3	—	20.3	1,414.6
Flexible Products & Services	20.4	157.4	21.9	199.7
Land Management	19.6	—	—	19.6
Total net sales	$ 2,051.3	$ 955.9	$ 346.5	$ 3,353.7

The following tables present net sales disaggregated by geographic area for each reportable segment for the three and nine months ended July 31, 2019:

	Three Months Ended July 31, 2019			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 229.9	$ 296.2	$ 116.0	$ 642.1
Paper Packaging & Services	522.3	—	7.7	530.0
Flexible Products & Services	9.6	57.4	7.5	74.5
Land Management	6.0	—	—	6.0
Total net sales	$ 767.8	$ 353.6	$ 131.2	$ 1,252.6

	Nine Months Ended July 31, 2019			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 688.2	$ 831.8	$ 351.6	$ 1,871.6
Paper Packaging & Services	1,231.2	—	13.7	1,244.9
Flexible Products & Services	26.3	177.4	22.9	226.6
Land Management	19.8	—	—	19.8
Total net sales	$ 1,965.5	$ 1,009.2	$ 388.2	$ 3,362.9

The following segment information is presented for the periods indicated:

	Three Months Ended July 31,		Nine Months Ended July 31,	
(in millions)	2020	2019	2020	2019
Operating profit:				
Rigid Industrial Packaging & Services	$ 42.5	$ 54.3	$ 155.8	$ 124.6
Paper Packaging & Services	13.3	63.1	40.3	128.6
Flexible Products & Services	4.1	5.0	10.7	22.2
Land Management	2.0	3.2	6.3	8.0
Total operating profit	$ 61.9	$ 125.6	$ 213.1	$ 283.4
Depreciation, depletion and amortization expense:				
Rigid Industrial Packaging & Services	$ 19.5	$ 18.6	$ 59.1	$ 57.0
Paper Packaging & Services	37.8	38.9	115.8	81.9
Flexible Products & Services	1.4	1.4	4.4	4.7
Land Management	1.2	1.1	3.1	3.2
Total depreciation, depletion and amortization expense	$ 59.9	$ 60.0	$ 182.4	$ 146.8

The following table presents total assets by segment and total properties, plants and equipment, net by geographic area:

(in millions)	July 31, 2020	October 31, 2019
Assets:		
Rigid Industrial Packaging & Services	$ 2,243.7	$ 2,006.3
Paper Packaging & Services	2,582.6	2,686.3
Flexible Products & Services	160.0	148.2
Land Management	348.4	348.7
Total segments	5,334.7	5,189.5
Corporate and other	259.1	237.2
Total assets	$ 5,593.8	$ 5,426.7
Long lived assets, net*:		
United States	$ 1,413.1	$ 1,295.8
Europe, Middle East and Africa	383.8	277.1
Asia Pacific and other Americas	110.0	117.4
Total long-lived assets, net	$ 1,906.9	$ 1,690.3

* current year disclosure includes impact of capitalization of operating lease assets

NOTE 17 — REDEEMABLE NONCONTROLLING INTERESTS

Mandatorily Redeemable Noncontrolling Interests

The terms of the joint venture agreement for one joint venture within the Rigid Industrial Packaging & Services segment include mandatory redemption by the Company, in cash, of the noncontrolling interest holders' equity at a formulaic price after the expiration of a lockout period specific to each noncontrolling interest holder. The redemption features cause the interest to be classified as a mandatorily redeemable instrument under the accounting guidance, and this interest is included at the current redemption value each period in long-term or short-term liabilities of the Company, as applicable. The impact of marking to redemption value at each period end is recorded in interest expense. The carrying amount is not reduced below the initially recorded contribution. The Company has a contractual obligation to redeem the outstanding equity interest of each remaining partner in 2022 and 2023, respectively.

The following table summarizes the change in mandatorily redeemable noncontrolling interest for the nine months ended July 31, 2020:

(in millions)	Mandatorily Redeemable Noncontrolling Interest
Balance as of October 31, 2019	$ 8.4
Current period mark to redemption value	—
Balance as of July 31, 2020	$ 8.4

Redeemable Noncontrolling Interests

Redeemable noncontrolling interests related to two joint ventures within the Paper Packaging & Services segment and one joint venture within the Rigid Industrial Packaging & Services segment are held by the respective noncontrolling interest owners. The holders of these interests share in the profits and losses of these entities on a pro-rata basis with the Company. However, the noncontrolling interest owners have the right to put all or a portion of those noncontrolling interests to the Company at a formulaic price after a set period of time, specific to each agreement.

Redeemable noncontrolling interests are reflected in the interim condensed consolidated balance sheets at redemption value. The following table summarizes the change in redeemable noncontrolling interest for the nine months ended July 31, 2020:

(in millions)		**Redeemable Noncontrolling Interest**
Balance as of October 31, 2019	$	21.3
Current period mark to redemption value		(2.2)
Redeemable noncontrolling interest share of income and other		0.2
Dividends to redeemable noncontrolling interest and other		(0.7)
Balance as of July 31, 2020	$	18.6

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

GENERAL

The terms “Greif,” “our company,” “we,” “us” and “our” as used in this discussion refer to Greif, Inc. and its subsidiaries. Our fiscal year begins on November 1 and ends on October 31 of the following year. Any references in this Form 10-Q to the years, or to any quarter of those years, relates to the fiscal year or quarter, as the case may be, ended in that year, unless otherwise stated.

The discussion and analysis presented below relates to the material changes in financial condition and results of operations for our interim condensed consolidated balance sheets as of July 31, 2020 and October 31, 2019, and for the interim condensed consolidated statements of income for the three and nine months ended July 31, 2020 and 2019. This discussion and analysis should be read in conjunction with the interim condensed consolidated financial statements that appear elsewhere in this Form 10-Q and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K for the fiscal year ended October 31, 2019 (the “2019 Form 10-K”). Readers are encouraged to review the entire 2019 Form 10-K, as it includes information regarding Greif not discussed in this Form 10-Q. This information will assist in your understanding of the discussion of our current period financial results.

All statements, other than statements of historical facts, included in this Form 10-Q, including without limitation, statements regarding our future financial position, business strategy, budgets, projected costs, goals, trends and plans and objectives of management for future operations, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements generally can be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “aspiration,” “objective,” “project,” “believe,” “continue,” “on track” or “target” or the negative thereof or variations thereon or similar terminology. All forward-looking statements made in this Form 10-Q are based on assumptions, expectations and other information currently available to management. Although we believe that the expectations reflected in forward-looking statements have a reasonable basis, we can give no assurance that these expectations will prove to be correct.

Forward-looking statements are subject to risks and uncertainties that could cause our actual results to differ materially from those forecasted, projected or anticipated, whether expressed in or implied by the statements. Such risks and uncertainties that might cause a difference include, but are not limited to, the following: (i) historically, our business has been sensitive to changes in general economic or business conditions, (ii) we may not successfully implement our business strategies, including achieving our growth objectives, (iii) our level of indebtedness could adversely affect our liquidity, limit our flexibility in responding to business opportunities, and increase our vulnerability to adverse changes in economic and industry conditions, (iv) our operations subject us to currency exchange and political risks that could adversely affect our results of operations, (v) the current and future challenging global economy and disruption and volatility of the financial and credit markets may adversely affect our business, (vi) the continuing consolidation of our customer base and suppliers may intensify pricing pressure, (vii) we operate in highly competitive industries, (viii) our business is sensitive to changes in industry demands, (ix) raw material and energy price fluctuations and shortages may adversely impact our manufacturing operations and costs, (x) changes in U.S. trade policies could impact the cost of imported goods into the U.S., which may materially impact our revenues or increase our operating costs, (xi) the results of the United Kingdom’s referendum on withdrawal from the European Union may have a negative effect on global economic conditions, financial markets and our business, (xii) geopolitical conditions, including direct or indirect acts of war or terrorism, could have a material adverse effect on our operations and financial results, (xiii) we may encounter difficulties arising from acquisitions, (xiv) in connection with acquisitions or divestitures, we may become subject to liabilities, (xv) the acquisition of Caraustar Industries, Inc. and its subsidiaries ("Caraustar") subjects us to various risks and uncertainties, (xvi) we may incur additional restructuring costs and there is no guarantee that our efforts to reduce costs will be successful, (xvii) we could be subject to changes our tax rates, the adoption of new U.S. or foreign tax legislation or exposure to additional tax liabilities, (xviii) full realization of our deferred tax assets may be affected by a number of factors, (xix) several operations are conducted by joint ventures that we cannot operate solely for our benefit, (xx) certain of the agreements that govern our joint ventures provide our partners with put or call options, (xxi) our ability to attract, develop and retain talented and qualified employees, managers and executives is critical to our success, (xxii) our business may be adversely impacted by work stoppages and other labor relations matters, (xxiii) we may not successfully identify illegal immigrants in our workforce, (xxiv) our pension and postretirement plans are underfunded and will require future cash contributions and our required future cash contributions could be higher than we expect, each of which could have a material adverse effect on our financial condition and liquidity, (xxv) we may be subject to losses that might not be covered in whole or in part by existing insurance reserves or insurance coverage, (xxvi) our business depends on the uninterrupted operations of our facilities, systems and business functions, including our information technology and other business systems, (xxvii) a security breach of customer, employee, supplier or Company information may have a material adverse effect on our business, financial condition and results of operations, (xxviii) legislation/regulation related to environmental and health and safety matters and corporate social responsibility could negatively impact our operations and financial performance, (xxix) product liability claims and other legal proceedings could adversely affect our operations and financial performance, (xxx) we may incur fines or penalties, damage to our reputation or other adverse consequences if our employees, agents or business partners violate, or are alleged to have violated, anti-bribery, competition or other laws, (xxxi) the current COVID-19 pandemic could have a material adverse effect on our business, financial condition, results of operations and cash flow, (xxxii) changing climate, climate change regulations and greenhouse gas effects may adversely affect our operations and financial performance, (xxxiii) the frequency and volume of our timber and timberland sales will impact our financial performance, (xxxiv) changes in U.S. generally accepted accounting principles ("GAAP") and Securities and Exchange Commission ("SEC") rules and regulations could materially impact our reported results, (xxxv) if we fail to maintain an effective system of internal control, we may not be able to accurately report financial results or prevent fraud, and (xxxvi) we have a significant amount of goodwill and long-lived assets which, if impaired in the future, would adversely impact our results of operations. The risks described above are not all-inclusive, and given these and other possible risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results. For a detailed discussion of the most significant risks and uncertainties that could cause our actual results to differ materially from those forecasted, projected or anticipated, see "Risk Factors" in Part I, Item 1A of our most recently filed Form 10-K, updated by Part II Item 1A of this Form 10-Q, and our other filings with the SEC. All forward-looking statements made in this Form 10-Q are expressly qualified in their entirety by reference to such risk factors. Except to the limited extent required by applicable law, we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

