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

FORM 10-K

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

For the fiscal year ended October 31, 2019

or

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

Commission file number: 001-00566

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

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**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☒	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). Yes ☐ No ☒

The aggregate market value of voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold as of the last business day of the Registrant’s most recently completed second fiscal quarter was as follows:

Non-voting common equity (Class A Common Stock) $994,807,811
Voting common equity (Class B Common Stock) $280,425,022

The number of shares outstanding of each of the Registrant’s classes of common stock, as of December 13, 2019, was as follows:

Class A Common Stock 26,260,943 shares
Class B Common Stock 22,007,725 shares

Listed hereunder are the documents, portions of which are incorporated by reference, and the parts of this Form 10-K into which such portions are incorporated:

1. The Registrant’s Definitive Proxy Statement for use in connection with the Annual Meeting of Stockholders to be held on February 25, 2020 (the “2020 Proxy Statement”), portions of which are incorporated by reference into Parts II and III of this Form 10-K. The 2020 Proxy Statement will be filed within 120 days of October 31, 2019.

IMPORTANT INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

All statements, other than statements of historical facts, included in this Annual Report on Form 10-K of Greif, Inc. and its subsidiaries for the fiscal year ended October 31, 2019 (this "Form 10-K") or incorporated herein, including, without limitation, statements regarding our future financial position, business strategy, budgets, projected costs, goals and plans and objectives of management for future operations and initiatives, are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). 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-K are based on information currently available to our management. Forward-looking statements speak only as of the date the statements were made. 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 actual events or results to differ materially from those expressed in or implied by the statements. For a discussion of the most significant risks and uncertainties that could cause our actual results to differ materially from those projected, see "Risk Factors" in Item 1A of this Form 10-K. The risks described in this Form 10-K 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. All forward-looking statements made in this Form 10-K 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.

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PART I

ITEM 1. BUSINESS

(a) General Development of Business

We are a leading global producer of industrial packaging products and services with operations in over 40 countries. We offer 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. We produce and sell containerboard, corrugated sheets, and corrugated containers to customers in North America. We also produce and sell coated and uncoated recycled paperboard, along with tubes and cores and a diverse mix of specialty products to customers in North America. We are a leading global producer of flexible intermediate bulk containers and related services. We sell timber to third parties from our timberland in the southeastern United States that we manage to maximize long-term value. In addition, we sell, from time to time, timberland and special use land, which consists of surplus land, higher and better use ("HBU") land, and development land. Our customers range from Fortune 500 companies to medium and small-sized companies in a cross section of industries.

We were founded in 1877 in Cleveland, Ohio, as "Vanderwyst and Greif," a cooperage shop co-founded by one of four Greif brothers. One year after our founding, the other three Greif brothers were invited to join the business, renamed Greif Bros. Company, making wooden barrels, casks and kegs to transport post-Civil War goods nationally and internationally. We later purchased nearly 300,000 acres of timberland to provide raw materials for our cooperage plants. We still own significant timber properties located in the southeastern United States. In 1926, we incorporated as a Delaware corporation and made a public offering as The Greif Bros. Cooperage Corporation. In 1951, we moved our headquarters from Cleveland, Ohio to Delaware, Ohio, which is in the Columbus metro-area, where our corporate headquarters are currently located. Since the latter half of the 1900s, we have transitioned from our keg and barrel heading mills, stave mills and cooperage facilities to a global producer of industrial packaging products. Following our acquisition of Van Leer Packaging in 2001, a global steel and plastic drum manufacturer, we changed our name to Greif, Inc.

We completed our acquisition of Caraustar Industries, Inc. and its subsidiaries ("Caraustar") on February 11, 2019 (the "Caraustar Acquisition"), which was the largest acquisition in our history. 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 Caraustar Acquisition significantly expanded our operations in the Paper Packaging & Services segment portfolio.

Our fiscal year begins on November 1 and ends on October 31 of the following year. Any references in this Form 10-K to the years 2024, 2023, 2022, 2021, 2020, 2019, 2018, 2017, 2016 or 2015, or to any quarter of those years, relate to the fiscal year ended in that year.

As used in this Form 10-K, the terms "Greif," the "Company," "we," "us," and "our" refer to Greif, Inc. and its subsidiaries.

(b) Financial Information about Segments

We operate in eight business segments, which are aggregated into four reportable business segments: Rigid Industrial Packaging & Services; Paper Packaging & Services; Flexible Products & Services; and Land Management. Information related to each of these segments is included in Note 16 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K.

(c) Narrative Description of Business

Products and Services

In the Rigid Industrial Packaging & Services segment, we are a leading global producer of rigid industrial packaging products, including 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 rigid industrial packaging products to customers in industries such as chemicals, paints and pigments, food and beverage, petroleum, industrial coatings, agricultural, pharmaceutical and mineral products, 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 and uncoated recycled paperboard, some of which we use to produce and sell industrial products (tubes and cores, construction products, protective packaging, and adhesives) and consumer packaging products (folding cartons, set-up boxes, and packaging services). 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, HBU land and development land. As of October 31, 2019, we owned approximately 251,000 acres of timber property in the southeastern United States.

Customers

Due to the variety of our products, we have many customers buying different types of our products and due to the scope of our sales, no one customer is considered principal in our total operations.

Backlog

We supply a cross-section of industries, such as chemicals, paints and pigments, food and beverage, petroleum, industrial coatings, agricultural, pharmaceutical, mineral, packaging, automotive and building products, and must make spot deliveries on a day-to-day basis as our products are required by our customers. We do not operate on a backlog to any significant extent and maintain only limited levels of finished goods. Many customers place their orders weekly for delivery during the week.

Competition

The markets in which we sell our products are highly competitive with many participants. Although no single company dominates, we face significant competitors in each of our businesses. Our competitors include large vertically integrated companies as well as numerous smaller companies. The industries in which we compete are particularly sensitive to price fluctuations caused by shifts in industry capacity and other cyclical industry conditions. Other competitive factors include design, quality and service, with varying emphasis depending on product line.

In both the rigid industrial packaging industry and the flexible products industry, we compete by offering a comprehensive line of products on a global basis. In the containerboard industry, we compete by concentrating on providing value-added, higher-margin corrugated products to niche markets. In our other paper packaging businesses, we compete by offering a comprehensive range of uncoated and coated paperboard products and diverse tube, core and other specialty products. In addition, over the past several years we have closed higher cost facilities and otherwise restructured our operations, which we believe has significantly improved our cost competitiveness.

Compliance with Governmental Regulations Concerning Environmental Matters

Our operations are subject to extensive federal, state, local and international laws, regulations, rules and ordinances relating to pollution, the protection of the environment, the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials and numerous other environmental laws and regulations. In the ordinary course of business, we are subject to periodic environmental inspections and monitoring by various governmental agencies. In addition, certain of our production facilities require environmental permits that are subject to revocation, modification and renewal. As of the date of filing this Form 10-K, and based on current information, we believe that the probable costs of the remediation of company-owned property will not have a material adverse effect on our financial condition or results of operations. We believe that we have adequately reserved for our liability for these matters as of October 31, 2019.

We do not believe that compliance with federal, state, local and international provisions, which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, has had or will have a material adverse effect upon our capital expenditures, earnings or competitive position. We do not anticipate any material capital expenditures related to environmental control in 2020. However, since 2017, three reconditioning facilities in the Milwaukee, Wisconsin area that are owned by Container Life Cycle Management LLC (“CLCM”), our U.S. reconditioning joint

venture company, have been subject to investigations and proceedings conducted by federal, state and local governmental agencies concerning, among other matters, potential violations of environmental laws and regulations. We have cooperated with the governmental agencies in these investigations and proceedings. As of the filing date of this Form 10-K, no citations have been issued or fines assessed with respect to any violations of environmental laws and regulations. As a result of these investigations and proceedings, we will review all options for future actions at these facilities, including changes to existing reconditioning operations, installation of control technology, other capital expenditures, and facility relocation or closure. While there could be costs associated with future actions, we do not expect them to be material.

See also to Note 13 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information concerning environmental expenses and cash expenditures for the periods ended October 31, 2019, 2018 and 2017, and our reserves for environmental liabilities as of October 31, 2019 and 2018.

Raw Materials

Steel, resin and containerboard, as well as used industrial packaging for reconditioning, are the principal raw materials for the Rigid Industrial Packaging & Services segment, resin is the primary raw material for the Flexible Products & Services segment, and pulpwood, old corrugated containers, recycled coated and uncoated paperboard are the principal raw materials for the Paper Packaging & Services segment. We satisfy most of our needs for these raw materials through purchases on the open market or under short-term and long-term supply agreements. All of these raw materials are purchased in highly competitive, price-sensitive markets, which have historically exhibited price, demand and supply cyclicality. From time to time, some of these raw materials have been in short supply at certain of our manufacturing facilities. In those situations, we ship the raw materials in short supply from one or more of our other facilities with sufficient supply to the facility or facilities experiencing the shortage. To date, raw material shortages have not had a material adverse effect on our financial condition or results of operations.

Research and Development

While research and development projects are important to our continued growth, the amount expended in any year is not material in relation to our results of operations.

Other

Our businesses are not materially dependent upon patents, trademarks, licenses or franchises.

No material portion of our businesses is subject to renegotiation of profits or termination of contracts or subcontracts at the election of a governmental agency or authority.

The businesses of our segments are not seasonal to any material extent, although the businesses of some of our customers who are in the agricultural industries and purchase our rigid industrial packaging products and flexible products may be seasonal in nature.

Employees

As of October 31, 2019, we had approximately 17,000 full time employees. A significant number of our full time employees are covered under collective bargaining agreements. We believe that our employee relations are generally good.

(d) Financial Information about Geographic Areas

Our operations are located in North and South America, Europe, the Middle East, Africa and the Asia Pacific regions. Information related to our geographic areas of operation is included in Note 16 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K. See also to Quantitative and Qualitative Disclosures about Market Risk included in Item 7A of this Form 10-K.

(e) Available Information

We maintain a website at www.greif.com. We file reports with the United States Securities and Exchange Commission ("SEC") and make available, free of charge, on or through our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy and information statements and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we have electronically filed such material with, or furnished it to, the SEC.

Any of the materials we file with the SEC may also be read and/or copied at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. Information on the operation of the SEC's Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov.

(f) Other Matters

Our Class A Common Stock and Class B Common Stock are listed on the New York Stock Exchange ("NYSE") under the symbols GEF and GEF.B, respectively. Our Chief Executive Officer has timely certified to the NYSE that, at the date of the certification, he was unaware of any violation by our Company of the NYSE's corporate governance listing standards. However, we are currently in the process of amending one of our equity plans to correct a non-compliance matter with respect to Section 303A.08 of the NYSE Listed Company Manual. The proposed corrective amendment will be presented to stockholders for approval at the 2020 Annual Meeting. In addition, our Chief Executive Officer and Chief Financial Officer have provided certain certifications in this Form 10-K regarding the quality of our public disclosures. See Exhibits 31.1 and 31.2 to this Form 10-K.

ITEM 1A. RISK FACTORS

Statements contained in this Form 10-K may be "forward-looking" within the meaning of Section 21E of the Exchange Act. Such forward-looking statements are subject to certain risks and uncertainties that could cause our operating results to differ materially from those projected. The following factors, among others, in some cases have affected, and in the future could affect, our actual financial or operational performance, or both.

Historically, our Business has been Sensitive to Changes in General Economic or Business Conditions.

Our customers generally consist of other manufacturers and suppliers who purchase industrial packaging products and containerboard and related corrugated products for their own containment and shipping purposes. Because we supply a cross section of industries, such as chemicals, films, paints and pigments, food and beverage, petroleum, industrial coatings, carpeting, agricultural, pharmaceutical, mineral products, packaging, automotive, construction and building products industries and have operations in many countries, demand for our products and services has historically corresponded to changes in general economic and business conditions of the industries and countries in which we operate. The overall demand and prices for our products and services could decline as a result of a large number of factors outside our control, including economic recessions, changes in industrial production processes or consumer preference, changes in laws and regulations, inflation, tariffs, changes in published pricing indices, fluctuations in interest and currency exchange rates and changes in the fiscal or monetary policies of governments in the regions in which we operate. Accordingly, our financial performance is substantially dependent upon the general economic and business conditions existing in these industries and countries, and any prolonged or substantial economic downturn in the markets in which we operate could have a material adverse effect on our business, financial condition and results of operations.

We may not Successfully Implement our Business Strategies, Including Achieving our Growth Objectives.

We may not be able to fully implement our business strategies or realize, in whole or in part within the expected time frames, the anticipated benefits of our growth and other initiatives. Our various business strategies and initiatives are subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control.

In addition, we may incur certain costs to achieve efficiency improvements and growth in our business and we may not meet anticipated implementation timetables or stay within budgeted costs. As these growth initiatives are undertaken, we may not fully achieve our expected cost savings and efficiency improvements or growth rates, or these initiatives could adversely impact our customer retention or our operations. Also, our business strategies may change from time to time in light of our ability to implement our new business initiatives, competitive pressures, economic uncertainties or developments, or other factors. A variety of risks could cause us not to realize some or all of the expected benefits of these initiatives. These risks include, among others, delays in the anticipated timing of activities related to such initiatives, strategies and operating plans; increased difficulty and costs in implementing these efforts; and the incurrence of other unexpected costs associated with operating the business. As a result, there can be no assurance that we will realize these benefits. If, for any reason, the benefits we realize are less than our estimates or the implementation of these growth initiatives and business strategies adversely affect our operations or cost more or take longer to effectuate than we expect, or if our assumptions prove inaccurate, our business, financial condition and results of operations may be materially adversely affected.

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.

We incurred substantial indebtedness to finance the Caraustar Acquisition. As a result of our level of indebtedness, a substantial portion of our cash flows are dedicated to the payment of principal and interest on our indebtedness, which, among other things: reduces our liquidity; limits our flexibility in responding to new business opportunities; reduces funds available for working capital, capital expenditures and other general corporate purposes; increases our vulnerability to adverse economic and industry conditions; exposes us to the risk of increased interest rates and corresponding increased interest expense; limits our ability to obtain additional financing for working capital, capital expenditures, acquisitions and general corporate or other purposes; and could place us at a competitive disadvantage compared to our competitors who have less debt. In addition, the failure to comply with the financial and other restrictive covenants in our debt instruments could, if not cured or waived, have a material adverse effect on our ability to fulfill our debt obligations and on our business and prospects generally. In addition, our debt instruments impose operating and financial restrictions on us, which may limit how we conduct our business and impact our ability to raise additional debt or equity financing to capitalize on available business opportunities.

Our Operations Subject us to Currency Exchange and Political Risks that Could Adversely Affect our Results of Operations.

We have operations in over 40 countries. Management of global operations is extremely complex, and operations outside the United States are subject to additional risks that may not exist, or be as significant, in the United States. As a result of our global operations, we are subject to certain risks that could disrupt our operations or force us to incur unanticipated costs.

We also have indebtedness, agreements to purchase raw materials and agreements to sell finished products that are denominated in Euros, Turkish Lira, Russian Rubles and other currencies. Our operating performance is affected by fluctuations in currency exchange rates by:

- translations into United States dollars for financial reporting purposes of the assets and liabilities of our non-U.S. operations conducted in local currencies; and
- gains or losses from transactions conducted in currencies other than the operation’s functional currency.

We are subject to various other risks associated with operating in countries outside the U.S., such as the following:

- political, social, economic and labor instability;
- war, invasion, civil disturbance or acts of terrorism;
- taking of property by nationalization or expropriation without fair compensation;
- changes in government policies and regulations and enforcement thereof, including selectivity or discrimination in the enforcement thereof;
- loss or non-renewal of treaties or similar agreements with foreign tax authorities;
- difficulties in enforcement of contractual obligations;
- imposition of limitations on conversions of currencies into United States dollars or remittance of dividends and other payments by international subsidiaries;
- imposition or increase of withholding and other taxes on income remittances and other payments by international subsidiaries;
- hyperinflation, currency devaluation or defaults in certain countries;
- impositions or increase of investment and other restrictions or requirements by non-United States governments;
- national and regional labor strikes, whether legal or illegal and other labor or social actions; and
- restrictive governmental trade policies, customs, tariffs, import/export and other trade compliance regulations.

The Current and Future Challenging Global Economy and Disruption and Volatility of the Financial and Credit Markets may Adversely Affect our Business.

Current global economic conditions are challenging to our global business operations. Such conditions have had, and may continue to have, a negative impact on our financial results. Future economic downturns, either in the United States, Europe or in other regions in which we do business could negatively affect our business and results of operations. The volatility of the current economic

climate, especially in relation to ongoing uncertainties related to geopolitical events around the world, including the imposition of trade tariffs, makes it difficult for us to predict the complete impact of the forgoing matters on our business and results of operations. Due to these current and future economic conditions, our customers may face financial difficulties, disruption in their supply chains, and the unavailability of or reduction in commercial credit that may result in decreased sales by and revenues to our company. Certain of our customers may cease operations or seek bankruptcy protection, which would reduce our cash flows and adversely impact our results of operations. Our customers that are financially viable and not experiencing economic distress may nevertheless elect to reduce the volume of orders for our products or close facilities in an effort to remain financially stable or as a result of the unavailability of commercial credit which would negatively affect our results of operations. We may experience difficulties in servicing, renewing or repaying our outstanding debt due to continued volatility in the global economy. We may also have difficulty accessing the global credit markets if there is a tightening of commercial credit availability, which would result in decreased ability to fund capital-intensive strategic projects.

Further, we may experience challenges in forecasting revenues and operating results due to these global economic conditions. The difficulty in forecasting revenues and operating results may result in volatility in the market price of our common stock.

In addition, the lenders under our senior secured credit agreement and other borrowing facilities described in Item 7 of this Form 10-K under Liquidity and Capital Resources - Borrowing Arrangements and the counterparties with whom we maintain interest rate swap agreements, currency forward contracts and derivatives and other hedge agreements may be unable to perform their lending or payment obligations in whole or in part, or may cease operations or seek bankruptcy protection, which would negatively affect our cash flows and our results of operations.

A downgrade in our credit rating could also impact our ability to effectively finance our operations and could lead to increased borrowing costs and limits on our access to capital.

The equipment that we use in our manufacturing operations is expensive and requires continued maintenance. We require significant capital investment to maintain our equipment. If our existing sources of capital prove insufficient, there can be no assurance that we will be able to obtain capital to finance these expenditures on favorable terms, or at all. Any inability by us to maintain our equipment as needed or any inability to obtain capital for expenditures on equipment maintenance on favorable terms could have an adverse effect on our business, financial position and results of operations.

The Continuing Consolidation of our Customer Base and Suppliers may Intensify Pricing Pressure.

Over the last few years, many of our large industrial packaging, containerboard and corrugated products customers have acquired, or been acquired by, companies with similar or complementary product lines. In addition, many of our suppliers of raw materials such as steel, resin and paper, have undergone a similar process of consolidation. This consolidation has increased the concentration of our largest customers, resulting in increased pricing pressures from our customers. The consolidation of our largest suppliers has resulted in limited sources of supply and increased cost pressures from our suppliers. Any future consolidation of our customer base or our suppliers could negatively impact our business, financial condition, and results of operations. Furthermore, if one or more of our major customers reduces, delays or cancels substantial orders, if one or more of our major suppliers is unable to timely produce and deliver our orders our business, financial condition, results of operations, and cash flows may be materially and adversely affected, particularly for the period in which the reduction, delay or cancellation occurs and also possibly for subsequent periods.

We Operate in Highly Competitive Industries.

Each of our business segments operates in highly competitive industries. The most important competitive factors we face are price, quality and service. To the extent that one or more of our competitors become more successful with respect to any of these key competitive factors, we could lose customers and our sales could decline. In addition, due to the tendency of certain customers to diversify their suppliers, we could be unable to increase or maintain sales volumes with particular customers. Certain of our competitors are substantially larger and have significantly greater financial resources.

In addition, some of our products are made from raw materials that are subject to pronounced price fluctuations, such as steel, which is used in the manufacture of steel drums and containers, and oil, which in turn affects the price of resin for plastic drums and containers. Particularly in well-developed markets in Europe and in the United States, any substantial increases in the supply of rigid industrial packaging resulting from capacity increases, the stockpiling of raw materials or other types of opportunistic behavior by our competitors in a period of high raw materials prices, or price wars, could adversely affect our margins and the profitability of our business. Although price is a significant basis of competition in our industry, we also compete on the basis of product reliability, the ability to deliver products on a global scale and our reputation for quality and customer service. If we fail to maintain our current standards for product quality, the scope of our distribution capabilities or our customer relationships, our business, financial condition and results of operations could be adversely affected. Additionally, customers that shift away from

packaging products we produce to other types of packaging made from other materials may adversely affect our business, financial condition and results of operations.

Negative media reports about us or our businesses, whether accurate or inaccurate, could damage our reputation and relationships with our customers and suppliers, cause customers and suppliers to terminate their relationship with us, or impair our ability to effectively compete, which could adversely affect our business, financial condition and results of operations.

Our Business is Sensitive to Changes in Industry Demands.

Industry demand for containerboard in the United States and certain of our industrial packaging products in our United States, European and other international markets has varied in recent years causing competitive pricing pressures for those products. We compete in industries that are capital intensive, which generally leads to continued production as long as prices are sufficient to cover marginal costs. As a result, changes in industry demands (including any resulting industry over-capacity) and increased new capacity for production of industrial packaging products by competitors, may cause substantial price competition and, in turn, negatively impact our business, financial condition and results of operations.

Raw Material, Energy and Transportation Price Fluctuations and Shortages may Adversely Impact our Manufacturing Operations and Costs.

The principal raw materials used in the manufacture of our products are steel, resin, pulpwood, old corrugated containers for recycling, and recycled coated and uncoated paperboard, used industrial packaging for reconditioning, and containerboard, which we purchase or otherwise acquire in highly competitive, price sensitive markets. These raw materials have historically exhibited price and demand cyclicality. In addition, we manufacture certain component parts for our rigid industrial packaging products and those of some of our competitors. Some of these materials and component parts have been, and in the future may be, in short supply. For example, the availability of these raw materials and component parts and/or our ability to purchase and transport these raw materials and produce and transport these component parts may be unexpectedly disrupted by adverse weather conditions, natural disasters, man-made disasters, a substantial economic downturn in the industries that provide any of those raw materials, or competition for use of raw materials and component parts in other regions or countries. However, we have not recently experienced any significant difficulty in obtaining our principal raw materials or component parts. We have long-term supply contracts in place for obtaining a portion of our principal raw materials. The cost of producing our products is also sensitive to the price of energy (including its impact on transport costs). Energy prices, in particular oil and natural gas, have fluctuated in recent years, with a corresponding effect on our production costs. Potential legislation, regulatory action and international treaties related to climate change, especially those related to the regulation of greenhouse gases, may result in significant increases in raw material and energy costs. We are highly reliant on the trucking industry for the transportation of our products. The overall profitability of our operations may be negatively impacted by higher transportation costs as freight carriers raise prices to address the continued shortage of drivers. There can be no assurance that we will be able to recoup any past or future increases in the cost of energy, transportation and raw materials.

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.

In March 2018, the U.S. announced new tariffs on imported steel and aluminum products. Other international trade actions and initiatives also have been announced, notably the imposition by the U.S. of additional tariffs on products of Chinese origin, and China’s imposition of additional tariffs on U.S.-origin goods. If we are unable to mitigate the impact of these additional duties or if our customers permanently change their supply chain patterns even after tariffs are removed or reduced, our business and profits may be materially and adversely affected. Further changes in U.S. trade policy, or additional sanctions, could result in retaliatory actions by other countries that could materially and negatively impact the volume of economic activity in the U.S., which, in turn, could reduce our revenues, and increase our operating costs. In addition, many of our customers use our packaging to transport their products internationally. The impact of duties and retaliatory actions on their businesses could result in a negative impact on our business, financial condition and results of operations.

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.

In June 2016, a majority of voters in the United Kingdom elected to withdraw from the European Union (the "EU") in a national referendum. In March 2017, the United Kingdom formally notified the EU of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. The referendum was advisory, and the terms of any withdrawal are subject to a negotiation period that could last, after multiple extensions until January 31, 2020. The referendum has created significant uncertainty about the future relationship between the United Kingdom and the EU, and has given rise to calls for the governments of other EU member states to consider withdrawal.

These developments, or the perception that any of them could occur, may have a material adverse effect on global economic conditions and the stability of global financial markets, and could significantly reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Asset valuations, currency exchange rates and credit ratings may be especially subject to increased market volatility. Lack of clarity about future United Kingdom laws and regulations as the United Kingdom determines which EU laws to replace or replicate in the event of a withdrawal, could depress economic activity, restrict our access to capital or adversely affect our contracts or relationships with customers in the United Kingdom or elsewhere in the European economic area. If the United Kingdom and the EU are unable to negotiate acceptable withdrawal terms or if other EU member states pursue withdrawal, barrier-free access between the United Kingdom and other EU member states or among the European economic area overall could be diminished or eliminated. Any of these factors could have a material adverse effect on our business, financial condition and results of operations.

Geopolitical Conditions, Including Direct or Indirect Acts of War or Terrorism, Could Have a Material Adverse Effect on our Operations and Financial Results.

Our operations could be disrupted by geopolitical conditions such as international boycotts and sanctions, acts of war, terrorist activity or other similar events. Such events could make it difficult or impossible to manufacture or deliver products to our customers, receive production materials from our suppliers, or perform critical functions, which could adversely affect our business globally or in certain regions. While we maintain similar manufacturing capacities at different locations and coordinate multi-source supplier programs on many of our materials which would better enable us to respond to these types of events, we cannot be sure that our plans will fully protect us from all such disruptions.

We may Encounter Difficulties Arising from Acquisitions.

We have invested a substantial amount of capital in acquisitions, joint ventures and strategic investments and we expect that we will continue to do so in the foreseeable future. We are continually evaluating acquisitions and strategic investments that are significant to our business both in the United States and internationally. Acquisitions, joint ventures and strategic investments involve numerous risks, including the failure to identify suitable acquisition candidates, complete acquisitions on acceptable terms and conditions, retain key customers, employees and contracts, the inability to integrate businesses without material disruption, unanticipated costs incurred in connection with integrating businesses, the incurrence of liabilities greater than anticipated or operating results that are less than anticipated, the inability to realize the projected value, and the inability to realize projected synergies. In addition, acquisitions, joint ventures and strategic investments and associated integration activities require time and attention of management and other key personnel, and other companies in our industries have similar acquisition and investment strategies. There can be no assurance that any acquisitions, joint ventures and strategic investments will be successfully integrated into our operations, that competition for acquisitions will not intensify or that we will be able to complete such acquisitions, joint ventures and strategic investments on acceptable terms and conditions. The costs of unsuccessful acquisition, joint venture and strategic investment efforts may adversely affect our business, financial condition, and results of operations.

In Connection with Acquisitions or Divestitures, we may become Subject to Liabilities.

In connection with any acquisitions or divestitures, we may become subject to contingent liabilities or legal claims, including but not limited to third party liability and other tort claims; claims for breach of contract; employment-related claims; environmental, health and safety liabilities, conditions or damage; permitting, regulatory or other compliance with law issues; or tax liabilities. If we become subject to any of these liabilities or claims, and they are not adequately covered by insurance or an enforceable indemnity or similar agreement from a creditworthy counterparty, we may be responsible for significant out-of-pocket expenditures. These liabilities, if they materialize, could have a material adverse effect on our business, financial condition and results of operations.

The Acquisition of Caraustar Subjects us to Various Risks and Uncertainties.

The Caraustar Acquisition was the largest acquisition in our history. As a result of this acquisition, we are subject to various risks and uncertainties, including the failure to retain key customers, employees and contracts, the inability to integrate businesses without material disruption, unanticipated costs incurred in connection with integrating businesses, the incurrence of liabilities greater than anticipated or operating results that are less than anticipated, the inability to realize the projected value, and the inability to realize projected synergies, cost savings, operating efficiencies and other benefits. We may encounter difficulties with integrating Caraustar's operations into our operations, including inconsistencies in standards, systems and controls, which may divert management's focus and resources from ordinary business activities and opportunities. We may encounter unforeseen internal control, regulatory or compliance issues. Any of the foregoing could result in a material adverse effect on our business, financial condition and results of operations.

We may Incur Additional Restructuring Costs and there is no Guarantee that our Efforts to Reduce Costs will be Successful.

We have restructured portions of our operations from time to time in recent years, particularly following acquisitions of businesses, and periods of economic downturn due to local, regional or global economic conditions. We will continue to implement continuous improvement initiatives necessary or desirable to improve our business portfolio, address underperforming assets and generate additional cash. These initiatives may include selling, general and administrative reductions throughout our Company and have and will likely continue to result in the rationalization of manufacturing facilities.

The rationalization of our manufacturing facilities may result in temporary constraints upon our ability to produce the quantity of products necessary to fill orders and thereby complete sales in a timely manner. In addition, system upgrades at our manufacturing facilities that impact ordering, production scheduling and other related manufacturing processes are complex, and could impact or delay production targets. A prolonged delay in our ability to fill orders on a timely basis could affect customer demand for our products and increase the size of our product inventories, causing future reductions in our manufacturing schedules and adversely affecting our results of operations. Moreover, our continuous development and production of new products will often involve the retooling of existing manufacturing facilities. This retooling may limit our production capacity at certain times in the future, which could adversely affect our business, financial condition and results of operations. In addition, the expansion and reconfiguration of existing manufacturing facilities could increase the risk of production delays, as well as require significant investments of capital.

While we expect these initiatives to result in significant profit opportunities and savings throughout our organization, our estimated profits and savings are based on several assumptions that may prove to be inaccurate, and as a result, there can be no assurance that we will realize these profits and cost savings or that, if realized, these profits and cost savings will be sustained. Failure to achieve or delays in achieving projected levels of efficiencies and cost savings from such measures, or unanticipated inefficiencies resulting from manufacturing and administrative reorganization actions in progress or contemplated, could adversely affect our business, financial condition and results of operations and harm our reputation.

We Could be Subject to Changes in our Tax Rates, the Adoption of New U.S. or Foreign Tax Legislation or Exposure to Additional Tax Liabilities.

The multinational nature of our business subjects us to taxation in the United States and numerous foreign jurisdictions. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant change. Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws or their interpretation.

The Tax Cuts and Jobs Act of 2017 (the "Tax Reform Act") was enacted into law in December 2017. The Tax Reform Act, among other matters, reduced the U.S. federal corporate tax rate from 35 percent to 21 percent and required companies to pay a one-time tax to repatriate, for U.S. purposes, earnings of certain foreign subsidiaries that were previously deferred for tax purposes. In addition, beginning in 2019, the Tax Reform Act limits certain deductions and creates new taxes on certain foreign sourced earnings. While we generally expect the impact of the Tax Reform Act to be positive, it is possible that the limitation of certain deductions and the creation of new taxes could be more detrimental to us than anticipated.

Tax laws are complex and subject to varying interpretations. At this time, we believe we are properly reflecting the provision for taxes on income using all current enacted global tax laws in every jurisdiction in which we operate. However, there can be no assurance that our tax positions will not be challenged by relevant tax authorities or that we would be successful in any such challenge.

Full Realization of our Deferred Tax Assets may be Affected by a Number of Factors.

We have deferred tax assets, including foreign net operating loss carryforwards and foreign capital loss carryforwards, employee and retiree benefit items, and other accruals not yet deductible for tax purposes. We have established valuation allowances to reduce those deferred tax assets to an amount that is more likely than not to be realized. Our ability to use these deferred tax assets depends in part upon our having future taxable income during the periods in which these temporary differences reverse or our ability to carry back any losses created by the deduction of these temporary differences. We expect to realize these assets over an extended period. However, if we were unable to generate sufficient future taxable income in the U.S. and certain foreign jurisdictions, or if there were a significant change in the time period within which the underlying temporary differences became taxable or deductible, we could be required to increase our valuation allowances against our deferred tax assets, which could have a material adverse effect on our financial condition and results of operations.

Several Operations are Conducted by Joint Ventures that we Cannot Operate Solely for our Benefit.

Several operations, particularly in developing countries, are conducted through joint ventures, such as a significant joint venture in our Flexible Products & Services segment. In countries that require us to conduct business through a joint venture with a local

joint venture partner, the loss of a joint venture partner or a joint venture partner's loss of its ability to conduct business in such country may impact our ability to conduct business in that country. Sanctions that apply to a partner of a joint venture partner or to a joint venture's directors or officers could also impact our ability to conduct business through that joint venture.

In joint ventures, we share ownership and, in some instances, management of a company with one or more parties who may or may not have the same goals, strategies, priorities or resources as we do. In general, joint ventures are intended to be operated for the benefit of all co-owners, rather than for our exclusive benefit. Operating a business as a joint venture often requires additional organizational formalities as well as time-consuming procedures for sharing information, accounting and making decisions. In certain cases, our joint venture partners must agree in order for the applicable joint venture to take certain actions, including acquisitions, the sale of assets, budget approvals, borrowing money and granting liens on joint venture property. Our inability to take unilateral action that we believe is in our best interests may have an adverse effect on the financial performance of the joint venture and the return on our investment. In joint ventures, we believe our relationship with our co-owners is an important factor to the success of the joint venture, and if a co-owner changes, our relationship may be adversely affected. In addition, the benefits from a successful joint venture are shared among the co-owners, so that we do not receive all the benefits from our successful joint ventures. Finally, we may be required on a legal or practical basis or both, to accept liability for obligations of a joint venture beyond our economic interest, including in cases where our co-owner becomes bankrupt or is otherwise unable to meet its commitments. For additional information with respect to the joint venture relating to our Flexible Products & Services segment, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations - Variable Interest Entities.

Certain of the Agreements that Govern our Joint Ventures Provide our Partners With Put or Call Options.

The agreements that govern certain of our current joint ventures under certain circumstances provide the joint venture partner with the right to sell their participation in the joint venture to us or the right to acquire our participation in the joint venture. Some of the joint venture agreements provide that the joint venture partner can sell its participation for a certain purchase price calculated on the basis of a fixed multiple. Such put and call rights may result in financial risks for us. In addition, such rights could negatively impact our operations if as a result of their exercise we lose access to members of our management teams that are familiar with local markets or distribution and manufacturing channels.

Our Ability to Attract, Develop and Retain Talented and Qualified Employees, Managers and Executives is Critical to our Success.

Our ability to attract, develop and retain talented and qualified employees, including executives and other key managers, is important to our business. This is becoming more difficult in the current highly competitive hiring and retention environment. The retirement of or unforeseen loss of key officers and employees without appropriate succession planning or the ability to develop or hire replacements could hinder our strategic planning and execution and make it difficult to manage our business and meet our objectives resulting in a material adverse effect on our business, financial condition and results of operations.

Our Business may be Adversely Impacted by Work Stoppages and Other Labor Relations Matters.

We are subject to risk of work stoppages and other labor relations matters because a significant number of our employees are represented by unions. We have experienced work stoppages and strikes in the past, and there may be work stoppages and strikes in the future. Any prolonged work stoppage or strike at any one of our principal manufacturing facilities could have a negative impact on our business, financial condition and results of operations. In addition, upon the expiration of existing collective bargaining agreements, we may not reach new agreements without union action and any such new agreements may not be on terms satisfactory to us.

We may not Successfully Identify Illegal Immigrants in our Workforce.

Our business is subject to laws regarding employment of illegal immigrants. Although we have taken steps that we believe are sufficient and appropriate to ensure compliance with immigration laws, we cannot provide assurance that we have identified, or will identify in the future, all illegal immigrants who work for us. Our failure to identify illegal immigrants who work for us may result in fines or other penalties being imposed upon us, or in the event we identify illegal immigrants in our workforce, it may be difficult for us to backfill those open positions, any of which could have an adverse effect on our business, financial condition and results of operations.

Our Pension and Post-retirement 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.

We sponsor various pension and similar benefit plans worldwide. Our U.S. and non-U.S. pension and post-retirement plans were underfunded by an aggregate of $142.2 million and $12.2 million, respectively, as of October 31, 2019. We are legally required to make cash contributions to our pension plans in the future, and those cash contributions could be material.

In 2020, we expect, but are not obligated, to make cash contributions and direct benefit payments of approximately $27.7 million and $1.3 million to our U.S. and non-U.S. pension and post-retirement plans, respectively, which we believe will be sufficient to meet the minimum funding requirements under applicable laws. Our future funding obligations for our pension and post-retirement plans depend upon the levels of benefits provided for by these plans, the future performance of assets set aside for these plans, the rates of interest used to determine funding levels, the impact of potential business dispositions, actuarial data and experience, and any changes in government laws and regulations. Accordingly, our future funding requirements for our pension and post-retirement plans could be higher than expected, which could have a material adverse effect on our financial condition and liquidity.

In addition, our pension plans hold a significant amount of equity securities. If the market values of these securities decline, our pension expense and funding requirements will increase, which could have a material adverse effect on our financial condition and liquidity.

Any decrease in interest rates and asset returns, if and to the extent not offset by contributions, could increase our obligations under our pension plans. If the performance of assets held in these pension plans does not meet our expectations, our cash contributions for these plans could be higher than we expect, which could have a material adverse effect on our financial condition and liquidity.

We may be Subject to Losses that Might not be Covered in Whole or in Part by Existing Insurance Reserves or Insurance Coverage and General Insurance Premium Increases.

We are self-insured for certain of the claims made under our employee medical and dental insurance programs and for certain of our workers’ compensation claims. We establish reserves for estimated costs related to pending claims, administrative fees and claims incurred but not reported. Because establishing reserves is an inherently uncertain process involving estimates, currently established reserves may not be adequate to cover the actual liability for claims made under our employee medical and dental insurance programs and for certain of our workers’ compensation claims. If we conclude that our estimates are incorrect and our reserves are inadequate for these claims, we will need to increase our reserves, which could adversely affect our financial condition and results of operations.

We have comprehensive liability, fire and extended coverage insurance on our facilities, with policy specifications and insured limits customarily carried for similar properties. However, there are certain types of losses, such as losses resulting from wars, acts of terrorism, wind storm, flood, earthquake or other natural disasters, or pollution, that may be uninsurable or subject to restrictive policy conditions. In these instances, should a loss occur in excess of insured limits, we could lose capital invested in that property, as well as the anticipated future revenues derived from the manufacturing activities conducted at that property, while remaining obligated for any financial obligations related to the property. Any such loss would adversely impact our business, financial condition and results of operations.

We purchase insurance policies covering general liability and product liability with substantial policy limits. However, there can be no assurance that any liability claim would be adequately covered by our applicable insurance policies or it would not be excluded from coverage based on the terms and conditions of the policy. This could also apply to any applicable contractual indemnity.

We also purchase environmental liability policies where legally required and may elect to purchase coverage in other circumstances in order to transfer all or a portion of environmental liability risk through insurance. However, there can be no assurance that any environmental liability claim would be adequately covered by our applicable insurance policies or that it would not be excluded from coverage based on the terms and conditions of the policy.

The costs of insurance coverage continue to increase, and the availability of some insurance coverages is decreasing due to extensive property damage caused by natural disasters, increased cyber security breaches and other business and employment litigation and losses. Any substantial increases in our insurance premiums or the availability of insurance policies could adversely affect our business, financial condition and results of operations.

Our Business Depends on the Uninterrupted Operations of our Facilities, Systems and Business Functions, Including our Information Technology (IT) and Other Business Systems.

Our business is dependent upon our ability to execute, in an efficient and uninterrupted fashion, necessary business functions, such as accessing key business data, financial information, order processing, invoicing and the operation of IT dependent

manufacturing equipment. In addition, a significant portion of the communication between our employees, customers and suppliers around the world depends on our IT systems. A shut-down of or inability to access one or more of our facilities, a power outage, a pandemic, or a failure of one or more of our IT, telecommunications or other systems could significantly impair our ability to perform such functions on a timely basis.

We are in the process of implementing a standard IT platform across our business and have successfully completed implementation in over half of our locations. Though there are other locations globally, the locations acquired as part of the Caraustar Acquisition represent the majority of locations in which implementation is still in progress. The transition from many former systems, many of which were acquired in connection with business acquisitions, to a single system will reduce complexity and inefficiencies in monitoring business results and consolidating financial data. The transition could result in adverse business effects. This project has been ongoing for several years requiring significant human and financial resources and is expected to extend into 2022, with work at our Flexible Products & Services operations and former Caraustar operations being completed later in 2021. There can be no assurance that this project will be successful, and even if successful, there can be no assurance that other difficulties and inefficiencies will not exist in our systems.

We have established a business continuity plan in an effort to ensure the continuation of core business operations in the event that normal operations could not be performed due to a catastrophic event. While we continue to test and assess our business continuity plan to ensure it meets the needs of our core business operations and addresses multiple business interruption events, there is no assurance that core business operations could be performed upon the occurrence of such an event which may have a material adverse effect on our business, financial condition and results of operations.

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.

In the conduct of our business, we collect, use, transmit, store and report data on information systems and interact with customers, vendors and employees. Increased global IT security threats and more sophisticated and targeted computer crime pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. Despite our security measures, our IT systems and infrastructure may be vulnerable to computer viruses, cyber-attacks, security breaches caused by employee error or malfeasance or other disruptions. Any such threat could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. A security breach of our computer systems could interrupt or damage our operations or harm our reputation, or both. In addition, we could be subject to legal claims or proceedings, liability under laws that protect the privacy of personal information and regulatory penalties if confidential information relating to customers, suppliers, employees or other parties is misappropriated from our computer system.

In May 2018, the EU enacted the General Data Protection Regulation, which provides for significantly increased responsibilities for companies that process EU personal data as well as significant penalties for noncompliance. As a result of these new regulations, we expect to see increased regulatory and customer attention surrounding data privacy. Furthermore, outside of the EU, we continue to see increased regulation of data privacy and security, including the adoption of more stringent subject matter specific state laws, including the California Consumer Privacy Act of 2018, and national laws regulating the collection and use of data, as well as security and data breach obligations. The uncertainty and changes in the requirements of multiple jurisdictions may increase the cost of compliance, reduce demand for our services, restrict our ability to offer services in certain locations, impact our customers’ ability to deploy our solutions in certain jurisdictions, or subject us to sanctions by state and national data protection regulators, all of which could harm our business, financial condition and results of operations. Failure to provide adequate privacy protections and maintain compliance with the new data privacy laws, like the General Data Protection Regulation and California Consumer Privacy Act of 2018, could jeopardize business transactions across borders and result in significant penalties and claims from individuals and other businesses. These laws could create liability for us or increase our cost of doing business.

Similar security threats exist with respect to the IT systems of our lenders, suppliers, consultants, advisors and other third parties with whom we conduct business. A security breach of those computer systems could result in the loss, theft or disclosure of confidential information and could also interrupt or damage our operations, harm our reputation and subject us to legal claims.

The regulatory framework for privacy issues is evolving worldwide, and various government and consumer agencies and public advocacy groups have called for new regulation and changes in industry practices. It is possible that new laws and regulations will be adopted in the United States and internationally, or existing laws and regulations may be interpreted in new ways that would affect our business. Complying with any new regulatory requirements could force us to incur substantial costs or require us to change our business practices in a manner that could reduce our revenue or compromise our ability to effectively pursue our growth strategy.

To date, we have seen no material impact on our business or operations from these threats. However, we cannot assure that our security efforts will prevent unauthorized access or loss of functionality to our or our third-party providers' systems.

Legislation/Regulation Related to Environmental and Health and Safety Matters and Corporate Social Responsibility Could Negatively Impact our Operations and Financial Performance.

We must comply with extensive laws, rules and regulations in the United States and in each of the countries where we conduct business regarding environmental matters, such as air, soil and water quality and waste disposal. We must also comply with extensive laws, rules and regulations regarding safety, health and corporate responsibility matters. There can be no assurance that compliance with existing and new laws, rules and regulations will not require significant expenditures.