COVID-19

The impact of COVID-19 on our future results of operations and financial condition are highly uncertain at this time and outside of our control. The scope, duration and magnitude of the effects of COVID-19 are evolving rapidly and in ways that are difficult or impossible to anticipate. For a discussion of the most significant risks and uncertainties that could impact our results of operations, financial position, liquidity or cash flows as a result of the COVID-19 pandemic, see "Part II-Item 1A-Risk Factors" included in this Form 10-Q.

OVERVIEW

Business Segments

We operate in four reportable business segments: Rigid Industrial Packaging & Services; Paper Packaging & Services; Flexible Products & Services; and Land Management.

In the Rigid Industrial Packaging & Services segment, we are a leading global producer of rigid industrial packaging products, such as steel, fibre and plastic drums, rigid intermediate bulk containers, closure systems for industrial packaging products, transit protection products, water bottles and remanufactured and reconditioned industrial containers, and services, such as container life cycle management, filling, logistics, warehousing and other packaging services. We sell our industrial packaging products to customers in industries such as chemicals, paints and pigments, food and beverage, petroleum, industrial coatings, agricultural, pharmaceutical and minerals, among others.

In the Paper Packaging & Services segment, we produce and sell containerboard, corrugated sheets, corrugated containers, and other corrugated products to customers in North America in industries such as packaging, automotive, food and building products. Our corrugated container products are used to ship such diverse products as home appliances, small machinery, grocery products, automotive components, books and furniture, as well as numerous other applications. We also produce and sell coated recycled paperboard and uncoated recycled paperboard, some of which we use to produce and sell industrial products (tubes and cores, construction products, protective packaging, and adhesives). In addition, we also purchase and sell recycled fiber.

In the Flexible Products & Services segment, we are a leading global producer of flexible intermediate bulk containers and related services. Our flexible intermediate bulk containers consist of a polypropylene-based woven fabric that is produced at our production sites, as well as sourced from strategic regional suppliers. Our flexible products are sold globally and service customers and market segments similar to those of our Rigid Industrial Packaging & Services segment. Additionally, our flexible products significantly expand our presence in the agricultural and food industries, among others.

In the Land Management segment, we are focused on the active harvesting and regeneration of our United States timber properties to achieve sustainable long-term yields. While timber sales are subject to fluctuations, we seek to maintain a consistent cutting schedule, within the limits of market and weather conditions. We also sell, from time to time, timberland and special use land, which consists of surplus land, higher and better use ("HBU") land and development land. As of July 31, 2020, we owned approximately 245,000 acres of timber property in the southeastern United States.

CRITICAL ACCOUNTING POLICIES

The discussion and analysis of our financial condition and results of operations are based upon our interim condensed consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these interim condensed consolidated financial statements, in accordance with these principles, require us to make estimates and assumptions that affect the reported amount of assets and liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities as of the date of our interim condensed consolidated financial statements.

Our critical accounting policies are discussed in Part II, Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations of the 2019 Form 10-K. We believe that the consistent application of these policies enables us to provide readers of the interim condensed consolidated financial statements with useful and reliable information about our results of operations and financial condition. There have been no material changes to our critical accounting policies from the disclosures contained in the 2019 Form 10-K.

Recently Issued and Newly Adopted Accounting Standards

See Note 1 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for a detailed description of recently issued and newly adopted accounting standards.

RESULTS OF OPERATIONS

The following comparative information is presented for the three and nine months ended July 31, 2020 and 2019. Historical revenues and earnings may or may not be representative of future operating results as a result of various economic and other factors.

Items that could have a significant impact on the financial statements include the risks and uncertainties listed in Part I, Item 1A — Risk Factors, of the 2019 Form 10-K, updated by Part II, Item 1A of this Form 10-Q. Actual results could differ materially using different estimates and assumptions, or if conditions are significantly different in the future.

The non-GAAP financial measures of EBITDA and Adjusted EBITDA are used throughout the following discussion of our results of operations, both for our consolidated and segment results. For our consolidated results, EBITDA is defined as net income, plus interest expense, net, plus debt extinguishment charges, plus income tax expense, plus depreciation, depletion and amortization, and Adjusted EBITDA is defined as EBITDA plus restructuring charges, plus acquisition and integration related costs, plus non-cash asset impairment charges, plus incremental COVID-19 costs, net, plus non-cash pension settlement (income) charges, less (gain) loss on disposal of properties, plants, equipment and businesses, net. Since we do not calculate net income by business segment, EBITDA and Adjusted EBITDA by business segment are reconciled to operating profit by business segment. In that case, EBITDA is defined as operating profit by business segment less other (income) expense, net, less equity earnings of unconsolidated affiliates, net of tax, plus depreciation, depletion and amortization expense for that business segment, and Adjusted EBITDA is defined as EBITDA plus restructuring charges, plus acquisition and integration related costs, plus non-cash asset impairment charges, plus incremental COVID-19 costs, net, plus non-cash pension settlement (income) charges, less (gain) loss on disposal of properties, plants, equipment and businesses, net, for that business segment. We use EBITDA and Adjusted EBITDA as financial measures to evaluate our historical and ongoing operations and believe that these non-GAAP financial measures are useful to enable investors to perform meaningful comparisons of our historical and current performance. In addition, we present our U.S. and non-U.S. income before income taxes after eliminating the impact of non-cash asset impairment charges, non-cash pension settlement (income) charges, restructuring charges, acquisition and integration related costs and (gains) losses on sales of businesses, net, which are non-GAAP financial measures. We believe that excluding the impact of these adjustments enable investors to perform a meaningful comparison of our current and historical performance that investors find valuable. The foregoing non-GAAP financial measures are intended to supplement and should be read together with our financial results. These non-GAAP financial measures should not be considered an alternative or substitute for, and should not be considered superior to, our reported financial results. Accordingly, users of this financial information should not place undue reliance on the non-GAAP financial measures.

Third Quarter Results

The following table sets forth the net sales, operating profit, EBITDA and Adjusted EBITDA for each of our business segments for the three months ended July 31, 2020 and 2019:

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019
Net sales:		
Rigid Industrial Packaging & Services	$ 548.5	$ 642.1
Paper Packaging & Services	459.3	530.0
Flexible Products & Services	69.3	74.5
Land Management	5.9	6.0
Total net sales	$ 1,083.0	$ 1,252.6
Operating (loss) profit:		
Rigid Industrial Packaging & Services	$ 42.5	$ 54.3
Paper Packaging & Services	13.3	63.1
Flexible Products & Services	4.1	5.0
Land Management	2.0	3.2
Total operating profit	$ 61.9	$ 125.6
EBITDA:		
Rigid Industrial Packaging & Services	$ 61.1	$ 74.3
Paper Packaging & Services	50.9	103.2
Flexible Products & Services	5.8	7.1
Land Management	3.2	4.3
Total EBITDA	$ 121.0	$ 188.9
Adjusted EBITDA:		
Rigid Industrial Packaging & Services	$ 77.5	$ 82.8
Paper Packaging & Services	72.0	111.0
Flexible Products & Services	7.0	7.2
Land Management	2.9	2.8
Total Adjusted EBITDA	$ 159.4	$ 203.8

The following table sets forth EBITDA and Adjusted EBITDA, reconciled to net income and operating profit, for our consolidated results for the three months ended July 31, 2020 and 2019:

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019
Net income	$ 24.4	$ 67.5
Plus: interest expense, net	29.8	34.5
Plus: debt extinguishment charges	—	0.1
Plus: income tax expense	6.9	26.8
Plus: depreciation, depletion and amortization expense	59.9	60.0
EBITDA	$ 121.0	$ 188.9
Net income	$ 24.4	$ 67.5
Plus: interest expense, net	29.8	34.5
Plus: debt extinguishment charges	—	0.1
Plus: income tax expense	6.9	26.8
Plus: other (income) expense, net	1.1	(1.1)
Plus: equity earnings of unconsolidated affiliates, net of tax	(0.3)	(2.2)
Operating profit	61.9	125.6
Less: other (income) expense, net	1.1	(1.1)
Less: equity earnings of unconsolidated affiliates, net of tax	(0.3)	(2.2)
Plus: depreciation, depletion and amortization expense	59.9	60.0
EBITDA	121.0	188.9
Plus: restructuring charges	19.1	9.1
Plus: acquisition and integration related costs	3.6	5.8
Plus: non-cash asset impairment charges	15.5	—
Plus: incremental COVID-19 costs, net	1.0	—
Less: gain on disposal of properties, plants, equipment, and businesses, net	(0.8)	—
Adjusted EBITDA	$ 159.4	$ 203.8

The following table sets forth EBITDA and Adjusted EBITDA for our business segments, reconciled to the operating profit for each segment, for the three months ended July 31, 2020 and 2019:

	Three Months Ended July 31,	
(in millions)	**2020**	**2019**
Rigid Industrial Packaging & Services		
Operating profit	$ 42.5	$ 54.3
Less: other expense, net	1.2	0.8
Less: equity earnings of unconsolidated affiliates, net of tax	(0.3)	(2.2)
Plus: depreciation and amortization expense	19.5	18.6
EBITDA	61.1	74.3
Plus: restructuring charges	15.6	7.0
Plus: acquisition and integration related costs	—	0.1
Plus: non-cash asset impairment charges	2.2	—
Plus: incremental COVID-19 costs, net	—	—
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	(1.4)	1.4
Adjusted EBITDA	$ 77.5	$ 82.8
Paper Packaging & Services		
Operating profit	$ 13.3	$ 63.1
Less: other (income) expense, net	0.2	(1.2)
Plus: depreciation and amortization expense	37.8	38.9
EBITDA	50.9	103.2
Plus: restructuring charges	3.4	2.1
Plus: acquisition and integration related costs	3.6	5.7
Plus: non-cash asset impairment charges	12.4	—
Plus: incremental COVID-19 costs, net	0.8	—
Less: loss on disposal of properties, plants, equipment, and businesses, net	0.9	—
Adjusted EBITDA	$ 72.0	$ 111.0
Flexible Products & Services		
Operating profit	$ 4.1	$ 5.0
Less: other income, net	(0.3)	(0.7)
Plus: depreciation and amortization expense	1.4	1.4
EBITDA	5.8	7.1
Plus: restructuring charges	0.1	—
Plus: incremental COVID-19 costs, net	0.2	—
Plus: non-cash asset impairment charges	0.9	—
Less: loss on disposal of properties, plants, equipment, and businesses, net	—	0.1
Adjusted EBITDA	$ 7.0	$ 7.2
Land Management		
Operating profit	$ 2.0	$ 3.2
Plus: depreciation, depletion and amortization expense	1.2	1.1
EBITDA	3.2	4.3
Plus: restructuring charges	—	—
Less: gain on disposal of properties, plants, equipment, and businesses, net	(0.3)	(1.5)
Adjusted EBITDA	$ 2.9	$ 2.8

Net Sales

Net sales were $1,083.0 million for the third quarter of 2020 compared with $1,252.6 million for the third quarter of 2019. The $169.6 million decrease was primarily due to lower volumes and lower average sale prices across the segments, as well as the negative impacts of foreign currency translation and a $54.0 million decrease attributable to the divested Consumer Packaging Group ("CPG") business. See the "Segment Review" below for additional information on net sales by segment for the third quarter of 2020.

Gross Profit

Gross profit was $219.7 million for the third quarter of 2020 compared with $279.4 million for the third quarter of 2019. The reasons for the decline in gross profit for each segment are described below in the “Segment Review.” Gross profit margin was 20.3 percent for the third quarter of 2020 compared with 22.3 percent for the third quarter of 2019.

Selling, General and Administrative Expenses

Selling, general and administrative (“SG&A”) expenses were $120.4 million for the third quarter of 2020 and $138.9 million for the third quarter of 2019. This decrease was primarily due to due to a reduction in performance-based compensation and salaries and benefits costs. SG&A expenses were 11.1 percent of net sales for both the third quarter of 2020 and 2019.

Restructuring Charges

Restructuring charges were $19.1 million for the third quarter of 2020 compared with $9.1 million for the third quarter of 2019. See Note 4 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Acquisition and Integration related Costs

Acquisition and integration related costs were $3.6 million for the third quarter of 2020 compared with $5.8 million for the third quarter of 2019. We completed our acquisition of Caraustar on February 11, 2019 (the “Caraustar Acquisition”) and our acquisition of Tholu B.V. and its wholly owned subsidiary A. Thomassen Transport B.V. (collectively "Tholu") on June 11, 2019 (the "Tholu Acquisition"). The decrease in acquisition and integration related costs was primarily due to less integration-related expenses in 2020 associated with the Caraustar Acquisition. See Note 2 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Impairment Charges

Non-cash asset impairment charges were $15.5 million for the third quarter of 2020 compared with no such impairment charges for the third quarter of 2019. These impairment charges related to facility closures as part of restructuring activities.

Gain on Disposal of Properties, Plants and Equipment, net

The gain on disposal of properties, plants and equipment, net was $0.3 million and $1.3 million for the third quarter of 2020 and 2019, respectively.

Loss on Disposal of Businesses, net

The disposal of business, net was a gain of $0.5 million and a loss of $1.3 million for the third quarter of 2020 and 2019, respectively.

Financial Measures

Operating profit was $61.9 million for the third quarter of 2020 compared with $125.6 million for the third quarter of 2019. Net income was $24.4 million for the third quarter of 2020 compared with $67.5 million for the third quarter of 2019. Adjusted EBITDA was $159.4 million for the third quarter of 2020 compared with $203.8 million for the third quarter of 2019. The reasons for the decrease in Adjusted EBITDA for each segment are described below in the "Segment Review."

Trends

We anticipate global macroeconomic conditions to continue to remain volatile throughout the remainder of our fiscal year due to the ongoing direct and indirect economic impacts of COVID-19 on our customers and their customers.

While demand for our rigid and flexible industrial products is moderately improving in the EMEA region and improving well in our much smaller APAC region, we believe the recovery will be slower in central and western Europe. We also expect continued demand softness in our industrial manufacturing businesses in North and South America for the remainder of our fiscal year. Overall, volumes will be lower on a fourth quarter over fourth quarter basis compared to 2019.

We expect raw material costs for steel and resin to remain relatively stable throughout the remainder of 2020, subject in the U.S. to potential disruption from hurricanes and other weather factors. Costs for old corrugated containers in the U.S. peaked during our third quarter and are decreasing. However, these costs will continue to be higher relative to last year and, together with lower year over year published containerboard and boxboard prices, will continue the price-cost squeeze in our Paper Packaging & Services segment.

Segment Review

Rigid Industrial Packaging & Services

Our Rigid Industrial Packaging & Services segment offers a comprehensive line of rigid industrial packaging products, such as steel, fibre and plastic drums, rigid intermediate bulk containers, closure systems for industrial packaging products, transit protection products, water bottles and remanufactured and reconditioned industrial containers, and services, such as container life cycle management, filling, logistics, warehousing and other packaging services. Key factors influencing profitability in the Rigid Industrial Packaging & Services segment are:

- Selling prices, product mix, customer demand and sales volumes;
- Raw material costs, primarily steel, resin, containerboard and used industrial packaging for reconditioning;
- Energy and transportation costs;
- Benefits from executing the Greif Business System;
- Restructuring charges;
- Acquisition of businesses and facilities;
- Divestiture of businesses and facilities; and
- Impact of foreign currency translation.

Net sales were $548.5 million for the third quarter of 2020 compared with $642.1 million for the third quarter of 2019. The $93.6 million decrease in net sales was primarily due to lower volumes and lower average sale prices primarily due to contractual price adjustment mechanisms related to raw material price decreases, as well as negative impacts of foreign currency translation.

Gross profit was $114.4 million for the third quarter of 2020 compared with $126.5 million for the third quarter of 2019. The $12.1 million decrease in gross profit was primarily due to the same factors as net sales, partially offset by favorably priced raw materials due to opportunistic sourcing and lower manufacturing costs. Gross profit margin was 20.9 percent and 19.7 percent for the three months ended July 31, 2020 and 2019, respectively.

Operating profit was $42.5 million for the third quarter of 2020 compared with operating profit of $54.3 million for the third quarter of 2019. Adjusted EBITDA was $77.5 million for the third quarter of 2020 compared with $82.8 million for the third quarter of 2019. The $5.3 million decrease in Adjusted EBITDA was primarily due to the same factors that impacted gross profit, partially offset by a reduction in the segment's SG&A expense as well as the segment receiving a smaller portion of allocated corporate costs.

Paper Packaging & Services

Our Paper Packaging & Services segment produces and sells containerboard, corrugated sheets, corrugated containers, and other corrugated products to customers in North America in industries such as packaging, automotive, food and building products. Our corrugated container products are used to ship such diverse products as home appliances, small machinery, grocery products, automotive components, books and furniture, as well as numerous other applications. We also produce and sell coated recycled paperboard and uncoated recycled paperboard, some of which we use to produce and sell industrial products (tubes and cores, construction products, protective packaging, and adhesives). In addition, we also purchase and sell recycled fiber. Key factors influencing profitability in the Paper Packaging & Services segment are:

- Selling prices, product mix, customer demand and sales volumes;

- Raw material costs, primarily old corrugated containers;
- Energy and transportation costs;
- Benefits from executing the Greif Business System;
- Acquisition of businesses and facilities;
- Restructuring charges; and
- Divestiture of businesses and facilities.

Net sales were $459.3 million for the third quarter of 2020 compared with $530.0 million for the third quarter of 2019. The $70.7 million decrease was primarily due to approximately $54.0 million of prior year net sales attributable to the divested CPG business, lower published containerboard and boxboard prices, and lower volumes. During the quarter, we took approximately 10,000 tons of economic downtime across our containerboard operations, down 14,000 tons sequentially from the 24,000 tons taken in the second quarter 2020.

Gross profit was $88.9 million for the third quarter of 2020 compared with $134.7 million for the third quarter of 2019. The decrease in gross profit was primarily due to the same factors that impacted net sales, higher old corrugated container input costs, and product mix, partially offset by lower manufacturing costs. Gross profit margin was 19.4 percent and 25.4 percent for the third quarter of 2020 and 2019, respectively.