In addition, laws, rules and regulations, as well as the interpretation and administration of such laws and regulations by governmental agencies, can change and restrict or prohibit the manner in which we conduct our current operations, require additional permits to engage in some or all of our current operations, or increase the cost of some or all our operations. For example, certain of the remedies being sought by the U.S. EPA and the Wisconsin Department of Natural Resources in the proceedings relating to the Container Life Cycle Management LLC ("CLCM") facilities in the Milwaukee, Wisconsin area seek to implement changes in the way certain laws and regulations are interpreted and administered with respect to our reconditioning business. Such changes could adversely affect our business, financial condition and results of operations.

We are also subject to transportation safety regulations promulgated by the U.S. Department of Transportation ("DOT") and agencies in other jurisdictions. Both the DOT regulations and standards issued by the United Nations and adopted by various jurisdictions outside the United States set forth requirements related to the transportation of both hazardous and nonhazardous materials in some of our packaging products and subject our company to random inspections and testing to ensure compliance. Failure to comply could result in fines to us and could affect our business, financial condition and results of operations.

We are subject to laws, rules and regulations relating to certain raw materials used in our business. For example, certain resins and epoxy-based coatings used in our rigid container business may contain Bisphenol-A (BPA), a chemical monomer that can be toxic in sufficient quantities, and is used in several food contact applications. Regulatory agencies in several jurisdictions worldwide have found these materials to be safe for food contact at current levels, but a significant change in regulatory rulings concerning BPA could have an adverse effect on our business. These laws, rules and regulations, as well as resulting claims by individuals and other businesses, could adversely affect our business, financial condition and results of operations.

At the EU-level, many laws and regulations are designed to protect human health and the environment. For example, Directive 2004/35/EC concerns obligations to remedy damages to the environment, which could require us to remediate contamination identified at sites we own or use. Other EU directives limit pollution from industrial activities, reduce emissions to air, water and soil, protect water resources, reduce waste, protect employee health and safety and regulate the registration, evaluation, authorization and restriction of chemicals. Failure to comply with these laws, or a change in the applicable legal framework, for example the increased enforcement of environmental regulations in the U.S., China or other countries, could affect our business, financial condition and results of operations, in addition to those of our customers.

Our customers in the food industry are subject to increasing laws, rules and regulations relating to food safety. As a result, customers may demand that changes be made to our products or facilities, as well as other aspects of our production processes, that may require the investment of capital. The failure to comply with these requests could adversely affect our relationships with some customers and result in negative effects on our business, financial condition and results of operations.

We are subject to the annual disclosure and reporting requirements regarding the use of “conflict minerals” from the Democratic Republic of the Congo and adjoining countries pursuant to Section 1502 of The Dodd-Frank Wall Street Reform and Consumer Protection Act. These requirements could affect the sourcing, availability and cost of minerals used in the manufacture of certain of our products. We have incurred and will continue to incur costs associated with complying with these supply chain due diligence procedures. In addition, because our supply chain is complex, we may face reputation challenges with our customers and other stakeholders if we are unable to sufficiently verify the origins of all minerals used in our products through the due diligence procedures that we implement.

Although there may be adverse financial impact (including compliance costs, potential permitting delays and increased cost of energy, raw materials and transportation) associated with any legislation, regulation or other action, the extent and magnitude of that impact cannot be reliably or accurately estimated due to the fact that some requirements have only recently been adopted and the present uncertainty regarding other additional measures and how they will be implemented. In addition, environmental, health and safety laws and regulations applicable to our business and the business of our customers, and the interpretation or enforcement of these laws and regulations, are constantly evolving and it is impossible to predict accurately the effect that changes in these laws and regulations, or their interpretation or enforcement, may have upon our business, financial condition and results of operations. Should environmental laws and regulations, or their interpretation or enforcement, become more stringent, our costs could increase, which may have a material adverse effect on our business, financial condition and results of operations.

Product Liability Claims and Other Legal Proceedings Could Adversely Affect our Operations and Financial Performance.

We produce products and provide services related to other parties' products, including sensitive products such as food ingredients, pharmaceutical ingredients and hazardous substances. Incidents involving these product types can involve risk of recall, contamination, spillage, leakage, fires, and explosions, which can threaten individual health, impact the environment and cause the breakdown or failure of equipment or processes and the performance of facilities below expected levels of capacity. If any of our customers have such accidents involving our products, they may bring product liability claims against us. While we have built extensive operational processes to ensure that the design and manufacture of our products meet rigorous quality standards, there can be no assurance that we or our customers will not experience operational process failures that could result in potential product, safety, regulatory or environmental claims and associated litigation. We are also subject to a variety of legal proceedings and legal compliance risks in our areas of operation around the globe. Any such claims, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. In accordance with customary practice, we maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels at all. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse impact on our business, financial condition and results of operations.

We and the industries in which we operate are at times being reviewed or investigated by regulators and other governmental agencies, which could lead to enforcement actions, fines and penalties or the assertion of private litigation claims and damages. Simply responding to actual or threatened litigation or government investigations of our compliance with regulatory standards may require significant expenditures of time and other resources. While we believe that we have adopted appropriate risk management and compliance programs, the global and diverse nature of our operations means that legal and compliance risks will continue to exist and legal proceedings and other contingencies, the outcome of which cannot be predicted with certainty, will arise from time to time that could adversely affect our business, financial condition and results of operations.

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.

We cannot provide assurance that our internal controls will always protect us from reckless or criminal acts committed by our employees, agents or business partners that would violate U.S. and non-U.S. laws, including anti-bribery, competition, trade sanctions and regulation, and other laws. Any such improper actions could subject us to civil or criminal investigations in the U.S. and in other jurisdictions, could lead to substantial civil or criminal monetary and non-monetary penalties against us or our subsidiaries, and could damage our reputation. Even the allegation or appearance of our employees, agents or business partners acting improperly or illegally could damage our reputation and result in significant expenditures in investigating and responding to such actions.

Changing Climate, Climate Change Regulations and Greenhouse Gas Effects may Adversely Affect our Operations and Financial Performance.

There is continuing concern from members of the scientific community and the general public that emissions of greenhouse gases ("GHG") and other human activities have or will cause significant changes in weather patterns and increase the frequency or severity of weather events, wildfires and flooding. Climate change creates physical and financial risk. Physical risks from climate change include an increase in sea level and changes in weather conditions, such as an increase in precipitation, droughts and extreme weather events. These types of events may adversely impact us, our suppliers, our customers and their ability to purchase our products and our ability to manufacture and transport our products on a timely basis and could result in a material adverse effect on our business, financial condition and results of operations.

We believe it is likely that the scientific and political attention to issues concerning the extent and causes of climate change will continue, with the potential for further legislation and regulations that could affect our financial condition and results of operations. Foreign, federal, state and local regulatory and legislative bodies have proposed various legislative and regulatory measures relating to climate change, regulating GHG emissions and energy policies. If such legislation or regulations are enacted, we could incur increased energy, environmental and other costs and capital expenditures to comply with the limitations. Failure to comply with these regulations could result in fines to our company and could affect our business, financial condition and results of operations.

We, along with other companies in many business sectors, including our customers, are considering and implementing ways to reduce GHG emissions. As a result, our customers may request that changes be made to our products or facilities, as well as other aspects of our production processes, that increase costs and may require the investment of capital. The failure to comply with these requests could adversely affect our relationships with some customers, which in turn could adversely affect our business, financial condition and results of operations.

We could face increased costs related to defending and resolving legal claims and other litigation related to climate change and the alleged impact of our operations on climate change.

The Frequency and Volume of our Timber and Timberland Sales Will Impact our Financial Performance.

We have a significant inventory of standing timber and timberland and approximately 18,800 acres of special use properties in the United States as of October 31, 2019. The frequency, demand for and volume of sales of timber, timberland and special use properties will have an effect on our financial condition and results of operations. In addition, volatility in the real estate market for special use properties could negatively affect our results of operations.

Changes in U.S. Generally Accepted Accounting Principles (GAAP) and SEC Rules and Regulations Could Materially Impact our Reported Results.

GAAP and SEC accounting and reporting changes have become more frequent and significant in the past several years. These changes could have significant effects on our reported results when compared to prior periods and other companies and may even require us to retrospectively adjust prior periods from time to time. Additionally, material changes to the presentation of transactions in the consolidated financial statements could impact key ratios that analysts and credit rating agencies use to rate our company, increase our cost of borrowing and ultimately our ability to access the credit markets in an efficient manner.

The Financial Accounting Standard Board ("FASB") has issued an Accounting Standards Update ("ASU") that provides new requirements for accounting for and the disclosure of lease assets and lease liabilities on the balance sheet and the disclosure of key information about our lease arrangements. This ASU is effective for us on November 1, 2019, and we expect to adopt this ASU on that date using a modified retrospective approach and will not adjust our comparative period financial information. We plan to adopt the practical expedient package which permits us 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. We also plan to adopt the short-term lease recognition exemption and the practical expedient allowing for the combination of lease and non-lease components for equipment leases. We have preliminarily 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. We expect to recognize a right-of-use asset and lease liability between approximately $275-$325 million and do not expect the ASU to have a material impact on our financial position, results of operations, comprehensive income, or cash flows, other than the impact mentioned above.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses". The ASU sets forth a "current expected credit loss" (CECL) model which requires us 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. We plan to adopt this ASU on November 1, 2020. We are 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.

If we Fail to Maintain an Effective System of Internal Control, we may not be able to Accurately Report Financial Results or Prevent Fraud.

Effective internal controls are necessary to provide reliable financial reports and to assist in the effective prevention of fraud. We must annually evaluate our internal control procedures to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which requires management and auditors to assess the effectiveness of internal controls. As described in Item 9A of this Form 10-K, management has concluded that our internal controls over financial reporting, except where excluded by the SEC's guidance, were effective as of October 31, 2019. In the past, we have reported material weaknesses in the adequacy of our internal controls, and there is no assurance that, in the future, material weaknesses will not be identified that would cause management to change its current conclusion as to the effectiveness of our internal controls. If we fail to maintain effective internal controls, we could report material weaknesses in the future, indicating that there is a reasonable possibility that our financial statements do not accurately reflect our financial condition.

We have a Significant Amount of Goodwill and Long-lived Assets Which, if Impaired in the Future, Would Adversely Impact our Results of Operations.

Our goodwill could be impaired if the fair value of any particular reporting unit is less than the carrying value of that reporting unit. Impairment of our goodwill would reduce our net income in the period of any such write down. We are required to evaluate goodwill reflected on our balance sheet at least annually, or when circumstances indicate a potential impairment. If we determine

that the goodwill is impaired, we would be required to write off a portion or all of the goodwill. At October 31, 2019, the carrying value of our goodwill was $1,517.8 million.

We may be required to record future impairments of our long-lived assets as we continue to restructure our business. Decisions to sell or close plants could reduce the estimated useful life of an asset group or indicate that the fair value of the asset group is less than the carrying value. We may also experience declines in particular businesses due to competition or other outside forces indicating our long-lived assets are not recoverable. Any resulting impairments will impact net income in the period in which the triggering event occurs and could be significant, which could have a material adverse effect on our financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following are our principal operating locations and the products manufactured at such facilities or the use of such facilities. We consider our operating properties to be in satisfactory condition and adequate to meet our present needs. However, we expect to make further additions, improvements and consolidations of our properties to support our business.

Location	Products or Use	Owned	Leased
RIGID INDUSTRIAL PACKAGING & SERVICES			
Algeria	Steel drums	—	1
Argentina	Steel and plastic drums, pails, and water bottles	2	1
Austria	Steel drums, intermediate bulk containers, and reconditioned containers and services	—	1
Belgium	Steel and plastic drums	2	—
Brazil	Steel and plastic drums and closures	5	3
Canada	Steel and plastic drums	2	—
Chile	Steel drums, water bottles, and warehouse	1	1
China	Steel and plastic drums, closures, and intermediate bulk containers	7	1
Colombia	Steel and plastic drums and water bottles	1	1
Costa Rica	Steel drums	—	1
Czech Republic	Steel drums	1	—
Denmark	Fibre drums	—	1
Egypt	Steel drums	1	—
France	Steel and plastic drums, reconditioned containers, closures, and intermediate bulk containers	4	—
Germany	Steel drums, water bottles, closures, and intermediate bulk containers	4	1
Greece	Steel drums	1	—
Guatemala	Steel drums	1	—
Hungary	Steel drums	1	—
Israel	Steel, plastic and fibre drums and intermediate bulk containers	—	1
Italy	Steel and plastic drums, jerry cans, and intermediate bulk containers	1	3
Kenya	Steel drums	—	1
Malaysia	Steel drums	1	1
Mexico	Steel and fibre drums and warehouse	1	2
Morocco	Steel and plastic drums	1	—
Netherlands	Steel drums, closures, paints and linings, and intermediate bulk containers	3	2
Nigeria	Steel drums	1	—
Poland	Steel drums and water bottles	1	—
Portugal	Steel drums	1	—
Russia	Steel drums, clovertainers, intermediate bulk containers, and general office	7	3
Saudi Arabia	Steel drums	—	2
Singapore	Steel and plastic drums	—	1
South Africa	Steel and plastic drums	2	1
Spain	Steel drums and intermediate bulk containers	2	1
Sweden	Steel and plastic drums and intermediate bulk containers	1	1
Turkey	Steel drums	1	—
Ukraine	Distribution center and water bottles	—	1
United Kingdom	Steel drums, reconditioned containers, and intermediate bulk containers	2	—

United States	Fibre, steel and plastic drums, intermediate bulk containers, reconditioned containers, closures, warehouse, and packaging services	18	25
Vietnam	Steel drums	1	—

Location	Products or Use	Owned	Leased
FLEXIBLE PRODUCTS & SERVICES:			
Belgium	Manufacturing plant	—	1
Brazil	General office	—	1
Chile	General office	—	1
China	Manufacturing plant	—	1
France	Manufacturing plant	1	—
Germany	General offices and warehouse	—	2
India	General office	—	1
Ireland	Distribution center	—	1
Mexico	Manufacturing plant	—	1
Netherlands	General offices and warehouse	—	2
Portugal	Manufacturing plant	—	1
Romania	Manufacturing plants	—	2
Turkey	Manufacturing plants	—	3
Ukraine	Manufacturing plant	1	—
United Kingdom	Manufacturing plant	—	1
United States	General offices	—	2
Vietnam	Manufacturing plant	—	1

Location	Products or Use	Owned	Leased
PAPER PACKAGING & SERVICES:			
Canada	Spiral-wound paper containers and warehouse	2	2
United States	Corrugated sheets and containers, containerboard, coated and uncoated recycled paperboard, folding cartons, spiral-wound paper tubes and cores, headers, adhesives, recycling plants, general offices and warehouses	63	57

Location	Products or Use	Owned	Leased
LAND MANAGEMENT:			
United States	General offices	3	2

Location	Products or Use	Owned	Leased
CORPORATE:			
Belgium	General office	—	1
Hungary	Shared service center	—	1
Netherlands	General office	—	1
United States	Principal and general offices	3	—

We also own a substantial amount of timber properties. Our timber properties consisted of approximately 251,000 acres in the southeastern United States as of October 31, 2019.

ITEM 3. LEGAL PROCEEDINGS

We are not a party to any pending legal proceedings that are material to our business or financial condition.

From time to time, we have been a party to legal proceedings arising at the country, state or local level involving environmental sites to which we have shipped, directly or indirectly, small amounts of toxic waste, such as paint solvents. As of the filing date of this Form 10-K, we have been classified only as a “de minimis” participant in such proceedings. Except as described in the following paragraphs, we are not a party to any legal proceedings involving a governmental authority and arising under any federal, state or local provisions that have been enacted or adopted regulating the discharge of materials into the environment or primarily for the purpose of protecting the environment and involving potential monetary sanctions in excess of $100,000.

On July 19, 2017, the Wisconsin Department of Natural Resources (“WDNR”) issued Notices of Violation to us and CLCM with respect to CLCM’s three reconditioning facilities in the Milwaukee, Wisconsin area regarding violations of Wisconsin laws related to hazardous waste, air management and industrial storm water. On November 27, 2017, the United States Environmental Protection Agency (“U.S. EPA”) issued a Notice of Violation to us and CLCM with respect to CLCM’s reconditioning facilities in the Milwaukee, Wisconsin area regarding violations of the federal Resource Conservation and Recovery Act (“RCRA”), primarily related to the unlawful storage and treatment of hazardous wastes without RCRA licenses and violations of RCRA’s requirements related to hazardous waste determinations and hazardous waste activity notifications, and Wisconsin laws related to hazardous waste. On November 27, 2017, the U.S. EPA issued Notices and Findings of Violations to CLCM with respect to two of CLCM's reconditioning facilities in the Milwaukee, Wisconsin area regarding violations of the federal Clean Air Act, primarily related to air management, and Wisconsin laws related to air management. 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. We have cooperated with the governmental agencies in these investigations and proceedings. As of the filing date of this Form 10-K, no citations have been issued or fines assessed with respect to any of these proceedings. With respect to one or more of these proceedings, monetary sanctions may be imposed by the U.S. EPA or the WNDR and those monetary sanctions may exceed $100,000 individually or in the aggregate.

ITEM 4. MINE SAFETY DISCLOSURES

None.

PART II

ITEM 5. MARKET FOR THE REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Shares of our Class A and Class B Common Stock are listed on the New York Stock Exchange under the symbols GEF and GEF.B, respectively.

Financial information regarding our two classes of common stock, as well as the number of holders of each class and the high, low and closing sales prices for each class for each quarterly period for the two most recent years, is included in Note 18 of the Notes to Consolidated Financial Statements in Item 8 of this Form 10-K.

We pay quarterly dividends of varying amounts computed on the basis described in Note 14 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K. The annual dividends paid for the last two years are as follows:

2019 Dividends per Share – Class A $1.76; Class B $2.63

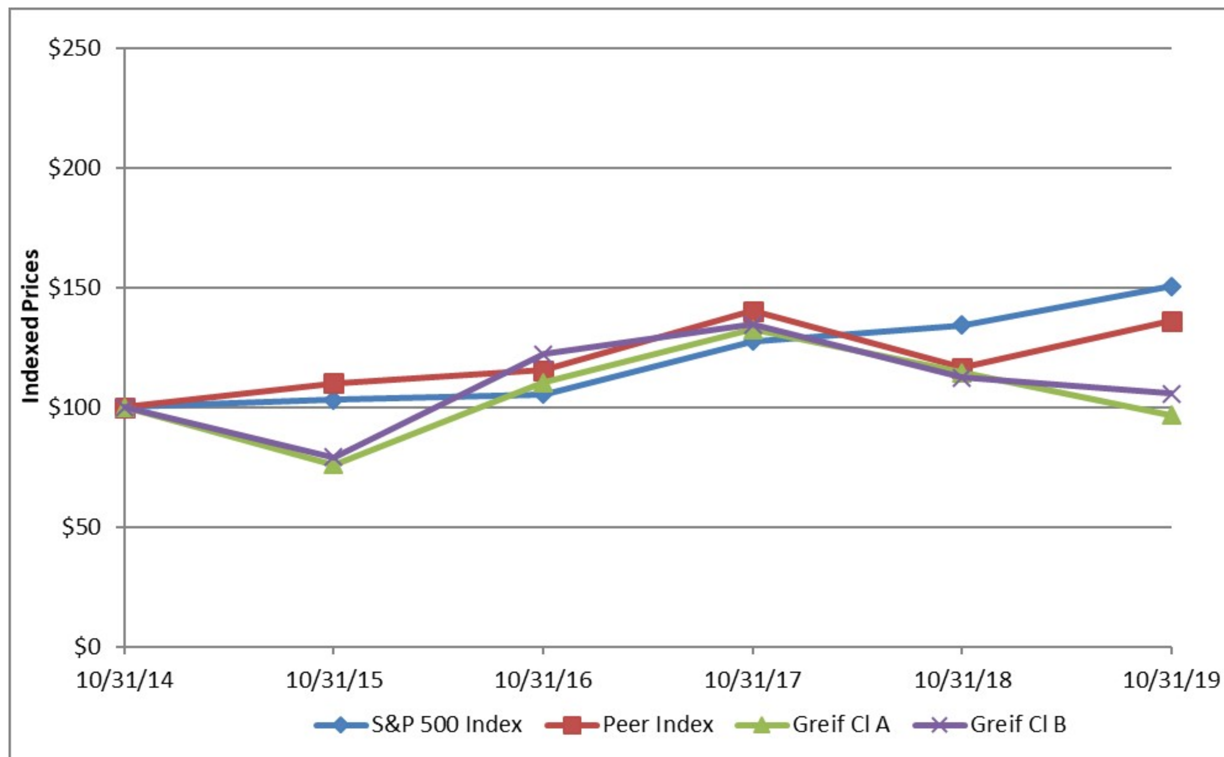
2018 Dividends per Share – Class A $1.70; Class B $2.54

The terms of our current secured credit facilities, United States accounts receivable credit facility and the indenture governing our Senior Notes due 2027 limit our ability to make “restricted payments,” which include dividends and purchases, redemptions and acquisitions of our equity interests. The payment of dividends and other restricted payments are subject to the condition that certain defaults not exist under the terms of our current secured credit facilities, United States accounts receivable credit facility and the indenture governing our Senior Notes due 2027 and, in the event that certain defaults exist, are limited in amount by a formula based, in part, on our consolidated net income. See “Liquidity and Capital Resources – Borrowing Arrangements” in Item 7 of this Form 10-K.

In July 2017, the Board of Directors' Stock Repurchase Committee authorized, and we executed, the repurchase of 2,000 shares of Class B Common Stock as a part of the Board authorized common stock repurchase program. No stock has been repurchased during 2018 and 2019.

Performance Graph

The following graph compares the performance of shares of our Class A and B Common Stock to that of the Standard and Poor’s 500 Index and our industry group (Peer Index) assuming $100 invested on October 31, 2014 and reinvestment of dividends for each subsequent year. The graph does not purport to represent our value.



The Peer Index comprises the containers and packaging index as shown by Dow Jones.

Equity compensation plan information required by Items 201(d) of Regulation S-K will be found under the caption “Equity Compensation Plan Information” in the 2020 Proxy Statement, which information is incorporated herein by reference.

ITEM 6. SELECTED FINANCIAL DATA

The five-year selected financial data is as follows:

	Year Ended October 31,				
(in millions, except per share amounts)	2019[1]	2018	2017	2016	2015
Net sales	$ 4,595.0	$ 3,873.8	$ 3,638.2	$ 3,323.6	$ 3,616.7
Net income attributable to Greif, Inc.	$ 171.0	$ 209.4	$ 118.6	$ 74.9	$ 71.9
Total assets	$ 5,426.7	$ 3,194.8	$ 3,232.3	$ 3,153.0	$ 3,315.7
Long-term debt, including current portion of long-term debt	$ 2,756.3	$ 907.6	$ 952.8	$ 974.6	$ 1,146.9
Basic earnings per share:					
Class A common stock	$ 2.89	$ 3.56	$ 2.02	$ 1.28	$ 1.23
Class B common stock	$ 4.33	$ 5.33	$ 3.02	$ 1.90	$ 1.83
Diluted earnings per share:					
Class A common stock	$ 2.89	$ 3.55	$ 2.02	$ 1.28	$ 1.23
Class B common stock	$ 4.33	$ 5.33	$ 3.02	$ 1.90	$ 1.83
Dividends per share:					
Class A common stock	$ 1.76	$ 1.70	$ 1.68	$ 1.68	$ 1.68
Class B common stock	$ 2.63	$ 2.54	$ 2.51	$ 2.51	$ 2.51

[1] Includes the results and components of the Caraustar Acquisition from February 11, 2019 through October 31, 2019.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The terms "Greif," the "Company," "we," "us" and "our" as used in this discussion refer to Greif, Inc. and its subsidiaries.

RESULTS OF OPERATIONS

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these 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 at the date of our consolidated financial statements.

Historical revenues and earnings may or may not be representative of future operating results due to various economic and other factors.

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, including debt extinguishment charges, plus income tax expense, plus depreciation, depletion and amortization, and Adjusted EBITDA is defined as EBITDA plus restructuring charges, plus acquisition-related costs, plus non-cash impairment charges, plus non-cash pension settlement 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-related costs, plus non-cash asset impairment charges, plus non-cash pension settlement 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 charges, restructuring charges, debt extinguishment charges, acquisition-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.

The following table sets forth the net sales, operating profit (loss), EBITDA and Adjusted EBITDA for each of our business segments for 2019, 2018 and 2017:

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Net sales			
Rigid Industrial Packaging & Services	$ 2,490.6	$ 2,623.6	$ 2,522.7
Paper Packaging & Services	1,780.0	898.5	800.9
Flexible Products & Services	297.5	324.2	286.4
Land Management	26.9	27.5	28.2
Total net sales	$ 4,595.0	$ 3,873.8	$ 3,638.2
Operating profit (loss):			
Rigid Industrial Packaging & Services	179.6	183.2	190.1
Paper Packaging & Services	184.3	158.3	93.5
Flexible Products & Services	25.3	19.4	5.8
Land Management	9.9	9.6	10.1
Total operating profit	$ 399.1	$ 370.5	$ 299.5
EBITDA:			
Rigid Industrial Packaging & Services	251.6	249.0	241.9
Paper Packaging & Services	307.0	191.8	115.3
Flexible Products & Services	32.7	25.7	11.1
Land Management	14.2	14.2	14.6
Total EBITDA	$ 605.5	$ 480.7	$ 382.9
Adjusted EBITDA:			
Rigid Industrial Packaging & Services	269.9	273.4	294.9
Paper Packaging & Services	348.3	192.3	126.1
Flexible Products & Services	28.6	25.6	12.3
Land Management	12.1	11.9	12.2
Total Adjusted EBITDA	$ 658.9	$ 503.2	$ 445.5

The following table sets forth EBITDA and Adjusted EBITDA, reconciled to net income and operating profit, for our consolidated results for 2019, 2018 and 2017:

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Net income	194.2	229.5	135.1
Plus: interest expense, net	112.5	51.0	60.1
Plus: debt extinguishment charges	22.0	—	—
Plus: income tax expense	70.7	73.3	67.2
Plus: depreciation, depletion and amortization expense	206.1	126.9	120.5
EBITDA	$ 605.5	$ 480.7	$ 382.9
Net income	194.2	229.5	135.1
Plus: interest expense, net	112.5	51.0	60.1
Plus: debt extinguishment charges	22.0	—	—
Plus: income tax expense	70.7	73.3	67.2
Plus: non-cash pension settlement charges	—	1.3	27.1
Plus: other (income) expense, net	2.6	18.4	12.0
Plus: equity earnings of unconsolidated affiliates, net of tax	(2.9)	(3.0)	(2.0)
Operating profit	399.1	370.5	299.5
Less: non-cash pension settlement charges	—	1.3	27.1
Less: other (income) expense, net	2.6	18.4	12.0
Less: equity earnings of unconsolidated affiliates, net of tax	(2.9)	(3.0)	(2.0)
Plus: depreciation, depletion and amortization expense	206.1	126.9	120.5
EBITDA	$ 605.5	$ 480.7	$ 382.9
Plus: restructuring charges	26.1	18.6	12.7
Plus: acquisition-related charges	29.7	0.7	0.7
Plus: non-cash asset impairment charges	7.8	8.3	20.8
Plus: non-cash pension settlement charges	—	1.3	27.1
Less: (Gain) loss on disposal of properties, plants, equipment, and businesses, net	(10.2)	(6.4)	1.3
Adjusted EBITDA	$ 658.9	$ 503.2	$ 445.5

The following table sets forth EBITDA and Adjusted EBITDA for each of our business segments, reconciled to the operating profit for each segment, for 2019 and 2018:

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Rigid Industrial Packaging & Services			
Operating profit	$ 179.6	$ 183.2	$ 190.1
Less: non-cash pension settlement charges	—	1.3	16.7
Less: other (income) expense, net	7.2	17.1	10.5
Less: equity earnings of unconsolidated affiliates, net of tax	(2.9)	(3.0)	(2.0)
Plus: depreciation and amortization expense	76.3	81.2	77.0
EBITDA	$ 251.6	$ 249.0	$ 241.9
Plus: restructuring charges	18.8	17.3	11.2
Plus: acquisition-related charges	0.6	0.7	0.5
Plus: non-cash asset impairment charges	2.7	8.3	20.5
Plus: non-cash pension settlement charges	—	1.3	16.7
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	(3.8)	(3.2)	4.1
Adjusted EBITDA	$ 269.9	$ 273.4	$ 294.9
Paper Packaging & Services			
Operating profit	$ 184.3	$ 158.3	$ 93.5
Less: non-cash pension settlement charges	—	—	10.2
Less: other (income) expense, net	(3.4)	0.7	(0.1)
Plus: depreciation and amortization expense	119.3	34.2	31.9
EBITDA	$ 307.0	$ 191.8	$ 115.3
Plus: restructuring charges	6.2	0.4	0.3
Plus: acquisition-related charges	29.1	—	0.2
Plus: non-cash asset impairment charges	5.1	—	—
Plus: non-cash pension settlement charges	—	—	10.2
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	0.9	0.1	0.1
Adjusted EBITDA	$ 348.3	$ 192.3	$ 126.1
Flexible Products & Services			
Operating profit (loss)	$ 25.3	$ 19.4	$ 5.8
Less: non-cash pension settlement charge	—	—	0.1
Less: other (income) expense, net	(1.2)	0.6	1.6
Plus: depreciation and amortization expense	6.2	6.9	7.0
EBITDA	$ 32.7	$ 25.7	$ 11.1
Plus: restructuring charges	1.0	0.9	1.2
Plus: non-cash asset impairment charges	—	—	0.3
Plus: non-cash pension settlement charges	—	—	0.1
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	(5.1)	(1.0)	(0.4)
Adjusted EBITDA	$ 28.6	$ 25.6	$ 12.3
Land Management			
Operating profit	9.9	9.6	10.1
Less: non-cash pension settlement charge	—	—	0.1
Plus: depreciation, depletion and amortization expense	4.3	4.6	4.6
EBITDA	$ 14.2	$ 14.2	$ 14.6
Plus: restructuring charges	0.1	—	—
Plus: non-cash pension settlement charge	—	—	0.1
Less: (gain) loss on disposal of properties, plants, equipment, and businesses, net	(2.2)	(2.3)	(2.5)
Adjusted EBITDA	$ 12.1	$ 11.9	$ 12.2

Year 2019 Compared to Year 2018

Net Sales

Net sales were $4,595.0 million for 2019 compared with $3,873.8 million for 2018. The $721.2 million increase was primarily due to the sales contributed by the acquired Caraustar operations, partially offset by lower volumes in certain regions and the impact of foreign currency translation.

Gross Profit

Gross profit was $959.9 million for 2019 compared with $788.9 million for 2018. The respective reasons for the improvement or decline in gross profit, as the case may be, for each segment are described below in the "Segment Review." Gross profit margin was 20.9 percent for 2019 compared to 20.4 percent for 2018.

Selling, General and Administrative Expenses

Selling, general and administrative ("SG&A") expenses increased $110.2 million to $507.4 million for 2019 from $397.2 million for 2018. This increase was primarily due to expenses attributable to the acquired Caraustar operations, partially offset by a reduction in salaries and benefits costs. SG&A expenses were 11.0 percent of net sales for 2019 compared with 10.3 percent of net sales for 2018.

Restructuring Charges

Restructuring charges were $26.1 million for 2019 compared with $18.6 million for 2018. Restructuring activities and associated costs during 2019 are anticipated to deliver annual run-rate savings of approximately $31.6 million with payback periods ranging from one to three years among the plans. See Note 6 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Acquisition-related Costs

Acquisition-related costs were $29.7 million for 2019 compared with $0.7 million for 2018. The increase was primarily due to expenses incurred in connection with the Caraustar Acquisition and the Tholu Acquisition. See Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Impairment Charges

There were no goodwill impairment charges for 2019 and 2018.

Non-cash asset impairment charges were $7.8 million for 2019 compared with $8.3 million for 2018. In 2019, these charges were primarily related to plant closures. See Note 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Gain on Disposal of Properties, Plants and Equipment, net

The gain on disposal of properties, plants, and equipment, net was $13.9 million and $5.6 million for 2019 and 2018, respectively. See Note 4 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Gain on Disposal of Businesses, net

The gain on disposal of business, net was $3.7 million for 2019 and $0.8 million for 2018. See Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Financial Measures

Operating profit was $399.1 million for 2019 compared with $370.5 million for 2018. Net income was $194.2 million for 2019 compared with $229.5 million for 2018. Adjusted EBITDA was $658.9 million for 2019 compared with $503.2 million for 2018. The $155.7 million increase in Adjusted EBITDA was primarily due to the contribution from the acquired Caraustar operations, partially offset by lower volumes in certain regions and a negative impact from foreign currency translation.

Trends

We anticipate demand softness in the industrial manufacturing businesses, particularly in North America and Western Europe, to continue in 2020. Additionally, raw material prices for steel, resin, old corrugated containers, recycled coated and uncoated paperboard are expected to remain relatively stable in 2020.

Segment Review

Rigid Industrial 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 $2,490.6 million for 2019 compared with $2,623.6 million for 2018. The $133.0 million decrease in net sales was due primarily to decreased volumes in certain regions and the impact of foreign currency translation, partially offset by an increase in selling prices due to strategic pricing decisions.

Gross profit was $460.1 million for 2019 compared with $490.8 million for 2018. The $30.7 million decrease in gross profit was primarily due to the same factors that impacted net sales. Gross profit margin decreased to 18.5 percent in 2019 from 18.7 percent in 2018.

Operating profit was $179.6 million for 2019 compared with $183.2 million for 2018. The $3.6 million decrease was primarily attributable to the same factors that impacted net sales, partially offset by a decrease in the segment's SG&A expense. The decrease in SG&A expense included a one-time Brazilian tax recovery of approximately $7.0 million. Adjusted EBITDA was $269.9 million for 2019 compared with $273.4 million for 2018. The $3.5 million decrease was primarily due to the same factors that impacted operating profit. Depreciation, depletion and amortization expense was $76.3 million and $81.2 million for 2019 and 2018, respectively.

Paper Packaging & Services

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
- Restructuring charges; and
- Acquisition of businesses and facilities.

Net sales were $1,780.0 million for 2019 compared with $898.5 million for 2018. The $881.5 million increase was primarily due to $936.3 million of contribution from the acquired Caraustar operations, partially offset by lower published containerboard prices and decreased volumes.

Gross profit was $425.4 million for 2019 compared with $222.5 million for 2018. The increase in gross profit was due primarily to $211.6 million of contribution from the acquired Caraustar operations, partially offset by the same factors that impacted net sales. Gross profit margin was 23.9 percent and 24.8 percent for 2019 and 2018, respectively.

Operating profit was $184.3 million for 2019 compared with $158.3 million for 2018. Adjusted EBITDA was $348.3 million for 2019 compared with $192.3 million for 2018. The increase was due primarily to $163.9 million of contribution from the acquired Caraustar operations, partially offset by the same factors that impacted net sales. Depreciation, depletion and amortization expense was $119.3 million and $34.2 million for 2019 and 2018, respectively.

Flexible Products & Services

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 $297.5 million for 2019 compared with $324.2 million for 2018. The $26.7 million decrease was primarily due to the impact of foreign currency translation and volume decreases, partially offset by improved product mix.

Gross profit was $64.2 million for 2019 compared with $65.2 million for 2018. The decrease was primarily attributable to the same factors that impacted net sales, partially offset by lower manufacturing costs. The increase in gross profit margin to 21.6 percent for 2019 from 20.1 percent for 2018 was primarily due to lower manufacturing costs.

Operating profit was $25.3 million for 2019 compared with $19.4 million for 2018. The increase in operating profit was primarily due to a $5.1 million gain on disposal of properties, plants and equipment. Adjusted EBITDA was $28.6 million for 2019 compared with $25.6 million for 2018. The increase was due to a reduction in segment SG&A expense, partially offset by lower gross profit. Depreciation, depletion and amortization expense was $6.2 million for 2019 compared with $6.9 million for 2018, respectively.

Land Management

As of October 31, 2019, our Land Management segment consisted of approximately 251,000 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 properties, 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.
- 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 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 October 31, 2019, we estimated that there were 18,800 acres in the United States of special use property, which we expect will be available for sale in the next four to six years.

Net sales decreased to $26.9 million for 2019 compared with $27.5 million for 2018.

Operating profit increased to $9.9 million for 2019 from $9.6 million for 2018.

Adjusted EBITDA was $12.1 million and $11.9 million for 2019 and 2018, respectively. Depreciation, depletion and amortization expense was $4.3 million and $4.6 million for 2019 and 2018, respectively.

Other Income Statement Changes

Interest Expense, net

Interest expense, net was $112.5 million and $51.0 million for 2019 and 2018, respectively. The increase was primarily due to the incremental debt incurred in connection with the Caraustar Acquisition.

Debt Extinguishment Charges

Debt extinguishment charges were $22.0 million in 2019. There were no debt extinguishment charges in 2018. The increase in debt extinguishment charges was due to the debt extinguishment related to the financing of the Caraustar Acquisition.

Other Expense, net

Other expense, net was $2.6 million and $18.4 million for 2019 and 2018, respectively. The decrease was primarily due to a reduction in pension costs, largely driven by a one-time $65.0 million contribution we made to our U.S. defined benefit plan in 2018, as well as reduced foreign currency transaction losses.

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 charges, restructuring charges, and (gains) losses on sales of businesses.

Summary

	Year ended October 31,	
	2019	**2018**
Non-U.S. % of Consolidated Net Sales	40.6%	51.4%
U.S. % of Consolidated Net Sales	59.4%	48.6%
	100.0%	100.0%
Non-U.S. % of Consolidated I.B.I.T.	50.4%	34.1%
U.S. % of Consolidated I.B.I.T.	49.6%	65.9%
	100.0%	100.0%
Non-U.S. % of Consolidated I.B.I.T. before Special Items	44.0%	36.9%
U.S. % of Consolidated I.B.I.T. before Special Items	56.0%	63.1%
	100.0%	100.0%

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

	Year ended October 31,	
	2019	**2018**
Non-U.S. I.B.I.T.	$ 132.1	$ 102.3
Non-cash asset impairment charges	2.7	4.6
Non-cash pension settlement charge	—	1.3
Restructuring charges	16.3	13.5
Acquisition-related costs	0.5	0.6
(Gain) loss on sale of businesses	2.9	(0.8)
Total Non-U.S. Special Items	22.4	19.2
Non-U.S. I.B.I.T. before Special Items	$ 154.5	$ 121.5

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

	Year ended October 31,	
	2019	**2018**
U.S. I.B.I.T.	$ 129.9	$ 197.5
Non-cash asset impairment charges	5.1	3.7
Restructuring charges	9.8	5.1
Acquisition-related costs	29.2	0.1
Debt extinguishment charges	22.0	—
Loss on sale of businesses	0.8	—
Total U.S. Special Items	66.9	8.9
U.S. I.B.I.T. before Special Items	$ 196.8	$ 206.4

* Income Before Income Tax expense = I.B.I.T.

Income Tax Expense

We had operations in over 40 countries during 2019. Operations outside the United States are subject to additional risks that may not exist, or be as significant, within the United States. Because of our global operations in numerous countries we are required to address different and complex tax systems and issues which are constantly changing.

Preparation of our financial statements requires the use of estimates and assumptions that affect the reported amounts of our assets and liabilities; and revenues and expenses as of the balance sheet date. The numerous tax jurisdictions in which we operate, along with the variety and complexity of the various tax laws, creates a level of uncertainty, and requires judgment when addressing the impact of complex tax issues. Our effective tax rate and the amount of tax expense are dependent upon various factors, including the following: the tax laws of the jurisdictions in which income is earned; the ability to realize deferred tax assets at certain international subsidiaries; negotiation and dispute resolution with taxing authorities in the U.S. and international jurisdictions; and changes in tax laws.

The provision for income taxes is computed using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized currently based on the anticipated future tax consequences of changes in the temporary differences between the book and tax bases of assets and liabilities. This method includes an estimate of the future realization of tax benefits associated with tax losses. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those assets are expected to be realized or settled.

Income tax expense for 2019 was $70.7 million on $262.0 million of pretax income and for 2018 was $73.3 million on $299.8 million of pretax income. In 2019, the mix of income and losses among various jurisdictions resulted in $7.6 million less tax on $37.8 million less of pretax income. Additionally, the year-over-year increase in our reserve for unrecognized tax benefits due to releases for audit settlements and expirations in the statute of limitations, offset by increases of the reserve due to changes in the measurement of uncertain tax positions, was $3.3 million lower than the 2018 increase in the reserve. Further, the 2019 tax related to unremitted foreign earnings was $0.7 million lower than the amount recorded in 2018. These decreases between the 2019 and 2018 tax amounts were offset by year-over-year increases of $0.8 million in withholding tax expense and $3.6 million for other miscellaneous tax expense items, along with, most significantly, a $18.7 million increase in the 2019 tax expense related to the one-time net provisional tax benefit recognized in 2018 related to the Tax Reform Act.

During 2019, there was a $17.8 million net increase in valuation allowances. This increase was a result of a $5.6 million increase to valuation allowances related to net operating losses and other deferred tax assets, an increase of $0.7 million in new valuation allowances, as well as an increase of $13.2 million recorded from the Caraustar Acquisition. These increases were partially offset by a $1.7 million decrease in valuation allowances due to currency translation and pension adjustments.

The SEC staff issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address the application of GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Reform Act. SAB 118 also provides for a measurement period that should not extend beyond one year from the Tax Reform Act enactment date. During the first quarter of 2019, we revised our calculation for the transition tax liability by $2.3 million. The provisional calculations related to the Tax Reform Act are now complete.

We analyze potential income tax liabilities related to uncertain tax positions in the United States and international jurisdictions. The analysis of potential income tax liabilities results in estimates of income tax liabilities recognized for uncertain tax positions following the guidance of ASC 740, “Income Taxes.” The estimation of potential tax liabilities related to uncertain tax positions involves significant judgment in evaluating the impact of uncertainties in the application of ASC 740 and complex tax laws. We periodically analyze both potential income tax liabilities and existing liabilities for uncertain tax positions resulting in both new reserves and adjustments to existing reserves in light of changing facts and circumstances. This includes the release of existing liabilities for uncertain tax positions based on the expiration of statutes of limitation. During 2019 and 2018, recognition of uncertain tax positions increased primarily due to increases in unrecognized tax benefits related to prior years and the current year, offset by decreases related to lapses in statute of limitations and audit settlements.

The ultimate resolution of potential income tax liabilities may result in a payment that is materially different from our current estimates. If our estimates recognized under Account Standards Codification ("ASC") 740 prove to be different than what is ultimately resolved, such resolution could have a material impact on our financial condition and results of operations. While predicting the final outcome or the timing of the resolution of any particular tax matter is subject to various risks and uncertainties, we believe that our tax accounts related to uncertain tax positions are appropriately stated.

See Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for further information.

Equity Earnings of Unconsolidated Affiliates, net of Tax

We recorded $2.9 million and $3.0 million of equity earnings of unconsolidated affiliates, net of tax, for 2019 and 2018, respectively.

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 belongs to the noncontrolling interests in those subsidiaries. Net income attributable to noncontrolling

interests was $23.2 million and $20.1 million for 2019 and 2018, respectively. The increase in net income attributable to noncontrolling interests was due primarily to increased earnings of the joint venture ("Flexible Packaging JV") formed in 2010, with Dabbagh Group Holdings Company Limited and one of its subsidiaries, originally National Scientific Company Limited and now Gulf Refined Packaging for Industrial Packaging Company LTD.

Net Income Attributable to Greif, Inc.

Based on the factors noted above, net income attributable to Greif, Inc. decreased $38.4 million to $171.0 million in 2019 from $209.4 million in 2018.

Year 2018 Compared to Year 2017

Net Sales

Net sales were $3,873.8 million for 2018 compared with $3,638.2 million for 2017. The 6.5 percent increase was due primarily to strategic pricing decisions and contractual price changes in our Rigid Industrial Packaging & Services segment, increases in selling prices due to increases in published containerboard pricing and an increase in sales volumes in our Paper Packaging & Services segment, and strategic pricing decisions and product mix in our Flexible Products & Services segment, partially offset by volume declines due to customer operational interruptions, weather and strategic pricing decisions in our Rigid Industrial Packaging & Services segment.