Operating profit was $13.3 million for the third quarter of 2020 compared with $63.1 million for the third quarter of 2019. Adjusted EBITDA was $72.0 million for the third quarter of 2020 compared with $111.0 million for the third quarter of 2019. The $39.0 million decrease in Adjusted EBITDA was primarily due to the same factors that impacted gross profit and the segment receiving a greater portion of allocated corporate costs, partially offset by a reduction in the segment's SG&A expense.

Flexible Products & Services

Our Flexible Products & Services segment offers a comprehensive line of flexible products, such as flexible intermediate bulk containers. Key factors influencing profitability in the Flexible Products & Services segment are:

- Selling prices, product mix, customer demand and sales volumes;
- Raw material costs, primarily resin;
- Energy and transportation costs;
- Benefits from executing the Greif Business System;
- Restructuring charges;
- Divestiture of businesses and facilities; and
- Impact of foreign currency translation.

Net sales were $69.3 million for the third quarter of 2020 compared with $74.5 million for the third quarter of 2019. The $5.2 million decrease was primarily due to continued lower volumes and lower average sale prices primarily due to contractual price adjustment mechanisms related to raw material price decreases.

Gross profit was $14.3 million for the third quarter of 2020 compared with $16.0 million for the third quarter of 2019. The decrease was primarily due to the same factors that impacted net sales, partially offset by favorably priced raw materials due to opportunistic sourcing. Gross profit margin was 20.6 percent and 21.5 percent for the third quarter of 2020 and 2019, respectively.

Operating profit was $4.1 million for the third quarter of 2020 compared with $5.0 million for the third quarter of 2019. Adjusted EBITDA was $7.0 million for the third quarter of 2020 compared with $7.2 million for the third quarter of 2019. The decrease in Adjusted EBITDA was primarily due to the same factors that impacted gross profit, partially offset by a reduction in the segment's SG&A expense.

Land Management

As of July 31, 2020, our Land Management segment consisted of approximately 245,000 acres of timber properties in the southeastern United States. Key factors influencing profitability in the Land Management segment are:

- Planned level of timber sales;

- Selling prices and customer demand;
- Gains on timberland sales; and
- Gains on the disposal of development, surplus and HBU properties (“special use property”).

In order to maximize the value of our timber property, we continue to review our current portfolio and explore the development of certain of these properties. This process has led us to characterize our property as follows:

- Surplus property, meaning land that cannot be efficiently or effectively managed by us, whether due to parcel size, lack of productivity, location, access limitations or for other reasons;
- HBU property, meaning land that in its current state has a higher market value for uses other than growing and selling timber;
- Development property, meaning HBU land that, with additional investment, may have a significantly higher market value than its HBU market value; and
- Core Timberland, meaning land that is best suited for growing and selling timber.

We report the sale of timberland property in "timberland gains," the sale of HBU and surplus property in "gain on disposal of properties, plants and equipment, net" and the sale of timber and development property under "net sales" and "cost of products sold" in our interim condensed consolidated statements of income. All HBU and development property, together with surplus property, is used to productively grow and sell timber until the property is sold.

Whether timberland has a higher value for uses other than growing and selling timber is a determination based upon several variables, such as proximity to population centers, anticipated population growth in the area, the topography of the land, aesthetic considerations, including access to lakes or rivers, the condition of the surrounding land, availability of utilities, markets for timber and economic considerations both nationally and locally. Given these considerations, the characterization of land is not a static process, but requires an ongoing review and re-characterization as circumstances change.

As of July 31, 2020, we had approximately 18,800 acres of special use property in the United States.

Net sales decreased to $5.9 million for the third quarter of 2020 compared with $6.0 million for the third quarter of 2019.

Operating profit decreased to $2.0 million for the third quarter of 2020 compared with $3.2 million for the third quarter of 2019. Adjusted EBITDA was $2.9 million and $2.8 million for the third quarter of 2020 and 2019, respectively.

Other Income Statement Changes

Interest Expense, net

Interest expense, net, was $29.8 million for the third quarter of 2020 compared with $34.5 million for the third quarter of 2019. This decrease was primarily due to reductions in long-term debt balances and declines in variable interest rates as of the end of the third quarter of 2020 compared to the end of the third quarter of 2019.

U.S. and Non-U.S. Income before Income Tax Expense

See the following tables for details of the U.S. and non-U.S. income before income taxes and U.S. and non-U.S. income before income taxes after eliminating the impact of non-cash asset impairment charges, non-cash pension settlement income, restructuring charges, acquisition and integration related costs, debt extinguishment charges, and (gains) losses on sales of businesses (collectively, "Adjustments").

Summary

	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019
Non-U.S. % of Consolidated Net Sales	39.1 %	38.7 %
U.S. % of Consolidated Net Sales	60.9 %	61.3 %
	100.0 %	100.0 %
Non-U.S. % of Consolidated I.B.I.T.	115.4 %	45.0 %
U.S. % of Consolidated I.B.I.T.	(15.4)%	55.0 %
	100.0 %	100.0 %
Non-U.S. % of Consolidated I.B.I.T. before Adjustments	60.1 %	43.8 %
U.S. % of Consolidated I.B.I.T. before Adjustments	39.9 %	56.2 %
	100.0 %	100.0 %

Non-U.S. I.B.I.T. Reconciliation

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019
Non-U.S. I.B.I.T.	$ 35.8	$ 41.5
Non-cash asset impairment charges	2.5	—
Restructuring charges	3.0	6.0
Acquisition and integration related costs	—	0.1
Gain on sale of businesses, net	—	(0.1)
Total Non-U.S. Adjustments	5.5	6.0
Non-U.S. I.B.I.T. before Adjustments	$ 41.3	$ 47.5

U.S. I.B.I.T. Reconciliation

(in millions)	Three Months Ended July 31, 2020	Three Months Ended July 31, 2019
U.S. I.B.I.T.	$ (4.8)	$ 50.6
Non-cash asset impairment charges	13.0	—
Restructuring charges	16.1	3.1
Acquisition and integration related costs	3.6	5.7
Debt extinguishment charges	—	0.1
(Gain) Loss on sale of businesses, net	(0.5)	1.4
Total U.S. Adjustments	32.2	10.3
U.S. I.B.I.T. before Adjustments	$ 27.4	$ 60.9

I.B.I.T. is Income Before Income Tax Expense

Income Tax Expense

Our quarterly income tax expense was computed in accordance with ASC 740-270 "Income Taxes - Interim Reporting." In accordance with this accounting standard, annual estimated tax expense is computed based on forecasted annual earnings and other forecasted annual amounts, including, but not limited to items such as uncertain tax positions and withholding taxes. Additionally, losses from jurisdictions for which a valuation allowance has been provided have not been included in the annual estimated tax rate. Income tax expense each quarter is provided for on a current year-to-date basis using the annual estimated tax rate, adjusted for discrete taxable events that occur during the interim period.

Income tax expense for the third quarter of 2020 was $6.9 million on $31.0 million of pretax income and income tax expense for the third quarter of 2019 was $26.8 million on $92.1 million of pretax income. The decrease to income tax expense was

primarily caused by a reduction in earnings in various jurisdictions, a loss on the sale of the CPG business within the Paper Packaging & Services segment and corresponding non-deductible goodwill for tax purposes, and favorable one-time discrete items of $2.2 million, primarily related to withholding taxes, recognized in the third quarter of 2020. Income tax expense for the third quarter of 2019 reflected a provisional net tax benefit of $1.1 million for the acquisition of Caraustar and other immaterial discrete items which resulted in a tax benefit of $0.3 million.

We are subject to audits by U.S. federal, state and local tax authorities and foreign tax authorities. We believe that adequate provisions have been made for any adjustments that may result from tax examinations. However, the outcome of tax audits cannot be predicted with certainty. If any issues addressed in the tax audits are resolved in a manner not consistent with management’s expectations, we could be required to adjust its provision for income taxes in the period such resolution occurs.

The estimated net decrease in unrecognized tax benefits for the next 12 months ranges from zero to $13.0 million. Actual results may differ materially from this estimate.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests represents the portion of earnings from the operations of our non-wholly owned, consolidated subsidiaries that belong to the noncontrolling interest in those subsidiaries. Net income attributable to noncontrolling interests for the third quarter of 2020 and 2019 was $3.7 million and $4.8 million, respectively. The decrease was primarily due to a decrease in the net operating profit of the Paper Packaging & Services segment joint venture (referred to herein as the “Paper Packaging JV” or "PPS VIE") and the Flexible Products & Services segment joint venture that was formed in 2010 by Greif, Inc. and one of its indirect subsidiaries with Dabbagh Group Holding Company Limited and one of its subsidiaries (referred to herein as the “Flexible Packaging JV” or “FPS VIE”).

Net Income Attributable to Greif, Inc.

Based on the factors noted above, net income attributable to Greif, Inc. was $20.7 million for the third quarter of 2020 compared to $62.7 million for the third quarter of 2019.

OTHER COMPREHENSIVE INCOME (LOSS) CHANGES

Foreign currency translation

In accordance with ASC 830, “Foreign Currency Matters,” the assets and liabilities denominated in a foreign currency are translated into United States Dollars at the rate of exchange existing at the end of the current period, and revenues and expenses are translated at average exchange rates over the month in which they are incurred. The cumulative translation adjustments, which represent the effects of translating assets and liabilities of our international operations, are presented in the interim condensed consolidated statements of changes in equity in accumulated other comprehensive income (loss).

Minimum pension liability, net

The change in minimum pension liability, net of tax was income of $2.4 million and $2.3 million for the third quarter of 2020 and 2019, respectively.

Year-to-Date Results

The following table sets forth the net sales, operating profit, EBITDA and Adjusted EBITDA for each of our business segments for the nine months ended July 31, 2020 and 2019:

	Nine Months Ended July 31,	
(in millions)	2020	2019
Net sales:		
Rigid Industrial Packaging & Services	$ 1,719.8	$ 1,871.6
Paper Packaging & Services	1,414.6	1,244.9
Flexible Products & Services	199.7	226.6
Land Management	19.6	19.8
Total net sales	$ 3,353.7	$ 3,362.9
Operating profit:		
Rigid Industrial Packaging & Services	$ 155.8	$ 124.6
Paper Packaging & Services	40.3	128.6
Flexible Products & Services	10.7	22.2
Land Management	6.3	8.0
Total operating profit	$ 213.1	$ 283.4
EBITDA:		
Rigid Industrial Packaging & Services	$ 211.0	$ 180.0
Paper Packaging & Services	157.4	212.6
Flexible Products & Services	15.5	27.8
Land Management	9.4	11.2
Total EBITDA	$ 393.3	$ 431.6
Adjusted EBITDA:		
Rigid Industrial Packaging & Services	$ 232.2	$ 200.4
Paper Packaging & Services	229.0	239.6
Flexible Products & Services	18.0	22.8
Land Management	8.9	9.3
Total Adjusted EBITDA	$ 488.1	$ 472.1

The following table sets forth EBITDA and Adjusted EBITDA, reconciled to net income and operating profit, for our consolidated results for the nine months ended July 31, 2020 and 2019:

	Nine Months Ended July 31,	
(in millions)	**2020**	**2019**
Net income	$ 76.3	$ 124.4
Plus: interest expense, net	89.8	80.1
Plus: debt extinguishment charges	—	22.0
Plus: income tax expense	44.8	58.3
Plus: depreciation, depletion and amortization expense	182.4	146.8
EBITDA	$ 393.3	$ 431.6
Net income	$ 76.3	$ 124.4
Plus: interest expense, net	89.8	80.1
Plus: non-cash pension settlement income	(0.1)	—
Plus: debt extinguishment charges	—	22.0
Plus: income tax expense	44.8	58.3
Plus: other expense, net	3.5	1.0
Plus: equity earnings of unconsolidated affiliates, net of tax	(1.2)	(2.4)
Operating profit	213.1	283.4
Less: other expense, net	3.5	1.0
Less: non-cash pension settlement income	(0.1)	—
Less: equity earnings of unconsolidated affiliates, net of tax	(1.2)	(2.4)
Plus: depreciation, depletion and amortization expense	182.4	146.8
EBITDA	$ 393.3	$ 431.6
Plus: restructuring charges	26.8	20.3
Plus: acquisition and integration related costs	13.5	22.2
Plus: non-cash asset impairment charges	16.9	2.1
Plus: non-cash pension settlement income	(0.1)	—
Plus: incremental COVID-19 costs, net	1.9	—
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	35.8	(4.1)
Adjusted EBITDA	$ 488.1	$ 472.1

The following table sets forth EBITDA and Adjusted EBITDA for our business segments, reconciled to the operating profit for each segment, for the nine months ended July 31, 2020 and 2019:

	Nine Months Ended July 31,	
(in millions)	**2020**	**2019**
Rigid Industrial Packaging & Services		
Operating profit	$ 155.8	$ 124.6
Less: other expense, net	5.1	4.0
Less: equity earnings of unconsolidated affiliates, net of tax	(1.2)	(2.4)
Plus: depreciation and amortization expense	59.1	57.0
EBITDA	$ 211.0	$ 180.0
Plus: restructuring charges	19.4	15.0
Plus: acquisition and integration related costs	—	0.4
Plus: non-cash impairment charges	3.6	2.1
Plus: non-cash pension settlement charges	—	—
Plus: incremental COVID-19 costs, net	0.3	—
Less: (gain) loss on disposal of properties, plants and equipment, and businesses, net	(2.1)	2.9
Adjusted EBITDA	$ 232.2	$ 200.4
Paper Packaging & Services		
Operating profit	$ 40.3	$ 128.6
Less: other income, net	(1.2)	(2.1)
Less: non-cash pension settlement income	(0.1)	—
Plus: depreciation and amortization expense	115.8	81.9
EBITDA	$ 157.4	$ 212.6
Plus: restructuring charges	6.1	5.2
Plus: acquisition and integration related costs	13.5	21.8
Plus: non-cash impairment charges	12.4	—
Plus: non-cash pension settlement income	(0.1)	—
Plus: incremental COVID-19 costs, net	1.3	—
Less: loss on disposal of properties, plants and equipment, and businesses, net	38.4	—
Adjusted EBITDA	$ 229.0	$ 239.6
Flexible Products & Services		
Operating profit	$ 10.7	$ 22.2
Less: other income, net	(0.4)	(0.9)
Plus: depreciation and amortization expense	4.4	4.7
EBITDA	$ 15.5	$ 27.8
Plus: restructuring charges	1.3	—
Plus: incremental COVID-19 costs, net	0.3	—
Plus: non-cash impairment charges	0.9	—
Less: gain on disposal of properties, plants and equipment, and businesses, net	—	(5.0)
Adjusted EBITDA	$ 18.0	$ 22.8
Land Management		
Operating profit	$ 6.3	$ 8.0
Plus: depreciation, depletion and amortization expense	3.1	3.2
EBITDA	$ 9.4	$ 11.2
Plus: restructuring charges	—	0.1
Less: gain on disposal of properties, plants and equipment, and businesses, net	(0.5)	(2.0)
Adjusted EBITDA	$ 8.9	$ 9.3

Net Sales

Net sales were $3,353.7 million for the first nine months of 2020 compared with $3,362.9 million for the first nine months of 2019. The $9.2 million decrease was primarily due to lower volumes in certain regions, lower average sale prices, the impact of foreign currency translation, and the divestment of the CPG business, partially offset by the sales contributed by the acquired Caraustar operations. See the "Segment Review" below for additional information on net sales by segment during the first nine months of 2020.

Gross Profit

Gross profit was $683.0 million for the first nine months of 2020 compared with $700.9 million for the first nine months of 2019. The respective reasons for the improvement or decline in each segment are described below in the "Segment Review." Gross profit margin was 20.4 percent and 20.8 percent for first nine months of 2020 and 2019, respectively.

Selling, General and Administrative Expenses

SG&A expenses decreased to $376.9 million for the first nine months of 2020 from $377.0 million for the first nine months of 2019. Additional SG&A expenses attributable to the acquired Caraustar operations and increased amortization of intangible assets resulting from the acquisition of Caraustar were offset by decreased performance based compensation and cost reduction activities. SG&A expenses were 11.2 percent of net sales for both the first nine months of 2020 and 2019.

Restructuring Charges

Restructuring charges were $26.8 million for the first nine months of 2020 compared with $20.3 million for the first nine months of 2019. See Note 4 to the condensed consolidated financial statements included in Item 1 of this Form 10-Q for additional information on the restructuring charges reported during the first nine months of 2020.

Acquisition and Integration Related Costs

Acquisition and integration related costs were $13.5 million for the first nine months of 2020 compared with $22.2 million for the first nine months of 2019. The decrease in acquisition and integration related costs was primarily due to less integration-related expenses in 2020 associated with the Caraustar Acquisition. See Note 2 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Impairment Charges

Non-cash asset impairment charges were $16.9 million for the first nine months of 2020 compared with $2.1 million for the first nine months of 2019. See Note 7 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Gain on Disposal of Properties, Plants and Equipment, net

The gain on disposal of properties, plants and equipment, net was $2.1 million and $7.1 million for the first nine months of 2020 and 2019, respectively.

Loss on Disposal of Businesses, net

The loss on disposal of business, net was $37.9 million and $3.0 million for the first nine months of 2020 and 2019, respectively. The increase was primarily due to divestiture of the CPG business.

Financial Measures

Operating profit was $213.1 million for the first nine months of 2020 compared with $283.4 million for the first nine months of 2019. Net income was $76.3 million for the first nine months of 2020 compared with $124.4 million for the first nine months of 2019. Adjusted EBITDA was $488.1 million for the first nine months of 2020 compared with $472.1 million for the first nine months of 2019. The $16.0 million increase in Adjusted EBITDA was primarily due to decreased performance-based compensation, cost reduction activities, as well as having a full nine months of Caraustar activity.

Segment Review

Rigid Industrial Packaging & Services

Net sales were $1,719.8 million for the first nine months of 2020 compared with $1,871.6 million for the first nine months of 2019. The $151.8 million decrease in net sales was primarily due to lower volumes, lower average sale prices primarily due to contractual price adjustment mechanisms related to raw material price decreases, and negative impacts of foreign currency translation, partially offset by strategic pricing actions.

Gross profit was $351.5 million for the first nine months of 2020 compared with $346.1 million for the first nine months of 2019. The $5.4 million increase in gross profit was primarily due to lower priced raw materials, the timing of contractual pass through arrangements, product mix shifts, and strategic pricing actions. Gross profit margin increased to 20.4 percent for the first nine months of 2020 from 18.5 percent for the first nine months of 2019.

Operating profit was $155.8 million for the first nine months of 2020 compared with $124.6 million for the first nine months of 2019. Adjusted EBITDA was $232.2 million for the first nine months of 2020 compared with $200.4 million for the first nine months of 2019. The $31.8 million increase in Adjusted EBITDA was due primarily to the same factors that impacted gross profit and a reduction in the segment's SG&A expense due to cost reduction activities, a decrease in performance based compensation, and the segment receiving a smaller portion of allocated corporate costs.

Paper Packaging & Services

Net sales increased $169.7 million to $1,414.6 million for the first nine months of 2020 compared with $1,244.9 million for the first nine months of 2019, primarily due to contribution from the acquired Caraustar operations, partially offset lower volumes, lower published containerboard and boxboard prices, and the divestment of the CPG business.