Gross Profit

Gross profit was $788.9 million for 2018 compared with $714.7 million for 2017. The respective reasons for the improvement or decline in gross profit, as the case may be, for each segment are described below in the "Segment Review." Gross profit margin was 20.4 percent for 2018 compared to 19.6 percent for 2017.

Selling, General and Administrative Expenses

SG&A expenses increased 4.6 percent to $397.2 million for 2018 from $379.7 million for 2017. This increase was primarily due to increased health and medical expenses, increased non-income taxes and increased salary expenses. SG&A expenses were 10.3 percent of net sales for 2018 compared with 10.4 percent of net sales for 2017.

Restructuring Charges

Restructuring charges were $18.6 million for 2018 compared with $12.7 million for 2017. See Note 6 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Impairment Charges

There were no goodwill impairment charges for 2018 compared with $13.0 million for 2017. The 2017 charges were related to the impairment of goodwill within the Rigid Industrial Packaging & Services segment.

Non-cash asset impairment charges were $8.3 million for 2018 compared with $7.8 million for 2017. In 2018, these charges were primarily related to plant closures and impairments of goodwill allocated to assets held for sale. See Note 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Gain on Disposal of Properties, Plants and Equipment, net

The gain on disposal of properties, plants, and equipment, net was $5.6 million and $0.4 million for 2018 and 2017, respectively. See Note 4 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

(Gain) Loss on Disposal of Businesses, net

The gain on disposal of business, net was $0.8 million for 2018 and the loss on disposal of business, net was $1.7 million for 2017. See Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

Financial Measures

Operating profit was $370.5 million for 2018 compared with $299.5 million for 2017. Net income was $229.5 million for 2018 compared with $135.1 million for 2017. Adjusted EBITDA was $503.2 million for 2018 compared with $445.5 million for 2017. The $57.7 million increase in Adjusted EBITDA was primarily due to increased volumes, higher containerboard sales prices and

lower old corrugated containerboard prices in our Paper Packaging & Services segment, product mix and volume increases in our Flexible Products & Services segment, partially offset by increased raw materials costs in our Rigid Industrial Packaging & Services segment and increased SG&A expenses.

Segment Review

Rigid Industrial 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;
- Divestiture of businesses and facilities; and
- Impact of foreign currency translation.

Net sales increased 4.0 percent to $2,623.6 million in 2018 from $2,522.7 million in 2017. The $100.9 million increase in net sales was primarily the result of an increase in selling prices due to strategic pricing decisions, contractual price changes and a $18.9 million impact of foreign currency translation, partially offset by volume declines due to customer operational interruptions, weather and strategic pricing decisions.

Gross profit was $490.8 million for 2018 compared with $502.2 million for 2017. The $11.4 million decrease in gross profit was primarily due to increased raw material costs, increased manufacturing expenses and the timing of contractual price changes. Gross profit margin decreased to 18.7 percent in 2018 from 19.9 percent in 2017.

Operating profit was $183.2 million for 2018 compared with $190.1 million for 2017. Adjusted EBITDA was $273.4 million for 2018 compared with $294.9 million for 2017. The decrease in Adjusted EBITDA was due to the same factors same factors impacting gross profit.

Paper Packaging & Services

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; and
- Benefits from executing the Greif Business System.

Net sales increased 12.2 percent to $898.5 million for 2018 compared with $800.9 million for 2017, primarily due to increased published containerboard prices and increased sales volumes.

Gross profit was $222.5 million for 2018 compared with $150.9 million for 2017. Gross profit margin was 24.8 percent and 18.8 percent for 2018 and 2017, respectively. The increase in gross profit and gross profit margin was due primarily to higher containerboard sales prices and lower old corrugated container input costs, partially offset by increased transportation costs.

Operating profit was $158.3 million for 2018 compared with $93.5 million for 2017. Adjusted EBITDA was $192.3 million for 2018 compared with $126.1 million for 2017. The increase was primarily due to the same factors that impacted gross profit, partially offset by an increase in SG&A expenses due to an increase in allocated corporate costs and an increase in salaries and benefits costs as a result of business performance.

Flexible Products & Services

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 increased 13.2 percent to $324.2 million for 2018 compared with $286.4 million for 2017. The increase was due primarily to product mix, strategic pricing decisions, volume increases, and a $12.3 million impact of foreign currency translation.

Gross profit was $65.2 million for 2018 compared with $51.1 million for 2017. The increase was primarily attributable to the same factors that impacted net sales and improved transportation and manufacturing efficiencies, which also contributed to the increase in gross profit margin to 20.1 percent for 2018 from 17.8 percent for 2017.

Operating profit was $19.4 million for 2018 compared with $5.8 million for 2017. Adjusted EBITDA was $25.6 million for 2018 compared with $12.3 million for 2017. The increase was primarily related to the same factors impacting gross profit, partially offset by an increase in SG&A expenses due to an increase in allocated corporate costs and an increase in salaries and benefits expenses as a result of business performance.

Land Management

As of October 31, 2018, our Land Management segment consisted of approximately 243,000 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 special use properties.

As of October 31, 2018, we estimated that there were 17,900 acres in the United States of special use property, which we expect will be available for sale in the next five to seven years.

Net sales decreased to $27.5 million for 2018 compared with $28.2 million for 2017.

Operating profit decreased to $9.6 million for 2018 from $10.1 million for 2017.

Adjusted EBITDA was $11.9 million and $12.2 million for 2018 and 2017, respectively. Depreciation, depletion and amortization expense was $4.6 million for 2018 and 2017.

Other Income Statement Changes

Interest Expense, net

Interest expense, net was $51.0 million and $60.1 million for 2018 and 2017, respectively. The decrease was primarily due to the repayment of our Senior Notes due February 2017, lower long-term debt balances, and lower interest rates resulting from the impact of our derivative financial instruments.

Other Expense, net

Other expense, net was $18.4 million and $12.0 million for 2018 and 2017, respectively. The increase was primarily due to other components of net benefit cost, $5.9 million, which are required to be present outside of income from operations, as a result of our adoption of ASU 2017-07. See Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information.

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

Refer to 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 charges, restructuring charges, and (gains) losses on sales of businesses.

Summary

	Year ended October 31, 2018	Year ended October 31, 2017
Non-U.S. % of Consolidated Net Sales	51.4%	51.1%
U.S. % of Consolidated Net Sales	48.6%	48.9%
	100.0%	100.0%
Non-U.S. % of Consolidated I.B.I.T.	34.1%	42.6%
U.S. % of Consolidated I.B.I.T.	65.9%	57.4%
	100.0%	100.0%
Non-U.S. % of Consolidated I.B.I.T. before Special Items	36.9%	43.5%
U.S. % of Consolidated I.B.I.T. before Special Items	63.1%	56.5%
	100.0%	100.0%

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

	Year ended October 31, 2018	Year ended October 31, 2017
Non-U.S. I.B.I.T.	$ 102.3	$ 85.2
Non-cash asset impairment charges	4.6	2.2
Goodwill impairment charges	—	13.0
Non-cash pension settlement charge	1.3	1.2
Restructuring charges	13.5	10.8
(Gain) loss on sale of businesses	(0.8)	1.7
Total Non-U.S. Special Items	18.6	28.9
Non-U.S. I.B.I.T. before Special Items	$ 120.9	$ 114.1

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

	Year ended October 31, 2018	Year ended October 31, 2017
U.S. I.B.I.T.	$ 197.5	$ 115.1
Non-cash asset impairment charges	3.7	5.6
Non-cash pension settlement charge	—	25.9
Restructuring charges	5.1	1.9
Total U.S. Special Items	8.8	33.4
U.S. I.B.I.T. before Special Items	$ 206.3	$ 148.5

* Income Before Income Tax expense = I.B.I.T.

Income Tax Expense

We had operations in over 40 countries during 2018. Operations outside the United States are subject to additional risks that may not exist, or be as significant, within the United States. Because of our global operations in numerous countries we are required to address different and complex tax systems and issues which are constantly changing.

Preparation of our financial statements requires the use of estimates and assumptions that affect the reported amounts of our assets and liabilities; and revenues and expenses as of the balance sheet date. The numerous tax jurisdictions in which we operate, along

with the variety and complexity of the various tax laws, creates a level of uncertainty, and requires judgment when addressing the impact of complex tax issues. Our effective tax rate and the amount of tax expense are dependent upon various factors, including the following: the tax laws of the jurisdictions in which income is earned; the ability to realize deferred tax assets at certain international subsidiaries; negotiation and dispute resolution with taxing authorities in the U.S. and international jurisdictions; and changes in tax laws.

The provision for income taxes is computed using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized currently based on the anticipated future tax consequences of changes in the temporary differences between the book and tax bases of assets and liabilities. This method includes an estimate of the future realization of tax benefits associated with tax losses. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those assets are expected to be realized or settled.

Income tax expense for 2018 was $73.3 million on $299.8 million of pretax income and for 2017 was $67.2 million on $200.3 million of pretax income. For 2018, the reduction of the statutory federal corporate income tax rate due to the enactment of the Tax Reform Act, as well as the mix of income and losses among various jurisdictions, resulted in a net tax increase of $18.7 million on pre-tax income of $99.5 million. Additionally, there was an $11.0 million year-over-year increase in tax expense related to changes in the measurement of uncertain tax positions, offset by decreases related to audit settlements and the expiration of the statute of limitations. Further, there was a year-over-year $1.9 million increase in withholding tax expense. These year-over-year tax increases were offset by year-over-year decreases of $5.1 million related to unremitted foreign earnings and $1.2 million for other small tax expense items, along with, most significantly, a $19.2 million decrease in the 2018 tax expense related to the net provisional tax benefit related to the Tax Reform Act. The net provisional tax benefit included tax benefits of $72.0 million resulting from the revaluation of deferred tax assets and liabilities, which were partially offset by $52.8 million of transition tax expense.

During 2018, there was a $24.8 million net increase in valuation allowances. This increase was a result of a $30.2 million increase to valuation allowances related to net operating losses and other deferred tax assets, as well as an increase of $0.6 million in new valuation allowances. These increases were partially offset by a $6.0 million decrease in valuation allowances due to currency translation.

The SEC staff issued SAB 118 to address the application of GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Reform Act. SAB 118 also provides for a measurement period that should not extend beyond one year from the Tax Reform Act enactment date. As of October 31, 2018, our accounting for the Tax Reform Act was provisional. However, in accordance with SAB 118, we have recorded a reasonable estimate for the following items: a tax benefit related to the revaluation of deferred tax assets and liabilities of $72.0 million; and a provisional tax expense as a result of the accrual for the transition tax liability of $52.8 million. As a result, the net provisional tax benefit recorded in our consolidated financial statements for the year ended October 31, 2018 was $19.2 million. Adjustments to the provisional estimates will be recorded and disclosed prospectively during the measurement period and may differ from these provisional amounts, due to, among other matters, additional analyses, changes in interpretations and assumptions we have made, additional regulatory guidance that may be issued, and actions we may take as a result of the Tax Reform Act.

We analyze potential income tax liabilities related to uncertain tax positions in the United States and international jurisdictions. The analysis of potential income tax liabilities results in estimates of income tax liabilities recognized for uncertain tax positions following the guidance of ASC 740, “Income Taxes.” The estimation of potential tax liabilities related to uncertain tax positions involves significant judgment in evaluating the impact of uncertainties in the application of ASC 740 and complex tax laws. We periodically analyze both potential income tax liabilities and existing liabilities for uncertain tax positions resulting in both new reserves and adjustments to existing reserves in light of changing facts and circumstances. This includes the release of existing liabilities for uncertain tax positions based on the expiration of statutes of limitation. During 2018, recognition of uncertain tax positions increased primarily due to increases in unrecognized tax benefits related to prior years and the current year, offset by decreases related to lapse in statute of limitations; whereas in 2017, the uncertain tax positions decreased primarily due to audit and statute of limitations releases attributable to non-US jurisdictions.

The ultimate resolution of potential income tax liabilities may result in a payment that is materially different from our current estimates. If our estimates recognized under ASC 740 prove to be different than what is ultimately resolved, such resolution could have a material impact on our financial condition and results of operations. While predicting the final outcome or the timing of the resolution of any particular tax matter is subject to various risks and uncertainties, we believe that our tax accounts related to uncertain tax positions are appropriately stated.

See Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for further information.

Equity Earnings of Unconsolidated Affiliates, net of Tax

We recorded $3.0 million and $2.0 million of equity earnings of unconsolidated affiliates, net of tax, for 2018 and 2017, respectively.

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 belongs to the noncontrolling interests in those subsidiaries. Net income attributable to noncontrolling interests was $20.1 million and $16.5 million for 2018 and 2017, respectively. The increase in net income attributable to noncontrolling interests was due primarily to increased earnings of the Flexible Packaging JV.

Net Income Attributable to Greif, Inc.

Based on the factors noted above, net income attributable to Greif, Inc. increased $90.8 million to $209.4 million in 2018 from $118.6 million in 2017.

OTHER COMPREHENSIVE INCOME CHANGES

Other comprehensive income (loss), net of tax for 2019 and 2018 was $(55.9) million and $(21.5) million, respectively. The components of those other comprehensive income changes were as follows:

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, liabilities and operations of our international subsidiaries, are presented in the consolidated statements of changes in equity in accumulated other comprehensive loss. Other comprehensive loss resulting from foreign currency translation for 2019 was $4.5 million. Other comprehensive loss resulting from foreign currency translation for 2018 was $45.5 million.

Derivative financial instruments

The change in derivative financial instruments, net of tax for 2019 and 2018 was a loss of $26.1 million and income of $7.7 million, respectively. The other comprehensive loss in 2019 resulting from the change in derivative financial instruments, net, was primarily due to an increased portfolio of interest rate swaps and the impact of decreases in market interest rates on the swaps.

Minimum pension liability, net

The change in minimum pension liability, net of tax for 2019 and 2018 was a loss of $25.3 million and income of $16.3 million, respectively. The other comprehensive loss in 2019 resulting from the change in minimum pension liability, net was primarily due to the Caraustar Acquisition, lower discount rates globally, and lowered expected return on asset assumptions.

BALANCE SHEET CHANGES

Refer to Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for further information on acquisition impacts to the 2019 Consolidated Balance Sheet.

Working capital changes

The $207.5 million increase in accounts receivable to $664.2 million as of October 31, 2019 from $456.7 million as of October 31, 2018 was primarily due to $135.7 million of contribution from the acquired Caraustar operations and changes in our international trade accounts receivables credit facilities. For a discussion of these changes, see "Liquidity and Capital Resources - International Trade Accounts Receivable Credit Facilities" and Note 3 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

The $68.7 million increase in inventories to $358.2 million as of October 31, 2019 from $289.5 million as of October 31, 2018 was primarily due to $84.9 million of contribution from the acquired Caraustar operations, offset by decreased raw material purchases and prices.

The $31.4 million increase in accounts payable to $435.2 million as of October 31, 2019 from $403.8 million as of October 31, 2018 was primarily due to $85.1 million of contribution from the acquired Caraustar operations, offset by decreased raw material prices and the timing of payments.

Other balance sheet changes

The $695.9 million increase in other intangible assets to $776.5 million as of October 31, 2019 from $80.6 million as of October 31, 2018 was primarily due to $725.5 million of contribution from the acquired Caraustar operations and $24.1 million of contribution from the acquired Tholu operations, partially offset by amortization expense of $53.2 million recognized during 2019. For a discussion of these changes, see Note 2 and Note 5 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K.

The $498.4 million increase in properties, plants and equipment, net to $1,690.3 million as of October 31, 2019 from $1,191.9 million as of October 31, 2018 was primarily due to $493.4 million of contribution from the acquired Caraustar operations and capital expenditures, partially offset by depreciation.

The $1,774.9 million increase in long-term debt to $2,659.0 million as of October 31, 2019 from $884.1 million as of October 31, 2018 was primarily due to the "2019 Credit Agreement" we entered into and the "Senior Notes due 2027" we issued on February 11, 2019 to fund the purchase price of the Caraustar Acquisition, partially offset by repayments of the "2017 Credit Agreement" and the "Senior Note due 2019". For a discussion of these changes, see "Liquidity and Capital Resources - Borrowing Arrangements" and Note 8 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

The $11.6 million increase in noncontrolling interest to $58.0 million as of October 31, 2019 from $46.4 million as of October 31, 2018 was primarily due to increased earnings of consolidated joint ventures and foreign currency translation.

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, 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 anticipated liquidity needs for at least 12 months. Moreover, as a result of the Tax Reform Act, if distributions from operations outside the United States are needed to fund working capital needs, capital expenditures, cash dividends, stock repurchases, or debt payment, there would be no U.S. taxes on such distributions.

Capital Expenditures

During 2019 and 2018, we invested $156.9 million (excluding $5.4 million for purchases of and investments in timber properties) and $139.1 million (excluding $8.9 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 $160.0 million to $180.0 million during the year ending October 31, 2020. 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 our existing receivables facility in the United States to establish a $275.0 million United States Trade Accounts Receivable Credit Facility (the "U.S. Receivables Facility") with a financial institution. The U.S. Receivables Facility matures on September 24, 2020. As of October 31, 2019, $254.7 million, net of deferred financing costs of $0.4 million, was outstanding under the U.S. Receivable Facility, which was reported in long-term debt in the consolidated balance sheets because we intend to refinance the 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. The U.S. Receivables Facility also contains certain covenants and events of default, which are substantially the same as the covenants under the 2019 Credit Agreement. As of October 31, 2019, 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 8 to the Consolidated Financial Statements included in Item 1 of Part I of this Form 10-Q for additional disclosures regarding the U.S. Receivables Facility.

International Trade Accounts Receivable Credit Facilities

In 2012, Cooperage Receivables Finance B.V. (the “Main SPV”) and Greif Coordination Center BVBA, an indirect wholly owned subsidiary of Greif, Inc. (“Seller”), entered into the Nieuw Amsterdam Receivables Purchase Agreement (the “European RPA”) with affiliates of a major international bank (the “Purchasing Bank Affiliates”). On April 17, 2019, the Main SPV and Seller amended and extended the term of the European RPA through April 17, 2020. On June 17, 2019, the Main SPV and Seller entered into an agreement to replace the European RPA with the Nieuw Amsterdam Receivables Financing Agreement (the "European RFA"). The European RFA, which matures on April 17, 2020, provides an accounts receivable financing facility of up to €100.0 million ($111.1 million as of October 31, 2019) secured by certain European accounts receivable. As of October 31, 2019, $96.4 million was outstanding under the European RFA, which was reported as long-term debt in the consolidated balance sheet 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.

During the first quarter of 2019, a parent-level guarantee was added to the European RPA and Singapore RPA (as such term is defined below). During the third quarter of 2019, in conjunction with execution of the European RFA, the parent level guarantee was removed for the European RFA. The $1.9 million outstanding on the Singapore RPA as of October 31, 2019 is reported as short-term debt in the consolidated balance sheet because the agreement expires in 2020 and will not be renewed.

Under the previous European RPA, as amended, the maximum amount of receivables that could be sold and outstanding under the European RPA at any time was €100 million ($111.1 million as of October 31, 2019). Under the terms of the European RPA, we had the ability to loan excess cash to the Purchasing Bank Affiliates in the form of the subordinated loan receivable.

Under the terms of the previous European RPA, we had agreed to sell trade receivables meeting certain eligibility requirements that the Seller had purchased from our other indirect wholly-owned subsidiaries under a factoring agreement. Prior to November 1, 2018, the structure of the transactions provided for a legal true sale, on a revolving basis, of the receivables transferred from our various subsidiaries to the respective Purchasing Bank Affiliates. The purchaser funded an initial purchase price of a certain percentage of eligible receivables based on a formula, with the initial purchase price approximating 75 percent to 90 percent of eligible receivables. The remaining deferred purchase price was settled upon collection of these receivables.

In October 2007, Greif Singapore Pte. Ltd., an indirect wholly-owned subsidiary of the Seller, entered into the Singapore Receivable Purchase Agreement (the “Singapore RPA”) with a major international bank. The maximum amount of aggregate receivables that may be financed under the Singapore RPA is 15.0 million Singapore dollars ($11.0 million as of October 31, 2019).

Under the terms of the Singapore RPA, we have agreed to sell trade receivables in exchange for an initial purchase price of approximately 90 percent of the eligible receivables. The remaining deferred purchase price is settled upon collection of these receivables.

Prior to November 1, 2018, we removed from accounts receivable the amount of proceeds received from the initial purchase price since they met the applicable criteria of ASC 860, “Transfers and Servicing,” and we continued to recognize the deferred purchase price in other current assets or other current liabilities on our consolidated balance sheets, as appropriate. The receivables were sold on a non-recourse basis with the total funds in the servicing collection accounts pledged to the banks between settlement dates. The cash initially received, along with the deferred purchase price, related to the sale or ultimate collection of the underlying receivables and was not subject to significant other risks given their short-term nature. Therefore, we reflected all cash flows under the accounts receivable sales programs as operating cash flows on our consolidated statements of cash flows.

We perform collection and administrative functions on the receivables related to the European RPA, the European RFA and the Singapore RPA (collectively, "Foreign Receivables Facilities"), similar to the procedures we use for collecting all of our receivables. The servicing liability for these receivables is not material to our consolidated financial statements.

See Note 3 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information regarding Foreign Receivables Facilities.

Caraustar Acquisition

On February 11, 2019, we completed 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, adhesives) and consumer packaging products (folding cartons, set-up boxes, and packaging services) and a diverse mix of specialty products. The total purchase price for this acquisition, net of cash acquired, was $1,834.9 million. We incurred transaction costs of $62.1 million to complete this acquisition. Of this amount, $34.0 million was recognized immediately in the consolidated statements of income and the remaining $28.1 million in transaction costs was capitalized in accordance with ASC 470, "Debt", and is presented as part of the consolidated balance sheet ($20.8 million within Long-Term Debt and $7.3 million within Other Long-Term Assets).

We recognized goodwill related to this acquisition of $726.6 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 reportable segment to which the goodwill was assigned. The goodwill is not expected to be deductible for tax purposes.

Acquired property, plant and equipment and intangibles will be depreciated and amortized over the estimated useful lives, primarily on a straight-line basis.

We have not yet finalized the determination of the fair value of assets acquired and liabilities assumed, including income taxes and contingencies. We expect to finalize these amounts within one year of the acquisition date. The current preliminary estimate of fair value and purchase price allocation were based on information available at the time of closing the acquisition, and we continue to evaluate the underlying inputs and assumptions that are being used in fair value estimates. Accordingly, these preliminary estimates are subject to adjustments during the measurement period, not to exceed one year, based upon new information obtained about facts and circumstances that existed as of the date of closing the acquisition.

Tholu Acquisition

We completed 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"). Tholu is a Netherlands-based leader in IBC rebottling, reconditioning and distribution.

The total purchase price for this acquisition was $52.2 million, net of cash acquired of $2.1 million, of which $25.1 million was paid upon closing and the remaining $29.2 million was deferred according to a set payment schedule. The current portion of the deferred obligation is $2.5 million, recorded in Other Current Liabilities, and the remaining $26.7 million has been recorded in Other Long-Term Liabilities within the consolidated balance sheets. The legal form of the Tholu Acquisition is a joint venture with the former Tholu owner, but due to the economic structure of the transaction, we are deemed to be the 100% economic owner, and under GAAP, we will record and report 100% of all future income or loss.

We recognized goodwill related to this acquisition of $22.3 million. The goodwill recognized in this acquisition is attributable to the acquired assembled workforce, economies of scale, vertical integration and new market penetration. Tholu is reported within the Rigid Industrial Packaging & Services reportable segment to which the goodwill was assigned. The goodwill is not expected to be deductible for tax purposes.

Acquired property, plant and equipment and intangibles will be depreciated and amortized over the estimated useful lives, primarily on a straight-line basis.

We have not yet finalized the determination of the fair value of assets acquired and liabilities assumed, including income taxes and contingencies. We expect to finalize these amounts within one year of the acquisition date. The current preliminary estimate of fair value and purchase price allocation were based on information available at the time of closing the acquisition, and we continue to evaluate the underlying inputs and assumptions that are being used in fair value estimates. Accordingly, these preliminary estimates are subject to adjustments during the measurement period, not to exceed one year, based upon new information obtained about facts and circumstances that existed as of the date of closing the acquisition.

Divestitures

For the year ended October 31, 2019, we completed two divestitures of non-U.S. businesses in the Rigid Industrial Packaging & Services segment, liquidated two non-strategic non-U.S. business in the Rigid Industrial Packaging & Services segment, and deconsolidated one wholly-owned non-U.S. business in the Rigid Industrial Packaging & Services segment. The loss on disposal of businesses was $3.7 million for the year ended October 31, 2019. Proceeds from divestitures were $1.5 million for the year ended October 31, 2019. Proceeds from divestitures that were completed in 2015 and collected during the year ended October 31, 2019 were $0.8 million. Proceeds from divestitures that were completed in 2016 and collected during the year ended October 31, 2019 were $1.6 million.

For the year ended October 31, 2018, we completed no divestitures. We liquidated two non-strategic non-U.S. business in the Flexible Products & Services segment. The gain on disposal of businesses was $0.8 million for the year ended October 31, 2018. Proceeds from divestitures that were completed in 2017 and collected during the year ended October 31, 2018 were $0.5 million. Proceeds from divestitures that were completed in 2015 and collected during the year ended October 31, 2018 were $0.9 million. We had $2.9 million of notes receivable recorded from the sale of businesses for the year ended October 31, 2018.

For the year ended October 31, 2017, we completed two divestitures in the Rigid Industrial Packaging & Services segment, deconsolidated one nonstrategic business in the Flexible Products & Services segment and one nonstrategic business in the Rigid Industrial Packaging & Services segment, and liquidated two non-U.S. nonstrategic businesses in the Rigid Industrial Packaging & Services segment. The loss on disposal of businesses was $1.7 million for the year ended October 31, 2017. Proceeds from divestitures were $5.1 million for the year ended October 31, 2017. Proceeds from divestitures that were completed in fiscal year 2015 and collected during the year ended October 31, 2017 were $0.8 million. We had $4.3 million of notes receivable recorded from the sale of businesses for the year ended October 31, 2017.

None of the above-referenced divestitures in 2019, 2018, or 2017 qualified as discontinued operations as they do not, individually or in the aggregate, represent a strategic shift that has had a major impact on our operations or financial results.

See Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding our acquisitions and divestitures.

Borrowing Arrangements

Long-term debt is summarized as follows:

(in millions)	**October 31, 2019**	**October 31, 2018**
2019 Credit Agreement - Term Loans	$ 1,612.2	$ —
2017 Credit Agreement - Term Loan	—	277.5
Senior Notes due 2027	494.3	—
Senior Notes due 2021	221.7	226.5
Senior Notes due 2019	—	249.1
Accounts receivable credit facilities	351.6	150.0
2019 Credit Agreement - Revolving Credit Facility	76.1	—
2017 Credit Agreement - Revolving Credit Facility	—	3.8
Other debt	0.4	0.7
	2,756.3	907.6
Less current portion	83.7	18.8
Less deferred financing costs	13.6	4.7
Long-term debt, net	$ 2,659.0	$ 884.1

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. The 2019 Credit Agreement amended, restated and replaced in its entirety the prior $800.0 million senior secured credit agreement (the "2017 Credit Agreement"), which is described below. Our obligations under the 2019 Credit Agreement are guaranteed by certain of our U.S. subsidiaries and certain of our 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 (the "Revolving Credit Facility"), (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 2019 Credit Agreement with the agreement of the lenders.

We used borrowings under the 2019 Credit Agreement, together with the net proceeds from the issuance of the Senior Notes due March 1, 2027 (described below), to fund the purchase price of the Caraustar Acquisition, to redeem our $250.0 million Senior Notes due August 1, 2019 (the "Senior Notes due 2019"), to repay outstanding borrowings under the 2017 Credit Agreement, and to pay related fees and expenses. The Revolving Credit Facility is available to fund ongoing working capital and capital expenditures needs and for general corporate purposes. Interest is based on either a Eurodollar rate or a base rate that resets periodically plus a calculated margin amount.

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.

The terms of the 2019 Credit Agreement contain restrictive covenants, which limit our ability, among other things, to incur additional indebtedness or issue certain preferred stock, pay dividends, redeem stock or make other distributions, or make certain investments; create restrictions on the ability of our restricted subsidiaries to pay dividends or make other payments to affiliates; create certain liens; transfer or sell certain assets; merge or consolidate; enter into certain transactions with our affiliates; and designate subsidiaries as unrestricted subsidiaries. These covenants are subject to a number of important exceptions and qualifications. As of October 31, 2019, we were in compliance with the covenants and other agreements in the 2019 Credit Agreement.

The repayment of this facility is secured by a security interest in our personal property and the personal property of certain of our U.S. subsidiaries, including equipment and inventory and certain intangible assets, as well as a pledge of the capital stock of substantially all of our U.S. subsidiaries, and is secured, in part, by the capital stock of the non-U.S. borrowers. However, in the event that we receive and maintain an investment grade rating from either Moody’s Investors Service, Inc. or Standard & Poor’s Financial Services LLC, we may request the release of such collateral.

The 2019 Credit Agreement provides for events of default (subject in certain cases to customary grace and cure periods), which include, among others, nonpayment of principal or interest when due, breach of covenants or other agreements in the 2019 Credit Agreement, defaults in payment of certain other indebtedness and certain events of bankruptcy or insolvency.

2017 Credit Agreement

We and certain of our international subsidiaries were borrowers under the 2017 Credit Agreement. The 2017 Credit Agreement provided for an $800.0 million revolving multicurrency credit facility and a $300.0 million term loan. On February 11, 2019, proceeds from borrowings under the 2019 Credit Agreement were used to pay the obligations outstanding under the 2017 Credit Agreement.

See Note 8 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding our Credit Agreements over time.

Senior Notes

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. We used the net proceeds from the issuance of the Senior Notes due 2027, together with borrowings under the 2019 Credit Agreement, to fund the purchase price of the Caraustar Acquisition, to redeem all of our Senior Notes due 2019, to repay outstanding borrowings under the 2017 Credit Agreement, and to pay related fees and expenses. The terms of the Senior Notes due 2027 are governed by an Indenture that contains restrictive covenants that limit our ability, among other things, to incur additional indebtedness or issue certain preferred stock, pay dividends, redeem stock or make other distributions, or make certain investments; create certain liens; enter into certain transactions with affiliates; and designate subsidiaries as unrestricted subsidiaries. These covenants are subject to a number of important exceptions and qualifications as set forth in the Indenture. 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 October 31, 2019, we were in compliance with these covenants.

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 October 31, 2019, we were in compliance with these covenants.

On April 1, 2019, we redeemed all of our outstanding Senior Notes due 2019, which were issued on July 28, 2009 for $250.0 million. The total redemption price for the Senior Notes due 2019 was $253.9 million, which was equal to the aggregate principal amount outstanding of $250.0 million plus a premium of $3.9 million. The payment of the redemption price was funded by our borrowings under the 2019 Credit Agreement.

See Note 8 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding the Senior Notes discussed above.

Financial Instruments

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.

In 2019, we entered into six interest rate swaps related to the debt incurred in connection with the Caraustar Acquisition. See "Borrowing Arrangements - 2019 Credit Agreement". These six interest rate swaps have a total notional amount of $1,300.0 million and amortize to $200.0 million over a five year term. 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% plus an interest spread.

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 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding our interest rate derivatives.

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 October 31, 2019, we had outstanding foreign currency forward contracts in the notional amount of $275.0 million ($194.4 million as of October 31, 2018).

See Note 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding our foreign exchange hedges.

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 from the cross currency swap are excluded from the net investment hedge effectiveness assessment and are recorded in interest expense, net on the consolidated statements of income.

See Note 9 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for disclosures regarding our cross currency swap.

Contractual Obligations

As of October 31, 2019, we had the following contractual obligations:

		Payments Due by Period			
(in millions)	Total	Less than 1 year	1-3 years	3-5 years	After 5 years
Long-term debt, net of deferred financing costs	$ 2,659.0	$ 348.9	$ 495.2	$ 1,033.4	$ 781.5
Short-term borrowings	9.2	9.2			
Operating and capital lease obligations	366.3	66.6	108.6	73.3	117.8
Liabilities held by special purpose entities	43.3	—	43.3		
Contingent liabilities and environmental reserves	18.7	2.0	2.5	2.2	12.0
Current portion of long-term debt	83.7	83.7			
Mandatorily redeemable noncontrolling interests	8.4	—	8.4		
Deferred purchase price of Tholu	29.2	2.5	6.8	19.9	
Total	$ 3,217.8	$ 512.9	$ 664.8	$ 1,128.8	$ 911.3

Environmental reserves are estimates based on current remediation plans; actual liabilities could significantly differ from the reserve estimates.

We have no near-term post-retirement benefit plan funding obligations. Because the amount of such obligations in future years is not reasonably estimable, they have been excluded from the contractual obligations table. We intend to make post-retirement benefit plan contributions of $29.0 million during 2020, which consists of $23.7 million of employer contributions and $5.3 million of benefits paid directly by the employer. These contributions are not contractually obligated, and therefore are not included in the table above.

Our unrecognized tax benefits under ASC 740, “Income Taxes” have been excluded from the contractual obligations table because of the inherent uncertainty and the inability to reasonably estimate the timing of cash outflows.

Stock Repurchase Program and Other Share Acquisitions

Our Board of Directors has authorized the purchase of Class A Common Stock or Class B Common Stock or any combination of the foregoing up to 4,703,487 shares as of October 31, 2019. See Note 14 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information regarding this program and the repurchase of shares of Class A and Class B Common Stock.

Effects of Inflation

We generally identify hyper-inflationary markets as those markets whose cumulative inflation rate over a three-year period exceeds 100%. During the third quarter of 2018, Argentina was deemed as a hyper-inflationary market and our Argentine operations changed functional currency from Argentine Pesos to U.S. Dollars for GAAP reporting purposes. As a result, non-U.S. Dollar denominated monetary assets and liabilities of our Argentine operations are subject to re-measurement and recorded in Other Expense, Net, within the Consolidated Statements of Income. During 2019, foreign currency losses, net recorded in Other expense, net, related to our Argentine operations were $4.2 million. Inflation did not have a material impact on our operations during 2018.

Critical Accounting Policies

A summary of our significant accounting policies is included in Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K. We believe that the consistent application of these policies enables us to provide readers of the consolidated financial statements with useful and reliable information about our results of operations and financial condition. The following are the accounting policies that we believe are most important to the portrayal of our results of operations and financial condition and require our most difficult, subjective or complex judgments.

Other items that could have a significant impact on the financial statements include the risks and uncertainties listed in Part I, Item 1A – Risk Factors. Actual results could differ materially using different estimates and assumptions, or if conditions are significantly different in the future.

Business Combinations. We completed the Caraustar Acquisition on February 11, 2019, and the Tholu Acquisition on June 11, 2019. The Caraustar Acquisition significantly expanded the Paper Packaging & Services segment portfolio. Caraustar's and Tholu's results of operations have been included in our financial results for the period subsequent to their respective acquisition date. Under the acquisition method of accounting, we allocate the fair value of purchase consideration transferred to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the date of the acquisition. The fair values assigned, defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between willing market participants, are based on estimates and assumptions determined by management. The excess purchase consideration over the aggregate fair value of tangible and intangible assets, net of liabilities assumed, is recorded as goodwill. When determining the fair value of assets acquired and liabilities assumed, we make significant estimates and assumptions, especially with respect to intangible assets. Our estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. During the measurement period, not to exceed one year from the date of acquisition, we may record adjustments to the assets acquired and liabilities assumed, with a corresponding offset to goodwill if new information is obtained related to facts and circumstances that existed as of the acquisition date. After the measurement period, any subsequent adjustments are reflected in the consolidated statements of operations. Acquisition costs, such as legal and consulting fees, are expensed as incurred. See Note 2 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for additional information regarding our acquisitions.

Goodwill and Indefinite-Lived Intangibles Impairment Testing. We account for goodwill in accordance with ASC 350, “Intangibles – Goodwill and Other.” Under ASC 350, purchased goodwill is not amortized, but instead is tested for impairment either annually on August 1 or when events and circumstances indicate an impairment may have occurred. Our goodwill impairment assessment is performed by reporting unit. A reporting unit is the operating segment, or a business one level below that operating segment (the component level) if discrete financial information is prepared and regularly reviewed by segment management. However, components are aggregated as a single reporting unit if they have similar economic characteristics. In conducting the annual impairment tests, the estimated fair value of each of our reporting units is compared to its carrying amount including goodwill. If the estimated fair value exceeds the carrying amount, then no impairment exists. If the carrying amount exceeds the estimated fair value an impairment is indicated.

The Rigid Industrial Packaging & Services segment consists of five operating segments: Rigid Industrial Packaging & Services – North America; Rigid Industrial Packaging & Services – Latin America; Rigid Industrial Packaging & Services – Europe, Middle East and Africa; Rigid Industrial Packaging & Services – Asia Pacific; and Rigid Industrial Packaging & Services – Tri-Sure. Each of those operating segments consists of multiple components that have discrete financial information available that is reviewed by segment management on a regular basis. We have evaluated those components and concluded that they are economically similar and should be aggregated into five separate reporting units. For the purpose of aggregating our components, we review the long-term performance of gross profit margin and operating profit margin. Additionally, we review qualitative factors such as common customers, similar products, similar manufacturing processes, sharing of resources, level of integration, and interdependency of processes across components. We place greater weight on the qualitative factors outlined in ASC 280 “Segment Reporting” and consider the guidance in ASC 350 in determining whether two or more components of an operating segment are economically similar and can be aggregated into a single reporting unit. However, our assessment of the aggregation includes both qualitative and quantitative factors and is based on the facts and circumstances specific to the components.

The estimated fair value of the reporting units utilized in the impairment test is based on a discounted cash flow analysis or income approach and market multiple approach. Under this method, the principal valuation focus is on the reporting unit’s cash-generating capabilities. The discount rates used for impairment testing are based on our weighted average cost of capital. The use of alternative estimates, peer groups or changes in the industry, or adjusting the discount rate, earnings before interest, taxes, depreciation, depletion and amortization multiples or price earnings ratios used could affect the estimated fair value of the assets and potentially result in impairment. Any identified impairment would result in an adjustment to our results of operations.

In performing the test, we first evaluate qualitative factors, such as macroeconomic conditions and our overall financial performance to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. We then evaluate how significant each of the identified factors could be to the fair value or carrying amount of a reporting unit and weigh those factors in totality in forming a conclusion of whether or not it is more likely than not that the fair value of a reporting unit is less than its carrying amount (the Step 0 Test). If necessary, the next step in the goodwill impairment test involves comparing the fair value of each of the reporting units to the carrying value of those reporting units. If the carrying value of a reporting unit exceeds the fair value of the reporting unit, an impairment loss would be recognized (not to exceed the carrying amount of goodwill). Our Rigid Industrial Packaging & Services - Latin America, Flexible Products & Services and Land

Management reporting units have no goodwill and therefore no impairment test was required. For our Rigid Industrial Packaging & Services - North America; Rigid Industrial Packaging & Services - Europe, Middle East and Africa; Rigid Industrial Packaging & Services - Tri-Sure; and Paper Packaging & Services reporting units, a Step 0 approach was used and we determined it was not more likely than not that the fair value of the reporting unit was less than its carrying amount. As of August 1, 2019, the estimated fair value of each of those reporting units was deemed to substantially exceed the carrying amount of assets and liabilities assigned to each reporting unit.

For the Rigid Industrial Packaging & Services - Asia Pacific reporting unit, we proceeded directly to the quantitative impairment testing. The fair value of the reporting unit exceeded the carrying value by 32%, so no impairment was deemed to exist. Discount rates, growth rates and cash flow projections are the assumptions that are most sensitive and susceptible to change as they require significant management judgment. In addition, certain future events and circumstances, including deterioration of market conditions, higher cost of capital, a decline in actual and expected consumption and demand, could result in changes to those assumptions and judgments. A revision of those assumptions could cause the fair value of the reporting unit to fall below its respective carrying value. As for all of our reporting units, if in future years, the reporting unit's actual results are not consistent with our estimates and assumptions used to calculate fair value, we may be required to recognize material impairments to goodwill.

During the fourth quarter of 2017, we performed an assessment of our operating segments and determined that as a result of changes in the way the chief operating decision maker receives and reviews financial information, a realignment of our operating segment and reporting unit structure was necessary. As of our annual goodwill impairment testing date of August 1, 2017, our reporting units of the Rigid Industrial Packaging & Services segment were realigned to consist of Rigid Industrial Packaging & Services – North America; Rigid Industrial Packaging & Services – Latin America; Rigid Industrial Packaging & Services – Europe, Middle East and Africa; Rigid Industrial Packaging & Services – Asia Pacific; and Rigid Industrial Packaging & Services – Tri-Sure. As a result of the realignment, goodwill was reassigned to each of the Rigid Industrial Packaging & Services reporting units using a relative fair value approach. There were no changes to the reporting units of the Paper Packaging & Services; Flexible Products & Services; and Land Management segments. No reporting units were aggregated for purposes of conducting the annual impairment test.

Due to the realignment of our reporting units in the fourth quarter of 2017, we recorded an impairment charge of $13.0 million, which represented goodwill associated with the Rigid Industrial Packaging & Services segment as the carrying amount of the Rigid Industrial Packaging & Services – Latin America reporting unit exceeded its fair value. See Note 5 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for further information.

The following table summarizes the carrying amount of goodwill by reporting unit for the year ended October 31, 2019 and 2018:

	Goodwill Balance	
(in millions)	October 31, 2019	October 31, 2018
Rigid Industrial Packaging & Services		
North America	$ 252.9	$ 252.8
Europe, Middle East and Africa	313.0	297.1
Asia Pacific	88.6	88.8
Tri-Sure	77.2	77.8
Paper Packaging & Services	786.1	59.5
Total	$ 1,517.8	$ 776.0

*The Rigid Industrial Packaging & Services: Latin America, Flexible Products & Services, and Land Management reporting units have no goodwill balance at either reporting period.

We test for impairment of indefinite-lived intangible assets during the fourth quarter of each year as of August 1, or more frequently if certain indicators are present or changes in circumstances suggest that impairment may exist.

Income Taxes. Preparation of our financial statements requires the use of estimates and assumptions that affect the reported amounts of our assets and liabilities and revenues and expenses. The multitude of tax jurisdictions in which we operate requires significant judgment when applying the complex tax regulations to estimate our global tax position. Our effective tax rate and the amount of taxes we pay are dependent upon various factors, including the following: the laws and regulations, and varying tax rates of the country tax jurisdictions in which income is earned; the recognition of permanent book/tax basis differences realized through acquisitions, divestitures and asset impairments; the ability to realize long term deferred tax assets at certain international

subsidiaries; negotiation and dispute resolution with taxing authorities in the U.S. and non-U.S. jurisdictions arising from federal, state and local country tax audits; and changes in tax laws, regulations, administrative rulings and common law.

See Note 11 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for further information.

Pension and Post-retirement Benefits. Pension and post-retirement assumptions are significant inputs to the actuarial models that measure pension and post-retirement benefit obligations and related effects on operations. Two assumptions – discount rate and expected return on assets – are important elements of plan expense and asset/liability measurement. We evaluate these critical assumptions at least annually on a plan and country-specific basis. At least annually, we evaluate other assumptions involving demographic factors, such as retirement age, mortality and turnover, and update them to reflect our experience and expectations for the future. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors.

Accumulated and projected benefit obligations are measured as the present value of future cash payments. We discount those cash payments using the weighted average of market-observed yields for high quality fixed income securities with maturities that correspond to the payment of benefits. Lower discount rates increase present values and subsequent-year pension expense; higher discount rates decrease present values and subsequent-year pension expense.

Our weighted discount rates for consolidated pension plans at October 31, 2019, 2018 and 2017 were 2.74%, 3.48% and 3.01%, respectively, reflecting market interest rates.