Gross profit was $283.9 million for the first nine months of 2020 compared with $296.9 million for the first nine months of 2019. Gross profit margin was 20.1 percent and 23.8 percent for the first nine months of 2020 and 2019, respectively. The decrease in gross profit was due primarily to the same factors that impacted net sales, offset by higher old corrugated container input costs and higher manufacturing costs.

Operating profit was $40.3 million for the first nine months of 2020 compared with $128.6 million for the first nine months of 2019. The decrease in operating profit was primarily due to the factors discussed above in gross profit, the loss on sale of the CPG divestiture and the segment receiving a greater portion of allocated corporate costs. Adjusted EBITDA was $229.0 million for the first nine months of 2020 compared with $239.6 million for the first nine months of 2019. The $10.6 million decrease in Adjusted EBITDA was due to the same factors that impacted gross profit and the segment receiving a greater portion of allocated corporate costs.

Flexible Products & Services

Net sales decreased $26.9 million to $199.7 million for the first nine months of 2020 compared with $226.6 million for the first nine months of 2019. The decrease was primarily due to continued lower volumes and lower average sale prices primarily due to contractual price adjustment mechanisms related to raw material price decreases.

Gross profit was $40.5 million for the first nine months of 2020 compared with $50.0 million for the first nine months of 2019. The decrease in gross profit was primarily due to lower sales, partially offset by the timing of contractual pass through arrangements for raw material price decreases. Gross profit margin decreased to 20.3 percent for the first nine months of 2020 from 22.1 percent for the first nine months of 2019.

Operating profit was $10.7 million for the first nine months of 2020 compared with $22.2 million for the first nine months of 2019. Adjusted EBITDA was $18.0 million for the first nine months of 2020 compared with $22.8 million for the first nine months of 2019. The $4.8 million decrease in Adjusted EBITDA was primarily due to the same factors that impacted net sales, partially offset by a reduction in the segment's SG&A expense due to a decrease in performance based compensation and cost reduction activities.

Land Management

Net sales decreased to $19.6 million for the first nine months of 2020 compared with $19.8 million for the first nine months of 2019.

Operating profit decreased to $6.3 million for the first nine months of 2020 compared with $8.0 million for the first nine months of 2019. Adjusted EBITDA was $8.9 million and $9.3 million for the first nine months of 2020 and 2019, respectively.

Other Income Statement Changes

Interest expense, net

Interest expense, net, was $89.8 million for the first nine months of 2020 compared with $80.1 million for the first nine months of 2019. The increase was primarily due to the incremental debt incurred in connection with the Caraustar Acquisition.

U.S. and non-U.S. Income before Income Tax Expense

See the following tables for details of the U.S. and non-U.S. income before income taxes and U.S. and non-U.S. income before income taxes after eliminating the impact of non-cash asset impairment charges, non-cash pension settlement income, restructuring charges, acquisition and integration related costs, debt extinguishment charges, and (gains) losses on sales of businesses (collectively, "Adjustments").

Summary

	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
Non-U.S. % of Consolidated Net Sales	38.8 %	41.6 %
U.S. % of Consolidated Net Sales	61.2 %	58.4 %
	100.0 %	100.0 %
Non-U.S. % of Consolidated I.B.I.T.	96.1 %	52.1 %
U.S. % of Consolidated I.B.I.T.	3.9 %	47.9 %
	100.0 %	100.0 %
Non-U.S. % of Consolidated I.B.I.T. before Adjustments	58.0 %	43.7 %
U.S. % of Consolidated I.B.I.T. before Adjustments	42.0 %	56.3 %
	100.0 %	100.0 %

Non-U.S. I.B.I.T. Reconciliation

(in millions)	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
Non-U.S. I.B.I.T.	$ 115.2	$ 93.9
Non-cash asset impairment charges	3.9	2.1
Restructuring charges	5.4	11.2
Acquisition and integration related costs	—	0.4
Loss on sale of businesses, net	—	1.6
Total Non-U.S. Adjustments	9.3	15.3
Non-U.S. I.B.I.T. before Adjustments	$ 124.5	$ 109.2

U.S. I.B.I.T. Reconciliation

(in millions)	Nine Months Ended July 31, 2020	Nine Months Ended July 31, 2019
U.S. I.B.I.T.	$ 4.7	$ 86.4
Non-cash asset impairment charges	13.0	—
Non-cash pension settlement income	(0.1)	—
Restructuring charges	21.4	9.1
Acquisition-related costs	13.5	21.8
Debt extinguishment charges	—	22.0
Loss on sale of businesses, net	37.9	1.4
Total U.S. Adjustments	85.7	54.3
U.S. I.B.I.T. before Adjustments	$ 90.4	$ 140.7

I.B.I.T. is Income Before Income Tax Expense

Income tax expense

Our year to date income tax expense was computed in accordance with ASC 740-270 "Income Taxes - Interim Reporting." In accordance with this accounting standard, annual estimated tax expense is computed based on forecasted annual earnings and other forecasted annual amounts, including, but not limited to items such as uncertain tax positions and withholding taxes. Additionally, losses from jurisdictions for which a valuation allowance has been provided have not been included in the annual estimated tax rate. Income tax expense each quarter is provided for on a current year-to-date basis using the annual estimated tax rate, adjusted for discrete taxable events that occur during the interim period.

Income tax expense for the first nine months of 2020 was $44.8 million on $119.9 million of pretax income and income tax expense for the first nine months of 2019 was $58.3 million on $180.3 million of pretax income. The decrease to income tax expense was primarily caused by a reduction of earnings in various jurisdictions, a loss on the sale of the CPG business within the Paper Packaging & Services segment and corresponding non-deductible goodwill for tax purposes, and favorable one-time discrete items of $0.9 million that were recognized in the period. The first nine months of 2019 reflect an incremental $2.3 million of tax expense related to the one-time transition tax liability, offset by the tax effect of foreign currency losses of $1.7 million recognized due to the permanent reinvestment assertion. Other discrete items included $7.7 million of tax benefits associated with the Caraustar Acquisition and refinancing costs as well as $2.3 million of tax expense associated with a foreign subsidiary divestiture. Other immaterial discrete items in the first nine months of 2019 resulted in a tax benefit of $4.3 million.

Net income attributable to noncontrolling interests

Net income attributable to noncontrolling interests for the first nine months of 2020 and 2019 was $11.9 million and $18.4 million, respectively. This decrease was primarily due to decreased net operating profit of the Paper Packaging JV and the Flexible Packaging JV during the first nine months of 2020 compared to 2019.

Net income attributable to Greif, Inc.

Based on the factors noted above, net income attributable to Greif, Inc. was $64.4 million for the first nine months of 2020 compared to $106.0 million for the first nine months of 2019.

OTHER COMPREHENSIVE INCOME (LOSS) CHANGES

Foreign currency translation

In accordance with ASC 830, “Foreign Currency Matters,” the assets and liabilities denominated in a foreign currency are translated into United States Dollars at the rate of exchange existing at the end of the current period, and revenues and expenses are translated at average exchange rates over the month in which they are incurred. The cumulative translation adjustments, which represent the effects of translating assets and liabilities of our international operations, are presented in the condensed consolidated statements of changes in equity in accumulated other comprehensive income (loss). The change in foreign currency translation, net of tax was income of $4.2 million comparative to expense of $10.4 million for the first nine months of 2020 and 2019, respectively. This change was primarily due to the strengthening of the dollar against our most significant currencies.

Derivative financial instruments

The change in derivative financial instruments, net of tax was a loss of $20.9 million and $20.7 million for the first nine months of 2020 and 2019, respectively. This change was primarily due to an increased portfolio of interest rate swaps. See Note 7 to the condensed consolidated financial statements included in Item 1 of this Form 10-Q for additional information.

Minimum pension liability, net

Change in minimum pension liability, net of tax for the first nine months of 2020 and 2019 was income of $20.6 million and a loss of $2.2 million, respectively. This change was primarily due to the remeasurement of defined benefit plans in the United States as a result of pension events discussed in Note 10 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q.

BALANCE SHEET CHANGES

Working Capital changes

The $39.7 million decrease in accounts receivable to $624.5 million as of July 31, 2020 from $664.2 million as of October 31, 2019 was primarily due to the divestment of the CPG business and a decrease in net sales.

The $8.6 million decrease in inventories to $349.6 million as of July 31, 2020 from $358.2 million as of October 31, 2019 was primarily due to the divestment of the CPG business, partially offset by slower inventory turnover.

Accounts payable increased $0.8 million to $436.0 million as of July 31, 2020 from $435.2 million as of October 31, 2019.

Other balance sheet changes

The $26.7 million increase in other current assets to $127.9 million as of July 31, 2020 from $101.2 million as of October 31, 2019 was primarily due to an increase of $27.7 million related to tax receivables.

The $50.3 million decrease in other intangible assets to $726.2 million as of July 31, 2020 from $776.5 million as of October 31, 2019 was primarily due to amortization. See Note 3 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q for additional information.

The $101.5 million decrease in properties, plants and equipment, net to $1,588.8 million as of July 31, 2020 from $1,690.3 million as of October 31, 2019 was primarily due to depreciation and fixed assets sold in the divestiture of the CPG business, offset by investment in capital expenditures.

The $56.1 million decrease in accrued payroll and employee benefits to $86.3 million as of July 31, 2020 from $142.4 million as of October 31, 2019 was primarily due to annual incentive plan payments and a decrease in accrued performance based compensation.

The $16.0 million increase in current portion of long-term debt to $99.7 million as of July 31, 2020 from $83.7 million as of October 31, 2019 was primarily due to annual payments due on the term loan A-1. See Note 6 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q for additional information.