To develop the expected long-term rate of return on assets assumption, we use a generally consistent approach worldwide. The approach considers various sources, primarily inputs from a range of advisers, inflation, bond yields, historical returns and future expectations for returns for each asset class, as well as the target asset allocation of each pension portfolio. This rate is gross of any investment or administrative expenses. Assets in our principal pension plans gained approximately 15.3% in 2019. Based on our analysis of future expectations of asset performance, past return results, and our current and expected asset allocations, we have assumed a 4.64% long-term expected return on those assets for cost recognition in 2020. This is a change from the 4.12%, 4.53% and 5.39% long-term expected return we had assumed in 2019, 2018 and 2017, respectively.

Changes in key assumptions for our consolidated pension and post-retirement plans would have the following effects.

- Discount rate – A 25 basis point increase in discount rate would decrease pension and post-retirement cost in the following year by $1.0 million and would decrease the pension and post-retirement benefit obligation at year-end by about $39.2 million.
- Expected return on assets – A 50 basis point decrease in the expected return on assets would increase pension and post-retirement cost in the following year by $4.7 million.

Further discussion of our pension and post-retirement benefit plans and related assumptions is contained in Note 12 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K.

Revenue Recognition. We generate substantially all of our revenue by providing our customers with industrial packaging products serving a variety of end markets. We may enter into fixed term sale agreements, including multi-year master supply agreements which outline the terms under which we do business. We also sell to certain customers solely based on purchase orders. As master supply agreements do not typically include fixed volumes, customers generally purchase products pursuant to purchase orders or other communications that are short-term in nature. We have concluded for the vast majority of our revenues that our contracts with customers are either a purchase order or the combination of a purchase order with a master supply agreement.

A performance obligation is considered an individual unit sold. Contracts or purchase orders with customers could include a single type of product or it could include multiple types or specifications of products. Regardless, the contracted price with the customer is agreed at the individual product level outlined in the customer contracts or purchase orders. We do not bundle prices. Negotiations with customers are based on a variety of factors including the level of anticipated contractual volume, geographic location, complexity of the product, key input costs and a variety of other factors. We have concluded that prices negotiated with each individual customer are representative of the stand-alone selling price of the product.

We typically satisfy the obligation to provide packaging to customers at a point in time when control is transferred to customers. The point in time when control of goods is transferred is largely dependent on delivery terms. Revenue is recorded at the time of shipment for delivery terms designated shipping point. For sales transactions designated destination, revenue is recorded when the product is delivered to the customer's delivery site. Purchases by our customers are generally manufactured and shipped with minimal lead time; therefore, performance obligations are generally settled shortly after manufacturing and shipment.

We manufacture certain products that have no alternative use to us once they are printed or manufactured to customer specifications; however, in the majority of cases, we do not have an enforceable right to payment that includes a reasonable profit for custom products at all times in the manufacturing process, and therefore revenue is recognized at the point in time at which control transfers. As revenue recognition is dependent upon individual contractual terms, we will continue our evaluation of any new or amended contracts entered into.

Revenue is measured as the amount of consideration we expect to be entitled to in exchange for transferring goods or providing services. Standalone selling prices for each performance obligation are generally stated in the contract. When we offer variable consideration in the form of volume rebates to customers, we estimate the amount of revenue to which we expect to be entitled to based on contract terms and historical experience of actual results, and include the estimate in the transaction price, limited to the amount which is probable will not result in reversal of cumulative revenue recognized when the variable consideration is resolved. We provide prompt pay discounts to certain customers if invoices are paid within a predetermined period. Prompt payment discounts are treated as a reduction of revenue and are determinable within a short period of the sale.

Contract liabilities relate primarily to prepayments received from our customers before revenue is recognized and volume rebates to customers. These amounts are included in other current liabilities in the consolidated balance sheets. We do not have any material contract assets.

Our contracts generally include standard commercial payment terms generally acceptable in each region. Customer payment terms are typically less than one year and as such, we have applied the practical expedient to exclude consideration of significant financing components from the determination of transaction price.

Taxes collected from customers and remitted to governmental authorities are excluded from net sales.

Costs to obtain a contract are generally immaterial, but we have elected the practical expedient to expense these costs as incurred if the amortization period of the capitalized cost would be one year or less.

We have applied the practical expedient to exclude disclosure of remaining performance obligations as our contracts typically have a term of one year or less. Freight charged to customers is included in net sales in the income statement. For shipping and handling activities performed after a customer obtains control of the goods, we have elected to account for these costs as activities to fulfill the promise to transfer the goods; therefore, these activities are not assessed as separate performance obligations.

Our contracts with customers are broadly similar in nature throughout our reportable segments, but the amount, timing and uncertainty of revenue and cash flows may vary in each reportable segment due to geographic factors. See Note 16 to the Consolidated Financial Statements for additional disclosures of revenue disaggregated by geography for each reportable segment.

Recent Accounting Standards

See Note 1 of the Notes to Consolidated Financial Statements included in Item 8 of this Form 10-K for a detailed description of recently issued and newly adopted accounting standards.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We are subject to interest rate risk related to our financial instruments that include borrowings under the 2019 Credit Agreement, and proceeds from our Senior Notes, U.S. Receivables Facility and Foreign Receivables Facilities (collectively, "Accounts Receivables Facilities"), and cross currency and interest rate swap agreements. We do not enter into financial instruments for trading or speculative purposes. The interest rate swap agreements have been entered into to manage our exposure to variability in interest rates.

We have six interest rate swap agreements with an aggregate notional amount of $1,300.0 million as of October 31, 2019. Under these agreements, 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%, plus an interest spread.

We have another interest rate swap agreement with an aggregate notional amount of $300.0 million as of October 31, 2019. Under this agreement, we receive interest monthly from the counterparties equal to LIBOR and pay interest at a fixed rate over the life of the contracts.

Gains reclassified to earnings under these interest rate swaps were recorded in the amount of $3.0 million and $1.8 million for the years ended October 31, 2019 and October 31, 2018, respectively.

We have 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 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 consolidated statements of income. A gain on the cross currency swap agreement was recorded in interest expense for the amount of $2.4 million and $1.6 million for the year ended October 31, 2019 and October 31, 2018, respectively.

The tables below provide information about our derivative financial instruments and other financial instruments that are sensitive to changes in interest rates. For our 2019 Credit Agreement, Senior Notes and Accounts Receivables Facilities, the tables present scheduled amortizations of principal and the weighted average interest rate by contractual maturity dates as of October 31, 2019 and 2018.

The fair values of our 2019 Credit Agreement, Senior Notes and Accounts Receivables Facilities are based on rates available to us for debt of the same remaining maturity as of October 31, 2019 and 2018.

Financial Instruments

As of October 31, 2019 (Dollars in millions)

	Expected Maturity Date							
	2020	2021	2022	2023	2024	After 2024	Total	Fair Value
2019 Credit Agreement:								
Scheduled amortizations	$ 84	$ 131	$ 148	$ 148	$ 51	$ 25	$ 587	$ 587
Scheduled maturity	$ —	—	—	—	841	$ 260	$ 1,101	$ 1,101
Average interest rate (1)	3.71%	3.71%	3.71%	3.71%	3.71%	—	3.71%	
Senior Notes due 2021:								
Scheduled maturity	—	$ 222	—	—	—	—	$ 222	$ 248
Average interest rate	—	7.38%	—	—	—	—	7.38%	
Senior Notes due 2027:								
Scheduled maturity	—	—	—	—	—	500	$ 500	$ 538
Average interest rate	—	—	—	—	—	6.50%	6.50%	
Receivables Facilities:								
Scheduled maturity	$ 352	—	—	—	—	—	$ 352	$ 352
Weighted average interest rate	2.00%	—	—	—	—	—	2.00%	

(1) Variable rate specified is based on LIBOR or an alternative base rate plus a calculated margin as of October 31, 2019. The rates presented are not intended to project our expectations for the future.

As of October 31, 2018 (Dollars in millions)

	Expected Maturity Date							
	2019	2020	2021	2022	2023	After 2023	Total	Fair Value
2017 Credit Agreement:								
Scheduled amortizations	$ 19	$ 30	$ 23	$ —	$ —	$ —	$ 72	$ 72
Scheduled maturity	—	—	—	$ 209	—	—	$ 209	$ 209
Average interest rate [1]	3.37%	3.37%	3.37%	3.37%	3.37%	—	3.37%	
Senior Notes due 2019:								
Scheduled maturity	$ 249	—	—	—	—	—	$ 249	$ 257
Average interest rate	7.75%	—	—	—	—	—	7.75%	
Senior Notes due 2021:								
Scheduled maturity	—	—	$ 227	—	—	—	$ 227	$ 263
Average interest rate	7.38%	7.38%	7.38%	—	—	—	7.38%	
Receivables Facility:								
Scheduled maturity	$ 150	—	—	—	—	—	$ 150	$ 150

[1] Variable rate specified is based on LIBOR or an alternative base rate plus a calculated margin as of October 31, 2018. The rates presented are not intended to project our expectations for the future.

Currency Risk

As a result of our international operations, our operating results are subject to fluctuations in currency exchange rates. The geographic presence of our operations mitigates this exposure to some degree. Additionally, our transaction exposure is somewhat limited because we produce and sell a majority of our products in local currency within most countries in which we operate.

As of October 31, 2019, we had outstanding foreign currency forward contracts in the notional amount of $275.0 million ($194.4 million as of October 31, 2018). The purpose of these contracts is to hedge our exposure to foreign currency transactions and short-term intercompany loan balances in our international businesses. The fair value of these contracts resulted in realized gains (losses) recorded in other expense, net of $4.6 million and $(9.2) million for the years ended October 31, 2019 and 2018, respectively.

A sensitivity analysis (with respect only to these instruments) to changes in the foreign currencies hedged indicates that if the U.S. dollar strengthened by 10 percent, the fair value of these instruments would increase by $8.3 million to a net asset of $7.5 million. Conversely, if the U.S. dollar weakened by 10 percent, the fair value of these instruments would decrease by $7.5 million to a net liability of $8.3 million.

Commodity Price Risk

We purchase commodities such as steel, resin, containerboard, pulpwood and energy. We do not currently engage in material hedging of commodities, although in the past we have sometimes engaged in hedges in natural gas. There were no commodity hedging contracts outstanding as of October 31, 2019 and 2018.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF INCOME

Year Ended October 31, *(in millions, except per share amounts)*	**2019**	**2018**	**2017**
Net sales	$ 4,595.0	$ 3,873.8	$ 3,638.2
Costs of products sold	3,635.1	3,084.9	2,923.5
Gross profit	959.9	788.9	714.7
Selling, general and administrative expenses	507.4	397.2	379.7
Restructuring charges	26.1	18.6	12.7
Acquisition-related costs	29.7	0.7	0.7
Non-cash asset impairment charges	7.8	8.3	7.8
Goodwill impairment charges	—	—	13.0
Gain on disposal of properties, plants and equipment, net	(13.9)	(5.6)	(0.4)
(Gain) loss on disposal of businesses, net	3.7	(0.8)	1.7
Operating profit	399.1	370.5	299.5
Interest expense, net	112.5	51.0	60.1
Debt extinguishment charges	22.0	—	—
Non-cash pension settlement charges	—	1.3	27.1
Other expense, net	2.6	18.4	12.0
Income before income tax expense and equity earnings of unconsolidated affiliates, net	262.0	299.8	200.3
Income tax expense	70.7	73.3	67.2
Equity earnings of unconsolidated affiliates, net of tax	(2.9)	(3.0)	(2.0)
Net income	194.2	229.5	135.1
Net income attributable to noncontrolling interests	(23.2)	(20.1)	(16.5)
Net income attributable to Greif, Inc.	$ 171.0	$ 209.4	$ 118.6
Basic earnings per share attributable to Greif, Inc. common shareholders:			
Class A common stock	$ 2.89	$ 3.56	$ 2.02
Class B common stock	$ 4.33	$ 5.33	$ 3.02
Diluted earnings per share attributed to Greif, Inc. common shareholders:			
Class A common stock	$ 2.89	$ 3.55	$ 2.02
Class B common stock	$ 4.33	$ 5.33	$ 3.02

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Net income	$ 194.2	$ 229.5	$ 135.1
Other comprehensive income (loss), net of tax:			
Foreign currency translation	(4.5)	(45.5)	37.6
Derivative financial instruments	(26.1)	7.7	5.1
Minimum pension liabilities	(25.3)	16.3	14.2
Other comprehensive income (loss), net of tax	(55.9)	(21.5)	56.9
Comprehensive income	138.3	208.0	192.0
Comprehensive income attributable to noncontrolling interests	23.9	18.1	33.2
Comprehensive income attributable to Greif, Inc.	$ 114.4	$ 189.9	$ 158.8

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEETS

(in millions)	October 31, 2019	October 31, 2018
ASSETS		
Current assets		
Cash and cash equivalents	$ 77.3	$ 94.2
Trade accounts receivable, less allowance of $6.8 in 2019 and $4.2 in 2018	664.2	456.7
Inventories:		
Raw materials	238.4	203.9
Work-in-process	11.3	10.0
Finished goods	108.5	75.6
Assets held for sale	4.1	4.4
Prepaid expenses	44.0	39.8
Other current assets	101.2	92.1
	1,249.0	976.7
Long-term assets		
Goodwill	1,517.8	776.0
Other intangible assets, net of amortization	776.5	80.6
Deferred tax assets	15.9	7.9
Assets held by special purpose entities	50.9	50.9
Pension assets	35.4	10.4
Other long-term assets	90.9	100.4
	2,487.4	1,026.2
Properties, plants and equipment		
Timber properties, net of depletion	272.4	274.2
Land	178.0	96.4
Buildings	531.0	431.4
Machinery and equipment	1,866.2	1,554.9
Capital projects in progress	170.4	117.2
	3,018.0	2,474.1
Accumulated depreciation	(1,327.7)	(1,282.2)
	1,690.3	1,191.9
Total assets	$ 5,426.7	$ 3,194.8

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED BALANCE SHEETS

(in millions)	October 31, 2019	October 31, 2018
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 435.2	$ 403.8
Accrued payroll and employee benefits	142.4	114.4
Restructuring reserves	11.3	4.4
Current portion of long-term debt	83.7	18.8
Short-term borrowings	9.2	7.3
Other current liabilities	143.6	121.5
	825.4	670.2
Long-term liabilities		
Long-term debt	2,659.0	884.1
Deferred tax liabilities	313.0	179.8
Pension liabilities	177.6	78.0
Post-retirement benefit obligations	12.2	10.7
Liabilities held by special purpose entities	43.3	43.3
Contingent liabilities and environmental reserves	18.7	6.8
Mandatorily redeemable noncontrolling interests	8.4	8.6
Long-term income tax payable	27.8	46.1
Other long-term liabilities	128.9	77.5
	3,388.9	1,334.9
Commitments and Contingencies (Note 13)		
Redeemable Noncontrolling Interests (Note 19)	21.3	35.5
Equity		
Common stock, without par value	162.6	150.5
Treasury stock, at cost	(134.8)	(135.4)
Retained earnings	1,539.0	1,469.8
Accumulated other comprehensive income (loss), net of tax:		
Foreign currency translation	(298.0)	(292.8)
Derivative financial instruments	(12.7)	13.4
Minimum pension liabilities	(123.0)	(97.7)
Total Greif, Inc. shareholders' equity	1,133.1	1,107.8
Noncontrolling interests	58.0	46.4
Total shareholders' equity	1,191.1	1,154.2
Total liabilities and shareholders' equity	$ 5,426.7	$ 3,194.8

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Cash flows from operating activities:			
Net income	$ 194.2	$ 229.5	$ 135.1
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, depletion and amortization	206.1	126.9	120.5
Non-cash asset impairment charges	7.8	8.3	20.8
Non-cash pension settlement charges	—	1.3	27.1
Gain on disposals of properties, plants and equipment, net	(13.9)	(5.6)	(0.4)
(Gain) loss on disposals of businesses, net	3.7	(0.8)	1.7
Unrealized foreign exchange (gain) loss	3.0	(0.7)	4.6
Deferred income tax (benefit) expense	2.1	(44.8)	2.3
Transition tax (benefit) expense	(0.8)	52.8	—
Debt extinguishment charges	14.0	—	—
Other, net	4.2	(2.8)	1.2
Increase (decrease) in cash from changes in certain assets and liabilities:			
Trade accounts receivable	55.1	(34.0)	(47.3)
Inventories	33.9	(24.8)	(7.0)
Deferred purchase price on sold receivables	(6.9)	2.1	5.1
Accounts payable	(69.9)	24.3	20.5
Restructuring reserves	6.7	(0.8)	(5.3)
Pension and post-retirement benefit liabilities	(15.3)	(66.8)	(1.7)
Other, net	(34.5)	(11.1)	27.8
Net cash provided by operating activities	389.5	253.0	305.0
Cash flows from investing activities:			
Acquisitions of companies, net of cash acquired	(1,857.9)	—	—
Purchases of properties, plants and equipment	(156.8)	(140.2)	(96.8)
Purchases of and investments in timber properties	(5.4)	(8.9)	(9.5)
Proceeds from the sale of properties, plants, equipment and other assets	28.7	12.5	9.6
Proceeds from the sale of businesses	1.5	1.4	5.9
Proceeds on insurance recoveries	0.6	—	0.4
Net cash used in investing activities	(1,989.3)	(135.2)	(90.4)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	3,732.3	1,020.7	1,446.0
Payments on long-term debt	(2,075.6)	(1,065.4)	(1,627.9)
Proceeds (payments) on short-term borrowings, net	2.2	(11.0)	(36.4)
Proceeds from trade accounts receivable credit facility	181.4	2.8	203.6
Payments on trade accounts receivable credit facility	(89.2)	(2.8)	(53.6)
Dividends paid to Greif, Inc. shareholders	(104.0)	(100.0)	(98.6)
Dividends paid to noncontrolling interests	(9.2)	(4.6)	(4.2)
Payments for debt extinguishment and issuance costs	(44.1)	—	(4.5)
Purchases of redeemable noncontrolling interest	(11.9)	—	—
Cash contribution from noncontrolling interest holder	1.6	2.0	—
Net cash provided (used in) by financing activities	1,583.5	(158.3)	(175.6)
Effects of exchange rates on cash	(0.6)	(7.6)	(0.4)
Net increase (decrease) in cash and cash equivalents	(16.9)	(48.1)	38.6
Cash and cash equivalents at beginning of year	94.2	142.3	103.7
Cash and cash equivalents at end of year	$ 77.3	$ 94.2	$ 142.3

Year Ended October 31, *(in millions)*	**2019**	**2018**	**2017**
Supplemental information:			
Non-cash transactions:			
Capital expenditures included in accounts payable	$ 18.6	$ 11.4	$ 12.5
Schedule of interest and income taxes paid:			
Cash payments for interest expense	$ 161.8	$ 58.3	$ 76.2
Cash payments for taxes	$ 71.4	$ 65.2	$ 53.4

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

	Capital Stock		Treasury Stock			Accumulated Other	Greif,		
(Amounts in millions, except shares amounts in thousands and per share amounts)	Shares	Amount	Shares	Amount	Retained Earnings	Comprehensive Income (Loss)	Inc. Equity	Noncontrolling Interests	Total Equity
As of October 31, 2016	47,792	$ 141.4	29,050	$ (135.6)	$ 1,340.0	$ (398.4)	$ 947.4	$ 10.5	$ 957.9
Net income					118.6		118.6	16.5	135.1
Other comprehensive income (loss):									
– Foreign currency translation						20.9	20.9	16.7	37.6
– Derivative financial instruments, net of income tax expense of $3.1 million						5.1	5.1		5.1
– Minimum pension liability adjustment, net of income tax expense of $16.5 million						14.2	14.2		14.2
Comprehensive income							158.8		192.0
Current period mark to redemption value of redeemable noncontrolling interest					0.5		0.5		0.5
Net income allocated to redeemable noncontrolling interests								(1.4)	(1.4)
Deconsolidation of noncontrolling interest								(2.6)	(2.6)
Dividends paid to Greif, Inc., Shareholders ($1.68 per Class A share and $2.51 per Class B share)					(98.6)		(98.6)		(98.6)
Dividends paid to noncontrolling interests								(3.1)	(3.1)
Treasury shares acquired	(2)		2	0.1			0.1		0.1
Restricted stock executives and directors	24	1.3	(24)	—			1.3		1.3
Long-term incentive shares issued	29	1.5	(29)	(0.1)			1.4		1.4
As of October 31, 2017	47,843	$ 144.2	28,999	$ (135.6)	$ 1,360.5	$ (358.2)	$ 1,010.9	$ 36.6	$ 1,047.5
Net income					209.4		209.4	20.1	229.5
Other comprehensive income (loss):									
– Foreign currency translation						(43.5)	(43.5)	(2.0)	(45.5)
– Derivative financial instruments, net of income tax expense of $3.3 million					(0.6)	8.3	7.7		7.7
– Minimum pension liability adjustment, net of income tax expense of $4.1 million						16.3	16.3		16.3
Comprehensive income							189.9		208.0
Current period mark to redemption value of redeemable noncontrolling interest					0.5		0.5		0.5
Net income allocated to redeemable noncontrolling interests								(3.7)	(3.7)
Dividends paid to Greif, Inc., Shareholders ($1.70 per Class A share and $2.54 per Class B share)					(100.0)		(100.0)		(100.0)
Dividends paid to noncontrolling interests								(4.6)	(4.6)
Restricted stock executives and directors	21	1.2	(21)	—			1.2		1.2
Long-term incentive shares issued	85	5.1	(85)	0.2			5.3		5.3
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					171.0		171.0	23.2	194.2
Other comprehensive income (loss):									
– Foreign currency translation						(5.2)	(5.2)	0.7	(4.5)
– Derivative financial instruments, net of income tax expense of $8.6 million						(26.1)	(26.1)		(26.1)
– Minimum pension liability adjustment, net of income tax benefit of $1.1 million						(25.3)	(25.3)		(25.3)
Comprehensive income							114.4		138.3
Adoption of ASU 2016-16					(2.1)		(2.1)		(2.1)
Current period mark to redemption value of redeemable noncontrolling interest					4.9		4.9		4.9
Net income allocated to redeemable noncontrolling interests								(2.3)	(2.3)
Dividends paid to Greif, Inc., Shareholders ($1.76 per Class A share and $2.63 per Class B share)					(104.0)		(104.0)		(104.0)
Dividends paid to noncontrolling interests								(7.9)	(7.9)
Acquisition of noncontrolling interest and other					(0.6)		(0.6)	(2.1)	(2.7)
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 October 31, 2019	48,266	$ 162.6	28,576	$ (134.8)	$ 1,539.0	$ (433.7)	$ 1,133.1	$ 58.0	$ 1,191.1

See accompanying Notes to Consolidated Financial Statements.

GREIF, INC. AND SUBSIDIARY COMPANIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

The Business

Greif, Inc. and its subsidiaries (collectively, "Greif," "our," or the "Company"), principally manufacture 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 provides services, such as container life cycle management, filling, logistics, warehousing and other packaging services. The Company produces containerboard, corrugated and paperboard products for niche markets in North America. The Company also produces 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 Company is a leading global producer of flexible intermediate bulk containers. The Company has operations in over 40 countries. In addition, the Company owns timber properties in the southeastern United States, which are actively harvested and regenerated.

Due to the variety of its products, the Company has many customers buying different products and due to the scope of the Company's sales, no one customer is considered principal in the total operations of the Company.

The Company supplies a cross section of industries, such as chemicals, paints and pigments, food and beverage, petroleum, industrial coatings, agricultural, pharmaceutical, mineral, packaging, automotive and building products, and makes spot deliveries on a day-to-day basis as its products are required by its customers. The Company does not operate on a backlog to any significant extent and maintains only limited levels of finished goods. Many customers place their orders weekly for delivery during the same week.

The Company's raw materials are principally steel, resin, containerboard, old corrugated containers, pulpwood, recycled coated and uncoated paperboard and used industrial packaging for reconditioning.

There were approximately 17,000 employees of the Company as of October 31, 2019.

Principles of Consolidation and Basis of Presentation

The consolidated financial statements include the accounts of Greif, Inc., all wholly-owned and majority-owned subsidiaries, joint ventures controlled by the Company or for which the Company is the primary beneficiary, including the joint venture relating to the Flexible Products & Services segment, and equity earnings of unconsolidated affiliates. All intercompany transactions and balances have been eliminated in consolidation. Investments in unconsolidated affiliates are accounted for using the equity method based on the Company's ownership interest in the unconsolidated affiliate.

The Company's consolidated financial statements are presented in accordance with accounting principles generally accepted in the United States ("GAAP"). Certain prior year amounts have been reclassified to conform to the current year presentation.

The Company's fiscal year begins on November 1 and ends on October 31 of the following year. Any references to the year 2024, 2023, 2022, 2021, 2020, 2019, 2018 2017, 2016, or 2015, or to any quarter of those years, relates to the fiscal year ended in that year.

Argentina Currency

The Company's results with respect to the business of its Argentinian subsidiary have been reported under highly inflationary accounting beginning August 1, 2018. As of October 31, 2019, the Company's Argentina subsidiary represented approximately 1% of the Company's consolidated net revenues and less than 1% of its consolidated total assets.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make certain estimates, judgments and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The most significant estimates are related to the expected useful lives assigned to properties, plants and equipment, goodwill and other intangible assets, estimates of fair value, environmental liabilities, pension and post-retirement benefits, including plan assets, income taxes, net assets held for sale and contingencies. Actual amounts could differ from those estimates.

Cash and Cash Equivalents

The Company considers highly liquid investments with an original maturity of three months or less to be cash equivalents. The carrying value of cash equivalents approximates fair value.

Allowance for Doubtful Accounts

Trade receivables represent amounts owed to the Company through its operating activities and are presented net of allowance for doubtful accounts. The allowance for doubtful accounts totaled $6.8 million and $4.2 million as of October 31, 2019 and 2018, respectively. The Company evaluates the collectability of its accounts receivable based on a combination of factors. In circumstances where the Company is aware of a specific customer's inability to meet its financial obligations to the Company, the Company records a specific allowance for bad debts against amounts due to reduce the net recognized receivable to the amount the Company reasonably believes will be collected. In addition, the Company recognizes allowances for bad debts based on the length of time receivables are past due with allowance percentages, based on its historical experiences, applied on a graduated scale relative to the age of the receivable amounts. If circumstances such as higher than expected bad debt experience or an unexpected material adverse change in a major customer's ability to meet its financial obligations to the Company were to occur, the recoverability of amounts due to the Company could change by a material amount. Amounts deemed uncollectible are written-off against an established allowance for doubtful accounts.

Concentration of Credit Risk and Major Customers

The Company maintains cash depository accounts with banks throughout the world and invests in high quality short-term liquid instruments. Such investments are made only in instruments issued by high quality institutions. These investments mature within three months and the Company has not incurred any related losses for the years ended October 31, 2019, 2018, and 2017.

Trade receivables can be potentially exposed to a concentration of credit risk with customers or in particular industries. Such credit risk is considered by management to be limited due to the Company's many customers, none of which are considered principal in the total operations of the Company, and its geographic scope of operations in a variety of industries throughout the world. The Company does not have an individual customer that exceeds 10 percent of total revenue. In addition, the Company performs ongoing credit evaluations of its customers' financial conditions and maintains reserves for credit losses. Such losses historically have been within management's expectations.

Inventory

The Company primarily uses the FIFO method of inventory valuation. Reserves for slow moving and obsolete inventories are provided based on historical experience, inventory aging and product demand. The Company continuously evaluates the adequacy of these reserves and makes adjustments to these reserves as required.

The Paper Packaging & Services segment trades certain inventories with third parties. These inventory trades are accounted for as non-monetary exchanges and any unfavorable imbalances, resulting from these trades, are recorded as a liability.

Net Assets Held for Sale

Net assets held for sale represent land, buildings and other assets and liabilities for locations that have met the criteria of "held for sale" accounting, as specified by Accounting Standards Codification ("ASC") 360, "Property, Plant, and Equipment," at the lower of carrying value or fair value less cost to sell. Fair value is based on the estimated proceeds from the sale of the assets utilizing recent purchase offers, market comparables and/or reliable third party data. The Company's estimate as to fair value is regularly reviewed and assets are subject to changes, such as in the commercial real estate markets and the Company's continuing evaluation as to the asset's acceptable sale price. As of October 31, 2019, there were three asset groups within the Rigid Industrial Packaging & Services, three asset groups within Paper Packaging & Services segment, one asset group within Land Management segment and one asset group within the Corporate and Other segment classified as assets and liabilities held for sale. The effect of suspending depreciation on the facilities held for sale is immaterial to the results of operations. The net assets held for sale are being marketed for sale and it is the Company's intention to complete the sales of these assets within the upcoming year. See Note 4 and Note 9 for additional information regarding assets and liabilities held for sale.

Goodwill and Indefinite-Lived Intangibles

Goodwill is the excess of the purchase price of an acquired entity over the amounts assigned to tangible and intangible assets and liabilities assumed in the business combination. The Company accounts for purchased goodwill and indefinite-lived intangible assets in accordance with ASC 350, "Intangibles – Goodwill and Other." Under ASC 350, purchased goodwill and intangible assets with indefinite lives are not amortized, but instead are tested for impairment at least annually. The Company tests for

impairment of goodwill and indefinite-lived intangible assets as of August 1, or more frequently if certain indicators are present or changes in circumstances suggest that impairment may exist.

In accordance with ASC 350, the Company has the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative test for goodwill impairment. If the Company believes, as a result of its qualitative assessment, that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test is required. The quantitative test for goodwill impairment is conducted at the reporting unit level by comparing the carrying value of each reporting unit to the estimated fair value of the unit. If the carrying value of a reporting unit exceeds its estimated fair value, then the goodwill of the reporting unit is impaired. Goodwill impairment is recognized as the amount that the carrying value exceeds the fair value; not to exceed the balance of goodwill attributable to the reporting unit. When a portion of a reporting unit is disposed of, goodwill is allocated to the gain or loss on that disposition based on the relative fair values of the portion of the reporting unit subject to disposition and the portion of the reporting unit that will be retained.

The Company's determinations of estimated fair value of the reporting units are based on both the market approach and a discounted cash flow analysis utilizing the income approach. Under the market approach, the principal inputs are market prices and valuation multiples for public companies engaged in businesses that are considered comparable to the reporting unit. Under the income approach, the principal inputs are the reporting unit's cash-generating capabilities and the discount rate. The discount rates used in the income approach are based on a market participant's weighted average cost of capital. The use of alternative estimates, including different peer groups or changes in the industry, or adjusting the discount rate, earnings before interest, taxes, depreciation, depletion and amortization forecasts or cash flow assumptions used could affect the estimated fair value of the reporting units and potentially result in goodwill impairment. Any identified impairment would result in an expense to the Company's results of operations. See Note 4 for additional information regarding goodwill and other intangible assets.

Other Intangibles

The Company accounts for intangible assets in accordance with ASC 350. Definite lived intangible assets are amortized over their useful lives on a straight-line basis. The useful lives for definite lived intangible assets vary depending on the type of asset and the terms of contracts or the valuation performed. Amortization expense on intangible assets is recorded on the straight-line method over their useful lives as follows:

	Years
Trade names	1-15
Non-competes	1-10
Customer relationships	5-25
Other intangibles	1-20

Acquisitions

From time to time, the Company acquires businesses and/or assets that augment and complement its operations. In accordance with ASC 805, "Business Combinations," these acquisitions are accounted for under the purchase method of accounting. Under this method, the Company allocates the fair value of purchase consideration transferred to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the date of the acquisition. The excess purchase consideration over the aggregate fair value of tangible and intangible assets, net of liabilities assumed, is recorded as goodwill. The Company's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

During the measurement period, not to exceed one year from the date of acquisition, the Company may record adjustments to the assets acquired and liabilities assumed, with a corresponding offset to goodwill if new information is obtained related to facts and circumstances that existed as of the acquisition date. After the measurement period, any subsequent adjustments are reflected in the consolidated statements of operations. Acquisition costs, such as legal and consulting fees, are expensed as incurred.

In order to assess performance, the Company classifies costs incurred in connection with acquisitions as acquisition-related costs. These costs are expensed as incurred and consist primarily of transaction costs, legal and consulting fees, integration costs and changes in the fair value of contingent payments (earn-outs) and are recorded within Acquisition-Related Costs line item presented on the consolidated income statement. Acquisition transaction costs are incurred during the initial evaluation of a potential targeted acquisition and primarily relate to costs to analyze, negotiate and consummate the transaction as well as financial and legal due diligence activities. Post-acquisition integration activities are costs incurred to combine the operations of an acquired enterprise into the Company's operations.

The consolidated financial statements include the results of operations from these business combinations from the date of acquisition.

Internal Use Software

Internal use software is accounted for under ASC 985, “Software.” Internal use software is software that is acquired, internally developed or modified solely to meet the Company’s needs and for which, during the software’s development or modification, a plan does not exist to market the software externally. Costs incurred to develop the software during the application development stage and for upgrades and enhancements that provide additional functionality are capitalized and then amortized over a three to ten year period. Internal use software is capitalized as a component of machinery and equipment on the Consolidated Balance Sheets.

Long-Lived Assets

Properties, plants and equipment are stated at cost. Depreciation on properties, plants and equipment is provided on the straight-line method over the estimated useful lives of the assets as follows:

	Years
Buildings	30-40
Machinery and equipment	5-15

Depreciation expense was $149.0 million, $107.5 million and $106.8 million in 2019, 2018 and 2017, respectively. Expenditures for repairs and maintenance are charged to expense as incurred. When properties are retired or otherwise disposed of, the cost and accumulated depreciation are eliminated from the asset and related allowance accounts. Gains or losses are credited or charged to income as incurred.

The Company capitalizes interest on long-term fixed asset projects using a rate that approximates the weighted average cost of borrowing. For the years ended October 31, 2019, 2018, and 2017, the Company capitalized interest costs of $5.6 million, $4.5 million, and $3.5 million, respectively.

The Company tests for impairment of properties, plants and equipment if certain indicators are present to suggest that impairment may exist. Long-lived assets are grouped together at the lowest level, generally at the plant level, for which identifiable cash flows are largely independent of cash flows of other groups of long-lived assets. As events warrant, the Company evaluates the recoverability of long-lived assets, other than goodwill and indefinite-lived intangible assets, by assessing whether the carrying value can be recovered over their remaining useful lives through the expected future undiscounted operating cash flows of the underlying business. Impairment indicators include, but are not limited to, a significant decrease in the market price of a long-lived asset; a significant adverse change in the manner in which the asset is being used or in its physical condition; a significant adverse change in legal factors or the business climate that could affect the value of a long-lived asset; an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset; current period operating or cash flow losses combined with a history of operating or cash flow losses associated with the use of the asset; or a current expectation that it is more likely than not that a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated useful life. Future decisions to change our manufacturing processes, exit certain businesses, reduce excess capacity, temporarily idle facilities and close facilities could also result in material impairment losses. Any impairment loss that may be required is determined by comparing the carrying value of the assets to their estimated fair value.

As of October 31, 2019, the Company's timber properties consisted of approximately 251,000 acres, all of which were located in the southeastern United States. The Company’s land costs are maintained by tract. Upon acquisition of a new timberland tract, the Company records separate amounts for land, merchantable timber and pre-merchantable timber allocated as a percentage of the values being purchased. The Company begins recording pre-merchantable timber costs at the time the site is prepared for planting. Costs capitalized during the establishment period include site preparation by aerial spray, costs of seedlings, including refrigeration rental and trucking, planting costs, herbaceous weed control, woody release, and labor and machinery use. The Company does not capitalize interest costs in the process. Property taxes are expensed as incurred. New road construction costs are capitalized as land improvements and depreciated over 20 years. Road repairs and maintenance costs are expensed as incurred. Costs after establishment of the seedlings, including management costs, pre-commercial thinning costs and fertilization costs, are expensed as incurred. Once the timber becomes merchantable, the cost is transferred from the pre-merchantable timber category to the merchantable timber category in the depletion block.

Merchantable timber costs are maintained by five product classes: pine sawtimber, pine chip-n-saw, pine pulpwood, hardwood sawtimber and hardwood pulpwood, within a depletion block, with each depletion block based upon a geographic district or

subdistrict. Currently, the Company has eight depletion blocks. These same depletion blocks are used for pre-merchantable timber costs. Each year, the Company estimates the volume of the Company's merchantable timber for the five product classes by each depletion block and depletion costs recognized upon sales are calculated as volumes sold times the unit costs in the respective depletion block. Depletion expense was $3.7 million, $4.0 million and $4.0 million in 2019, 2018 and 2017, respectively.

Contingencies

Various lawsuits, claims and proceedings have been or may be instituted or asserted against the Company, including those pertaining to environmental, product liability and safety and health matters. While the amounts claimed may be substantial, the ultimate liability cannot currently be determined because of the considerable uncertainties that exist.

All lawsuits, claims and proceedings are considered by the Company in establishing reserves for contingencies in accordance with ASC 450, "Contingencies." In accordance with the provisions of ASC 450, the Company accrues for a litigation-related liability when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Based on currently available information known to the Company, the Company believes that its reserves for these litigation-related liabilities are reasonable and that the ultimate outcome of any pending matters is not likely to have a material effect on the Company's financial position or results of operations.

Environmental Cleanup Costs

The Company accounts for environmental cleanup costs in accordance with ASC 410, "Asset Retirement and Environmental Obligations." The Company expenses environmental expenditures related to existing conditions resulting from past or current operations and from which no current or future benefit is discernible. Expenditures that extend the life of the related property or mitigate or prevent future environmental contamination are capitalized. The Company determines its liability on a site-by-site basis and records a liability at the time when it is probable and can be reasonably estimated. The Company's estimated liability is 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 the relevant costs.

Self-insurance

The Company is self-insured for certain of the claims made under its employee medical and dental insurance programs. The Company had recorded liabilities totaling $7.6 million and $3.8 million for estimated costs related to outstanding claims as of October 31, 2019 and 2018, respectively. These costs include an estimate for expected settlements on pending claims, administrative fees and an estimate for claims incurred but not reported. These estimates are based on management's assessment of outstanding claims, historical analyses and current payment trends. The Company recorded an estimate for the claims incurred, but not reported using an estimated lag period based upon historical information.

The Company has certain deductibles applied to various insurance policies including general liability, product, vehicle and workers' compensation. The Company maintains liabilities totaling $27.5 million and $9.8 million for anticipated costs related to general liability, product, vehicle and workers' compensation claims as of October 31, 2019 and 2018, respectively. These costs include an estimate for expected settlements on pending claims, defense costs and an estimate for claims incurred but not reported. These estimates are based on the Company's assessment of its deductibles, outstanding claims, historical analysis, actuarial information and current payment trends.

Income Taxes

Income taxes are accounted for under ASC 740, "Income Taxes." In accordance with ASC 740, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as measured by enacted tax rates that are expected to be in effect in the periods when the deferred tax assets and liabilities are expected to be settled or realized. Valuation allowances are established when management believes it is more likely than not that some portion of the deferred tax assets will not be realized.

The Company's effective tax rate is impacted by the amount of income generated in each taxing jurisdiction, statutory tax rates and tax planning opportunities available to the Company in the various jurisdictions in which the Company operates. Significant judgment is required in determining the Company's effective tax rate and in evaluating its tax positions.

Tax benefits from uncertain tax positions are recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. The amount recognized is measured as the largest amount of tax benefit that is greater than 50 percent likely of being realized upon settlement. The Company's effective tax rate includes the impact of reserve provisions and changes to reserves on uncertain tax positions that are not more likely than not to be sustained upon examination as well as related interest and penalties.

A number of years may elapse before a particular matter, for which the Company has established a reserve, is audited and finally resolved. The number of years with open tax audits varies depending on the tax jurisdiction. While it is often difficult to predict the final outcome or the timing of resolution of any particular tax matter, the Company believes that its reserves reflect the probable outcome of known tax contingencies. Unfavorable settlement of any particular issue would require use of the Company's cash. Favorable resolution would be recognized as a reduction to the Company's effective tax rate in the period of resolution.

Equity earnings of unconsolidated affiliates, net of tax

Equity earnings of unconsolidated affiliates, net of tax represent the Company's share of earnings of affiliates in which the Company does not exercise control, but has significant influence. Investments in such affiliates are accounted for using the equity method of accounting. The Company has an equity interest in two such affiliates as of October 31, 2019. If the fair value of an investment in an affiliate is below its carrying value and the difference is deemed to be other than temporary, the difference between the fair value and the carrying value is charged to earnings.

Other Comprehensive Income

The Company's other comprehensive income is significantly impacted by foreign currency translation, effective cash flow hedges and defined benefit pension and post-retirement benefit adjustments.

The impact of foreign currency translation is affected by the translation of assets, liabilities and operations of the Company's foreign subsidiaries which are denominated in functional currencies other than the U.S. dollar and the recognition of accumulated foreign currency translation upon the disposal of foreign entities. The primary assets and liabilities affecting the adjustments are: cash and cash equivalents; accounts receivable; inventory; properties, plants and equipment; accounts payable; pension and other post-retirement benefit obligations; and certain intercompany loans payable and receivable. The primary currencies in which these assets and liabilities are denominated are the Euro, Brazilian real, and Chinese yuan.

The impact of effective cash flow hedges is reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Currently, interest rate swaps are held by the Company to effectively convert a portion of floating rate debt to a fixed rate basis, thus reducing the impact of interest rate increases on future interest expense. The Company uses the regression method for assessing the effectiveness of the swaps.

The impact of defined benefit pension and post-retirement benefit adjustments is primarily affected by unrecognized actuarial gains and losses related to the Company's defined benefit and other post-retirement benefit plans, as well as the subsequent amortization of gains and losses from accumulated other comprehensive income in periods following the initial recording of such items. These actuarial gains and losses are determined using various assumptions, the most significant of which are (i) the weighted average rate used for discounting the liability, (ii) the weighted average expected long-term rate of return on pension plan assets, (iii) the method used to determine market-related value of pension plan assets, (iv) the weighted average rate of future salary increases and (v) the anticipated mortality rate tables.

Restructuring Charges

The Company accounts for all exit or disposal activities in accordance with ASC 420, "Exit or Disposal Cost Obligations." Under ASC 420, a liability is measured at its fair value and recognized as incurred.

Employee-related costs primarily consist of one-time termination benefits provided to employees who have been involuntarily terminated. A one-time benefit arrangement is an arrangement established by a plan of termination that applies for a specified termination event or for a specified future period. A one-time benefit arrangement exists at the date the plan of termination meets all of the following criteria and has been communicated to employees:

(1) Management, having the authority to approve the action, commits to a plan of termination.

(2) The plan identifies the number of employees to be terminated, their job classifications or functions and their locations, and the expected completion date.

(3) The plan establishes the terms of the benefit arrangement, including the benefits that employees will receive upon termination (including but not limited to cash payments), in sufficient detail to enable employees to determine the type and amount of benefits they will receive if they are involuntarily terminated.

(4) Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

Facility exit and other costs consist of equipment relocation costs and project consulting fees. A liability for other costs associated with an exit or disposal activity shall be recognized and measured at its fair value in the period in which the liability is incurred (generally, when goods or services associated with the activity are received). The liability shall not be recognized before it is incurred, even if the costs are incremental to other operating costs and will be incurred as a direct result of a plan.

Pension and Post-retirement Benefits

Under ASC 715, “Compensation – Retirement Benefits,” employers recognize the funded status of their defined benefit pension and other post-retirement plans on the consolidated balance sheet and record as a component of other comprehensive income, net of tax, the gains or losses and prior service costs or credits that have not been recognized as components of the net periodic benefit cost.

Stock-Based Compensation Expense

The Company recognizes stock-based compensation expense in accordance with ASC 718, “Compensation – Stock Compensation.” ASC 718 requires the measurement and recognition of compensation expense, based on estimated fair values, for all share-based awards made to employees and directors, including stock options, restricted stock, restricted stock units and participation in the Company’s employee stock purchase plan.