The $30.2 million increase in other current liabilities to $173.8 million as of July 31, 2020 from $143.6 million as of October 31, 2019 was primarily due to an increase in mark-to-market adjustments on derivative instruments, accruals and various tax payables.

The $123.7 million decrease in long term debt to $2,535.3 million as of July 31, 2020 from $2,659.0 million as of October 31, 2019 was primarily due to repayments on term loans and accounts receivable financing facilities. See Note 6 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q for additional information.

The $39.4 million decrease in pension liabilities to $138.2 million as of July 31, 2020 from $177.6 million as of October 31, 2019 was primarily due to the remeasurement of two U.S. pension plans. See Note 10 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q for additional information.

The $31.1 million increase in other long term liabilities to $160.0 million as of July 31, 2020 from $128.9 million as of October 31, 2019 was primarily due to an increase of $15.3 million related to derivative financial instruments, and an increase of $6.4 million related to taxes. See Note 7 to the Interim Condensed Consolidated Financial Statements in Item 1 of this Form 10-Q for additional information on our derivative financial instruments.

LIQUIDITY AND CAPITAL RESOURCES

Our primary sources of liquidity are operating cash flows and borrowings under our senior secured credit facilities, proceeds from the senior notes we have issued, and proceeds from our trade accounts receivable credit facilities. We use these sources to fund our working capital needs, capital expenditures, cash dividends, common stock repurchases and acquisitions. We anticipate continuing to fund these items in a like manner. We currently expect that operating cash flows, borrowings under our senior secured credit facilities, and proceeds from our trade accounts receivable credit facilities will be sufficient to fund our anticipated working capital, capital expenditures, cash dividends, stock purchases, debt repayment, potential acquisitions of businesses and other liquidity needs for at least 12 months.

Capital Expenditures

During the first nine months of 2020 and 2019, we invested $86.0 million (excluding $4.0 million for purchases of and investments in timber properties) and $92.9 million (excluding $4.1 million for purchases of and investments in timber properties), respectively, in capital expenditures.

We anticipate future capital expenditures, excluding the potential purchases of and investments in timber properties, ranging from $120.0 million to $140.0 million in 2020. This is a reduction in previously stated estimates due to economic uncertainty from the current COVID-19 pandemic. We anticipate that these expenditures will replace and improve existing equipment and fund new facilities.

United States Trade Accounts Receivable Credit Facility

On September 24, 2019, we amended and restated the existing receivable financing facility in the United States to establish a $275.0 million United States Trade Accounts Receivables Credit Facility (the "U.S. Receivables Facility") with several financial institutions. The U.S. Receivables Facility matures on September 24, 2020. As of July 31, 2020, $223.5 million, net of deferred financing costs of $0.1 million, was outstanding under the U.S. Receivable Facility. This was reported in 'Long-term debt' on the interim condensed consolidated balance sheets because we intend to refinance this obligation on a long-term basis and have the intent and ability to consummate a long-term refinancing by exercising the renewal option in the agreement or entering into a new financing arrangement.

We may terminate the U.S. Receivables Facility at any time upon five days prior written notice. The U.S. Receivables Facility is secured by certain of our United States trade accounts receivables and bears interest at a variable rate based on the London Interbank Offered Rate (“LIBOR”) or an applicable base rate, plus a margin, or a commercial paper rate plus a margin. Interest is payable on a monthly basis and the principal balance is payable upon termination of the U.S. Receivables Facility. See Note 1 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for discussion of ASU 2020-04 "Reference Rate Reform" for the our considerations of the impact of reference rate reform on contracts utilizing LIBOR rates. The U.S. Receivables Facility also contains events of default and covenants, which are substantially the same as the covenants under the 2019 Credit Agreement, as defined below. As of July 31, 2020, we were in compliance with these covenants. Proceeds of the U.S. Receivables Facility are available for working capital and general corporate purposes.

See Note 6 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

International Trade Accounts Receivable Credit Facilities

On April 17, 2020, Cooperage Receivables Finance B.V. and Greif Coordination Center BVBA, an indirect wholly owned subsidiary of Greif, Inc., amended and restated the Nieuw Amsterdam Receivables Financing Agreement (the "European RFA"). The European RFA provides an accounts receivable financing facility of up to €100.0 million ($117.9 million as of July 31, 2020) secured by certain European accounts receivable. The $77.7 million outstanding on the European RFA as of July 31, 2020 is reported as 'Long-term debt' on the interim condensed consolidated balance sheets because we intend to refinance these obligations on a long-term basis and have the intent and ability to consummate a long-term refinancing by exercising the renewal option in the respective agreement or entering into new financing arrangements.

See Note 6 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Borrowing Arrangements

Long-term debt is summarized as follows:

(in millions)		July 31, 2020		October 31, 2019
2019 Credit Agreement - Term Loans	$	1,549.4	$	1,612.2
Senior Notes due 2027		494.9		494.3
Senior Notes due 2021		235.5		221.7
Accounts receivable credit facilities		301.2		351.6
2019 Credit Agreement - Revolving Credit Facility		65.4		76.1
Other debt		0.2		0.4
		2,646.6		2,756.3
Less: current portion		99.7		83.7
Less: deferred financing costs		11.6		13.6
Long-term debt, net	$	2,535.3	$	2,659.0

2019 Credit Agreement

On February 11, 2019, we and certain of our subsidiaries entered into an amended and restated senior secured credit agreement (the “2019 Credit Agreement”) with a syndicate of financial institutions. Our obligations under the 2019 Credit Agreement are guaranteed by certain of our U.S. and non-U.S. subsidiaries.

The 2019 Credit Agreement provides for (a) an $800.0 million secured revolving credit facility, consisting of a $600.0 million multicurrency facility and a $200.0 million U.S. dollar facility, maturing on February 11, 2024, (b) a $1,275.0 million secured term loan A-1 facility with quarterly principal installments commencing on April 30, 2019 and continuing through maturity on January 31, 2024, and (c) a $400.0 million secured term loan A-2 facility with quarterly principal installments commencing on April 30, 2019 and continuing through maturity on January 31, 2026. In addition, we have an option to add an aggregate of $700.0 million to the secured revolving credit facility under the 2019 Credit Agreement with the agreement of the lenders. As of July 31, 2020, we had $523.3 million of available borrowing capacity under the $800.0 million secured revolving credit facility provided by the 2019 Credit Agreement. The available borrowing capacity is determined by the lesser of the available capacity or the amount that could be borrowed without causing the Company's leverage ratio to exceed 4.50 to 1.00.

The 2019 Credit Agreement contains certain covenants, which include financial covenants that require us to maintain a certain leverage ratio and an interest coverage ratio. The leverage ratio generally requires that, at the end of any quarter, we will not permit the ratio of (a) our total consolidated indebtedness, to (b) our consolidated net income plus depreciation, depletion and amortization, interest expense (including capitalized interest), income taxes, and minus certain extraordinary gains and non-recurring gains (or plus certain extraordinary losses and non-recurring losses) and plus or minus certain other items for the preceding twelve months (as used in this paragraph only, “EBITDA”) to be greater than 4.75 to 1.00 and stepping down annually by 0.25 increments beginning on July 31, 2020 to 4.00 on July 31, 2023. The interest coverage ratio generally requires that, at the end of any quarter, we will not permit the ratio of (a) our consolidated EBITDA, to (b) our consolidated interest expense to the extent paid or payable, to be less than 3.00 to 1.00, during the applicable preceding twelve month period. As of July 31, 2020, we were in compliance with the covenants and other agreements in the 2019 Credit Agreement.

See Note 6 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Senior Notes due 2027

On February 11, 2019, we issued $500.0 million of 6.50% Senior Notes due March 1, 2027 (the "Senior Notes due 2027"). Interest on the Senior Notes due 2027 is payable semi-annually commencing on September 1, 2019. Our obligations under the Senior Notes due 2027 are guaranteed by our U.S. subsidiaries that guarantee the 2019 Credit Agreement, as described above. The Senior Notes due 2027 are governed by an Indenture that contains various covenants. Certain of these covenants will be suspended if the Senior Notes due 2027 achieve investment grade ratings from both Moody’s Investors Service, Inc. and Standard & Poor’s Global Ratings and no default or event of default has occurred and is continuing. As of July 31, 2020, we were in compliance with these covenants.

See Note 6 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Senior Notes due 2021

Our Luxembourg subsidiary has issued €200.0 million of 7.375% Senior Notes due July 15, 2021 (the "Senior Notes due 2021"). Interest on the Senior Notes due 2021 is payable semi-annually. The Senior Notes due 2021 are guaranteed on a senior basis by Greif, Inc. The Senior Notes due 2021 are governed by an Indenture that contains various covenants. As of July 31, 2020, we were in compliance with these covenants.

See Note 6 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Interest Rate Derivatives

We have various borrowing facilities which charge interest based on the one month U.S. dollar LIBOR rate plus an interest spread. Refer to Note 1 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for discussion of ASU 2020-04 "Reference Rate Reform" for the our considerations of the impact of reference rate reform on contracts utilizing LIBOR rates.

In 2020, we entered into four forward starting interest rate swaps with a total notional amount of $200.0 million effective July 15, 2021. We receive variable rate interest payments based upon one month U.S. dollar LIBOR, and in return we are obligated to pay interest at a weighted-average interest rate of 0.90% plus a spread.

In 2019, we entered into six interest rate swaps with a total notional amount of $1,300.0 million that amortize to $200.0 million over a five year term. The outstanding notional amount as of July 31, 2020 is $1,000.0 million. We receive variable rate interest payments based upon one month U.S. dollar LIBOR, and in return we are obligated to pay interest at a weighted-average interest rate of 2.49%.

In 2017, we entered into an interest rate swap with a notional amount of $300.0 million and received variable rate interest payments based upon one month U.S. dollar LIBOR, and in return we are obligated to pay interest at a fixed rate of 1.19% plus an interest spread.

These derivatives are designated as cash flow hedges for accounting purposes. Accordingly, the gain or loss on these derivative instruments are reported as a component of other comprehensive income and reclassified into earnings in the same line item associated with the forecasted transactions and in the same period during which the hedged transaction affects earnings.

See Note 7 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Foreign Exchange Hedges

We conduct business in international currencies and are subject to risks associated with changing foreign exchange rates. Our objective is to reduce volatility associated with foreign exchange rate changes to allow management to focus its attention on business operations. Accordingly, we enter into various contracts that change in value as foreign exchange rates change to protect the value of certain existing foreign currency assets and liabilities, commitments and anticipated foreign currency cash flows.

As of July 31, 2020, and October 31, 2019, we had outstanding foreign currency forward contracts in the notional amount of $143.3 million, and $275.0 million, respectively.

See Note 7 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

Cross Currency Swap

We have operations and investments in various international locations and are subject to risks associated with changing foreign exchange rates. On March 6, 2018, we entered into a cross currency interest rate swap agreement that synthetically swaps $100.0 million of fixed rate debt to Euro denominated fixed rate debt at a rate of 2.35%. The agreement is designated as a net investment hedge for accounting purposes and will mature on March 6, 2023. Accordingly, the gain or loss on this derivative instrument is included in the foreign currency translation component of other comprehensive income until the net investment is sold, diluted, or liquidated. Interest payments received for the cross currency swap are excluded from the net investment hedge effectiveness assessment and are recorded in interest expense, net on the interim condensed consolidated statements of income.

See Note 7 to the Interim Condensed Consolidated Financial Statements included in Item 1 of this Form 10-Q for additional information.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

In 2020, the Company entered into four forward starting interest rate swaps with a total notional amount of $200.0 million effective July 15, 2021. The Company receives variable rate interest payments based upon one month U.S. dollar LIBOR, and in return the Company is obligated to pay interest at a weighted-average interest rate of 0.90% plus a spread.

There have been no other significant changes in the quantitative and qualitative disclosures about our market risk from the disclosures contained in the 2019 Form 10-K.

ITEM 4. CONTROLS AND PROCEDURES

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting that occurred during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Disclosure Controls and Procedures

With the participation of our principal executive officer and principal financial officer, our management has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as of the end of the period covered by this report. Based upon that evaluation, our principal executive officer and principal financial officer have concluded that, as of the end of the period covered by this report:

- Information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission;
- Information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure; and
- Our disclosure controls and procedures are effective.

PART II. OTHER INFORMATION

ITEM 1A. RISK FACTORS

Risks Related to COVID-19

The COVID-19 pandemic has had, and will continue to have for the foreseeable future, a significant adverse impact on the global economy. Due to the size and breadth of this pandemic, all of the direct and indirect consequences of COVID-19 are not yet known and will likely continue to emerge over time. The most significant risks and uncertainties presented to Greif by this pandemic are discussed below.

The current COVID-19 pandemic could have material adverse effect on our business, financial condition, results of operations and cash flow.

In response to the outbreak of COVID-19, governmental authorities throughout the world implemented numerous measures in an attempt to reduce the spread and impact of the virus, including quarantines, shelter in place, shutdowns and other operational restrictions of so-called “nonessential” businesses. The products we manufacture and the services we provide have been deemed “essential” and, as a result, government authorities in every country in which we do business have allowed our operations to continue without significant disruption. In recent months, government restrictions have been relaxed to some extent in most of the countries in which we do business, although there is still concern of a resurgence of the virus and the need of re-imposing these operational restrictions, which could further delay an economic recovery and adversely affect our business. For the markets we serve, for example, we have seen a softening in demand within the specialty and bulk chemicals, lubricant, paints, and textile industries, offset by an increase in demand, which may be temporary, from the food, pharmaceutical, and flavors and fragrances industries. Nevertheless, the lack of demand for our customers' products may translate into a lack of demand for our products.

The persistence or further deterioration of economic conditions and continued disruption to our customers or the global supply chain due to the COVID-19 pandemic could have a significant negative impact on our results of operations, cash flows and financial condition. To attempt to mitigate these risks, we have organized a taskforce at the global and regional levels to develop and implement operational plans that we believe will help us be prepared to continue supplying our products and services to our customers. Our primary concern is the health and safety of our workforce. In that regard, we have implemented precautionary measures, which are on-going, designed to help minimize the risk of our employees being exposed to the virus, including providing the following:

- Alternative work arrangements including working remotely, where possible;
- Enhanced cleaning and disinfecting of our physical locations;
- Temperature screenings and face coverings and other personal protective equipment, as needed, for employees;
- Restricted third-party visits to our facilities, where possible; and
- Temporary elimination of work-related travel.

As a result of the quickly evolving developments associated with the COVID-19 pandemic and the significant economic uncertainties and volatility, including the severity of the disease, the duration of the pandemic, actions taken and to be taken by governmental authorities to attempt to mitigate the spread and contain potential new outbreaks, we cannot at this time predict the overall impact to our business. Some of the factors we believe could have a material adverse effect on our business operations, financial condition, cash flows and results of operation from the COVID-19 outbreak, have the potential to further exacerbate other risk factors discussed in the 2019 Form 10-K, include the following:

- We could lose key customers who go out-of-business due to the adverse consequences of COVID-19 on their business;
- We could experience a material reduction in the demand for our products and services for an extended period of time;
- Although to date we have been able to obtain a sufficient supply of raw materials, we could experience a reduction in our production capabilities if we cannot secure sufficient supplies of key raw materials;
- We could incur significant raw material price increases, which would likely have an adverse effect on our operating margins;
- We could face extended facility closures if we experience an outbreak of the virus in a manufacturing facility or temporary downtime if demand for our products is dramatically reduced;
- We have already incurred additional costs as a result of keeping our employees safe at work and expenditures to enable our office employees to work remotely, and these costs could become material as the pandemic continues;
- We could be subjected to increased cyber security threats if our office employees continue to work remotely for an extended period of time;
- We could be subjected to risks related to the global nature of our business, including material fluctuations in foreign currency exchange rates and compliance matters applicable to export controls, sanctions and anti-corruption laws and regulations;

- We may not be able to meet, or it may take longer to realize, the projected synergies, cost savings, operating efficiencies and other benefits from the Caraustar Acquisition;
- Our internal controls may be adversely affected as the need for working remotely extends, which could result in a significant deficiency or material weakness in our internal controls.

Our ability to execute necessary business functions in an efficient and uninterrupted fashion is highly dependent upon the Internet and related technology. Because many businesses are deploying a remote workforce as a result of COVID-19, Internet usage has increased significantly. A significant interruption or major failure of the Internet would substantially impair our ability to perform daily functions on a timely basis and could result in a material adverse impact on our operations.

In addition, reactions to COVID-19 by federal and state governmental agencies, including the Federal Reserve, and consumers could lead to higher inflation, which can in turn result in an increase in our costs. In addition, inflation may cause changes in interest rates, which could affect the borrowing rates under our credit facilities.

There have been no other material changes in our risk factors from those disclosed in the 2019 Form 10-K under Part I, Item 1A — Risk Factors.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 6. EXHIBITS

(a.) Exhibits

Exhibit No.	Description of Exhibit
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a — 14(a) of the Securities Exchange Act of 1934.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a — 14(a) of the Securities Exchange Act of 1934.
32.1	Certification of Chief Executive Officer required by Rule 13a —14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code.
32.2	Certification of Chief Financial Officer required by Rule 13a — 14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code.
101	The following financial statements from the Company's Quarterly Report on Form 10-Q for the quarter ended July 31, 2020, formatted in Inline XBRL (Extensible Business Reporting Language): (i) Condensed Consolidated Statements of Income and Comprehensive Income (Loss), (ii) Condensed Consolidated Balance Sheets, (iii) Condensed Consolidated Statements of Cash Flow and (iv) Notes to Condensed Consolidated Financial Statements.

SIGNATURES

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

GREIF, INC.
(Registrant)

Date: August 28, 2020

/s/ Lawrence A. Hilsheimer

Lawrence A. Hilsheimer,
Executive Vice President and Chief Financial Officer

Exhibit 31.1

<u>CERTIFICATION</u>

I, Peter G. Watson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Greif, Inc.;

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 the registrant as of, and for, the periods presented in this report;

4. The registrant’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 the registrant 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 the registrant, 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 the registrant’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 the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: August 28, 2020

/s/ Peter G. Watson

Peter G. Watson,
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, Lawrence A. Hilsheimer, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Greif, Inc.;

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 the registrant as of, and for, the periods presented in this report;

4. The registrant'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 the registrant 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 the registrant, 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 the registrant'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 the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 the registrant'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 the registrant's internal control over financial reporting.

Date: August 28, 2020

/s/ Lawrence A. Hilsheimer

Lawrence A. Hilsheimer,
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

Certification Required by Rule 13a — 14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code

In connection with the Quarterly Report of Greif, Inc. (the "Company") on Form 10-Q for the quarterly period ended July 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Peter G. Watson, the President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report 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 the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 28, 2020

/s/ Peter G. Watson

Peter G. Watson,
President and Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to Greif, Inc. and will be retained by Greif, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

Certification Required by Rule 13a — 14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code

In connection with the Quarterly Report of Greif, Inc. (the "Company") on Form 10-Q for the quarterly period ended July 31, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Lawrence A. Hilsheimer, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report 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 the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 28, 2020

/s/ Lawrence A. Hilsheimer

Lawrence A. Hilsheimer,
Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Greif, Inc. and will be retained by Greif, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.