ASC 718 requires companies to estimate the fair value of share-based awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense in the Company’s consolidated statements of income over the requisite service periods. The Company granted 291,520 shares of restricted stock with a grant date fair value of $39.83 under the Company’s Long-Term Incentive Plan for 2019. The total stock expense recorded under the Long-Term Incentive Plan was $11.6 million, $5.3 million and $1.7 million for the periods ended October 31, 2019, 2018 and 2017, respectively. All restricted stock awards under the Long-Term Incentive Plan are fully vested at the date of award. No stock options were granted in 2019, 2018 or 2017. For any options granted in the future, compensation expense will be based on the grant date fair value estimated in accordance with the standard.

Revenue Recognition

Revenue is recognized in accordance with ASC 606, "Revenue from Contracts with Customers".

The Company generates substantially all of its revenue by providing its customers with industrial packaging products serving a variety of end markets. The Company may enter into fixed term sale agreements, including multi-year master supply agreements which outline the terms under which the Company does business. The Company also sells to certain customers solely based on purchase orders. As master supply agreements do not typically include fixed volumes, customers generally purchase products pursuant to purchase orders or other communications that are short-term in nature. The Company has concluded for the vast majority of its revenues, that its contracts with customers are either a purchase order or the combination of a purchase order with a master supply agreement.

A performance obligation is considered an individual unit sold. Contracts or purchase orders with customers could include a single type of product or it could include multiple types or specifications of products. Regardless, the contracted price with the customer is agreed at the individual product level outlined in the customer contracts or purchase orders. The Company does not bundle products. Negotiations with customers are based on a variety of factors including the level of anticipated contractual volume, geographic location, complexity of the product, key input costs and a variety of other factors. The Company has concluded that prices negotiated with each individual customer are representative of the stand-alone selling price of the product.

The Company typically satisfies the obligation to provide packaging to customers at a point in time when control is transferred to customers. The point in time when control of goods is transferred is largely dependent on delivery terms. Revenue is recorded at the time of shipment for delivery terms designated shipping point. For sales transactions designated destination, revenue is recorded when the product is delivered to the customer’s delivery site. Purchases by the Company’s customers are generally manufactured and shipped with minimal lead time; therefore, performance obligations are generally settled shortly after manufacturing and shipment.

The Company manufactures certain products that have no alternative use to the Company once they are printed or manufactured to customer specifications; however, in the majority of cases, the Company does not have an enforceable right to payment that includes a reasonable profit for custom products at all times in the manufacturing process, and therefore revenue is recognized at the point in time at which control transfers. As revenue recognition is dependent upon individual contractual terms, the Company evaluates any new or amended contracts entered into.

Revenue is measured as the amount of consideration the Company expects to be entitled to in exchange for transferring goods or providing services. Standalone selling prices for each performance obligation are generally stated in the contract. When the Company offers variable consideration in the form of volume rebates to customers, it estimates the amount of revenue to which it is expected to be entitled to based on contract terms and historical experience of actual results, and includes the estimate in the transaction price, limited to the amount which is probable will not result in reversal of cumulative revenue recognized when the variable consideration is resolved. The Company provides prompt pay discounts to certain customers if invoices are paid within a predetermined period. Prompt payment discounts are treated as a reduction of revenue and are determinable within a short period of the sale.

Contract Balances

Contract liabilities relate primarily to prepayments received from the Company's customers before revenue is recognized and before volume rebates to customers. These amounts are included in other current liabilities in the consolidated balance sheets. The Company does not have any material contract assets.

Practical Expedients

The Company's contracts generally include standard commercial payment terms generally acceptable in each region. Customer payment terms are typically less than one year and as such, the Company has applied the practical expedient to exclude consideration of significant financing components from the determination of transaction price.

Taxes collected from customers and remitted to governmental authorities are excluded from net sales.

Costs to obtain a contract are generally immaterial, but the Company has elected the practical expedient to expense these costs as incurred if the amortization period of the capitalized cost would be one year or less.

The Company has applied the practical expedient to exclude disclosure of remaining performance obligations as the Company's contracts typically have a term of one year or less.

Freight charged to customers is included in net sales in the income statement. For shipping and handling activities performed after a customer obtains control of the goods, the Company has elected to account for these costs as activities to fulfill the promise to transfer the goods; therefore, these activities are not assessed as separate performance obligations.

Disaggregation of Revenues

The Company's contracts with customers are broadly similar in nature throughout its reportable segments, but the amount, timing and uncertainty of revenue and cash flows may vary in each reportable segment due to geographic factors. See Note 16 to the Consolidated Financial Statements for additional disclosures of revenue disaggregated by geography for each reportable segment.

Shipping and Handling Fees and Costs

The Company includes shipping and handling fees and costs in cost of products sold.

Other Expense, net

Other expense, net primarily represents Foreign Receivables Facilities, as defined in Note 3 to the Consolidated Financial Statements, program fees, foreign currency transaction gains and losses, non-service cost components of net periodic post-retirement benefit costs and other infrequent non-operating items.

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 period-end, and revenues and expenses are translated at average exchange rates.

The cumulative translation adjustments, which represent the effects of translating assets and liabilities of the Company's international operations, are presented in the consolidated statements of changes in shareholders' equity in accumulated other comprehensive income (loss). Transaction gains and losses on foreign currency transactions denominated in a currency other than an entity's functional currency are credited or charged to income. The amounts included in other expense, net related to foreign currency transaction losses were $2.1 million, $8.8 million and $6.4 million in 2019, 2018 and 2017, respectively.

Derivative Financial Instruments

In accordance with ASC 815, “Derivatives and Hedging,” the Company records all derivatives in the consolidated balance sheet as either assets or liabilities measured at fair value. Dependent on the designation of the derivative instrument, changes in fair value are recorded to earnings or shareholders’ equity through other comprehensive income (loss).

The Company may from time to time use interest rate swap agreements to hedge against changing interest rates. For interest rate swap agreements designated as cash flow hedges, the net gain or loss on the derivative instrument is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. The Company's interest rate swap agreements effectively convert a portion of floating rate debt to a fixed rate basis, thus reducing the impact of interest rate increases on future interest expense.

The Company's cross currency interest rate swap agreement synthetically swaps U.S. dollar denominated fixed rate debt for Euro denominated fixed rate debt and is designated as a net investment hedge for accounting purposes. 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 consolidated statements of income.

The Company enters into currency forward contracts to hedge certain currency transactions and short-term intercompany loan balances with its international businesses. Such contracts limit the Company’s exposure to both favorable and unfavorable currency fluctuations. These contracts are adjusted to reflect market value as of each balance sheet date, with the resulting changes in fair value being recognized in other expense, net.

Any derivative contract that is either not designated as a hedge, or is so designated but is ineffective, has its changes to market value recognized in earnings immediately. If a cash flow or fair value hedge ceases to qualify for hedge accounting, the contract would continue to be carried on the balance sheet at fair value until settled and have the adjustments to the contract’s fair value recognized in earnings. If a forecasted transaction were no longer probable to occur, amounts previously deferred in accumulated other comprehensive income (loss) would be recognized immediately in earnings.

Variable Interest Entities

The Company evaluates whether an entity is a variable interest entity (“VIE”) and determines if the primary beneficiary status is appropriate on a quarterly basis. 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 method of accounting. 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; the obligation to absorb the expected losses; and/or the right to receive the expected returns of the VIE.

Fair Value

The Company uses ASC 820, “Fair Value Measurements and Disclosures” to account for fair value. ASC 820 defines fair value, establishes a framework for measuring fair value in GAAP and expands disclosures about assets and liabilities measured at fair value. Additionally, this standard established a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs.

The three levels of inputs used to measure fair values are as follows:

- Level 1 – Observable inputs such as unadjusted quoted prices in active markets for identical assets and liabilities.
- Level 2 – Observable inputs other than quoted prices in active markets for identical assets and liabilities.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities.

The Company presents various fair value disclosures in Notes 9 and 12 to these consolidated financial statements.

Newly Adopted Accounting Standards

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)," which supersedes the revenue recognition requirements in ASC 605, "Revenue Recognition." This new revenue standard introduces a five-step revenue recognition model in which an entity should recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which

the entity expects to be entitled to in exchange for those goods or services. The new revenue standard also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. The Company adopted the ASU, and all of the related amendments, using the modified retrospective method on November 1, 2018. The adoption of the ASU and related amendments did not impact the Company's financial position, results of operations, comprehensive income or cash flows. Additionally, no cumulative effect adjustment was recorded to opening retained earnings as of November 1, 2018. Based on current operations, the Company does not expect a material impact on an ongoing basis as a result of the adoption of the new standard.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230)," which amends the classification of certain cash receipts and cash payments on the statement of cash flows. This update clarifies guidance on eight specific cash flow items. The ASU requires the beneficial interests obtained through securitization of financial assets be disclosed as a non-cash activity and cash receipts from beneficial interests be classified as cash inflows from investing activities. Under previous guidance, the Company classified cash receipts from beneficial interests in securitized receivables and cash payments resulting from debt prepayment or extinguishment as cash flows from operating activities. The amendments in this update are required to be applied using a retrospective approach, excluding amendments for which retrospective application is impractical. On November 1, 2018, the Company adopted the provisions of ASU 2016-15 on a retrospective basis with the exception of the Company's beneficial interests obtained through securitization of financial assets, for which the Company adopted this update on a prospective basis due to the impracticality of the retrospective basis. The adoption of this update did not have a material impact on the Company's financial position, results of operations, comprehensive income, cash flows or disclosures for the periods presented.

In October 2016, the FASB issued ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory (Topic 740)," which improves the accounting for income tax consequences of intra-entity transfers of assets other than inventory. This update requires transferring entities to recognize a current tax expense or benefit at the time of transfer and receiving entities to recognize a corresponding deferred tax asset or liability. The Company adopted this standard on November 1, 2018 using a modified retrospective approach. The adoption of this update resulted in a reclassification of approximately $15.1 million from "Prepaid Tax Assets" to "Retained Earnings", offset by the establishment of a deferred tax asset of $13.0 million for a net impact on retained earnings of $2.1 million as of November 1, 2018. 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 the impact discussed above.

In January 2017, the FASB issued ASU 2017-01, "Clarifying the Definition of a Business," which narrows the existing definition of a business and provides a framework for evaluating whether a transaction should be accounted for as an acquisition (or disposal) of assets or a business. The ASU requires an entity to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets; if so, the set of transferred assets and activities (collectively, the set) is not a business. To be considered a business, the set would need to include an input and a substantive process that together significantly contribute to the ability to create outputs. The standard also narrows the definition of outputs. The definition of a business affects areas of accounting such as acquisitions, disposals and goodwill. Under the new guidance, fewer acquired sets are expected to be considered businesses. The Company adopted this standard effective November 1, 2018 on a prospective basis. The Company applied this guidance to its respective acquisitions of Caraustar Industries, Inc. and its subsidiaries ("Caraustar") and Tholu B.V. and its wholly owned subsidiary A. Thomassen Transport B.V. (collectively "Tholu"), which qualified as business combinations. See Note 2 to the Consolidated Financial Statements for additional disclosures related to these acquisitions. 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 the impact discussed above.

Recently Issued Accounting Standards

In February 2016 and July 2018, the FASB issued ASU 2016-02 and ASU 2018-11, "Leases (Topic 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 will not adjust its comparative period financial information. The Company plans to adopt 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 plans to adopt the short-term lease recognition exemption and the practical expedient allowing for the combination of lease and non-lease components for equipment leases. The Company has preliminarily 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. The Company expects to recognize a right-of-use asset and lease liability between approximately $275-$325 million and does not expect the ASU will have a material impact on its financial position, results of operations, comprehensive income, or cash flows, other than the impact discussed above.

In June 2016, the FASB issued ASU 2016-13, “Financial Instruments – Credit Losses”. The ASU sets forth a “current expected credit loss” (CECL) 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 plans to 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.

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

On February 11, 2019, the Company completed its acquisition of Caraustar (the "Caraustar Acquisition"), 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 Company incurred transaction costs of $62.1 million to complete this acquisition. Of this amount, $34.0 million was recognized immediately in the consolidated statements of income and the remaining $28.1 million in transaction costs was capitalized in accordance with ASC 470, "Debt", and is presented as part of the consolidated balance sheet ($20.8 million within Long-Term Debt and $7.3 million within Other Long-Term Assets).

The following table summarizes the consideration transferred to acquire Caraustar and the current preliminary valuation of identifiable assets acquired and liabilities assumed at the acquisition date, as well as measurement period adjustments made during the year ended October 31, 2019.

(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	(1.1)	102.8
Prepaid and other current assets	21.5	(0.8)	20.7
Intangibles	717.1	8.4	725.5
Other long-term assets	1.3	5.7	7.0
Properties, plants and equipment	521.3	(12.4)	508.9
Total assets acquired	1,512.1	(0.2)	1,511.9
Accounts payable	(99.5)	—	(99.5)
Accrued payroll and employee benefits	(42.9)	(6.4)	(49.3)
Other current liabilities	(21.8)	(6.7)	(28.5)
Long-term deferred tax liability	(185.7)	46.6	(139.1)
Pension and post-retirement obligations	(67.1)	—	(67.1)
Other long-term liabilities	(12.7)	(7.4)	(20.1)
Total liabilities assumed	(429.7)	26.1	(403.6)
Total identifiable net assets	$ 1,082.4	$ 25.9	$ 1,108.3
Goodwill	$ 752.5	$ (25.9)	$ 726.6

(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 $25.9 million decrease to Goodwill. The measurement adjustments recorded in 2019 did not have a significant impact on the Company's consolidated statements of income for the year ended October 31, 2019.

The Company recognized goodwill related to this acquisition of $726.6 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 will be 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 will be amortized over the estimated useful lives, primarily on a straight-line basis. The following table summarizes the current preliminary purchase price allocation and weighted average remaining useful lives for identifiable intangible assets acquired:

(in millions)	Current Preliminary 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	

Caraustar's results of operations have been included in the Company's financial statements for the period subsequent to the acquisition date of February 11, 2019. Caraustar contributed net sales of $936.3 million for the year ended October 31, 2019.

The following unaudited supplemental pro forma data presents consolidated information as if the acquisition had been completed on November 1, 2017. These amounts were calculated after adjusting Caraustar's results to reflect interest expense incurred on the debt to finance the acquisition, additional depreciation and amortization that would have been charged assuming the fair value of property, plant and equipment and intangible assets had been applied from November 1, 2017, the adjusted tax expense, and related transaction costs of $34.0 million. These adjustments also include an additional one-time charge of $9.0 million for the fair value adjustment for inventory acquired.

	Twelve Months Ended October 31,			
(in millions, except per share amounts)	2019		2018	
Pro forma net sales	$	4,958.8	$	5,249.4
Pro forma net (loss) income attributable to Greif, Inc.	$	154.8	$	152.7
Basic earnings per share attributable to Greif, Inc. common shareholders:				
Class A common stock	$	2.62	$	2.60
Class B common stock	$	3.92	$	3.88
Diluted earnings per share attributable to Greif, Inc. common shareholders:				
Class A common stock	$	2.62	$	2.59
Class B common stock	$	3.92	$	3.88

The unaudited supplemental pro forma financial information is based on the Company's preliminary assignment of purchase price and therefore subject to adjustment upon finalizing the purchase price assignment. The pro forma data should not be considered indicative of the results that would have occurred if the acquisition and related financing had been consummated on the assumed completion dates, nor are they indicative of future results. The pro forma results do not include the Tholu Acquisition, as the impact of this acquisition is not material to prior year results of operations.

The Company has not yet finalized the determination of the fair value of assets acquired and liabilities assumed, including income taxes and contingencies. The Company expects to finalize these amounts within one year of the acquisition date. The current preliminary estimate of fair value and purchase price allocation were based on information available at the time of closing the acquisition, and the Company continues to evaluate the underlying inputs and assumptions that are being used in fair value estimates. Accordingly, these preliminary estimates are subject to adjustments during the measurement period, not to exceed one year, based upon new information obtained about facts and circumstances that existed as of the date of closing the acquisition.

Tholu Acquisition

On June 11, 2019, the Company completed its acquisition of Tholu (the “Tholu Acquisition”). Tholu is a Netherlands-based market leader in IBC rebottling, reconditioning and distribution.

The total purchase price for this acquisition was $52.2 million, net of cash acquired of $2.1 million, of which $25.1 million was paid upon closing and the remaining $29.2 million was deferred according to a set payment schedule. The current portion of the deferred obligation is $2.5 million, recorded in Other Current Liabilities, and the remaining $26.7 million has been recorded in Other Long-Term Liabilities within the consolidated balance sheets. The legal form of the Tholu Acquisition is a joint venture with the former Tholu owner, but due to the economic structure of the transaction the Company is deemed to be the 100% economic owner, and under GAAP, the Company will record and report 100% of all future income or loss.

The following table summarizes the consideration transferred to acquire Tholu and the current preliminary valuation of identifiable assets acquired and liabilities assumed at the acquisition date, as well as measurement period adjustments made during the year ended October 31, 2019.

(in millions)	Amounts Recognized as of the Acquisition Date	Measurement Period Adjustments (2)	Amount Recognized as of Acquisition Date (as Adjusted)
Fair value of consideration transferred			
Cash consideration	$ 25.1	$ —	$ 25.1
Deferred payments	$ 29.2	—	$ 29.2
Cash received	$ (2.1)	$ —	$ (2.1)
Total consideration	$ 52.2	$ —	$ 52.2
Recognized amounts of identifiable assets acquired and liabilities assumed			
Accounts receivable	7.3	—	$ 7.3
Inventories	3.0	0.4	$ 3.4
Intangibles	24.1	—	$ 24.1
Properties, plants and equipment	6.4	—	$ 6.4
Other assets	1.2	—	$ 1.2
Total assets acquired	42.0	0.4	42.4
Accounts payable	(4.0)	—	(4.0)
Capital lease obligations	(1.7)	—	(1.7)
Long-term deferred tax liability	(5.4)	(0.4)	(5.8)
Other liabilities	(1.0)	—	(1.0)
Total liabilities assumed	(12.1)	(0.4)	(12.5)
Total identifiable net assets	$ 29.9	$ —	$ 29.9
Goodwill	$ 22.3	$ —	$ 22.3

(2) 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 no net impact to Goodwill. The measurement adjustments recorded in 2019 did not have a significant impact on our consolidated statements of income for the twelve months ended October 31, 2019.

The Company recognized goodwill related to this acquisition of $22.3 million. The goodwill recognized in this acquisition is attributable to the acquired assembled workforce, economies of scale, vertical integration and new market penetration. Tholu is reported within the Rigid Industrial Packaging & Services segment to which the goodwill was assigned. The goodwill is not expected to be deductible for tax purposes.

Acquired property, plant and equipment will be depreciated over its estimated remaining useful lives on a straight-line basis.

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

(in millions)	Preliminary Fair Value	Weighted Average Estimated Useful Life
Customer relationships	$ 21.9	15.0
Trademarks	1.2	9.0
Other	1.0	2.0
Total intangible assets	$ 24.1	

The Company has not yet finalized the determination of the fair value of assets acquired and liabilities assumed, including income taxes and contingencies. The Company expects to finalize these amounts within one year of the acquisition date. The current preliminary estimate of fair value and purchase price allocation were based on information available at the time of closing the acquisition, and the Company continues to evaluate the underlying inputs and assumptions that are being used in fair value estimates. Accordingly, these preliminary estimates are subject to adjustments during the measurement period, not to exceed one year, based upon new information obtained about facts and circumstances that existed as of the date of closing the acquisition.

Divestitures

For the year ended October 31, 2019, the Company completed two divestitures of non-U.S. businesses in the Rigid Industrial Packaging & Services segment, liquidated two non-strategic non-U.S. business in the Rigid Industrial Packaging & Services segment, and deconsolidated one wholly-owned non-U.S. business in the Rigid Industrial Packaging & Services segment. The loss on disposal of businesses was $3.7 million for the year ended October 31, 2019. Proceeds from divestitures were $1.5 million for the year ended October 31, 2019. Proceeds from divestitures that were completed in 2015 and collected during the year ended October 31, 2019 were $0.8 million. Proceeds from divestitures that were completed in 2016 and collected during the year ended October 31, 2019 were $1.6 million.

For the year ended October 31, 2018, the Company completed no divestitures. The Company liquidated two non-strategic non-U.S. business in the Flexible Products & Services segment. The gain on disposal of businesses was $0.8 million for the year ended October 31, 2018. Proceeds from divestitures that were completed in 2017 and collected during the year ended October 31, 2018 were $0.5 million. Proceeds from divestitures that were completed in 2015 and collected during the year ended October 31, 2018 were $0.9 million. The Company had $2.9 million of notes receivable recorded from the sale of businesses for the year ended October 31, 2018.

For the year ended October 31, 2017, the Company completed two divestitures in the Rigid Industrial Packaging & Services segment, deconsolidated one nonstrategic business in the Flexible Products & Services segment and one nonstrategic business in the Rigid Industrial Packaging & Services segment, and liquidated two non-U.S. nonstrategic businesses in the Rigid Industrial Packaging & Services segment. The loss on disposal of businesses was $1.7 million for the year ended October 31, 2017. Proceeds from divestitures were $5.1 million for the year ended October 31, 2017. Proceeds from divestitures that were completed in fiscal year 2015 and collected during the year ended October 31, 2017 were $0.8 million. The Company had $4.3 million of notes receivable recorded from the sale of businesses for the year ended October 31, 2017.

None of the above-referenced divestitures in 2019, 2018, or 2017 qualified as discontinued operations as they do not, individually or in the aggregate, represent a strategic shift that has had a major impact on the Company's operations or financial results.

NOTE 3 – SALE OF NON-UNITED STATES ACCOUNTS RECEIVABLE

In 2012, Cooperage Receivables Finance B.V. (the “Main SPV”) and Greif Coordination Center BVBA, an indirect wholly owned subsidiary of Greif, Inc. (“Seller”), entered into the Nieuw Amsterdam Receivables Purchase Agreement (the “European RPA”) with affiliates of a major international bank (the “Purchasing Bank Affiliates”). On April 17, 2019, the Main SPV and Seller amended and extended the term of the existing European RPA through April 17, 2020. On June 17, 2019, the Main SPV and Seller entered into an agreement to replace the European RPA with the Nieuw Amsterdam Receivables Financing Agreement (the "European RFA"). The European RFA provides an accounts receivable financing facility of up to €100.0 million ($111.1 million as of October 31, 2019) secured by certain European accounts receivable. The $96.4 million outstanding on the European RFA as of October 31, 2019 is reported as long-term debt in the consolidated balance sheet 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.

During the first quarter of 2019, a parent-level guarantee was added to the European RPA and Singapore RPA (as such term is defined below). During the third quarter of 2019, in conjunction with execution of the European RFA, the parent level guarantee was removed for the European RFA. The $1.9 million outstanding on the Singapore RPA as of October 31, 2019 is reported as short-term debt in the consolidated balance sheet because the agreement expires in 2020 and will not be renewed.

Under the previous European RPA, as amended, the maximum amount of receivables that could be sold and outstanding under the European RPA at any time was €100 million ($111.1 million as of October 31, 2019). Under the terms of the European RPA, the Company had the ability to loan excess cash to the Purchasing Bank Affiliates in the form of the subordinated loan receivable.

Under the terms of the previous European RPA, we had agreed to sell trade receivables meeting certain eligibility requirements that the Seller had purchased from other indirect wholly-owned subsidiaries under a factoring agreement. Prior to November 1, 2018, the structure of the transactions provided for a legal true sale, on a revolving basis, of the receivables transferred to the

respective Purchasing Bank Affiliates. The purchaser funded an initial purchase price of a certain percentage of eligible receivables based on a formula, with the initial purchase price approximating 75 percent to 90 percent of eligible receivables. The remaining deferred purchase price was settled upon collection of these receivables.

In October 2007, Greif Singapore Pte. Ltd., an indirect wholly-owned subsidiary of Greif, Inc., entered into the Singapore Receivable Purchase Agreement (the “Singapore RPA”) with a major international bank. The maximum amount of aggregate receivables that may be financed under the Singapore RPA is 15.0 million Singapore dollars ($11.0 million as of October 31, 2019).

Under the terms of the Singapore RPA, the Company has agreed to sell trade receivables in exchange for an initial purchase price of approximately 90 percent of the eligible receivables. The remaining deferred purchase price is settled upon collection of those receivables.

Prior to November 1, 2018, the Company removed from accounts receivable the amount of proceeds received from the initial purchase price since they met the applicable criteria of ASC 860, “Transfers and Servicing,” and the Company continued to recognize the deferred purchase price in other current assets or other current liabilities on the Company’s consolidated balance sheets, as appropriate. The receivables were sold on a non-recourse basis with the total funds in the servicing collection accounts pledged to the banks between settlement dates. The cash initially received, along with the deferred purchase price, related to the sale or ultimate collection of the underlying receivables and was not subject to significant other risks given their short-term nature. Therefore, the Company reflected all cash flows under the accounts receivable sales programs as operating cash flows on the Company’s consolidated statements of cash flows.

The Company performs collection and administrative functions on the receivables related to the European RPA, the European RFA and the Singapore RPA (collectively, "Foreign Receivables Facilities"), similar to the procedures it uses for collecting all of its receivables. The servicing liability for these receivables is not material to the consolidated financial statements.

NOTE 4 – ASSETS AND LIABILITIES HELD FOR SALE AND DISPOSALS OF PROPERTY, PLANT AND EQUIPMENT, NET

As of October 31, 2019, there was one asset group within the Rigid Industrial Packaging & Services segment, three asset groups within the Paper Packaging & Services segment, one asset group in the Land Management segment, and one corporate asset group classified as assets held for sale. The assets held for sale are being marketed for sale, and it is the Company's intention to complete the sales of these assets within twelve months following their initial classification into assets held for sale.

During 2019, the Company recorded a gain on disposal of properties, plants and equipment, net of $13.9 million. This included disposals of assets in the Rigid Industrial Packaging & Services segment that resulted in gains of $7.5 million, disposals of assets in the Paper Packaging & Services segment that resulted in losses of $0.9 million, disposals of assets in the Flexible Packaging & Services segment that resulted in gains of $5.1 million, and special use property sales that resulted in gains of $2.2 million in the Land Management segment.

For the year ended October 31, 2018, the Company recorded a gain on disposal of properties, plants and equipment, net of $5.6 million. This included disposals of assets in the Rigid Industrial Packaging & Services segment that resulted in gains of $3.3 million and special use property sales that resulted in gains of $2.3 million in the Land Management segment.

NOTE 5 – GOODWILL AND OTHER INTANGIBLE ASSETS

The following table summarizes the changes in the carrying amount of goodwill by segment for the years ended October 31, 2019 and 2018:

(in millions)	Rigid Industrial Packaging & Services [1]	Paper Packaging & Services	Flexible Products & Services [1]	Land Management	Total
Balance at October 31, 2017	$ 725.9	$ 59.5	$ —	$ —	$ 785.4
Goodwill acquired	—	—	—	—	—
Goodwill allocated to divestitures and businesses held for sale	(0.7)	—	—	—	(0.7)
Goodwill adjustments	—	—	—	—	—
Goodwill impairment charge	—	—	—	—	—
Currency translation	(8.7)	—	—	—	(8.7)
Balance at October 31, 2018	$ 716.5	$ 59.5	$ —	$ —	$ 776.0
Goodwill acquired	22.3	726.6	—	—	748.9
Goodwill allocated to divestitures and businesses held for sale	—	—	—	—	—
Goodwill adjustments	—	—	—	—	—
Goodwill impairment charge	—	—	—	—	—
Currency translation	(7.1)	—	—	—	(7.1)
Balance at October 31, 2019	$ 731.7	$ 786.1	$ —	$ —	$ 1,517.8

[1]Accumulated goodwill impairment loss was $63.3 million as of October 31, 2019, 2018 and 2017. Included in the accumulated goodwill impairment loss was $13.0 million related to the Rigid Industrial Packaging & Services segment and $50.3 million related to the Flexible Products & Services segment.

The Caraustar Acquisition added $726.6 million of goodwill to the Paper Packaging & Services segment and the Tholu Acquisition added $22.3 million of goodwill to the Rigid Industrial Packaging & Services segment. See Note 2 to the Consolidated Financial Statements for additional disclosure of goodwill added by these acquisitions.

The Company reviews goodwill by reporting unit and indefinite-lived intangible assets for impairment as required by ASC 350, "Intangibles – Goodwill and Other," either annually August 1, or whenever events and circumstances indicate impairment may have occurred. A reporting unit is the operating segment, or a business unit one level below that operating segment (the component level) if discrete financial information is prepared and regularly reviewed by segment management. The components are aggregated into reporting units for purposes of goodwill impairment testing to the extent they share similar qualitative and quantitative characteristics.

The Company performed its annual goodwill impairment test as of August 1, 2019 which resulted in no goodwill impairment. The majority of the Company's goodwill reporting units were tested utilizing a qualitative assessment. However, for the Rigid Industrial Packaging & Services - Asia Pacific reporting unit, the Company proceeded directly to the quantitative impairment test. The fair value of the reporting unit exceeded the carrying value by 32%, resulting in no impairment. Discount rates, growth rates and cash flow projections are the assumptions that are most sensitive and susceptible to change as they require significant management judgment. In addition, certain future events and circumstances, including deterioration of market conditions, higher cost of capital, a decline in actual and expected consumption and demand, could result in changes to these assumptions and judgments. A revision of these assumptions could cause the fair value of the reporting unit to fall below its respective carrying value. As for all of the Company's reporting units, if in future years, the reporting unit's actual results are not consistent with the Company's estimates and assumptions used to calculate fair value, the Company may be required to recognize material impairments to goodwill.

The Company performed its annual goodwill review as of August 1, 2018, for each of the reporting units, which resulted in no goodwill impairment. The majority of the Company's goodwill reporting units were tested utilizing a qualitative assessment. However, for the Rigid Industrial Packaging & Services - Asia Pacific reporting unit, the Company proceeded directly to the quantitative impairment test. The fair value of the reporting unit exceeded the carrying value by 20%, resulting in no impairment. Discount rates, growth rates and cash flow projections are the assumptions that are most sensitive and susceptible to change as they require significant management judgment. In addition, certain future events and circumstances, including deterioration of market conditions, higher cost of capital, a decline in actual and expected consumption and demand, could result in changes to these assumptions and judgments. A revision of these assumptions could cause the fair value of the reporting unit to fall below its respective carrying value. As for all of the Company's reporting units, if in future years, the reporting unit's actual results are not consistent with the Company's estimates and assumptions used to calculate fair value, the Company may be required to recognize material impairments to goodwill.

During the fourth quarter of 2017, the Company performed an assessment of its operating segments and determined that as a result of changes in the way the chief operating decision maker receives and reviews financial information, a realignment of its operating segment structure was necessary. As a result of the operating segment realignment, the Company's reporting unit structure was updated for consistency. As of August 1, 2017, the Company realigned its operating segments to include eight operating segments: Rigid Industrial Packaging & Services – North America; Rigid Industrial Packaging & Services – Latin America; Rigid Industrial Packaging & Services – Europe, Middle East and Africa; Rigid Industrial Packaging & Services – Asia Pacific; Rigid Industrial Packaging & Services – Tri-Sure; Paper Packaging & Services; Flexible Products & Services; and Land Management. The Company's eight operating segments are aggregated into four reportable business segments by combining the Rigid Industrial Packaging & Services – North America; Rigid Industrial Packaging & Services – Latin America; Rigid Industrial Packaging & Services – Europe, Middle East and Africa; Rigid Industrial Packaging & Services – Asia Pacific; and Rigid Industrial Packaging & Services – Tri-Sure operating segments. The Company's reporting units are the same as the operating segments. As a result of the realignment, goodwill was reassigned to each of the Rigid Industrial Packaging & Services reporting units using a relative fair value approach.

The Company performed its annual goodwill review as of August 1, 2017, for each of the reporting units with a goodwill balance under both the former and current reporting unit structure. The impairment test under the former reporting unit structure concluded that no impairment existed as of August 1, 2017. The impairment test under the updated reporting unit structure concluded that the carrying value of the Rigid Industrial Packaging & Services – Latin America reporting unit exceeded the fair value of the reporting unit and the goodwill of the Rigid Industrial Packaging & Services – Latin America reporting unit of $13.0 million was fully impaired.

The fair value of the Rigid Industrial Packaging & Services – Latin America reporting unit was determined using a combination of the income approach by discounting estimated future cash flows and the market multiple approach. The cash flow projections were prepared based upon the evaluation of the historical performance and future growth expectations for the reporting unit. Revenue was based on the 2017 forecast as of August 1, 2017 with a long-term growth rate applied to future periods. The most critical assumptions within the cash flow projections are revenue growth rates and forecasted gross margin percentages. The most critical assumption within the market multiple calculation is the multiple selected.

See Note 2 to the Consolidated Financial Statements for further discussion regarding goodwill allocated to divestitures and businesses held for sale.

The following table summarizes the carrying amount of net intangible assets by class as of October 31, 2019 and 2018:

(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
October 31, 2018:			
Indefinite lived:			
Trademarks and patents	$ 13.3	$ —	$ 13.3
Definite lived:			
Customer relationships	$ 162.2	$ 105.8	$ 56.4
Trademarks and patents	10.9	5.1	5.8
Other	21.2	16.1	5.1
Total	$ 207.6	$ 127.0	$ 80.6

Gross intangible assets increased by $747.3 million for the year ended October 31, 2019. The increase was attributable to $725.5 million from the Caraustar Acquisition, $24.1 million from the Tholu Acquisition and $0.3 million of asset adjustment, offset by $2.6 million of currency fluctuations. See Note 2 to the Consolidated Financial Statements for additional disclosure of intangibles added by these acquisitions.

Amortization expense was $53.2 million, $15.2 million and $13.5 million for the years ended October 31, 2019, 2018 and 2017, respectively. Amortization expense for the next five years is expected to be $69.3 million in 2020, $67.1 million in 2021, $59.1 million in 2022, $56.3 million in 2023 and $52.9 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 or legally determined, or over the period a market participant would benefit from the asset. Indefinite lived intangibles of approximately $13.1 million as of October 31, 2019, related primarily to the Tri-Sure trademark and trade names related to Closures, Blagden Express, Closed-loop, Box Board and Pachmas, are not amortized.

NOTE 6 – RESTRUCTURING CHARGES

The following is a reconciliation of the beginning and ended restructuring reserve balances for the years ended October 31, 2019 and 2018:

(in millions)	Employee Separation Costs	Other Costs	Total
Balance at October 31, 2017	$ 3.9	$ 1.3	$ 5.2
Costs incurred and charged to expense	14.8	3.8	18.6
Costs paid or otherwise settled	(14.5)	(4.9)	(19.4)
Balance at October 31, 2018	$ 4.2	$ 0.2	$ 4.4
Costs incurred and charged to expense	22.5	3.6	26.1
Costs paid or otherwise settled	(17.2)	(2.0)	(19.2)
Balance at October 31, 2019	$ 9.5	$ 1.8	$ 11.3

The focus for restructuring activities in 2019 was to optimize and integrate operations in the Paper Packaging & Services segment related to the Caraustar Acquisition and continue to rationalize operations and close underperforming assets in the Rigid Industrial Packaging & Services and the Flexible Products & Services segments. During the year ended October 31, 2019, the Company recorded restructuring charges of $26.1 million, as compared to $18.6 million of restructuring charges recorded during the year ended October 31, 2018. The restructuring activity for the year ended October 31, 2019 consisted of $22.5 million in employee separation costs and $3.6 million in other restructuring costs, primarily consisting of professional fees and other fees associated with restructuring activities. There were twelve plants closed in 2019, and a total of 430 employees severed throughout 2019 as part of the Company's restructuring efforts.

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-K. Remaining amounts expected to be incurred were $24.7 million as of October 31, 2019:

(in millions)	Total Amounts Expected to be Incurred	Amounts Incurred During the year ended October 31, 2019	Amounts Remaining to be Incurred
Rigid Industrial Packaging & Services:			
Employee separation costs	$ 32.3	$ 15.4	16.9
Other restructuring costs	9.1	3.4	5.7
	41.4	18.8	22.6
Flexible Products & Services:			
Employee separation costs	1.2	0.9	0.3
Other restructuring costs	0.1	0.1	—
	1.3	1.0	0.3
Paper Packaging & Services:			
Employee separation costs	6.1	6.1	—
Other restructuring costs	1.9	0.1	1.8
	8.0	6.2	1.8
Land Management			
Employee separation costs	0.1	0.1	—
Total	$ 50.8	$ 26.1	$ 24.7

The focus for restructuring activities in 2018 was to continue to rationalize operations and close underperforming assets in the Rigid Industrial Packaging & Services and Flexible Products & Services segments. During 2018, the Company recorded restructuring charges of $18.6 million, consisting of $14.8 million in employee separation costs and $3.8 million in other restructuring costs, primarily consisting of professional fees and other fees associated with restructuring activities. There were five plants closed and a total of 322 employees severed throughout 2018 as part of the Company's restructuring efforts.

The focus for restructuring activities in 2017 was to rationalize and close underperforming assets in the Rigid Industrial Packaging & Services and Flexible Products & Services segments. During 2017, the Company recorded restructuring charges of $12.7 million, consisting of $9.0 million in employee separation costs and $3.7 million in other restructuring costs, primarily consisting of professional fees incurred for services specifically associated with employee separation and relocation. There were two plants closed and a total of 157 employees severed throughout 2017 as part of the Company's restructuring efforts.

NOTE 7 – 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 VIE's quarterly to determine if the primary beneficiary status is appropriate. The Company consolidates VIE's 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

On March 28, 2005, Soterra LLC (a wholly owned subsidiary) entered into two real estate purchase and sale agreements with Plum Creek Timberlands, L.P. ("Plum Creek") to sell approximately 56,000 acres of timberland and related assets located primarily in Florida for an aggregate sales price of approximately $90 million, subject to closing adjustments. In connection with the closing of one of these agreements, Soterra LLC sold approximately 35,000 acres of timberland and associated assets in Florida, Georgia and Alabama for $51.0 million, resulting in a pretax gain of $42.1 million, on May 23, 2005. The purchase price was paid in the form of cash and a $50.9 million purchase note payable (the "Purchase Note") by an indirect subsidiary of Plum Creek (the "Buyer SPE"). Soterra LLC contributed the Purchase Note to STA Timber LLC ("STA Timber"), one of the Company's indirect wholly owned subsidiaries. The Purchase Note is secured by a Deed of Guarantee issued by Bank of America, N.A., London Branch, in an amount not to exceed $52.3 million (the "Deed of Guarantee"), as a guarantee of the due and punctual payment of principal and interest on the Purchase Note.

The Company completed the second and final phase of these transactions in the first and second quarters of 2006, respectively, with the sale of 15,300 acres and another approximately 5,700 acres.

On May 31, 2005, STA Timber issued in a private placement its 5.20% Senior Secured Notes due August 5, 2020 (the “Monetization Notes”) in the principal amount of $43.3 million. In connection with the sale of the Monetization Notes, STA Timber entered into note purchase agreements with the purchasers of the Monetization Notes (the “Note Purchase Agreements”) and related documentation. The Monetization Notes are secured by a pledge of the Purchase Note and the Deed of Guarantee. The Monetization Notes may be accelerated in the event of a default in payment or a breach of the other obligations set forth therein or in the Note Purchase Agreements or related documents, subject in certain cases to any applicable cure periods, or upon the occurrence of certain insolvency or bankruptcy related events. Although the maturity date of the Monetization Notes is August 5, 2020, STA Timber has the discretion to extend to the maturity date to November 5, 2020. STA Timber has the ability and intent to extend the maturity date to November 5, 2020. The proceeds from the sale of the Monetization Notes were primarily used for the repayment of indebtedness. Greif, Inc. and its other subsidiaries have not extended any form of guaranty of the principal or interest on the Monetization Notes. Accordingly, Greif, Inc. and its other subsidiaries will not become directly or contingently liable for the payment of the Monetization Notes at any time.

The Buyer SPE is deemed to be a VIE since the assets of the Buyer SPE are not available to satisfy the liabilities of the Buyer SPE. The Buyer SPE is a separate and distinct legal entity from the Company and no ownership interest in the Buyer SPE is held by the Company, but 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 or the right to receive benefits from the VIE that could potentially be significant to the VIE. As a result, Buyer SPE has been consolidated into the operations of the Company.

As of October 31, 2019 and 2018, assets of the Buyer SPE consisted of $50.9 million of restricted bank financial instruments which are expected to be held to maturity. For each of the years ended October 31, 2019, 2018 and 2017, the Buyer SPE recorded interest income of $2.4 million.

As of October 31, 2019 and 2018, STA Timber had long-term debt of $43.3 million. For each of the years ended October 31, 2019, 2018 and 2017, STA Timber recorded interest expense of $2.2 million. STA Timber is exposed to credit-related losses in the event of nonperformance by the issuer of the Deed of Guarantee.

Flexible Packaging Joint Venture

On September 29, 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 ("GRP"). 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 since its formation date of September 29, 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 was 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.

The economic and business purpose underlying the Flexible Packaging JV is to establish a global industrial flexible products enterprise through a series of targeted acquisitions and major investments in plant, machinery and equipment. All entities contributed to the Flexible Packaging JV were existing businesses acquired by an indirect subsidiary of the Company and that were reorganized under Greif Flexibles Asset Holding B.V. and Greif Flexibles Trading Holding B.V. (“Asset Co.” and “Trading Co.”), respectively. The Company has 51 percent ownership in Trading Co. and 49 percent ownership in Asset Co. However, the Company and GRP have equal economic interests in the Flexible Packaging JV, notwithstanding the actual ownership interests in the various legal entities.

All investments, loans and capital contributions are to be shared equally by the Company and GRP and each partner has committed to contribute capital of up to $150.0 million and obtain third party financing for up to $150.0 million as required.

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

(in millions)	October 31, 2019	October 31, 2018
Cash and cash equivalents	$ 16.9	$ 22.2
Trade accounts receivable, less allowance of $0.7 in 2019 and $0.6 in 2018	51.2	53.2
Inventories	46.4	49.0
Properties, plants and equipment, net	22.3	28.8
Other assets	29.3	21.5
Total assets	$ 166.1	$ 174.7
Accounts payable	$ 28.9	$ 29.0
Other liabilities	23.6	24.8
Total liabilities	$ 52.5	$ 53.8

Net income attributable to the noncontrolling interest in the Flexible Packaging JV for the years ended October 31, 2019, 2018 and 2017 were $12.4 million, $9.9 million and $6.3 million, respectively.

Paper Packaging Joint Venture

On April 20, 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 as 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.

As of October 31, 2019 and 2018, the Paper Packaging JV’s net assets consist mainly of properties, plants, and equipment, net of $29.4 million and $7.2 million, respectively. There was $0.1 million net loss related to interest expense for the year ended October 31, 2019, and there was no net income or loss for the year ended October 31, 2018, 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 3 to the Consolidated Financial Statements, Cooperage Receivables Finance B.V. is a party to the European RFA. 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 8 – LONG-TERM DEBT

Long-term debt is summarized as follows:

(in millions)	October 31, 2019	October 31, 2018
2019 Credit Agreement - Term Loans	$ 1,612.2	$ —
2017 Credit Agreement - Term Loan	—	277.5
Senior Notes due 2027	494.3	—
Senior Notes due 2021	221.7	226.5
Senior Notes due 2019	—	249.1
Accounts receivable credit facilities	351.6	150.0
2019 Credit Agreement - Revolving Credit Facility	76.1	—
2017 Credit Agreement - Revolving Credit Facility	—	3.8
Other debt	0.4	0.7
	2,756.3	907.6
Less current portion	83.7	18.8
Less deferred financing costs	13.6	4.7
Long-term debt, net	$ 2,659.0	$ 884.1

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 2019 Credit Agreement amended, restated, and replaced in its entirety the prior $800.0 million senior secured credit agreement (the "2017 Credit Agreement"). The Company's obligations under the 2019 Credit Agreement are guaranteed by certain of its U.S. subsidiaries and certain of its 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 Company used borrowings under the 2019 Credit Agreement, together with the net proceeds from the issuance of the Senior Notes due March 1, 2027 (described below), to fund the purchase price of the Caraustar Acquisition, to redeem its $250.0 million Senior Notes due August 1, 2019 (the "Senior Notes due 2019"), to repay outstanding borrowings under the 2017 Credit Agreement, to fund ongoing working capital and capital expenditure needs and for general corporate purposes, and to pay related fees and expenses. Interest is based on either a Eurodollar rate or a base rate that resets periodically plus a calculated margin amount. On February 11, 2019, proceeds from borrowings under the 2019 Credit Agreement were used to pay the obligations outstanding under the 2017 Credit Agreement.

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 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.

The terms of the 2019 Credit Agreement contain restrictive covenants, which limit the ability of the Company and its restricted subsidiaries, among other things, to incur additional indebtedness or issue certain preferred stock, pay dividends, redeem stock or make other distributions, or make certain investments; create restrictions on the ability of its restricted subsidiaries to pay dividends or make other payments to the Company; create certain liens; transfer or sell certain assets; merge or consolidate; enter into certain transactions with the Company's affiliates; and designate subsidiaries as unrestricted subsidiaries. These covenants are subject to a number of important exceptions and qualifications.

The repayment of this facility is secured by a security interest in the personal property of the Company and certain of its U.S. subsidiaries, including equipment and inventory and certain intangible assets, as well as a pledge of the capital stock of substantially all of the Company's U.S. subsidiaries, and is secured, in part, by the capital stock of the non-U.S. borrowers. However, in the event that the Company receives and maintains an investment grade rating from either Moody’s Investors Service, Inc. or Standard & Poor’s Financial Services LLC, the Company may request the release of such collateral.

The 2019 Credit Agreement provides for events of default (subject in certain cases to customary grace and cure periods), which include, among others, nonpayment of principal or interest when due, breach of covenants or other agreements in the 2019 Credit Agreement, defaults in payment of certain other indebtedness and certain events of bankruptcy or insolvency.

As of October 31, 2019, $1,688.3 million was outstanding under the 2019 Credit Agreement. The current portion of such outstanding amount was $83.7 million, and the long-term portion was $1,604.6 million. The weighted average interest rate for borrowings under the 2019 Credit Agreement was 4.05% for the year ended October 31, 2019. The actual interest rate for borrowings under the 2019 Credit Agreement was 3.71% as of October 31, 2019. The deferred financing costs associated with the term loan portion of the 2019 Credit Agreement totaled $10.8 million as of October 31, 2019 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 $8.0 million as of October 31, 2019 and are recorded within Other Long-Term Assets.

As a result of the refinancing, $0.8 million of unamortized deferred financing costs related to the 2017 Credit Agreement and $5.5 million of newly incurred financing costs related to the 2019 Credit Agreement were expensed as Debt Extinguishment Charges in the consolidated statements of income.

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, as described above. The Company used the net proceeds from the issuance of the Senior Notes due 2027, together with borrowings under the 2019 Credit Agreement, to fund the purchase price of the Caraustar Acquisition, to redeem all of the Senior Notes due 2019, to repay outstanding borrowings under the 2017 Credit Agreement, and to pay related fees and expenses. The deferred financing cost associated with the Senior Notes due 2027 totaled $2.6 million as of October 31, 2019 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 semiannually.

Senior Notes due 2019

On April 1, 2019, the Company redeemed all of its outstanding 7.75% Senior Notes due 2019, which were issued by the Company on July 28, 2009 for $250.0 million. The total redemption price for the Senior Notes due 2019 was $253.9 million, which was equal to the aggregate principal amount outstanding of $250.0 million plus a premium of $3.9 million. The premium was recognized as a debt extinguishment cost. The payment of the redemption price was funded by borrowings under the Company’s 2019 Credit Agreement.

As a result of redeeming the Senior Notes due 2019, $0.7 million of unamortized deferred financing costs were expensed to Debt Extinguishment Charges in the consolidated statements of income.

United States Trade Accounts Receivable Credit Facility

On September 24, 2019, certain U.S. subsidiaries of Greif, Inc. (the “Company”) amended and restated the existing receivables financing facility (the “U.S. Receivables Facility”). Greif Receivables Funding LLC (“Greif Funding”), Greif Packaging LLC (“Greif Packaging”), 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. (“BANA”), 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, as of September 24, 2019, replaced in its entirety the prior facility agreement, which provided for a $150.0 million U.S. Receivables Facility. The Third Amended TAA provides a $275.0 million U.S. Receivables Facility. The financing costs associated with the U.S. Receivables Facility are $0.4 million as of October 31, 2019, and are recorded as a direct deduction from the balance sheet line Long-Term Debt.

Greif Funding is a direct subsidiary of Greif Packaging and is included in the Company’s consolidated financial statements. However, because Greif Funding is a separate and distinct legal entity from the Company, the assets of Greif Funding are not available to satisfy the liabilities and obligations of the Company, Greif Packaging or other subsidiaries of the Company, and the liabilities of Greif Funding are not the liabilities or obligations of the Company or its other subsidiaries.

The Third Amended TAA provides for the ongoing purchase by BANA of receivables from Greif Funding, which Greif Funding will have purchased from Greif Packaging and certain other U.S. subsidiaries of the Company as the originators under the Third Amended and Restated Sale Agreement, dated as of September 24, 2019 (the “Third Amended Sale Agreement”). Greif Packaging will service and collect on behalf of Greif Funding those receivables sold to Greif Funding under the Third Amended Sale Agreement. The commitment termination date of the U.S. Receivables Facility is September 24, 2020, subject to earlier termination as provided in the Third Amended TAA (including acceleration upon an event of default as provided therein), or such later date to which the purchase commitment may be extended by agreement of the parties. In addition, Greif Funding may terminate the U.S. Receivables Facility at any time upon five days’ prior written notice. The Company has guaranteed the performance by Greif Funding, Greif Packaging and its other participating subsidiaries of their respective obligations under the Third Amended TAA, the Third Amended Sale Agreement and related agreements thereto, but has not guaranteed the collectability of the receivables thereunder. A significant portion of the proceeds from the U.S. Receivables Facility was used to pay the obligations under the Second Amended TAA. The remaining proceeds were used to pay certain fees, costs and expenses incurred in connection with the U.S. Receivables Facility and to repay borrowings on our Revolving Credit Facility.

The U.S. Receivables Facility is secured by certain trade accounts receivables related to the Rigid Industrial Packaging & Services and the Paper Packaging & Services businesses of Greif Packaging and other subsidiaries of the Company in the United States and bears interest at a variable rate based on the London InterBank Offered Rate or an applicable base rate, plus a margin, or a commercial paper rate, all as provided in the Third Amended TAA. Interest is payable on a monthly basis and the principal balance is payable upon termination of the U.S. Receivables Facility. The $255.1 million outstanding balance under the U.S. Receivables Facility as of October 31, 2019 is reported in long-term debt in the 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.

International Trade Accounts Receivable Credit Facilities

For additional disclosures related to the Foreign Receivables Facilities, as defined see Note 3 to the Consolidated Financial Statements.

Other

In addition to the amounts borrowed under the 2019 Credit Agreement and proceeds from the Senior Notes and the Accounts Receivables Facilities, as of October 31, 2019, the Company had outstanding other debt of $0.4 million in long-term debt and $9.2 million in short-term borrowings, compared to outstanding other debt of $0.7 million in long-term debt and $7.3 million in short-term borrowings, as of October 31, 2018. There are no financial covenants associated with this other debt.

As of October 31, 2019, annual maturities, including the current portion of long-term debt, were $511.5 million in 2020, $353.8 million in 2021, $147.5 million in 2022, $147.5 million in 2023, $51.9 million in 2024 and $1,549.4 million thereafter.

NOTE 9 – FINANCIAL INSTRUMENTS AND FAIR VALUE MEASUREMENTS

Recurring Fair Value Measurements

The following table presents the fair value of those assets and (liabilities) measured on a recurring basis as of October 31, 2019 and 2018:

	October 31, 2019				
	Fair Value Measurement				Balance Sheet Location
(in millions)	Level 1	Level 2	Level 3	Total	
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 long-term assets and other current assets
Total	$ —	$ (12.4)	$ 20.0	$ 7.6	

	October 31, 2018				
	Fair Value Measurement				Balance Sheet Location
(in millions)	Level 1	Level 2	Level 3	Total	
Interest rate derivatives	$ —	$ 16.5	$ —	$ 16.5	Other long-term assets and other current assets
Foreign exchange hedges	—	2.6	—	2.6	Other current assets
Foreign exchange hedges	—	(0.7)	—	(0.7)	Other current liabilities
Insurance annuity	—	—	20.4	20.4	Other long-term assets
Cross currency swap	—	5.2	—	5.2	Other long-term assets and other current assets
Total	$ —	$ 23.6	$ 20.4	$ 44.0	

The carrying amounts of cash and cash equivalents, trade accounts receivable, notes receivable, accounts payable, current liabilities and short-term borrowings as of October 31, 2019 and 2018 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 plus an interest spread. In 2019, the Company entered into six amortizing interest rate swaps. These six interest rate swaps have a total initial notional amount of $1,300.0 million and amortize to $200.0 million over a five year term. The outstanding notional as of October 31, 2019 is $1,000.0 million. The Company will receive 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 an interest 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 swap with a notional amount of $300.0 million. As of February 1, 2017, the Company began to receive variable rate interest payments based upon one month U.S. dollar LIBOR and in return was obligated to pay interest at a fixed rate of 1.19% plus an interest spread. This effectively converted the borrowing rate on $300.0 million of debt 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 transaction and in the same period during which the hedged transaction affects earnings. See Note 17 to the Consolidated Financial Statements for additional disclosures of the gain or loss included within other comprehensive income. 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 reclassified to earnings under these contracts were $3.0 million for the year ended October 31, 2019. Gains reclassified to earnings under these contracts were $1.8 million for the year ended October 31, 2018. A derivative loss of $8.1 million, based upon interest rates at October 31, 2019, 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 October 31, 2019, the Company had outstanding foreign currency forward contracts in the notional amount of $275.0 million ($194.4 million as of October 31, 2018). 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 were based on observable market pricing for similar instruments, principally foreign exchange futures contracts.

Realized gains (losses) recorded in other expense, net under fair value contracts were $4.6 million, $(9.2) million and $(1.8) million for the years ended October 31, 2019, 2018 and 2017, respectively. The Company recognized in other expense, net an unrealized net gain (loss) of $0.7 million, $1.9 million and $(0.5) million in the years ended October 31, 2019, 2018 and 2017, 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 consolidated statements of income. For the year ended October 31, 2019 and 2018, gains recorded in interest expense, net under the cross currency swap agreement were $2.4 million and $1.6 million, respectively. See Note 17 to the Consolidated Financial Statements for additional disclosure of the gain or loss included within other comprehensive income. 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, 2017 Credit Agreement, and U.S. Receivables Facility and Foreign Receivables Facilities (collectively, "Accounts Receivables 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 for the Company's Senior Notes and Assets held by special purpose entities:

(in millions)	**October 31, 2019**	**October 31, 2018**
Senior Notes due 2019 estimated fair value	$ —	$ 257.4
Senior Notes due 2021 estimated fair value	248.1	263.4
Senior Notes due 2027 estimated fair value	537.9	—
Assets held by special purpose entities estimated fair value	51.9	51.6

Pension Plan Assets

On an annual basis the Company compares the asset holdings of its pension plan to targets it previously established. The pension plan assets are categorized as equity securities, debt securities, fixed income securities, insurance annuities or other assets, which are considered level 1, level 2 and level 3 fair value measurements. The typical asset holdings include:

- Common stock: Valued based on quoted prices and are primarily exchange-traded.

- Mutual funds: Valued at the Net Asset Value "NAV" available daily in an observable market.
- Common collective trusts: Unit value calculated based on the observable NAV of the underlying investment.
- Pooled separate accounts: Unit value calculated based on the observable NAV of the underlying investment.
- Government and corporate debt securities: Valued based on readily available inputs such as yield or price of bonds of comparable quality, coupon, maturity and type.
- Insurance annuity: Value is derived based on the value of the corresponding liability.

Non-Recurring Fair Value Measurements

The Company recognized asset impairment charges of $7.8 million and $8.3 million for the years ended October 31, 2019 and 2018.

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 twelve months ended October 31, 2019 and 2018:

	Quantitative Information about Level 3 Fair Value Measurements			
(in millions)	**Fair Value of Impairment**	**Valuation Technique**	**Unobservable Input**	**Range of Input Values**
October 31, 2019				
Impairment of Net Assets Held for Sale	$ 2.1	Indicative Bids	Indicative Bids	N/A
Impairment of Long Lived Assets	5.7	Sales Value	Sales Value	N/A
Total	$ 7.8			
October 31, 2018				
Impairment of Net Assets Held for Sale	$ 0.7	Broker Quote / Indicative Bids	Indicative Bids	N/A
Impairment of Long Lived Assets	7.6	Sales Value	Sales Value	N/A
Total	$ 8.3			

Long-Lived Assets

During the year ended October 31, 2019, the Company wrote down long-lived assets with a carrying value of $5.9 million to a fair value of $0.2 million, resulting in recognized asset impairment charges of $5.7 million. These charges include $0.6 million related to properties, plants and equipment, net, in the Rigid Industrial Packaging & Services segment, and $5.1 million related to properties, plants and equipment, net, in the Paper Packaging & Services segment.

During the year ended October 31, 2018, the Company wrote down long-lived assets with a carrying value of $10.7 million to a fair value of $3.1 million, resulting in recognized asset impairment charges of $7.6 million. The $7.6 million of impairment charges was all related to properties, plants and equipment, net, in the Rigid Industrial Packaging & Services segment.

During the year ended October 31, 2017, the Company wrote down long-lived assets with a carrying value of $3.8 million to a fair value of $1.6 million, resulting in recognized asset impairment charges of $2.2 million. These charges include $1.9 million related to properties, plants and equipment, net, in the Rigid Industrial Packaging & Services segment and $0.3 million of properties, plants and equipment, net, in the Flexible Products & Services segment.

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 year ended October 31, 2019, the Company wrote down the assets and liabilities of one asset group that was held for sale with a carrying value of $2.1 million to a fair value of zero, resulting in recognized asset impairment charges of $2.1 million.

During the year ended October 31, 2018, the Company wrote down the assets and liabilities of one asset group that was held for sale with a carrying value of $2.9 million to a fair value of $2.2 million, resulting in recognized asset impairment charges of $0.7 million for goodwill allocated to the business classified as held for sale.

During the year ended October 31, 2017, the Company wrote down the assets and liabilities of one asset group that was held for sale with a carrying value of $69.2 million to a fair value of $63.6 million, resulting in recognized asset impairment charges of $5.6 million for goodwill allocated to the business classified as held for sale. Additionally, during the year ended October 31, 2017, one asset group that was classified as held for sale at October 31, 2016 was reclassified to held and used at net realizable value, resulting in no impairment.

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.

Goodwill and Indefinite-Lived Intangibles

On an annual basis or when events or circumstances indicate impairment may have occurred, the Company performs impairment tests for goodwill and indefinite-lived intangibles as defined under ASC 350, “Intangibles-Goodwill and Other.” There was no goodwill impairment for the years ended October 31, 2019 and 2018. On August 1, 2017, the Company concluded that the carrying amount of the Rigid Industrial Packaging & Services - Latin America reporting unit exceeded at the fair value of the reporting unit, and the goodwill of Rigid Industrial Packaging & Services - Latin America of $13.0 million was fully impaired.

NOTE 10 – 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. The Company maintains two stock-based compensation plans, the 2001 Management Equity Incentive and Compensation Plan (the “2001 Plan”) and the 2005 Outside Directors Equity Award Plan (the “2005 Directors Plan”) however no stock options were granted in 2019, 2018 or 2017. No shares were forfeited or exercised in 2019, 2018 or 2017.

The Company’s Amended and Restated Long-Term Incentive Plan ("Long-Term Incentive Plan") is intended to focus management on the key measures that drive superior performance over the longer term. The Long-Term Incentive Plan is based on three-year performance periods that commence at the start of every fiscal year. For each three-year performance period, the performance goals are based on targeted levels of earnings before interest, taxes, depreciation, depletion and amortization as determined by the Special Subcommittee of the Company’s Compensation Committee of the Board of Directors (the “Special Subcommittee”).

The Company granted 291,520 shares of restricted stock with a grant date fair value of $39.83 under the Company’s Long-Term Incentive Plan for 2019. The total stock expense recorded under the Long-Term Incentive Plan was $11.6 million, $5.3 million and $1.7 million for the periods ended October 31, 2019, 2018 and 2017, respectively. All restricted stock awards under the Long-Term Incentive Plan are fully vested at the date of award.

Under the Company’s 2005 Directors Plan, the Company granted 25,144 shares of restricted stock with a grant date fair value of $42.95 in 2019. The Company granted 20,529 shares of restricted stock with a grant date fair value of $59.18 under the Company’s 2005 Directors Plan in 2018. The total expense recorded under the plan was $1.1 million, $1.2 million and $1.1 million for the periods ended October 31, 2019, 2018, and 2017, respectively. All restricted stock awards under the 2005 Directors Plan are fully vested at the date of award.

During 2019, the Company awarded an officer, as part of the terms of the officer's initial employment arrangement, 9,000 shares of Class A Common Stock under the 2001 Plan. These shares were issued subject to vesting and post-vesting restrictions on the sale or transfer until November 5, 2023. These shares will fully vest in equal installments of 3,000 on November 5, 2019, 2020 and 2021. Share-based compensation expense was $0.1 million, for the period ended October 31, 2019.

During 2014, the Company awarded an officer, as part of the terms of the officer's initial employment arrangement, 15,000 shares of Class A Common Stock under the 2001 Plan. These shares were issued subject to vesting and post-vesting restrictions on the sale or transfer until May 12, 2019. These shares fully vested in equal installments of 5,000 on May 12, 2015, 2016 and 2017. Share-based compensation expense was $0.1 million, for the period ended October 31, 2017.

The total stock compensation expenses recorded under the plans were $12.7 million, $6.5 million and $2.9 million for periods ended October 31, 2019, 2018 and 2017 respectively.

NOTE 11 – INCOME TAXES

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act of 2017 (the "Tax Reform Act"). The legislation significantly changed U.S. tax law by, among other items, (1) lowering the corporate income tax rate from 35% to 21%, effective January 1, 2018; (2) allowing for the acceleration of expensing of qualified business assets; (3) requiring companies to pay a one-time transition tax on certain unremitted earnings of foreign subsidiaries that may be payable over eight years; (4) a new limitation on deductible interest expense; (5) limitations on the deductibility of certain executive compensation; and (6) eliminating U.S. federal income tax on dividends from foreign subsidiaries. The corporate income tax rate change was administratively effective beginning 2018. Therefore, the Company used a blended statutory rate for 2018 of 23.33% on U.S. earnings.

The SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Reform Act. The Bulletin also provides for a measurement period that should not extend beyond one year from the U.S. Tax Reform enactment date. In accordance with the Bulletin, the Company recorded a tax benefit of $72.0 million related to the revaluation of deferred tax assets and liabilities during the year ended October 31, 2018 as well as a provisional tax expense of $52.8 million for the transition tax liability. During the first quarter of 2019, the Company revised its calculation for the transition tax liability to $55.1 million. In addition, the Company re-evaluated its indefinite reinvestment assertion, concluding that the unremitted earnings and profits of certain non-U.S. subsidiaries and affiliates will no longer be indefinitely reinvested. These changes in assertion required the recognition of a tax benefit of $1.7 million due to Section 986(c) currency losses. The provisional calculations related to the Tax Reform Act are now complete.

In addition, the Tax Reform Act established new tax provisions that affected the Company in 2019, including (1) eliminating the U.S. manufacturing deduction; (2) establishing new limitations on deductible interest expense and certain executive compensation; (3) creating the base erosion anti-abuse tax ("BEAT"); (4) creating a new provision designed to tax global intangible low-tax income ("GILTI"); (5) establishing a deduction for foreign-derived intangible income ("FDII"); and (6) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries. Regarding the new GILTI tax rules, the Company is allowed to make an accounting policy election to either (1) treat taxes due on future GILTI inclusions in U.S. taxable income as a current period expense when incurred or (2) reflect such portion of the future GILTI exclusions in U.S. taxable income that relate to existing basis differences in the Company's measurement of deferred taxes. The Company has elected to treat taxes due to future GILTI inclusions in U.S. taxable income as a current period expense.

With respect to pre-October 31, 2016 undistributed foreign earnings, the Company is indefinitely reinvested as defined under ASC 740-30-25-1. For post-October 31, 2016 foreign earnings, the Company is not indefinitely reinvested. Accordingly, during 2017, the Company began recording a deferred tax liability with respect to post-October 31, 2016 foreign unremitted earnings, generally based on foreign jurisdiction withholding taxes. As disclosed above, Company no longer asserts that the unremitted earnings and profits of certain non-U.S. subsidiaries and affiliates is indefinitely reinvested and has recorded the appropriate U.S. federal and state impacts. Total deferred taxes accrued by the Company relative to undistributed earnings were $6.6 million and $8.4 million at October 31, 2019 and 2018, respectively. The decrease in the liability is primarily attributable to tax-deductible foreign currency losses that would be recognized on distributions of previously taxed earnings to the U.S.

The provision for income taxes consists of the following:

(in millions)	Year Ended October 31, 2019	2018	2017
Current			
Federal	$ 26.6	$ 74.0	$ 33.0
State and local	6.1	8.0	6.0
Non-U.S.	35.9	36.1	25.9
	68.6	118.1	64.9
Deferred			
Federal	2.1	(45.2)	4.5
State and local	0.9	0.8	(2.0)
Non-U.S.	(0.9)	(0.4)	(0.2)
	2.1	(44.8)	2.3
	$ 70.7	$ 73.3	$ 67.2

The non-U.S. income before income tax expense was $132.1 million, $102.3 million and $85.2 million in 2019, 2018, and 2017, respectively. The U.S. income before income tax was $129.9 million, $197.5 million and $115.1 million in 2019, 2018, and 2017, respectively.

The following is a reconciliation of the provision for income taxes based on the federal statutory rate to the Company's effective income tax rate:

	Year Ended October 31, 2019	2018	2017
Federal statutory rate	21.00 %	23.33 %	35.00 %
Impact of foreign tax rate differential	0.10 %	(0.57)%	(9.86)%
State and local taxes, net of federal tax benefit	1.99 %	2.38 %	1.35 %
Net impact of changes in valuation allowances	2.41 %	5.65 %	20.74 %
Non-deductible write-off and impairment of goodwill and other intangible assets	0.29 %	0.06 %	(0.02)%
Unrecognized tax benefits	(0.76)%	3.41 %	(2.00)%
Permanent book-tax differences	(0.87)%	(4.03)%	(15.71)%
Withholding taxes	2.43 %	1.84 %	1.88 %
Tax Reform Act [1]	(0.19)%	(7.31)%	— %
Other items, net	0.58 %	(0.33)%	2.20 %
	26.98 %	24.43 %	33.58 %

[1]Reflects the net impact of the change in deferred tax assets and liabilities and the estimated transition tax resulting from the Tax Reform Act.

The primary items which increased the Company's effective income tax rate from the federal statutory rate in 2019 were state and local taxes, increases in valuation allowances, and withholding tax liabilities.

The primary items which increased the Company's effective income tax rate from the federal statutory rate in 2018 were increases in valuation allowances and unrecognized tax benefits; offset primarily by the remeasurement of the domestic deferred tax liabilities, net of the transition tax liability due to the Tax Reform Act, and permanent book-tax differences.

The primary items which decreased the Company's effective income tax rate from the federal statutory rate in 2017 were permanent book-tax differences, unrecognized tax benefits, the impact of foreign tax rates that differ from the federal statutory tax rate, and other immaterial items; offset primarily by increases in valuation allowances. Also, in 2017, the Company included in the table

above a $38.6 million and 19.26% change in valuation allowance, with offsetting amounts in permanent book-tax differences, for certain intercompany financing transactions.

The components of the Company's deferred tax assets and liabilities as of October 31 for the years indicated were as follows:

(in millions)	2019	2018
Deferred Tax Assets		
Net operating loss and other carryforwards	$ 206.9	$ 122.8
Foreign tax credits	21.5	20.7
Pension liabilities	24.1	12.2
Incentive liabilities	12.0	12.1
Workers compensation accruals	12.1	6.6
Inventories	6.7	4.9
State income taxes	9.4	4.5
Deferred compensation	2.3	2.2
Other	41.2	16.5
Total Deferred Tax Assets	336.2	202.5
Valuation allowance	(175.0)	(157.2)
Net Deferred Tax Assets	$ 161.2	$ 45.3
Deferred Tax Liabilities		
Properties, plants and equipment	$ 152.7	$ 78.9
Timberland transactions	74.2	73.5
Goodwill and other intangible assets	207.5	49.2
Other	23.9	15.6
Total Deferred Tax Liabilities	458.3	217.2
Net Deferred Tax Liability	$ 297.1	$ 171.9

As of October 31, 2019 and 2018, the Company had deferred income tax benefits of $206.9 million and $122.8 million, respectively, from net operating loss carryforwards and interest expense limitation carryforwards. These carryforwards are composed of $49.4 million, $27.3 million, and $130.2 million in U.S. Federal, state, and non-U.S. jurisdictions, respectively. The Company has recorded valuation allowances of $142.3 million and $137.1 million against non-U.S. deferred tax assets as of October 31, 2019 and 2018 respectively. The Company has also recorded valuation allowances of $32.7 million and $20.1 million, as of October 31, 2019 and 2018, respectively, against U.S. deferred tax assets. The Company had net changes in valuation allowances in 2019 of $17.8 million.

As discussed in Note 2 - Acquisitions and Divestitures, the table above reflects a net deferred tax liability of $139.1 million related to the Caraustar Acquisition, as well as a net deferred tax liability of $5.8 million related to the Tholu Acquisition.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

(in millions)	2019	2018	2017
Balance at November 1	$ 36.2	$ 26.8	$ 29.7
Increases in tax positions for prior years	5.1	7.8	2.1
Decreases in tax positions for prior years	(0.7)	(1.4)	(1.8)
Increases in tax positions for current years	4.3	8.0	6.7
Settlements with taxing authorities	(3.6)	—	(7.4)
Lapse in statute of limitations	(2.0)	(3.6)	(4.6)
Currency translation	(0.5)	(1.4)	2.1
Balance at October 31	$ 38.8	$ 36.2	$ 26.8

The 2019 net increase in unrecognized tax benefits is primarily related to increases in unrecognized tax benefits related to prior years and the current year, offset by decreases related to the settlement of prior years' tax audits and lapse in statute of limitations. The Company files income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and various non-U.S. jurisdictions and is subject to audit by various taxing authorities for 2012 through the current year. The Company has completed its U.S. federal tax audit for the tax years through 2013.

The October 31, 2019, 2018, 2017 balances include $34.1 million, $36.2 million and $26.8 million, respectively, of unrecognized tax benefits that, if recognized, would have an impact on the effective tax rate. The Company also recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense net of tax, as applicable. As of October 31, 2019 and October 31, 2018, the Company had $6.3 million and $4.9 million, respectively, accrued for the payment of interest and penalties.

The Company has estimated the reasonably possible expected net change in unrecognized tax benefits through October 31, 2019 under ASC 740. The Company's estimate is based on lapses of the applicable statutes of limitations, settlements and payments of uncertain tax positions. The estimated net decrease in unrecognized tax benefits for the next 12 months ranges from zero to $5.9 million. Actual results may differ materially from this estimate.

NOTE 12 – POST-RETIREMENT BENEFIT PLANS

Defined Benefit Pension Plans

The Company has certain non-contributory defined benefit pension plans for salaried and hourly employees in the United States, Canada, Germany, the Netherlands, South Africa and the United Kingdom. The Company uses a measurement date of October 31 for fair value purposes for its pension plans. The salaried employees plans' benefits are based primarily on years of service and earnings. The hourly employees plans' benefits are based primarily upon years of service, and certain benefit provisions are subject to collective bargaining. The Company contributes an amount that is not less than the minimum funding and not more than the maximum tax-deductible amount to these plans. Salaried employees in the United States who commence service on or after November 1, 2007 are not eligible to participate in the defined benefit pension plans, but are eligible to participate in a defined contribution retirement program. Salaried employees outside the U.S. also have various dates in which they are not eligible to participate in the defined benefit pension plans, but are eligible to participate in a defined contribution retirement program. The category "Other International" represents the noncontributory defined benefit pension plans in Canada and South Africa.

Pension plan contributions by the Company totaled $26.5 million during 2019, which consisted of $22.6 million of employer contributions and $3.9 million of benefits paid directly by the Company. Pension plan contributions, including benefits paid directly by the Company, totaled $85.5 million and $14.4 million during 2018 and 2017, respectively. Contributions, including benefits paid directly by the Company, during 2020 are expected to be approximately $27.7 million.

The following table presents the number of participants in the defined benefit plans:

October 31, 2019	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Active participants	2,455	2,351	41	—	63	—
Vested former employees and deferred members	5,236	4,643	86	366	97	44
Retirees and beneficiaries	6,462	5,074	258	662	414	54

October 31, 2018	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Active participants	1,332	1,214	47	—	71	—
Vested former employees and deferred members	1,433	790	85	419	95	44
Retirees and beneficiaries	2,389	942	253	699	441	54

The actuarial assumptions are used to measure the year-end benefit obligations as of October 31, 2019 and the pension costs for the year were as follows:

For the year ended October 31, 2019	Consolidated[1]	United States	Germany	United Kingdom	Netherlands	Other International
Discount rate	2.74%	3.27%	0.73%	1.76%	0.74%	3.98%
Expected return on plan assets	4.12%	5.10%	N/A	3.60%	1.51%	6.00%
Rate of compensation increase	2.85%	3.00%	2.75%	N/A	2.25%	N/A
For the year ended October 31, 2018	**Consolidated[1]**	**United States**	**Germany**	**United Kingdom**	**Netherlands**	**Other International**
Discount rate	3.48%	4.59%	1.80%	2.50%	1.64%	4.84%
Expected return on plan assets	4.53%	6.25%	N/A	3.60%	1.45%	5.69%
Rate of compensation increase	2.85%	3.00%	2.75%	N/A	2.25%	N/A
For the year ended October 31, 2017	**Consolidated[1]**	**United States**	**Germany**	**United Kingdom**	**Netherlands**	**Other International**
Discount rate	3.01%	3.79%	1.72%	2.37%	1.55%	4.46%
Expected return on plan assets	5.39%	6.25%	N/A	6.00%	1.20%	5.70%
Rate of compensation increase	2.87%	3.00%	2.75%	N/A	2.25%	N/A

[1]This column represents the weighted average of the regions.

The discount rate is determined by developing a hypothetical portfolio of individual high-quality corporate bonds available at the measurement date, the coupon and principal payments of which would be sufficient to satisfy the plans' expected future benefit payments as defined for the projected benefit obligation. The discount rate by country is equivalent to the average yield on that hypothetical portfolio of bonds and is a reflection of current market settlement rates on such high quality bonds, government treasuries, and annuity purchase rates. To determine the expected long-term rate of return on pension plan assets, the Company considers current and expected asset allocations, as well as historical and expected returns on various categories of plan assets. In developing future return expectations for the defined benefit pension plans' assets; the Company formulates views on the future economic environment, both in the U.S. and globally. The Company evaluates general market trends and historical relationships among a number of key variables that impact asset class returns, such as expected earnings growth, inflation, valuations, yields and spreads, using both internal and external sources. The Company takes into account expected volatility by asset class and diversification across classes to determine expected overall portfolio results given current and expected allocations. The Company uses published mortality tables for determining the expected lives of plan participants and believe that the tables selected are most-closely associated with the expected lives of plan participants as the tables are based on the country in which the participant is employed.

Based on the Company's analysis of future expectations of asset performance, past return results, and its current and expected asset allocations, the Company has assumed a 4.12% long-term expected return on those assets for cost recognition in 2019. For the defined benefit pension plans, the Company applies its expected rate of return to a market-related value of assets, which stabilizes variability in the amounts to which the Company applies that expected return.

The Company amortizes experience gains and losses as well as the effects of changes in actuarial assumptions and plan provisions over a period no longer than the average future service of employees.

During the year ended October 31, 2018, in the United Kingdom, lump sum payments totaling $4.7 million were made from the defined benefit plan assets to certain participants who agreed to such payments representing the current fair value of the participant's respective pension benefit. These lump sum payments resulted in a non-cash pension settlement charge of $1.3 million for the year ended October 31, 2018.

During the year ended October 31, 2017, in the United States, an annuity contract for approximately $49.2 million was purchased with defined benefit plan assets, and the pension obligation for certain retirees was irrevocably transferred from that plan to the annuity contract. Additionally, lump sum payments totaling $45.2 million were made from the defined benefit plan assets to certain participants who voluntarily agreed to such payments, representing the current fair value of the participant's respective pension benefit. The settlement items described above resulted in a decrease in the fair value of plan assets and the projected benefit obligation of $94.4 million and a non-cash pension settlement charge of $25.9 million of unrecognized net actuarial loss that was included in accumulated other comprehensive loss. Additionally, in the United Kingdom, lump sum payments totaling $7.3 million were made from the defined benefit plan assets to certain participants who voluntarily agreed to such payments, representing the current fair value of the participant's respective pension benefit. These lump sum payments resulted in a non-cash pension settlement charge of $1.2 million of unrecognized net actuarial loss that was included in accumulated other comprehensive loss. Finally, $1.8 million of projected benefit obligation for certain retirees in Germany was irrevocably transferred to a third-party buyer through

the sale of a business resulting in $0.7 million of unrecognized net actuarial loss that was included in accumulated other comprehensive loss that was recognized as a loss on sale of business.

Benefit Obligations

The components of net periodic pension cost include the following:

For the year ended October 31, 2019 (in millions)	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Service cost	$ 14.1	$ 12.7	$ 0.3	$ 0.5	$ 0.5	$ 0.1
Interest cost	31.0	25.4	0.5	3.9	0.9	0.3
Expected return on plan assets	(38.8)	(30.5)	—	(6.2)	(1.3)	(0.8)
Amortization of prior service (cost) benefit	(0.1)	(0.1)	—	0.1	(0.1)	—
Recognized net actuarial loss	7.1	5.0	0.9	1.2	—	—
Net periodic pension (benefit) cost	$ 13.3	$ 12.5	$ 1.7	$ (0.5)	$ —	$ (0.4)

For the year ended October 31, 2018 (in millions)	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Service cost	$ 12.3	$ 10.8	$ 0.4	$ 0.5	$ 0.5	$ 0.1
Interest cost	18.9	13.2	0.5	4.0	0.9	0.3
Expected return on plan assets	(25.5)	(16.8)	—	(6.5)	(1.4)	(0.8)
Amortization of prior service cost	(0.2)	(0.1)	—	—	(0.1)	—
Recognized net actuarial loss	11.0	8.1	1.1	1.7	—	0.1
Other Adjustments	2.8	—	—	2.8	—	—
Special Events						
Settlement	1.3	—	—	1.3	—	—
Net periodic pension (benefit) cost	$ 20.6	$ 15.2	$ 2.0	$ 3.8	$ (0.1)	$ (0.3)

For the year ended October 31, 2017 (in millions)	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Service cost	$ 13.3	$ 11.8	$ 0.5	$ 0.5	$ 0.4	$ 0.1
Interest cost	18.2	12.9	0.5	3.8	0.7	0.3
Expected return on plan assets	(27.7)	(15.6)	—	(10.2)	(1.2)	(0.7)
Amortization of prior service cost	(0.1)	—	—	—	(0.1)	—
Recognized net actuarial loss	10.9	8.1	1.3	1.5	—	—
Special Events						
Settlement*	27.8	$ 25.9	$ 0.7	$ 1.2	$ —	$ —
Net periodic pension (benefit) cost	$ 42.4	$ 43.1	$ 3.0	$ (3.2)	$ (0.2)	$ (0.3)

*Includes $0.7M that was recorded as a loss on sale of business

Benefit obligations are described in the following tables. Accumulated and projected benefit obligations (ABO and PBO) represent the obligations of a pension plan for past service as of the measurement date. ABO is the present value of benefits earned to date with benefits computed based on current compensation levels. PBO is ABO increased to reflect expected future compensation.

The following table sets forth the plans' change in projected benefit obligation:

For the year ended October 31, 2019 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Change in benefit obligation:						
Benefit obligation at beginning of year	$ 662.4	$ 351.9	$ 38.1	$ 176.3	$ 85.4	$ 10.7
Service cost	14.1	12.7	0.3	0.5	0.5	0.1
Interest cost	31.0	25.4	0.5	3.9	0.9	0.3
Plan participant contributions	0.2	—	—	—	0.2	—
Expenses paid from assets	(5.9)	(5.1)	—	(0.7)	—	(0.1)
Actuarial loss	131.0	105.5	7.4	6.0	11.0	1.1
Foreign currency effect	(1.8)	—	(0.9)	1.1	(1.9)	(0.1)
Benefits paid	(61.6)	(48.7)	(1.3)	(6.3)	(4.8)	(0.5)
Acquisitions	389.3	389.3	—	—	—	—
Benefit obligation at end of year	$ 1,158.7	$ 831.0	$ 44.1	$ 180.8	$ 91.3	$ 11.5

For the year ended October 31, 2018 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Change in benefit obligation:						
Benefit obligation at beginning of year	$ 717.8	$ 387.6	$ 39.9	$ 186.9	$ 91.8	$ 11.6
Service cost	12.3	10.8	0.4	0.5	0.5	0.1
Interest cost	18.9	13.2	0.5	4.0	0.9	0.3
Plan participant contributions	0.2	—	—	—	0.2	—
Expenses paid from assets	(1.7)	(1.0)	—	(0.6)	—	(0.1)
Plan Amendments	3.3	—	—	3.5	(0.2)	—
Actuarial gain	(39.1)	(33.5)	(0.5)	(3.9)	(0.9)	(0.3)
Foreign currency effect	(7.1)	—	(0.8)	(4.3)	(1.7)	(0.3)
Benefits paid	(42.2)	(25.2)	(1.4)	(9.8)	(5.2)	(0.6)
Benefit obligation at end of year	$ 662.4	$ 351.9	$ 38.1	$ 176.3	$ 85.4	$ 10.7

The following tables set forth the PBO, ABO, plan assets and instances where the ABO exceeds the plan assets for the respective years:

Actuarial value of benefit obligations *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
October 31, 2019						
Projected benefit obligation	$ 1,158.7	$ 831.0	$ 44.1	$ 180.8	$ 91.3	$ 11.5
Accumulated benefit obligation	1,131.3	806.8	42.6	180.8	89.6	11.5
Plan assets	1,017.0	698.7	—	209.8	94.5	14.0
October 31, 2018						
Projected benefit obligation	$ 662.4	$ 351.9	$ 38.1	$ 176.3	$ 85.4	$ 10.7
Accumulated benefit obligation	638.9	330.4	37.2	176.3	84.3	10.7
Plan assets	594.8	311.9	—	178.7	90.6	13.6
Plans with ABO in excess of Plan assets						
October 31, 2019						
Accumulated benefit obligation	$ 860.9	$ 806.8	$ 42.6	$ —	$ —	$ 11.5
Plan assets	709.7	698.9	—	—	—	10.8
October 31, 2018						
Accumulated benefit obligation	$ 171.1	$ 28.8	$ 37.2	$ 104.6	$ —	$ 0.5
Plan assets	94.7	—	—	94.2	—	0.5

Future benefit payments for the Company's global plans, which reflect expected future service, as appropriate, during the next five years, and in the aggregate for the five years thereafter, are as follows:

(in millions)	Expected Benefit Payments
Year(s)	
2020	$ 59.7
2021	60.2
2022	62.0
2023	65.6
2024	67.2
2025-2029	323.6

Plan assets

The plans’ assets consist of U.S. and non-U.S. equity securities, government and corporate bonds, cash, insurance annuity mutual funds and not more than the allowable number of shares of the Company’s common stock. The plans' assets include shares of the Company's common stock in the amount of 175,320 Class A shares and 111,270 Class B shares at October 31, 2019 and 247,504 Class A shares and 160,710 Class B shares at October 31, 2018.

The investment policy reflects the long-term nature of the plans’ funding obligations. The assets are invested to provide the opportunity for both income and growth of principal. This objective is pursued as a long-term goal designed to provide required benefits for participants without undue risk. It is expected that this objective can be achieved through a well-diversified asset portfolio. All equity investments are made within the guidelines of quality, marketability and diversification mandated by the Employee Retirement Income Security Act and/or other relevant statutes. Investment managers are directed to maintain equity portfolios at a risk level approximately equivalent to that of the specific benchmark established for that portfolio.

The Company's weighted average asset allocations at the measurement date and the target asset allocations by category are as follows:

Asset Category	2020 Target	2019 Target	2019 Actual
Equity securities	29%	15%	31%
Debt securities	55%	63%	51%
Other	16%	22%	18%
Total	100%	100%	100%

The fair value of the pension plans' investments is presented below. The inputs and valuation techniques used to measure the fair value of the assets are consistently applied and described in Note 9.

For the year ended October 31, 2019 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Change in plan assets:						
Fair value of plan assets at beginning of year	$ 594.8	$ 311.9	$ —	$ 178.7	$ 90.6	$ 13.6
Actual return on plan assets	140.1	93.4	—	35.2	10.7	0.8
Expenses paid	(5.9)	(5.1)	—	(0.7)	—	(0.1)
Plan participant contributions	0.2	—	—	—	0.2	—
Foreign currency impact	(0.7)	—	—	1.3	(2.1)	0.1
Employer contributions	22.7	21.0	—	1.6	—	0.1
Benefits paid out of plan	(57.8)	(46.1)	—	(6.3)	(4.9)	(0.5)
Acquisitions	323.6	323.6	—	—	—	—
Fair value of plan assets at end of year	$ 1,017.0	$ 698.7	$ —	$ 209.8	$ 94.5	$ 14.0

For the year ended October 31, 2018 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Change in plan assets:						
Fair value of plan assets at beginning of year	$ 568.6	$ 268.6	$ —	$ 188.9	$ 97.5	$ 13.6
Actual return on plan assets	(8.7)	(12.9)	—	3.2	(0.1)	1.1
Expenses paid	(1.7)	(1.0)	—	(0.6)	—	(0.1)
Plan participant contributions	0.2	—	—	—	0.2	—
Foreign currency impact	(6.9)	—	—	(4.6)	(1.8)	(0.5)
Employer contributions	81.7	80.0	—	1.6	—	0.1
Benefits paid out of plan	(38.4)	(22.8)	—	(9.8)	(5.2)	(0.6)
Fair value of plan assets at end of year	$ 594.8	$ 311.9	$ —	$ 178.7	$ 90.6	$ 13.6

The following table presents the fair value measurements for the pension assets:

As of October 31, 2019 *(in millions)*	Fair Value Measurement			
Asset Category	**Level 1**	**Level 2**	**Level 3**	**Total**
Mutual funds	$ 25.6	$ 137.4	$ —	$ 163.0
Common stock	27.6	—	—	27.6
Cash	6.5	—	—	6.5
Corporate bonds	—	134.8	—	134.8
Government bonds	—	39.8	—	39.8
Other assets	—	0.2	—	0.2
Total Assets in the Fair Value Hierarchy	$ 59.7	$ 312.2	$ —	$ 371.9
Investments Measured at Net Asset Value				
Mutual funds				358.5
Insurance contracts				130.2
Common stock funds				81.5
Corporate bond funds				70.8
Government bond funds				4.1
Investments at Fair Value	$ 59.7	$ 312.2	$ —	$ 1,017.0

As of October 31, 2018 *(in millions)*	Fair Value Measurement			
Asset Category	**Level 1**	**Level 2**	**Level 3**	**Total**
Mutual funds	$ 63.0	$ 140.7	$ —	$ 203.7
Common stock	35.9	—	—	35.9
Cash	1.9	—	—	1.9
Corporate bonds	—	26.1	—	26.1
Government bonds	—	17.8	—	17.8
Other assets	—	0.8	—	0.8
Total Assets in the Fair Value Hierarchy	$ 100.8	$ 185.4	$ —	$ 286.2
Investments Measured at Net Asset Value				
Mutual funds				44.6
Insurance contracts				124.0
Common stock funds				42.7
Corporate bond funds				97.3
Investments at Fair Value	$ 100.8	$ 185.4	$ —	$ 594.8

Financial statement presentation including other comprehensive income:

As of October 31, 2019 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Unrecognized net actuarial loss	$ 171.8	$ 120.5	$ 19.2	$ 25.3	$ 3.1	$ 3.7
Unrecognized prior service cost (credit)	0.8	(1.0)	—	3.3	(1.5)	—
Accumulated other comprehensive loss (gain) - Pre-tax	$ 172.6	$ 119.5	$ 19.2	$ 28.6	$ 1.6	$ 3.7
Amounts recognized in the Consolidated Balance Sheets consist of:						
Prepaid benefit cost	$ 35.4	$ —	$ —	$ 29.0	$ 3.2	$ 3.2
Accrued benefit liability	(177.0)	(132.2)	(44.1)	—	—	(0.7)
Accumulated other comprehensive loss	172.6	119.5	19.2	28.6	1.6	3.7
Net amount recognized	$ 31.0	$ (12.7)	$ (24.9)	$ 57.6	$ 4.8	$ 6.2

As of October 31, 2018 *(in millions)*	Consolidated	United States	Germany	United Kingdom	Netherlands	Other International
Unrecognized net actuarial loss	$ 149.7	$ 82.9	$ 13.1	$ 49.5	$ 1.5	$ 2.7
Unrecognized prior service cost (credit)	0.7	(1.1)	—	3.5	(1.7)	—
Accumulated other comprehensive loss (gain) - Pre-tax	$ 150.4	$ 81.8	$ 13.1	$ 53.0	$ (0.2)	$ 2.7
Amounts recognized in the Consolidated Balance Sheets consist of:						
Prepaid benefit cost	$ 10.4	$ —	$ —	$ 2.3	$ 5.0	$ 3.1
Accrued benefit liability	(78.0)	(39.9)	(38.1)	—	—	—
Accumulated other comprehensive loss (gain)	150.4	81.8	13.1	53.0	(0.2)	2.7
Net amount recognized	$ 82.8	$ 41.9	$ (25.0)	$ 55.3	$ 4.8	$ 5.8

(in millions)	October 31, 2019	October 31, 2018
Accumulated other comprehensive loss at beginning of year	$ 150.4	$ 168.1
Increase or (decrease) in accumulated other comprehensive loss		
Net prior service benefit amortized	0.1	0.2
Net loss amortized	(7.1)	(11.0)
Loss recognized due to settlement	—	(1.4)
Prior service credit	—	3.3
Liability loss (gain)	131.0	(39.2)
Asset (gain) loss	(101.3)	34.6
Other adjustments	—	(2.7)
Increase (decrease) in accumulated other comprehensive loss	$ 22.7	$ (16.2)
Foreign currency impact	(0.5)	(1.5)
Accumulated other comprehensive loss at year end	$ 172.6	$ 150.4

In 2020, the Company expects to record an amortization gain of $0.2 million of prior service credits from shareholders’ equity into pension costs.

Supplemental Employee Retirement Plan

The Company has a supplemental employee retirement plan which is an unfunded plan providing supplementary retirement benefits primarily to certain executives and longer-service employees. The present benefit obligation of the supplemental employee retirement plan is included in the United States defined benefit pension plans above.

Defined contribution plans

The Company has several voluntary 401(k) savings plans that cover eligible employees. For certain plans, the Company matches a percentage of each employee’s contribution up to a maximum percentage of base salary. Company contributions to the 401(k) plans were $21.8 million in 2019, $9.4 million in 2018 and $8.3 million in 2017.

Post-retirement Health Care and Life Insurance Benefits

The Company has certain post-retirement unfunded health and life insurance benefit plans in the United States and South Africa. The Company uses a measurement date of October 31 for its post-retirement benefit plans.

Benefits paid directly by the Company totaled $0.9 million, $1.0 million and $0.8 million for the years ending 2019, 2018 and 2017 respectively. Benefits paid directly by the Company during 2020 are expected to be approximately $1.3 million.

The following table presents the number of participants in the post-retirement health and life insurance benefit plan:

October 31, 2019	Consolidated	United States	South Africa
Active participants	9	3	6
Retirees and beneficiaries	1,065	986	79

October 31, 2018	Consolidated	United States	South Africa
Active participants	12	5	7
Retirees and beneficiaries	625	542	83

The discount rate actuarial assumptions at October 31 used to measure the year-end benefit obligations and the pension costs for the subsequent year were as follows:

For the year ended:	Consolidated	United States	South Africa
October 31, 2019	3.52%	2.95%	9.20%
October 31, 2018	5.02%	4.39%	10.10%

The components of net periodic income for the post-retirement benefits include the following:

	Year Ended October 31,		
(in millions)	2019	2018	2017
Interest cost	$ 0.5	$ 0.5	$ 0.5
Amortization of prior service benefit	(1.3)	(1.4)	(1.4)
Recognized net actuarial gain	(0.3)	(0.2)	(0.2)
Net periodic income	$ (1.1)	$ (1.1)	$ (1.1)

The following table sets forth the plans' change in benefit obligation:

(in millions)	October 31, 2019	October 31, 2018
Benefit obligation at beginning of year	$ 10.7	$ 12.6
Interest cost	0.5	0.5
Actuarial loss (gain)	0.5	(1.4)
Benefits paid	(1.0)	(1.0)
Acquisition	1.5	—
Benefit obligation at end of year	$ 12.2	$ 10.7

Financial statement presentation included other comprehensive income:

(in millions)	October 31, 2019	October 31, 2018
Unrecognized net actuarial gain	$ (2.8)	$ (3.6)
Unrecognized prior service credit	(0.4)	(1.6)
Accumulated other comprehensive income	$ (3.2)	$ (5.2)

The accumulated post-retirement health and life insurance benefit obligation and fair value of plan assets for the consolidated plans were $12.2 million and zero, respectively, as of October 31, 2019 compared to $10.7 million and zero, respectively, as of October 31, 2018.

The healthcare cost trend rates on gross eligible charges are as follows:

	Medical
Current trend rate	6.3%
Ultimate trend rate	4.7%
Year ultimate trend rate reached (South Africa)	2020
Year ultimate trend rate reached (US)	2026

A one-percentage point change in assumed health care cost trend rates would have the following effects:

(in millions)	1-Percentage-Point Increase	1-Percentage-Point Decrease
Effect on total of service and interest cost components	$ —	$ —
Effect on post-retirement benefit obligation	0.2	(0.2)

Future benefit payments, which reflect expected future service, as appropriate, during the next five years, and in the aggregate for the five years thereafter, are expected to be as follows:

(in millions)	Expected Benefit Payments
Year(s)	
2020	$ 1.3
2021	1.3
2022	1.2
2023	1.1
2024	1.0
2025-2029	4.2

NOTE 13 – 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 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 October 31, 2019 and October 31, 2018, the estimated liability recorded related to these matters were $0.6 million and $2.0 million, respectively. 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 December 17, 2019, 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 the Company 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 (“OCC”) 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. OCC’s Complaint alleges claims under CERCLA against all defendants for cost recovery, contribution, and declaratory judgment for costs OCC 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.

The Company has completed its initial assessment of these matters as part of our purchase price allocation. As of October 31, 2019, the Company has accrued $11.2 million for LPRSA and the Diamond Alkali Superfund Site. It is possible that, once the Company finalizes its purchase price allocation, it could record a material adjustment to this environmental reserve related to the acquisition. Further, it is possible that there could be resolution of uncertainties in the future that would require the Company to record charges, which could be material to future earnings.

As of October 31, 2019 and October 31, 2018, the Company's environmental reserves were $18.7 million and $6.8 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 October 31, 2019 and October 31, 2018 included $3.3 million and $3.7 million, respectively, for various European drum facilities acquired from Blagden and Van Leer; $0.1 million and $0.2 million, respectively, for its various container life cycle management and recycling facilities acquired in 2011 and 2010; $0.3 million and $0.9 million, respectively, for remediation of sites no longer owned by the Company; $2.0 million and $1.0 million, respectively, for landfill closure obligations in the Company's Paper Packaging & Services segment; and $1.8 million and $1.0 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 14 – 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:

	Year Ended October 31,		
(in millions, except per share data)	**2019**	**2018**	**2017**
Numerator			
Numerator for basic and diluted EPS –			
Net income attributable to Greif	$ 171.0	$ 209.4	$ 118.6
Cash dividends	104.0	100.0	98.6
Undistributed net income (loss) attributable to Greif, Inc.	$ 67.0	$ 109.4	$ 20.0
Denominator			
Denominator for basic EPS –			
Class A common stock	26.2	25.9	25.8
Class B common stock	22.0	22.0	22.0
Denominator for diluted EPS –			
Class A common stock	26.2	26.0	25.8
Class B common stock	22.0	22.0	22.0
EPS Basic			
Class A common stock	$ 2.89	$ 3.56	$ 2.02
Class B common stock	$ 4.33	$ 5.33	$ 3.02
EPS Diluted			
Class A common stock	$ 2.89	$ 3.55	$ 2.02
Class B common stock	$ 4.33	$ 5.33	$ 3.02

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 October 31, 2019 and 2018, the remaining amount of shares that may be repurchased under this authorization were 4,703,487 and 4,703,487, respectively. There were no shares repurchased under this program from November 1, 2017 through October 31, 2019.

The following table summarizes the Company's Class A and Class B common and treasury shares at the specified dates:

	Authorized Shares	Issued Shares	Outstanding Shares	Treasury Shares
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
October 31, 2018:				
Class A common stock	128,000,000	42,281,920	25,941,279	16,340,641
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:

	Year Ended October 31,		
	2019	2018	2017
Class A Common Stock:			
Basic shares	26,189,445	25,915,887	25,820,470
Assumed conversion of stock options and unvested shares	25,666	49,969	2,470
Diluted shares	26,215,111	25,965,856	25,822,940
Class B Common Stock:			
Basic and diluted shares	22,007,725	22,007,725	22,009,193

No stock options were antidilutive for the years ended October 31, 2019, 2018, or 2017.

NOTE 15 – LEASES

The table below contains information related to the Company’s rent expense:

	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:

(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 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 Rigid Industrial Packaging & Services reportable business segment is the aggregation of five operating segments: Rigid Industrial Packaging & Services – North America; Rigid Industrial Packaging & Services – Latin America; Rigid Industrial Packaging & Services – Europe, Middle East and Africa; Rigid Industrial Packaging & Services – Asia Pacific; and Rigid Industrial Packaging & Services – Tri-Sure.

Operations in the Rigid Industrial Packaging & Services segment involve the production and sale 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. The Company's rigid industrial packaging products and services are sold to customers in industries such as chemicals, paints and pigments, food and beverage, petroleum, industrial coatings, agricultural, pharmaceutical and mineral products, among others.

On June 11, 2019, the Company completed the Tholu Acquisition. Tholu is a Netherlands-based leader in IBC rebottling, reconditioning and distribution. The results of Tholu are recorded within the Rigid Industrial Packaging & Services segment, which incorporates IBC packaging services.

Operations in the Paper Packaging & Services segment involve the production and sale of containerboard, corrugated sheets, corrugated containers and other corrugated and specialty products to customers in North America in industries such as packaging, automotive, food and building products. The Company's 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. The Company also produces and sells coated and uncoated recycled paperboard, along with tubes and cores and a diverse mix of specialty products to customers in North America. In addition, the segment is involved in purchase and sale of recycled fiber.

On February 11, 2019, the Company completed the Caraustar Acquisition. Caraustar produces 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 that complement the Company's Paper Packaging & Services specialty portfolio. The results of Caraustar are recorded within the Paper Packaging & Services segment while the Company evaluates the impact of the Caraustar Acquisition on its reportable business segments.

Operations in the Flexible Products & Services segment involve the production and sale of flexible intermediate bulk containers and related services on a global basis. The Company's flexible intermediate bulk containers are constructed from a polypropylene-based woven fabric that is produced at its production sites, as well as sourced from strategic regional suppliers. Flexible products are sold to customers and in market segments similar to those of the Company's Rigid Industrial Packaging & Services segment. The Company's flexible products are sold to customers in industries such as agricultural, construction and food industries.

Operations in the Land Management segment involve the management and sale of timber and special use properties from approximately 251,000 acres of timber properties in the southeastern United States. Land Management's operations focus on the active harvesting and regeneration of its timber properties to achieve sustainable long-term yields. While timber sales are subject to fluctuations, the Company seeks to maintain a consistent cutting schedule, within the limits of market and weather conditions. The Company also sells, from time to time, timberland and special use properties, which consists of surplus properties, HBU properties, and development properties.

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

- Surplus property, meaning land that cannot be efficiently or effectively managed by the Company, 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.
- Timberland, meaning land that is best suited for growing and selling timber.

The disposal of surplus and HBU property is reported in the consolidated statements of income under "gain on disposals of properties, plants and equipment, net" and the sale of development property is reported under "net sales" and "cost of products sold." All HBU, development and surplus property is used by the Company to productively grow and sell timber until 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 water, 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.

The following tables present net sales disaggregated by geographic area for each reportable segment for the year ended October 31, 2019:

	Year Ended October 31, 2019			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 906.3	$ 1,118.0	$ 466.3	$ 2,490.6
Paper Packaging & Services	1,758.8	—	21.2	1,780.0
Flexible Products & Services	35.7	232.4	29.4	297.5
Land Management	26.9	—	—	26.9
Total net sales	$ 2,727.7	$ 1,350.4	$ 516.9	$ 4,595.0

The following tables present net sales disaggregated by geographic area for each reportable segment for the year ended October 31, 2018:

	Year Ended October 31, 2018			
(in millions)	United States	Europe, Middle East and Africa	Asia Pacific and Other Americas	Total
Rigid Industrial Packaging & Services	$ 960.5	$ 1,147.7	$ 515.4	$ 2,623.6
Paper Packaging & Services	898.5	—	—	898.5
Flexible Products & Services	34.0	263.2	27.0	324.2
Land Management	27.5	—	—	27.5
Total net sales	$ 1,920.5	$ 1,410.9	$ 542.4	$ 3,873.8

The following segment information is presented for each of the three years in the period ended October 31:

(in millions)	2019	2018	2017
Operating profit (loss):			
Rigid Industrial Packaging & Services	179.6	183.2	190.1
Paper Packaging & Services	184.3	158.3	93.5
Flexible Products & Services	25.3	19.4	5.8
Land Management	9.9	9.6	10.1
Total operating profit	$ 399.1	$ 370.5	$ 299.5
Depreciation, depletion and amortization expense:			
Rigid Industrial Packaging & Services	$ 76.3	$ 81.2	$ 77.0
Paper Packaging & Services	119.3	34.2	31.9
Flexible Products & Services	6.2	6.9	7.0
Land Management	4.3	4.6	4.6
Total depreciation, depletion and amortization expense	$ 206.1	$ 126.9	$ 120.5
Capital expenditures:			
Rigid Industrial Packaging & Services	$ 53.6	$ 76.8	$ 57.6
Paper Packaging & Services	81.2	39.2	23.2
Flexible Products & Services	4.8	3.7	2.6
Land Management	0.2	0.4	0.5
Total segment	139.8	120.1	83.9
Corporate and other	17.1	19.0	16.2
Total capital expenditures	$ 156.9	$ 139.1	$ 100.1
Assets:			
Rigid Industrial Packaging & Services	$ 2,006.3	$ 1,963.0	$ 1,976.7
Paper Packaging & Services	2,686.3	474.3	459.8
Flexible Products & Services	148.2	153.9	163.2
Land Management	348.7	347.2	345.4
Total segment	5,189.5	2,938.4	2,945.1
Corporate and other	237.2	256.4	287.2
Total assets	$ 5,426.7	$ 3,194.8	$ 3,232.3

The following table presents properties, plants and equipment, net by geographic region:

(in millions)	October 31, 2019	October 31, 2018
Properties, plants and equipment, net:		
United States	$ 1,295.8	$ 796.3
Europe, Middle East, and Africa	277.1	276.9
Asia Pacific and other Americas	117.4	118.7
Total properties, plants and equipment, net	$ 1,690.3	$ 1,191.9

NOTE 17 – COMPREHENSIVE INCOME (LOSS)

The following table provides the roll forward of accumulated other comprehensive loss for the year ended October 31, 2019:

(in millions)	Foreign Currency Translation	Derivative Financial Instruments	Minimum Pension Liability Adjustment	Accumulated Other Comprehensive Loss
Balance as of October 31, 2018	$ (292.8)	$ 13.4	$ (97.7)	$ (377.1)
Other Comprehensive Loss	(5.2)	(26.1)	(25.3)	(56.6)
Balance as of October 31, 2019	$ (298.0)	$ (12.7)	$ (123.0)	$ (433.7)

The following table provides the roll forward of accumulated other comprehensive loss for the year ended October 31, 2018:

(in millions)	Foreign Currency Translation	Derivative Financial Instruments	Minimum Pension Liability Adjustment	Accumulated Other Comprehensive Loss
Balance as of October 31, 2017	$ (249.3)	$ 5.1	$ (114.0)	$ (358.2)
Other Comprehensive Income (Loss)	(43.5)	8.3	16.3	(18.9)
Balance as of October 31, 2018	$ (292.8)	$ 13.4	$ (97.7)	$ (377.1)

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

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NOTE 18 – QUARTERLY FINANCIAL DATA (UNAUDITED)

The quarterly results of operations for 2019 and 2018 are shown below:

	2019			
(in millions, except per share amounts)	**January 31,**	**April 30,**	**July 31,**	**October 31,**
Net sales	$ 897.0	$ 1,213.3	$ 1,252.6	$ 1,232.1
Gross profit	$ 172.8	$ 248.7	$ 279.4	$ 259.0
Net income[(1)]	$ 35.8	$ 21.1	$ 67.5	$ 69.8
Net income attributable to Greif, Inc.[(1)]	$ 29.7	$ 13.6	$ 62.7	$ 65.0
Earnings per share				
Basic:				
Class A Common Stock	$ 0.51	$ 0.23	$ 1.06	$ 1.09
Class B Common Stock	$ 0.75	$ 0.34	$ 1.59	$ 1.65
Diluted:				
Class A Common Stock	$ 0.51	$ 0.23	$ 1.06	$ 1.09
Class B Common Stock	$ 0.75	$ 0.34	$ 1.59	$ 1.65
Earnings per share were calculated using the following number of shares:				
Basic:				
Class A Common Stock	25,991,433	26,250,460	26,257,943	26,257,943
Class B Common Stock	22,007,725	22,007,725	22,007,725	22,007,725
Diluted:				
Class A Common Stock	25,991,433	26,255,112	26,257,943	26,360,148
Class B Common Stock	22,007,725	22,007,725	22,007,725	22,007,725
Market price (Class A Common Stock):				
High	$ 49.28	$ 41.49	$ 39.15	$ 40.59
Low	$ 31.22	$ 37.10	$ 30.74	$ 30.05
Close	$ 37.67	$ 38.59	$ 34.57	$ 39.17
Market price (Class B Common Stock):				
High	$ 50.55	$ 48.57	$ 47.69	$ 48.76
Low	$ 36.87	$ 42.48	$ 41.10	$ 37.96
Close	$ 43.18	$ 47.23	$ 42.39	$ 47.03

(1) The Company recorded the following significant transactions during the fourth quarter of 2019: (i) acquisition-related costs of $7.5 million; (ii) restructuring charges of $5.8 million; (iii) non-cash asset impairment charges of $5.7 million; (v) gain on disposals of properties, plants, equipment, net of $(6.8) million; and (vi) loss on disposals of businesses, net of $0.7 million. See the Company's Form 10-Q filings with the SEC for prior quarter significant transactions or trends.

(in millions, except per share amounts)	2018			
	January 31	April 30	July 31	October 31
Net sales	$ 905.7	$ 968.3	$ 1,012.1	$ 987.7
Gross profit	$ 171.7	$ 195.3	$ 217.1	$ 204.8
Net income[1]	$ 60.1	$ 51.9	$ 72.0	$ 45.5
Net income attributable to Greif, Inc.[1]	$ 56.5	$ 45.1	$ 67.7	$ 40.1
Earnings per share				
Basic:				
Class A Common Stock	$ 0.96	$ 0.77	$ 1.15	$ 0.68
Class B Common Stock	$ 1.44	$ 1.14	$ 1.72	$ 1.03
Diluted:				
Class A Common Stock	$ 0.96	$ 0.77	$ 1.15	$ 0.67
Class B Common Stock	$ 1.44	$ 1.14	$ 1.72	$ 1.03
Earnings per share were calculated using the following number of shares:				
Basic:				
Class A Common Stock	25,845,758	25,934,680	25,941,279	25,941,279
Class B Common Stock	22,007,725	22,007,725	22,007,725	22,007,725
Diluted:				
Class A Common Stock	25,845,758	25,934,680	25,941,279	26,139,524
Class B Common Stock	22,007,725	22,007,725	22,007,725	22,007,725
Market price (Class A Common Stock):				
High	$ 62.94	$ 59.09	$ 60.89	$ 58.82
Low	$ 49.68	$ 48.80	$ 51.71	$ 44.72
Close	$ 57.76	$ 57.63	$ 54.03	$ 47.30
Market price (Class B Common Stock):				
High	$ 68.71	$ 63.52	$ 64.02	$ 63.50
Low	$ 55.90	$ 52.07	$ 56.01	$ 48.35
Close	$ 61.60	$ 61.56	$ 57.20	$ 51.36

[1]The Company recorded the following significant transactions during the fourth quarter of 2018: (i) restructuring charges of $4.8 million; (ii) non-cash asset impairment charges of $4.2 million; (iii) pension settlement charges of $0.9 million; (iv) loss on disposals of properties, plants, equipment, net of $1.9 million; and (v) gain on disposals of businesses, net of ($0.9) million. See the Company's Form 10-Q filings with the SEC for prior quarter significant transactions or trends.

Shares of the Company’s Class A Common Stock and Class B Common Stock are listed on the New York Stock Exchange where the symbols are GEF and GEF.B, respectively.

As of December 13, 2019, there were 386 stockholders of record of the Class A Common Stock and 75 stockholders of record of the Class B Common Stock.

NOTE 19 – 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 Company has a contractual obligation to redeem the outstanding equity interest of each remaining partner in 2021 and 2022, respectively.

The following table provides a rollforward of the mandatorily redeemable noncontrolling interest for the years ended October 31, 2018 and 2019:

(in millions)		**Mandatorily Redeemable Noncontrolling Interest**
Balance as of October 31, 2017	$	9.2
Current period mark to redemption value		(0.6)
Balance as of October 31, 2018		8.6
Current period mark to redemption value		(0.2)
Balance as of October 31, 2019	$	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.

On November 15, 2018, one of the noncontrolling interest owners related to one of the Paper Packaging & Services joint ventures exercised their put option for all of their ownership interests. As of October 31, 2019, the Company made a payment for approximately $10.1 million to the noncontrolling interest owner. The Company also entered into a Stock Purchase Agreement with another noncontrolling interest owner related to the same Paper Packaging & Services joint venture, pursuant to which the owner received a $1.8 million payment for certain of its equity.

Redeemable noncontrolling interests are reflected in the consolidated balance sheets at redemption value. The following table provides the rollforward of the redeemable noncontrolling interest for the years ended October 31, 2018 and 2019:

(in millions)		**Redeemable Noncontrolling Interest**
Balance as of October 31, 2017	$	31.5
Current period mark to redemption value		(0.5)
Redeemable noncontrolling interest share of income and other		3.7
Dividends to redeemable noncontrolling interest and other		0.8
Balance as of October 31, 2018		35.5
Current period mark to redemption value		(4.9)
Repurchase of redeemable shareholder interest		(11.9)
Redeemable noncontrolling interest share of income and other		2.3
Dividends to redeemable noncontrolling interest and other		0.3
Balance as of October 31, 2019	$	21.3

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Greif, Inc. and subsidiary companies

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Greif, Inc. and subsidiary companies (the "Company") as of October 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the three years in the period ended October 31, 2019, and the related notes and the financial statement schedule listed in the Index at Item 15 (collectively, the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company as of October 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended October 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of October 31, 2019, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated December 18, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Acquisitions-Caraustar-Customer Relationship Intangibles and Properties, Plants, and Equipment - Refer to Note 2 to the Financial Statements

Critical Audit Matter Description

The Company completed the acquisition of Caraustar Industries, Inc. and its subsidiaries ("Caraustar") on February 11, 2019 for cash consideration of approximately $1,834.9 million. The Company accounted for this transaction under the acquisition method of accounting for business combinations. Under this approach, the Company allocated the fair value of purchase consideration transferred to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the date of the acquisition, including customer relationship intangibles of approximately $708.0 million and properties, plants, and equipment of approximately $508.9 million. The fair values assigned are based on estimates and assumptions determined by management with the assistance of third party specialists.

Management estimated the fair value of the customer relationship intangibles based on estimates and judgments regarding expectations for the future after-tax cash flows arising from the revenue of the 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 asset charge, all of which is discounted to present value. The method for determining the fair value for the properties, plants, and equipment depended on the type of asset and involved management making significant estimates related to assumptions.

We identified the valuation of the customer relationship intangibles and properties, plants, and equipment for Caraustar as a critical audit matter because of the significant estimates and assumptions management made to estimate the fair values of these assets for purposes of the preliminary purchase price allocation. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's valuation models and assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to testing the valuation models and assumptions for the customer relationship intangibles and properties, plants, and equipment included the following, among others:

Customer Relationship Intangibles

- We tested the effectiveness of controls over the valuation of the customer relationship intangibles, including management's controls over forecasts of future after-tax cash flows and selection of the discount rate.
- We evaluated the reasonableness of management's forecasts of future after-tax cash flows by comparing the projections to Caraustar's historical results and peer company historical results.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology and the following significant valuation assumptions:
    - Long-term revenue growth rate through industry and macro-economic benchmarking
    - Probability of expected future revenues by evaluating historical customer attrition rates and the competitive landscape in the industry
    - Contributory asset charge by analyzing the application of the asset charges, including the required rate of return and estimated fair value of each contributory asset
    - Discount rate by developing a range of independent estimates and compared those to the amounts selected by management.

Properties, Plants, and Equipment

- We tested the effectiveness of controls over the valuation of the properties, plants, and equipment, including management's controls over significant assumptions.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology and the following significant valuation assumptions:
    - Replacement costs by comparing cost estimates to industry data for individual assets
    - Cost indices by comparing these factors to published indices commonly used by appraisers of properties, plants, and equipment
    - Depreciation factors through analyzing the age/life method applied in comparison to published physical deterioration curves
    - Obsolescence factors applied based on generally accepted valuation practices.

Goodwill-Rigid Industrial Packaging & Services Asia Pacific Reporting Unit - Refer to Note 5 to the Financial Statements

Critical Audit Matter Description

The Company's evaluation of goodwill for impairment involves comparing the carrying value of each reporting unit to the estimated fair value of the reporting unit. The Company's determinations of estimated fair value of the reporting units are based on both the market approach and a discounted cash flow analysis utilizing the income approach. The determination of the estimated fair value using the market approach and the discounted cash flow model requires management to make significant estimates and assumptions related to the valuation of the reporting unit. Changes in these assumptions could have a significant impact on either the fair value of the reporting unit, the amount of any goodwill impairment charge, or both. The Company's consolidated goodwill balance was

$1.5 billion as of October 31, 2019, of which $88.6 million was allocated to the Rigid Industrial Packaging & Services-Asia Pacific (“RIPS APAC”) reporting unit, which is the reporting unit that exhibits significant sensitivity to changes in estimates and assumptions given the limited cushion between the carrying value and estimated fair value. The estimated fair value of the RIPS APAC reporting unit exceeded its carrying value by 32% as of the measurement date of August 1, 2019 and, therefore, no impairment was recognized.

We identified the valuation of goodwill for RIPS APAC as a critical audit matter because of the significant estimates and assumptions management made to estimate its fair value and the highly sensitive nature of RIPS APAC’s operations to changes in demand. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management’s estimates and assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to testing the valuation of the RIPS APAC reporting unit focused on the following key assumptions: valuation multiples, revenue growth rates, and the selection of the discount rate, and included the following, among others:

- We tested the effectiveness of internal controls over management’s goodwill impairment evaluation, including those over the determination of the fair value of the RIPS APAC reporting unit, such as controls related to management’s selection of the valuation multiple, revenue growth rates, and discount rate
- We performed a sensitivity analysis of the revenue growth rates, which included the impact of the revenue growth rates on cash flows
- We evaluated the reasonableness of management’s revenue growth rates used in the discounted cash flow model by comparing the revenues to historical amounts, historical macroeconomic benchmarking, and future forecasted macro-economic benchmarking
- With the assistance of our fair value specialists, we evaluated the reasonableness of (1) the valuation methodology, (2) the long-term revenue growth rate through macroeconomic benchmarking, and (3) the discount rate and valuation multiple by developing a range of independent estimates and comparing those to the amounts selected by management.

/s/ Deloitte & Touche LLP

Columbus, Ohio
December 18, 2019

We have served as the Company’s auditor since 2014.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. 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

We completed the following two acquisitions during 2019: the Caraustar Acquisition on February 11, 2019; and the Tholu Acquisition on June 11, 2019. The scope of our management's assessment of the effectiveness of our internal controls over financial reporting for the year ended October 31, 2019, will not include the Caraustar Acquisition or the Tholu Acquisition. This exclusion is allowed in accordance with the Securities and Exchange Commission's general guidance that an assessment of a recently acquired business may be omitted from the reporting company's scope in the year of acquisition.

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.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting is the process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to allow for the preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors;
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements; and
- provide reasonable assurance as to the detection of fraud.

All internal control systems have inherent limitations, including the possibility of circumvention and overriding of controls, and therefore can provide only reasonable assurance of achieving the designed control objectives. The Company's internal control system is supported by written policies and procedures, contains self-monitoring mechanisms, and is audited by the internal audit function. Appropriate actions are taken by management to correct deficiencies as they are identified. As allowed by the Securities and Exchange Commission's general guidance, management excluded Caraustar and Tholu, which were acquired in 2019, from its assessment of internal control over financial reporting. These acquisitions constituted approximately 29% of total assets and approximately 21% of revenue, included in our consolidated financial statements as of and for the year ended October 31, 2019.

As of October 31, 2019, management has assessed the effectiveness of the Company's internal control over financial reporting. In making this assessment, we used the criteria described in "Internal Control - Integrated Framework (2013)" issued by the

Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment, management concluded that the Company's internal control over financial reporting was effective as of October 31, 2019.

Our internal control over financial reporting as of October 31, 2019, has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which appears herein.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Greif, Inc. and subsidiary companies

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Greif, Inc. and subsidiaries (the "Company") as of October 31, 2019, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2019, based on the criteria established in *Internal Control-Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended October 31, 2019, of the Company and our report dated December 18, 2019, expressed an unqualified opinion on those financial statements.

As described in Management's Annual Report on Internal Control over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Caraustar Industries, Inc. and Tholu B.V., and their subsidiaries, which were acquired on February 11, 2019 and June 11, 2019, respectively. These acquisitions constituted approximately 29% of total assets and approximately 21% of total revenues of the consolidated financial statement amounts as of and for the fiscal year ended October 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at Caraustar Industries, Inc. and Tholu B.V., and their subsidiaries.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Columbus, Ohio
December 18, 2019

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding our directors required by Items 401(a) and (d)-(f) of Regulation S-K will be found under the caption “Proposal Number 1 – Election of Directors” in the 2020 Proxy Statement, which information is incorporated herein by reference. Information regarding our executive officers required by Items 401(b) and (d)-(f) of Regulation S-K will be contained under the caption “Executive Officers of the Company” in the 2020 Proxy Statement, which information is incorporated herein by reference.

We have a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. As of the date of this filing, the members of the Audit Committee were Bruce A. Edwards, John F. Finn, John W. McNamara, and Michael J. Gasser. Mr. Edwards is Chairperson of the Audit Committee. Our Board of Directors has determined that Mr. Edwards is an “audit committee financial expert,” as that term is defined in Item 401(h)(2) of Regulation S-K, and “independent,” as that term is defined in Rule 10A-3 of the Exchange Act.

Information regarding the filing of reports of ownership under Section 16(a) of the Exchange Act by our officers and directors and persons owning more than 10 percent of a registered class of our equity securities required by Item 405 of Regulation S-K will be found under the caption “Corporate Governance—Stock Holdings of Certain Owners and Management—Section 16(a) Beneficial Ownership Reporting Compliance” in the 2020 Proxy Statement, which information is incorporated herein by reference.

Information concerning the procedures by which stockholders may recommend nominees to our Board of Directors will be found under the caption “Corporate Governance—Board of Directors—Director Nominations” in the 2020 Proxy Statement. There has been no material change to the nomination procedures we previously disclosed in the proxy statement for our 2019 annual meeting of stockholders.

Our Board of Directors has adopted a code of ethics that applies to our principal executive officer, principal financial officer, principal accounting officer, controller and persons performing similar functions. This code of ethics is posted on our Internet Web site at www.greif.com under “Investors—Corporate Governance—Governance Documents.” Copies of this code of ethics are also available to any person, without charge, by making a written request to us. Requests should be directed to Greif, Inc., Attention: Corporate Secretary, 425 Winter Road, Delaware, Ohio 43015. Any amendment (other than any technical, administrative or other non-substantive amendment) to, or waiver from, a provision of this code will be posted on our website described above within four business days following its occurrence.

ITEM 11. EXECUTIVE COMPENSATION

The 2020 Proxy Statement will contain information regarding the following matters: information regarding executive compensation required by Item 402 of Regulation S-K will be found under the caption “Compensation Discussion and Analysis”; information required by Item 407(e)(4) of Regulation S-K will be found under the caption “Compensation Committee Interlocks and Insider Participation,” and information required by Item 407(e)(5) of Regulation S-K will be found under the caption “Compensation Committee Report.” This information is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management required by Item 403 of Regulation S-K will be found under the caption “Stock Holdings of Certain Owners and Management” in the 2020 Proxy Statement, which information is incorporated herein by reference.

Information regarding equity compensation plan information required by Item 201(d) of Regulation S-K will be found under the caption “Executive Compensation—Equity Compensation Plan Information” in the 2020 Proxy Statement, which information is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information regarding certain relationships and related transactions required by Item 404 of Regulation S-K will be found under the caption “Certain Relationships and Related Transactions” in the 2020 Proxy Statement, which information is incorporated herein by reference.

Information regarding the independence of our directors required by Item 407(a) of Regulation S-K will be found under the caption "Corporate Governance – Director Independence" in the 2020 Proxy Statement, which information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accounting fees and services required by Item 9(e) of Schedule 14A will be found under the caption "Independent Registered Public Accounting Firm" in the 2020 Proxy Statement, which information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

EXHIBITS

Exhibit No.	Description of Exhibit	If Incorporated by Reference, Document with which Exhibit was Previously Filed with SEC
2.2	Agreement and Plan of Merger, dated December 20, 2018, by and among Paperboard Parent Inc., Greif Packaging LLC, Greif USA II LLC and Peach Representative LLC	Current Report on Form 8-K/A dated December 20, 2018, File No. 001-00566 (see Exhibit 2.2 therein)
3.1	Amended and Restated Certificate of Incorporation of Greif, Inc.	Annual Report on Form 10-K for the fiscal year ended October 31, 1997, File No. 001-00566 (see Exhibit 3(a) therein).
3.2	Amendment to Amended and Restated Certificate of Incorporation of Greif, Inc.	Definitive Proxy Statement on Form 14A dated January 27, 2003, File No. 001-00566 (see Exhibit A therein).
3.3	Amendment to Amended and Restated Certificate of Incorporation of Greif, Inc.	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2007, File No. 001-00566 (see Exhibit 3.1 therein).
3.4	Second Amended and Restated By-Laws of Greif, Inc.	Current Report on Form 8-K dated August 29, 2008, File No. 001-00566 (see Exhibit 99.2 therein)
3.5	Amendment of Second Amended and Restated By-Laws of Greif, Inc. (effective November 1, 2011)	Current Report on Form 8-K dated November 2, 2011, File No. 001-00566 (see Exhibit 99.2 therein)
3.6	Amendment of Second Amended and Restated By-Laws of Greif, Inc. (effective September 3, 2013)	Current Report on Form 8-K dated September 6, 2013, File No. 001-00566 (see Exhibit 99.3 therein)
3.7	Amendment to Second Amended and Restated By-Laws of Greif, Inc. (effective January 9, 2019)	Current Report on Form 8-K dated January 10, 2019, File No. 001-00566 (see Exhibit 3.1 therein)
4.1	Indenture dated as of July 15, 2011, among Greif Luxembourg Finance S.C.A., as Issuer, Greif, Inc. as Guarantor, The Bank of New York Mellon, as Trustee and Principal Paying Agent, and The Bank of New York Mellon (Luxembourg) S.A., as Transfer Agent, Registrar and Luxembourg Paying Agent, regarding 7.375% Senior Notes due 2021	Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2011, File No. 001-00566 (see Exhibit 99.3 therein).
4.2	Indenture, dated as of February 11, 2019, among Greif, Inc., as issuer, each of the United States subsidiaries of Greif, Inc. party thereto, as guarantors, and U.S. Bank National Association, as trustee, regarding 6.50% Senior Notes due 2027.	Current Report on Form 8-K dated February 11, 2019, File No. 001-00566 (see Exhibit 4.1 therein).
4.3	Description of the Registrant's Securities Registered under Section 12 of the Securities Exchange Act of 1934	Contained herein.
10.1*	Greif, Inc. Amended and Restated Directors' Deferred Compensation Plan.	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2006, File No. 001-00566 (see Exhibit 10.2 therein).
10.2*	Supplemental Retirement Benefit Agreement.	Annual Report on Form 10-K for the fiscal year ended October 31, 1999, File No. 001-00566 (see Exhibit 10(i) therein).
10.3*	Second Amended and Restated Supplemental Executive Retirement Plan.	Annual Report on Form 10-K for fiscal year ended October 31, 2007, File No. 001-00566 (see Exhibit 10(f) therein).

Exhibit No.	Description of Exhibit	If Incorporated by Reference, Document with which Exhibit was Previously Filed with SEC
10.4*	Greif, Inc. Amended and Restated Long-Term Incentive Plan.	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2006, File No. 001-00566 (see Exhibit 10.1 therein).
10.5*	Amendment No. 1 to Greif, Inc. Amended and Restated Long-Term Incentive Plan.	Annual Report on Form 10-K for the fiscal year ended October 31, 2014, File No. 001-00566 (See Exhibit 10.8 therein).
10.6*	Amendment No. 2 to Greif, Inc. Amended and Restated Long-Term Incentive Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2018, File No. 001-00566 (See Exhibit 10.8 therein).
10.7*	Greif, Inc. Performance-Based Incentive Compensation Plan.	Definitive Proxy Statement on Form 14A dated January 25, 2002, File No. 001-00566 (see Exhibit B therein).
10.8*	Amendment No. 1 to Greif, Inc. Performance-Based Incentive Compensation Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2011, File No. 001-00566 (See Exhibit 10(i) therein).
10.9*	Amendment No. 2 to Greif, Inc. Performance-Based Incentive Compensation Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2013, File No. 001-00566 (See Exhibit 10.10 therein).
10.10*	Amendment No. 3 to Greif, Inc. Performance-Based Incentive Compensation Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2017, File No. 001-00566 (See Exhibit 10.11 therein).
10.11*	Greif, Inc. 2001 Management Equity Incentive and Compensation Plan	Definitive Proxy Statement on Form DEF 14A dated January 26, 2001, File No. 001-00566 (see Exhibit A therein).
10.12*	Amendment No. 1 to Greif, Inc. 2001 Management Equity Incentive and Compensation Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2011, File No. 001-00566 (See Exhibit 10(k) therein).
10.13*	Amendment No. 2 to Greif, Inc. 2001 Management Equity Incentive and Compensation Plan	Annual Report on Form 10-K for the fiscal year ended October 31, 2015, File No. 001-00566 (See Exhibit 10.13.2 therein).
10.14*	2005 Outside Directors Equity Award Plan	Definitive Proxy Statement on Form DEF 14A, File No. 001-00566, filed with the Securities and Exchange Commission on January 21, 2005 (see Exhibit A therein).
10.15*	Form of Stock Option Award Agreement for the 2005 Outside Directors Equity Award Plan of Greif, Inc.	Registration Statement on Form S-8, File No. 333-123133 (see Exhibit 4(c) therein).
10.16*	Form of Restricted Share Award Agreement for the 2005 Outside Directors Equity Award Plan of Greif, Inc.	Registration Statement on Form S-8, File No. 333-123133 (see Exhibit 4(d) therein).
10.17*	Amendment No. 1 to Greif, Inc. 2005 Outside Directors Equity Award Plan.	Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2016, File No. 001-00566 (see Exhibit 10.1 therein).
10.18*	Greif, Inc. Nonqualified Deferred Compensation Plan	Quarterly Report on Form 10-Q for the fiscal quarter ended January 31, 2008, File No. 001-00566 (see Exhibit 10(cc) therein).

Exhibit No.	Description of Exhibit	If Incorporated by Reference, Document with which Exhibit was Previously Filed with SEC
10.19	Amended and Restated Credit Agreement, dated as of February 11, 2019, among Greif, Inc., Greif Packaging LLC, Greif International Holding Ltd., Greif International Holding B.V., and Greif Luxembourg Holding S.à.r.l., as borrowers, each financial institution party thereto, as lenders, Wells Fargo Securities, LLC, JPMorgan Chase Bank, National Association, Goldman Sachs Bank USA, and Merrill Lynch, Pierce, Fenner & Smith Incorporated, and their respective affiliates as joint lead arrangers and joint book managers, and JPMorgan Chase Bank, as administrative agent for the lenders.	Current Report on Form 8-K dated February 11, 2019, File No. 001-00566 (see Exhibit 10.1 therein)
10.20	Formation Agreement dated as of June 14, 2010, by and among Greif, Inc. and Greif International Holding Supra C.V. and National Scientific Company Limited and Dabbagh Group Holding Company Limited.	Quarterly Report on Form 10-Q for the fiscal quarter ended July 31, 2010, File No. 001-00566 (see Exhibit 10.2 therein).
10.21	Joint Venture Agreement dated as of September 29, 2010, by and among Greif, Inc. and Greif International Holding Supra C.V. and Dabbagh Group Holding Company Limited and National Scientific Company Limited.	Annual Report on Form 10-K for the fiscal year ended October 31, 2010, File No. 001-00566 (see Exhibit 10(ee) therein).
10.22*	Defined Contribution Supplemental Executive Retirement Plan.	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2013, File No. 001-00566 (see Exhibit 10.1 therein).
10.23	Amendment Agreement dated April 18, 2017, by and among Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. Trading as Rabobank London, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., Nieuw Amsterdam Receivables Corporation S. À.R.L., Cooperage Receivables Finance B.V., Stichting Cooperage Receivables Finance Holding, Greif Services Belgium BVBA, Greif, Inc., the Originators as described therein and Trust International Management (T.I.M.) B.V. (in connection with the Master Definitions Agreement dated April 27, 2012 and as amended and restated April 20, 2015).	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2017, File No. 001-00566 (see Exhibit 10.1 therein).
10.24	Amended and Restated Master Definition Agreement dated April 18, 2017, by and among Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. Trading as Rabobank London, Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A., Nieuw Amsterdam Receivables Corporation S. À.R.L., Cooperage Receivables Finance B.V., Stichting Cooperage Receivables Finance Holding, Greif Services Belgium BVBA, Greif, Inc., the Originators as described therein and Trust International Management (T.I.M.) B.V.	Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2017, File No. 001-00566 (see Exhibit 10.2 therein).
10.25	Third Amended and Restated Sale Agreement, dated September 24, 2019, by and among Greif Packaging LLC, Delta Petroleum Company, Inc., American Flange & Manufacturing Co., Inc., Caraustar Mill Group, Inc., Caraustar Industrial and Consumer Products Group, Inc., Caraustar Recovered Fiber Group, Inc., The Newark Group, Inc., Caraustar Consumer Products Group, LLC, Caraustar Custom Packaging Group, Inc., Tama Paperboard, LLC, Cascade Paper Converters Co. and each other entity from time to time party hereto as an Originator, as Originators and Greif Receivables Funding LLC.	Current Report on Form 8-K dated September 26, 2019, File No. 001-00566 (see Exhibit 99.1 therein)

Exhibit No.	Description of Exhibit	If Incorporated by Reference, Document with which Exhibit was Previously Filed with SEC
10.26	Third Amended and Restated Transfer and Administration Agreement, date September 24, 2019, by and among Greif Receivables Funding LLC, Greif Packaging LLC, Greif Packaging LLC, Delta Petroleum Company, Inc., American Flange & Manufacturing Co. Inc., Caraustar Mill Group, Inc., Caraustar Industrial and Consumer Products Group, Inc., Caraustar Recovered Fiber Group, Inc., The Newark Group, Inc., Caraustar Consumer Products Group, LLC, Caraustar Custom Packaging Group, Inc., Tama Paperboard, LLC, Cascade Paper Converters Co., and each other entity from time to time party hereto as an Originator, as Originators, Bank of America, N.A., and the various investor groups, managing agents and administrators from time to time parties here to.	Contained herein.
10.27	The audited consolidated financial statements of Paperboard Parent, Inc. and subsidiaries for the years ended December 31, 2018 and 2017.	Current Report on Form 8-K/A dated April 25, 2019, File No. 001-00566 (see Exhibit 99.1 therein)
10.28	Unaudited pro forma condensed consolidated financial statements of Greif Inc. and subsidiaries, giving effect to the Caraustar acquisition and related financing transactions as of and for the year ended October 31, 2018	Current Report on Form 8-K/A dated April 25, 2019, File No. 001-00566 (see Exhibit 99.2 therein)
21	Subsidiaries of the Registrant.	Contained herein.
23	Consent of Deloitte & Touche LLP.	Contained herein.
24	Powers of Attorney for Michael J. Gasser, Vicki L. Avril, John F. Finn, John W. McNamara, Bruce A. Edwards, Daniel J. Gunsett, Judith D. Hook and Mark A. Emkes.	Annual Report on Form 10-K for the fiscal year ended October 31, 2015, File No. 001-00566 (See Exhibit 24 therein).
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.	Contained herein.
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.	Contained herein.
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.	Contained herein.
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.	Contained herein.
101	The following financial statements from the Company's Annual Report on Form 10-K for the year ended October 31, 2019, formatted in Inline XBRL (Extensive Business Reporting Language): (i) Consolidated Statements of Income, (ii) Consolidate Balance Sheets, (iii) Consolidated Statements of Cash Flow, (iv) Consolidated Statements of Changes in Shareholders' Equity and (v) Notes to Consolidated Financial Statements.	Contained herein.

* Executive compensation plans and arrangements required to be filed pursuant to Item 601(b)(10) of Regulation S-K.

Schedule No.	Description of Schedule	If Incorporated by Reference, Document with which Exhibit was Previously Filed with SEC
II	Consolidated Valuation and Qualifying Accounts and Reserves	Contained herein.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

			Greif, Inc.
			(Registrant)
Date:	December 18, 2019	By:	/s/ PETER G. WATSON
			Peter G. Watson
			President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Company and in the capacities and on the dates indicated.

/s/ PETER G. WATSON	/s/ LAWRENCE A. HILSHEIMER
Peter G. Watson **President and Chief Executive Officer** **Member of the Board of Directors** **(principal executive officer)**	**Lawrence A. Hilsheimer** **Executive Vice President and Chief Financial Officer** **(principal financial officer)**
/s/ DAVID C. LLOYD	MICHAEL J. GASSER*
David C. Lloyd **Vice President, Corporate Financial Controller** **(principal accounting officer)**	**Michael J. Gasser** **Chairman** **Member of the Board of Directors**
BRUCE A. EDWARDS*	DANIEL J. GUNSETT*
Bruce A. Edwards **Member of the Board of Directors**	**Daniel J. Gunsett** **Member of the Board of Directors**
JOHN F. FINN*	JOHN W. MCNAMARA*
John F. Finn **Member of the Board of Directors**	**John W. McNamara** **Member of the Board of Directors**
JUDITH D. HOOK*	MARK A. EMKES*
Judith D. Hook **Member of the Board of Directors**	**Mark A. Emkes** **Member of the Board of Directors**
VICKI L. AVRIL-GROVES*	
Vicki L. Avril-Groves **Member of the Board of Directors**	

* The undersigned, Peter G. Watson, by signing his name hereto, does hereby execute this Form 10-K on behalf of each of the above-named persons pursuant to powers of attorney duly executed by such persons and filed as an exhibit to this Form 10-K.

By: /s/ PETER G. WATSON

Peter G Watson

Each of the above signatures is affixed as of December 18, 2019.

SCHEDULE II

GREIF, INC. AND SUBSIDIARY COMPANIES

Consolidated Valuation and Qualifying Accounts and Reserves (Dollars in millions)

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Balance at End of Period
Year ended October 31, 2017:					
Allowance for doubtful accounts	$ 8.8	$ 0.5	$ (0.2)	$ (0.2)	$ 8.9
Environmental reserves	$ 6.8	$ 1.1	$ (1.1)	$ 0.3	$ 7.1
Year ended October 31, 2018:					
Allowance for doubtful accounts	$ 8.9	$ 0.4	$ (4.6)	$ (0.5)	$ 4.2
Environmental reserves	$ 7.1	$ 1.3	$ (1.6)	$ —	$ 6.8
Year ended October 31, 2019:					
Allowance for doubtful accounts	$ 4.2	$ 0.6	$ 2.0	$ —	$ 6.8
Environmental reserves	$ 6.8	$ 12.9	$ (0.9)	$ (0.1)	$ 18.7

Exhibit 4.3

Description of the Registrant's Securities Registered

Under Section 12 of the Securities Exchange Act of 1934

Greif, Inc., a Delaware corporation (the "Company," "we" or "our"), has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended, namely its Class A Common Stock and Class B Common Stock.

The following description of the Class A Common Stock and Class B Common Stock is based upon and qualified by reference to our Amended and Restated Certificate of Incorporation, as amended (the "Charter"), and our Second Amended and Restated Bylaws, as amended (the "Bylaws"). See the Charter and the Bylaws, both of which are filed as exhibits to this Annual Report on Form 10-K, for a complete description of the terms and provisions of the Class A Common Stock and Class B Common Stock.

Authorized Capital Stock

We are authorized to issue 197,120,000 shares of capital stock, consisting of 128,000,000 shares of Class A Common Stock, without par value (the "Class A Common Stock"), and 69,120,000 shares of Class B Common Stock, without par value (the "Class B Common Stock" and, together with the Class A Common Stock, the "Common Stock").

The Charter does not authorize the issuance of shares of preferred stock or any other securities.

Voting Rights

The holders of shares of Class B Common Stock are entitled to one vote per share for the election of directors and on all other matters submitted to a vote of stockholders. Except as described below, the holders of shares of Class A Common Stock have no voting rights and are not entitled to notice of meetings of the stockholders.

The holders of shares of Class A Common Stock are entitled to one vote per share for the election of directors and on all other matters submitted to a vote of stockholders, and are entitled to notice of meetings of the stockholders, if, at any time, four quarterly cumulative dividends upon the Class A Common Stock are in default or unpaid in whole or in part. The voting rights of the Class A Common Stock continue until all arrearages in the payment of cumulative dividends upon the Class A Common Stock have been paid and the dividends thereon for the current dividend have been declared and the funds for the payment thereof set aside. Thereafter, if and when the defaulted dividends are paid in full and provisions made for the payment of current dividend, holders of shares of Class A Common Stock are divested of such voting rights; subject always to the same provisions for the vesting of such voting rights in the case of any similar default or defaults in the payment of four quarterly cumulative dividends upon the Class A Common Stock and the divesting of such voting rights in the event that such default or defaults are cured.

Dividend Rights

The holders of shares of Class A Common Stock are entitled to receive dividends on a cumulative basis on the Class A Common Stock in an amount equal to $0.01 per share per annum, payable quarterly on the first day of January, April, July and October of each year, before any dividend (whether in cash, property, stock or otherwise) may be declared, set apart for payment or paid upon any shares of Class B Common Stock. After the full dividend for a year and any arrearages for preceding years have been declared and paid to, or set apart for, the holders of shares of Class A Common Stock, the holders of shares of Class B Common Stock may receive dividends on a noncumulative basis in an amount up to $0.005 per share per annum, subject to the condition that the surplus or net profits of the Company, after the payment of any such dividends on shares of Class B Common Stock, must be at least equal to the sum required for the payment in full of the cumulative dividends on shares of Class A Common Stock for one year. Thereafter, the holders of shares of Common Stock participate in any further distribution of dividends in the proportion of $0.01 per share to the holders of Class A Common Stock and $0.015 per share to the holders of Class B Common Stock.

Dividends upon either class of Common Stock are payable only out of the surplus or net profits of the Company, as determined by the Board of Directors, and only as and when declared by the Board of Directors.

Liquidation Rights

In the event of any liquidation, dissolution or winding up of the Company, the holders of shares of Class A Common Stock are entitled to be paid cumulative dividends accrued on the Class A Common Stock plus $0.15625 per share before any distribution or payment may be made to the holders of shares of Class B Common Stock. After the full payment to the holders of shares of Class A Common Stock as described in the preceding sentence, the holders of shares of Class B Common Stock are entitled to be paid $0.15625 per share. After payment in full to the holders of Class A Common Stock and Class B Common Stock, as described in the preceding sentences, all remaining assets are distributed to the holders of Common Stock on a pro rata basis.

Other Rights and Preferences

The holders of Common Stock have no preemptive, conversion, or other subscription rights, and the Common Stock does not have any redemption or sinking fund provisions. Holders of shares of Common Stock are not entitled to cumulative voting for the election of directors.

Our Board of Directors is not classified.

Listing

Our shares of Class A Common Stock are listed and traded on the New York Stock Exchange under the trading symbol “GEF”.

Our shares of Class B Common Stock are listed and traded on the New York Stock Exchange under the trading symbol “GEF.B”.

Certain Anti-Takeover Effects

Certain provisions in our Charter and Bylaws may have the effect of delaying, deferring or preventing a change in control of the Company.

Advance Notice of Proposals and Nominations. Our Bylaws provide for an advance notice procedure for stockholders to nominate persons to stand for election as a director or to bring other business before meetings of our stockholders. Any stockholder wishing to nominate persons to stand for election as a director or to bring other business before meetings must deliver advance written notice and certain other information to our Secretary in accordance with our Bylaws.

Limits on Special Meetings. Our Bylaws provide that special meetings of our stockholders may only be called under certain circumstances described therein. Business transacted at any special meeting will be limited to the purposes specified in the notice calling such meeting.

Takeover Statutes. Section 203 of the Delaware General Corporation Law generally prohibits “business combinations”, including mergers, sales and leases of assets, issuances of securities and similar transactions by a corporation or a subsidiary with an interested stockholder who beneficially owns 15% or more of a corporation’s voting stock, within three years after the person or entity becomes an interested stockholder, unless: (i) the board of directors of the target corporation has approved, before the acquisition time, either the business combination or the transaction that resulted in the person becoming an interested stockholder, (ii) upon consummation of the transaction that resulted in the person becoming an interested stockholder, the person owns at least 85% of the corporation’s voting stock (excluding shares owned by directors who are officers and shares owned by employee stock plans in which participants do not have the right to determine confidentially whether shares will be tendered in a tender or exchange offer) or (iii) after the person or entity becomes an interested stockholder, the business combination is approved by the board of directors and authorized at a meeting of stockholders by the affirmative vote of at least 66-2/3% of the outstanding voting stock now owned by the interested stockholder. Section 203 of the Delaware General Corporation Law applies to the Company.

Exclusive Forum. Our Bylaws provide that, unless the Company consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (iv) any action asserting a claim governed by the internal affairs doctrine shall be a state or federal court located within the State of Delaware.

Exhibit 10.26

EXECUTION COPY

THIRD AMENDED AND RESTATED
TRANSFER AND ADMINISTRATION AGREEMENT

Dated as of September 24, 2019

by and among

GREIF RECEIVABLES FUNDING LLC,

GREIF PACKAGING LLC,

as initial Servicer

GREIF PACKAGING LLC,
DELTA PETROLEUM COMPANY, INC.,
AMERICAN FLANGE & MANUFACTURING CO. INC.,
CARAUSTAR MILL GROUP, INC.,
CARAUSTAR INDUSTRIAL AND CONSUMER PRODUCTS GROUP, INC.,
CARAUSTAR RECOVERED FIBER GROUP, INC.,
THE NEWARK GROUP, INC.,
CARAUSTAR CONSUMER PRODUCTS GROUP, LLC,
CARAUSTAR CUSTOM PACKAGING GROUP, INC.,
TAMA PAPERBOARD, LLC,
CASCADE PAPER CONVERTERS CO.
and each other entity from time to time party hereto
as an Originator, as Originators

BANK OF AMERICA, N.A.,
as a Committed Investor, a Managing Agent, an Administrator and the Agent

and

THE VARIOUS INVESTOR GROUPS, MANAGING AGENTS AND ADMINISTRATORS FROM TIME TO TIME PARTIES HERETO

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This **Third Amended and Restated Transfer and Administration Agreement** (this "Agreement"), dated as of September 24, 2019, by and among:

(1) **GREIF RECEIVABLES FUNDING LLC**, a Delaware limited liability company (the "SPV");

(2) **GREIF PACKAGING LLC**, a Delaware limited liability company, as an Originator (in such capacity, the "GP Originator");

(3) **Delta Petroleum Company, Inc.**, a Louisiana corporation, as an originator (the "Delta Originator");

(4) **American Flange & Manufacturing Co. Inc.**, a Delaware corporation, as an originator (the "AFM Originator");

(5) **caraustar mill group, inc.**, an Ohio corporation, as an originator (the "Caraustar Mill Originator");

(6) **caraustar industrial and consumer products group, inc.**, a Delaware corporation, as an originator (the "Caraustar Industrial Originator");

(7) **caraustar recovered fiber group, inc.**, a Delaware corporation, as an originator (the "Caraustar Fiber Originator");

(8) **THE newark group, inc.**, a New Jersey corporation, as an originator (the "Newark Originator");

(9) **caraustar consumer products group, llc**, a Delaware limited liability company, as an originator (the "Caraustar Consumer Originator");

(10) **caraustar custom packaging group, inc.**, a Delaware corporation, as an originator (the "Caraustar Custom Originator");

(11) **tama paperboard, llc**, a Delaware limited liability company, as an originator (the "Tama Originator");

(12) **cascade paper converters co.**, a Michigan corporation, as an originator (the "Cascade Originator", and, together with the GP Originator, the Delta Originator, the AFM Originator, the Caraustar Mill Originator, the Caraustar Industrial Originator, the Caraustar Fiber Originator, the Newark Originator, the Caraustar Consumer Originator, the Caraustar Custom Originator, the Tama Originator and each other entity from time to time party hereto as an "Originator" pursuant to a joinder agreement in form and substance acceptable to the Agent, each, an "Originator" and collectively, the "Originators");

(13) **GREIF PACKAGING LLC.**, as servicer (in such capacity, the "Servicer");

(14) **BANK OF AMERICA, N.A.**, ("BANA"), as a Committed Investor, a Managing Agent, an Administrator and the Agent;

(15) the various Investor Groups, Managing Agents and Administrators from time to time parties hereto.

PRELIMINARY STATEMENTS. This Agreement amends and restates in its entirety, as of the date hereof, the Second Amended and Restated Transfer and Administration Agreement, dated as of September 28, 2016 (as amended, restated, supplemented or otherwise modified prior to the date hereof, the "Existing Agreement"), among the SPV, the Servicer, the Managing Agents, Investors, the Administrators from time to time party thereto and the Agent (as successor by assignment to Cooperative Rabobank U.A., New York Branch pursuant to the Rabobank Assignment). Upon the effectiveness of this Agreement, the terms and provisions of the Existing Agreement shall, subject to this paragraph, be amended and restated hereby in their entirety. Notwithstanding the amendment and restatement of the Existing Agreement by this Agreement, (i) the SPV and Servicer shall continue to be liable to each of the parties to the Existing Agreement or any other Indemnified Party or Servicer Indemnified Party (as such terms are defined in the Existing Agreement) for fees and expenses which are accrued and unpaid under the Existing Agreement on the date hereof (collectively, the "Existing Agreement Outstanding Amounts") and all agreements to indemnify such parties in connection with events or conditions arising or existing prior to the effective date of this Agreement and (ii) the security interest created under the Existing Agreement shall remain in full force and effect as security for such Existing Agreement Outstanding Amounts. Upon the effectiveness of this Agreement, each reference to the Existing Agreement in any other document, instrument or agreement shall mean and be a reference to this Agreement. Nothing contained herein, unless expressly herein stated to the contrary, is intended to amend, modify or otherwise affect any other instrument, document or agreement executed and/or delivered in connection with the Existing Agreement.

The SPV desires to continue to sell, transfer and assign an undivided variable percentage interest in certain receivables, and the Investors desire to continue to acquire such undivided variable percentage interest, as such percentage interest shall be adjusted from time to time based upon, in part, reinvestment payments that are made by such Investors.

In consideration of the mutual agreements, provisions and covenants contained herein, the sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1 Certain Defined Terms. As used in this Agreement, the following terms shall have the following meanings:

"Accounts" means the Blocked Accounts, the Collection Account and each other account into which Collections may be deposited or received.

"Adjustment" is defined in Section 2.4(c).

"Administrators" means the BANA Administrator, the MUFG Administrator, the TD Bank Administrator and any other Person that becomes a party to this Agreement as an "Administrator".

"Adverse Claim" means a Lien on any Person's assets or properties in favor of any other Person; *provided* that "Adverse Claim" shall not include any "precautionary" financing statement filed by any Person not evidencing any such Lien.

"Affected Assets" means, collectively, (a) the Receivables, (b) the Related Security, (c) with respect to any Receivable, all rights and remedies of the SPV under the First Tier Agreement, together with all financing statements filed by the SPV against the Originators in connection therewith, (d) the Collection Account and all Blocked Accounts and all funds and investments therein and all of the SPV's rights in the Blocked Account Agreements and (e) all proceeds of the foregoing.

"Affiliate" means, as to any Person at any time, any other Person which, directly or indirectly, owns, is in control of, is controlled by, or is under common control with such Person at such time, in each case whether beneficially, or as a trustee, guardian or other fiduciary. A Person shall be deemed to control another Person if the controlling Person possesses, directly or indirectly, the power to direct or cause the direction of the management or policies of the other Person, whether through the ownership of voting securities or membership interests, by contract, or otherwise.

"AFM Originator" is defined in the Preamble.

"Agent" means BANA, in its capacity as agent for the Secured Parties, and any successor thereto appointed pursuant to Article X.

"Agents" means, collectively, the Managing Agents and the Agent.

"Agent-Related Persons" means, with respect to any Managing Agent or the Agent, such Person together with its Affiliates, and the officers, directors, employees, agents and attorneys-in-fact of such Persons and their respective Affiliates.

"Aggregate Unpaid Balance" means, as of any date of determination, the sum of the Unpaid Balances of all Receivables which constitute Eligible Receivables as of such date of determination.

"Aggregate Unpaids" means, at any time, an amount equal to the sum of (a) the aggregate unpaid Yield accrued and to accrue through the end of all Rate Periods in existence at such time, (b) the Net Investment at such time and (c) all other amounts owed (whether or not then due and payable) hereunder and under the other Transaction Documents by the SPV and each Originator to the Agent, the Managing Agents, the Administrators, the Investors or the Indemnified Parties at such time, including, without limitation, any amounts owed pursuant to Section 9.3 hereof.

"Agreement" is defined in the Preamble.

"Agricultural Receivable" means any Eligible Receivable originated on or after April 1st of any calendar year and payable on or prior to October 15th of such calendar year to an Agricultural Receivable Eligible Obligor.

"Agricultural Receivable Eligible Obligor" means any Eligible Obligor or their corporate successor listed on Schedule 1.01(a) to the Disclosure Letter hereto as such Schedule 1.01(a) to the Disclosure Letter may be updated from time to time at the request of the SPV and with the consent of the Agent.

"Alternate Rate" means, for each day during a Rate Period for any Portion of Investment, an interest rate per annum equal to the Offshore Rate for such Rate Period; *provided* that if pursuant to Section 2.4(b), (x) the applicable Managing Agent is unable to determine the Offshore Rate or (y) it becomes unlawful for any Investor to fund the purchase or maintenance of any Investment accruing Yield at the Offshore Rate, then the "Alternate Rate" for each day in such Rate Period shall be an interest rate per annum equal to the Base Rate in effect for such Rate Period; *provided further* that if pursuant to Section 2.4(c), the Offshore Rate has been replaced by a LIBOR Successor Rate, then the "Alternate Rate" for each day in such Rate Period shall be an interest rate per annum equal to the LIBOR Successor Rate in effect on such day. The "Alternate Rate" for any date on or after the declaration or automatic occurrence of the Termination Date pursuant to Section 8.2 shall be an interest rate equal to 2.00% per annum above the Base Rate for such Rate Period. If the calculation of the Alternate Rate results in an Alternate Rate of less than zero (0), the Alternate Rate shall be deemed to be zero (0) for all purposes hereunder.

"Anti-Corruption Laws" means, all laws, rules, and regulations of any jurisdiction applicable to the SPV or any Person that is an Affiliate of the SPV from time to time concerning or relating to bribery or corruption.

"Anti-Money Laundering Laws" means Law in any jurisdiction in which the Seller Parties are located or doing business that relates to money laundering or terrorism financing, any predicate crime to money laundering, or any financial record keeping and reporting requirements related thereto.

"Asset Interest" is defined in Section 2.1(b).

"Assignment Amount" means, with respect to a Committed Investor at the time of any assignment pursuant to Section 3.1, an amount equal to the least of (a) such Committed Investor's Pro Rata Share of the Net Investment requested by the Uncommitted Investor in its Investor Group to be assigned at such time; (b) such Committed Investor's unused Commitment (minus the unrecovered principal amount of such Committed Investor's investments in the Asset Interest pursuant to the Program Support Agreement to which it is a party); and (c) in the case of an assignment on or after the applicable Conduit Investment Termination Date, an amount equal to (A) the sum of such Committed Investor's Pro Rata Share of the Investor Group Percentage of (i) the aggregate Unpaid Balance of the Receivables (other than Defaulted Receivables), plus (ii) all Collections received by the Servicer but not yet remitted by the Servicer to the Agent, plus (iii) any amounts in respect of Deemed Collections required to be paid by the SPV at such time.

"Assignment and Assumption Agreement" means an Assignment and Assumption Agreement substantially in the form of Exhibit A.

"Assignment Date" is defined in Section 3.1(a).

"Attributable Indebtedness" means, on any date, but without duplication, (a) in respect of any Capitalized Lease of any Person, the capitalized amount thereof that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP, (b) in respect of any Synthetic Lease Obligation, the capitalized amount of the remaining lease or similar payments under the relevant lease or other applicable agreement or instrument that would appear on a balance sheet of such Person prepared as of such date in accordance with GAAP if such lease or other agreement or instrument were accounted for as a Capitalized Lease and (c) all Synthetic Debt of such Person.

"BANA" is defined in the Preamble.

"BANA Administrator" means BANA or an Affiliate thereof, as administrator for the BANA Investor Group.

"BANA Committed Investor" means each financial institution party to this Agreement as a BANA Committed Investor.

"BANA Investor Group" is defined in the definition of "Investor Group".

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

"Bail-In Legislation" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bank of America Assignment” means that certain Assignment, Assumption and Resignation Agreement dated as of September 30, 2013, by and among, BANA, as assignor, PNC Bank, National Association, as assignee, the SPV, the GP Originator and the GP Servicer.

“Bankruptcy Code” means Title 11 of United States Code.

“Base Rate” means, for any Rate Period or, in connection with the calculation of the Default Rate, any day, a fluctuating rate per annum calculated as of the first Business Day of such Rate Period (or, in connection with the calculation of the Default Rate, such day) equal to the highest of (a) the Federal Funds Rate for such day, plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by the applicable Managing Agent as its “prime rate” or (c) the daily Offshore Rate for such day plus 1.75%. The “prime rate” is a rate set by the applicable Managing Agent based upon various factors including such Managing Agent’s costs and desired return, general economic conditions and other factors, and is used as a reference point for pricing some loans, which may be priced at, above, or below such announced rate. Any change in the prime rate announced by a Managing Agent shall take effect at the opening of business on the day specified in the public announcement of such change.

“Basel II” is defined in the definition of “Existing Law”.

“Basel III” is defined in the definition of “Existing Law”.

“Beneficial Ownership Certification” means a certification regarding beneficial ownership complying with the Beneficial Ownership Rule, in form and substance reasonably acceptable to the Agent.

“Beneficial Ownership Rule” means 31 C.F.R. § 1010.230.

“Blocked Account” means an account and any associated lock-box maintained by the SPV at a Blocked Account Bank for the purpose of receiving Collections or concentrating Collections received, set forth in Schedule 4.1(s) to the Disclosure Letter, or any account added as a Blocked Account pursuant to and in accordance with Section 4.1(s) to the Disclosure Letter and which, if not maintained at and in the name of the Agent, is subject to a Blocked Account Agreement; provided that the Specified Account shall not constitute a Blocked Account hereunder or under any Transaction Document prior to the occurrence of the Blocked Account Agreement Amendment Date.

“Blocked Account Agreement” means a deposit account control agreement among the SPV, the Agent and a Blocked Account Bank, in form and substance reasonably acceptable to the Agent.

“Blocked Account Agreement Amendment Date” means the date on which the SPV delivers to the Agent a fully executed amendment to the applicable deposit account control agreement among the SPV, the Agent and the applicable Blocked Account Bank pertaining to the Specified Account pursuant to which the Specified Account is added as a “Collateral Account” thereunder, which amendment shall be in form and substance satisfactory the Agent.

“Blocked Account Bank” means each of the banks set forth in Schedule 4.1(s) to the Disclosure Letter, as such Schedule 4.1(s) to the Disclosure Letter may be modified pursuant to Section 4.1(s).

“Business Day” means any day excluding Saturday, Sunday and any day on which banks in New York, New York or the State of Ohio, are authorized or required by law to close, and, when used with respect to the determination of any Offshore Rate or any notice with respect thereto, any such day which is also a day for trading by and between banks in United States dollar deposits in the London interbank market.

“Calculation Period” means: (a) the period from and including the Closing Date to and including the next Month End Date; and (b) thereafter, each period from but excluding a Month End Date to and including the earlier to occur of the next Month End Date or the Final Payout Date.

“Capital Expenditures” means, with respect to any Person for any period, any expenditure in respect of the purchase or other acquisition of any fixed or capital asset (excluding normal replacements and maintenance which are properly charged to current operations). For purposes of this definition, the purchase price of equipment that is purchased simultaneously with the trade-in of existing equipment or with insurance proceeds shall be included in Capital Expenditures only to the extent of the gross amount by which such purchase price exceeds the credit granted by the seller of such equipment for the equipment being traded in at such time or the amount of such insurance proceeds, as the case may be.

“Capitalized Lease” of a Person means any lease of property by such Person as lessee which would be capitalized on a balance sheet of such Person prepared in accordance with GAAP.

"Caraustar Consumer Originator" is defined in the Preamble.

"Caraustar Custom Originator" is defined in the Preamble.

"Caraustar Fiber Originator" is defined in the Preamble.

"Caraustar Industrial Originator" is defined in the Preamble.

"Caraustar Mill Originator" is defined in the Preamble.

"Cascade Originator" is defined in the Preamble.

"Change in Law" is defined in Section 9.3(a).

"Change of Control" means (a) any failure by Greif, Inc. to beneficially own and control, directly or indirectly, 66$^{2/3}$% or more of the total voting power and economic interests represented by the issued and outstanding Equity Interests of any Originator, (b) any failure by the GP Originator to directly own and control 100% of the total voting power and economic interests represented by the issued and outstanding Equity Interests of the SPV, or (c) any "Change of Control" as defined in the Senior Credit Agreement.

"Charged-Off Receivable" means a Receivable (a) as to which the Obligor thereof has become the subject of any Event of Bankruptcy, (b) which has been identified by the SPV, any Originator or the Servicer as uncollectible, or (c) which, consistent with the Credit and Collection Policy, would be written off as uncollectible, in any case, whether or not actually charged off on the books and records of the SPV or the Servicer.

"Closing Date" means September 24, 2019.

"Closing Fee" is defined in the Fee Letter.

"Code" means the Internal Revenue Code of 1986, as amended, or any successor thereto.

"Collection Account" is defined in Section 2.9.

"Collections" means, with respect to any Receivable, all cash collections and other cash proceeds of such Receivable, including (i) all scheduled interest and principal payments, and any applicable late fees, in any such case, received and collected on such Receivable, (ii) all proceeds received by virtue of the liquidation of such Receivable, net of expenses incurred in connection with such liquidation, (iii) all proceeds received (net of any such proceeds which are required by law to be paid to the applicable Obligor) under any damage, casualty or other insurance policy with respect to such Receivable, (iv) all cash proceeds of the Related Security related to or otherwise attributable to such Receivable, (v) any repurchase payment received with respect to such Receivable pursuant to any applicable recourse obligation of the Servicer or any Originator under this Agreement or any other Transaction Document and (vi) all Deemed Collections received with respect to such Receivable.

"Commercial Paper" means the promissory notes issued or to be issued by a Conduit Investor (or its related commercial paper issuer if such Conduit Investor does not itself issue commercial paper) in the commercial paper market.

"Commitment" means, with respect to each Committed Investor, as the context requires, (a) the commitment of such Committed Investor to make Investments and to pay Assignment Amounts in accordance herewith in an amount not to exceed the amount described in the following clause (b), and (b) the dollar amount set forth opposite such Committed Investor's signature on the signature pages hereof under the heading "Commitment" (or, in the case of a Committed Investor which becomes a party hereto pursuant to an Assignment and Assumption Agreement, as set forth in such Assignment and Assumption Agreement), minus the dollar amount of any Commitment or portion thereof assigned by such Committed Investor pursuant to an Assignment and Assumption Agreement, plus the dollar amount of any increase to such Committed Investor's Commitment consented to by such Committed Investor prior to the time of determination; *provided* that, except as set forth in Section 2.17, if the Facility Limit is reduced, the aggregate of the Commitments of all the Committed Investors shall be reduced in a like amount and the Commitment of each Committed Investor shall be reduced in proportion to such reduction.

"Commitment Termination Date" means the earlier to occur of September 24, 2020, or such later date to which the Commitment Termination Date may be extended by the SPV, the Agent and the Committed Investors (each in their sole discretion).

"Committed Investors" means (a) for the BANA Investor Group, the BANA Committed Investors, (b) for the MUFG Investor Group, the MUFG Committed Investors, (c) for the TD Bank Investor Group, the TD Bank Committed Investors and (d)

for any other Investor Group, each of the Persons executing this Agreement in the capacity of a "Committed Investor" for such Investor Group in accordance with the terms of this Agreement, and, in each case, successors and permitted assigns.

"Competitors" is defined in the definition of "Disqualified Investor".

"Concentration Percentage" means (i) for any Group A Obligor that is not a Special Obligor, 10.00%, (ii) for any Group B Obligor that is not a Special Obligor, 10.00%, (iii) for any Group C Obligor that is not a Special Obligor, 5.00%, (iv) for any Group D Obligor that is not a Special Obligor, 2.50%, and (v) for any Special Obligor, such Special Obligor's Special Concentration Percentage.

"Concentration Reserve" means 10.00%.

"Conduit Assignee" means, with respect to any Conduit Investor, any special purpose entity that finances its activities directly or indirectly through asset backed commercial paper and is administered by a Managing Agent or any of its Affiliates and designated by such Conduit Investor's Managing Agent from time to time to accept an assignment from such Conduit Investor of all or a portion of the Net Investment.

"Conduit Investment Termination Date" means, with respect to any Conduit Investor, the date of the delivery by such Conduit Investor to the SPV of written notice that such Conduit Investor elects, in its sole discretion, to permanently cease to fund Investments hereunder. For the avoidance of doubt, the delivery of any such written notice by such Conduit Investor shall not relieve or terminate the obligations of any Committed Investor hereunder to fund any Investment.

"Conduit Investor" means any Person that shall become a party to this Agreement in the capacity as a "Conduit Investor" and any Conduit Assignee of any of the foregoing.

"Continuing Obligations" means those obligations which are identified to continue as obligations under the Prior Assignments.

"Contract" means, in relation to any Receivable, any and all contracts, instruments, agreements, leases, invoices, notes, or other writings pursuant to which such Receivable arises or which evidence such Receivable or under which an Obligor becomes or is obligated to make payment in respect of such Receivable.

"CP Rate" means, for any day in any Rate Period for any Portion of Investment, the Alternate Rate for such day.

"Credit and Collection Policy" means the Originators' credit and collection policy or policies and practices relating to Receivables as in effect on the Closing Date and set forth in Exhibit A to the Disclosure Letter, as modified, from time to time, in compliance with Sections 6.1(a)(vii) and 6.2(c).

"Days Sales Outstanding" means, for any Calculation Period, the ratio obtained by dividing (a) the aggregate Unpaid Balance of Receivables as of the most recent Month End Date by (b) the quotient obtained by dividing (i) the aggregate amount of sales giving rise to Receivables originated during the consecutive four (4) month period ended on the most recent Month End Date by (ii) 121.

"Debtor Relief Laws" means any applicable liquidation, conservatorship, bankruptcy, moratorium, rearrangement, insolvency, fraudulent conveyance, reorganization, or similar Laws affecting the rights, remedies, or recourse of creditors generally, including the Bankruptcy Code and all amendments thereto, as are in effect from time to time.

"Deemed Collections" means any Collections on any Receivable deemed to have been received pursuant to Sections 2.6.

"Default Rate" means, for any day, a per annum rate equal to the sum of (a) the Base Rate for such day plus (b) 2.00%.

"Default Ratio" means, for any Calculation Period, the ratio (expressed as a percentage) computed as of the most recent Month End Date of (i) the aggregate Unpaid Balance of all Receivables that became Defaulted Receivables during such Calculation Period, divided by (ii) the aggregate amount of sales by the Originators giving rise to Receivables in the fourth month prior to the month of determination.

"Defaulted Receivable" means a Receivable (a) as to which any payment, or part thereof, remains unpaid for 91 days or more from the original due date for such payment and (b) without any duplication, that is less than or equal to 90 days from the original due date and became a Charged-Off Receivable during any month.

"Delinquency Ratio" means, for any Calculation Period, the ratio (expressed as a percentage) equal to the quotient of (a) the aggregate Unpaid Balance of all Delinquent Receivables as of the most recent Month End Date divided by (b) the aggregate Unpaid Balance of all Receivables as of the most recent Month End Date.

"Delinquent Receivable" means a Receivable as to which any payment, or part thereof, remains unpaid for 91 days or more from the original due date for such payment.

"Delta Originator" is defined in the Preamble.

"Dilution" means, on any date, an amount equal to the sum, without duplication, of the aggregate reduction effected on such day in the Unpaid Balances of the Receivables attributable to any non-cash items including credits, rebates, billing errors, sales or similar taxes, cash discounts, volume discounts, allowances, disputes (it being understood that a Receivable is "subject to dispute" only if and to the extent that, in the reasonable good faith judgment of the applicable Originator (which shall be exercised in the ordinary course of business) such Obligor's obligation in respect of such Receivable is reduced on account of any performance failure on the part of such Originator), set-offs, counterclaims, chargebacks, returned or repossessed goods, sales and marketing discounts, warranties, any unapplied credit memos and other adjustments that are made in respect of Obligors; *provided* that writeoffs related to an Obligor's bad credit, inability to pay or insolvency shall not constitute Dilution, and contractual adjustments to the amounts payable by the Obligor that are eliminated from the Receivables balance sold through a reduction in purchase price shall not constitute Dilution.

"Dilution Horizon Ratio" means, for any Calculation Period, the ratio (expressed as a percentage) computed as of the most recent Month End Date by dividing (a) the aggregate initial Unpaid Balance of sales by the Originators giving rise to Receivables during such Calculation Period by (b) the Net Pool Balance as of such Month End Date.

"Dilution Ratio" means, for any Calculation Period, the ratio (expressed as a percentage) computed as of the most recent Month End Date by dividing (a) the aggregate Dilution incurred during such period, by (b) the aggregate amount of sales by the Originators giving rise to Receivables in the month prior to the month of determination.

"Dilution Reserve Ratio" means, for any Calculation Period, a percentage equal to:

$$(SF \times EDR) + \left((DS - EDR) \times \frac{DS}{EDR} \right) \times DHR$$

where:

SF = the Stress Factor;

EDR = the Expected Dilution Ratio;

DS = the Dilution Spike; and

DHR = the Dilution Horizon Ratio.

"Dilution Spike" means, as of any date of determination, the highest average Dilution Ratio for any two consecutive calendar months during the immediately preceding 12 calendar months.

"Disclosure Letter" means the letter of even date herewith delivered by the SPV to the Agent and the Investors.

"Disqualified Investor" means, on any date, (a) Persons that are specifically identified by the SPV on Schedule 1.01(b) to the Disclosure Letter (as such schedule may be supplemented or updated from time to time by the SPV in accordance with this definition) prior to such date, (b) Persons that are determined by the SPV to be competitors of the Greif, Inc. or its Subsidiaries and which are specifically identified by the SPV by providing the Agent with a written supplement or update to Schedule 1.01(b) to the Disclosure Letter ("Competitors") prior to such date, (c) in the case of the foregoing clauses (a) and (b), any of such Persons' Affiliates to the extent such Affiliates (i)(A) are clearly identifiable as Affiliates based solely on the similarity of such Affiliates' names and (B) are not bona fide investment funds, or (ii)(A) upon reasonable written notice to the Agent, are specifically identified as Affiliates in a written supplement or update to Schedule 1.01(b) to the Disclosure Letter and (B) are not bona fide investment funds; provided that (x) the initial Disqualified Investors shall be specifically identified as such in Schedule 1.01(b) to the Disclosure Letter and (y) any supplements or other updates to Schedule 1.01(b) to the Disclosure Letter made thereto from time to time after the Closing Date shall become effective five (5) Business Days after delivery to the Agent and the Investors (but which shall not

apply retroactively to disqualify any parties that have previously acquired an interest in the Investments, whether by assignment or participation) of such supplement or update to Schedule 1.01(b) to the Disclosure Letter.

"Dollar" or "$" means the lawful currency of the United States.

"EEA Financial Institution" means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Eligible Investments" means any of the following investments denominated and payable solely in Dollars: (a) readily marketable debt securities issued by, or the full and timely payment of which is guaranteed by, the full faith and credit of, the federal government of the United States, (b) insured demand deposits, time deposits and certificates of deposit of any commercial bank rated "A-1+" by S&P, "P-1" by Moody's and "A-1+" by Fitch (if rated by Fitch), (c) no load money market funds rated in the highest ratings category by each of the Rating Agencies (without the "r" symbol attached to any such rating by S&P), and (d) commercial paper of any corporation incorporated under the laws of the United States or any political subdivision thereof, *provided* that such commercial paper is rated "A-1+" by S&P, "P-1" by Moody's and "A-1+" by Fitch (if rated by Fitch) (without the "r" symbol attached to any such rating by S&P).

"Eligible Obligor" means, at any time, any Obligor:

(a) which is not an Affiliate or employee of any of the Originators, SPV or Servicer;

(b) which is not an Official Body;

(c) [Reserved];

(d) which is not a Sanctioned Person; and

(e) which does not have more than 50.0% of Defaulted Receivables with respect to the Receivables owed by such Obligor.

"Eligible Receivable" means, at any time, any Receivable:

(a) which was originated by an Originator on an arm's length basis in the ordinary course of its business;

(b) (i) with respect to which each of the applicable Originator and the SPV has performed all obligations required to be performed by it thereunder or under any related Contract, including shipment of the merchandise and/or the performance of the services purchased thereunder; (ii) which has been billed to the relevant Obligor; and (iii) which, according to the Contract related thereto, is required to be paid in full within 120 days of the original billing date therefor unless such Receivable is an Agricultural Receivable, *provided*, *however*, that the Agent may deem any Extended Term Receivable or Agricultural Receivable to be ineligible at any time in its discretion upon twenty (20) days advance written notice to the SPV;

(c) which was originated in accordance with and satisfies in all material respects all applicable requirements of the Credit and Collection Policy;

(d) which has been sold or contributed to the SPV pursuant to (and in accordance with) the First Tier Agreement and to which the SPV has good and marketable title, free and clear of all Adverse Claims;

(e) the Obligor of which has been directed to make all payments to a Blocked Account;

(f) which is assignable without the consent of, or notice to, the Obligor thereunder unless such consent has been obtained and is in effect or such notice has been given;

(g) which (i) together with the related Contract, is in full force and effect and constitutes the legal, valid and binding obligation of the related Obligor enforceable against such Obligor in accordance with its terms and (ii) is not subject to any asserted litigation, dispute, offset, holdback, counterclaim or other defense; *provided* that, with respect to offsets and holdbacks included in the calculation of Offset Payable, (x) at any time Greif, Inc.'s corporate family rating is greater than or equal to "BB" by S&P and "Ba2" by Moody's, such holdbacks and offsets shall not render all or any portion of such Receivable ineligible pursuant to this clause (g)(ii) and (y) at any time Greif, Inc.'s corporate family rating is below "BB" by S&P or "Ba2" by Moody's, only the portion of such Receivable that is the subject of such offset or holdback shall be deemed to be ineligible pursuant to the terms of this clause (g)(ii);

(h) which is denominated and payable only in Dollars in the United States;

(i) which is not a Delinquent Receivable or Defaulted Receivable;

(j) which is not a Charged-Off Receivable;

(k) which has not been compromised, adjusted or modified (including by the extension of time for payment or the granting of any discounts, allowances or credits) in a manner not otherwise authorized by this Agreement; *provided* that only such portion of such Receivable that is the subject of such compromise, adjustment or modification shall be deemed to be ineligible pursuant to the terms of this clause (k);

(l) which is an "account" within the meaning of Article 9 of the UCC of all applicable jurisdictions and is not evidenced by instruments or chattel paper;

(m) which, together with the Contract related thereto, does not contravene in any material respect any Laws applicable thereto (including Laws relating to truth in lending, fair credit billing, fair credit reporting, equal credit opportunity, fair debt collection practices and privacy);

(n) the assignment of which under the First Tier Agreement by the applicable Originator to the SPV and hereunder by the SPV to the Agent does not violate, conflict or contravene any applicable Law or any enforceable contractual or other restriction, limitation or encumbrance;

(o) such Receivable is not a Receivable which arose as a result of the sale of consigned inventory owned by a third party or a sale in which the Originator acted as agent of any other Person or otherwise not as principal;

(p) such Receivable has not been selected for funding under the Facility pursuant to any "adverse selection" procedures;

(q) such Receivable does not arise under a Contract which contains a confidentiality provision that purports to restrict the ability of the SPV or its assignees to exercise their rights under such Contract or the First Tier Agreement, including, without limitation, the SPV's or its assignees' right to review such Contract;

(r) which (together with the Related Security related thereto) has been the subject of either a valid transfer and assignment from, or the grant of a first priority perfected security interest therein by, the SPV to the Agent, on behalf of the Investors, of all of the SPV's right, title and interest therein, effective until the Final Payout Date (unless repurchased by the SPV at an earlier date pursuant to this Agreement); and

(s) the Obligor of which is an Eligible Obligor.

"Equity Interests" means, with respect to any Person, any and all shares, interests, participations or other equivalents, including membership interests (however designated, whether voting or non-voting or whether certificated or not certificated), of capital of such Person, including, if such Person is a partnership, partnership interests (whether general or limited) and any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, such partnership, whether outstanding on the date hereof or issued thereafter.

"ERISA" means the U.S. Employee Retirement Income Security Act of 1974, as amended, and any regulations promulgated and rulings issued thereunder.

"ERISA Affiliate" means, with respect to any Person, any corporation, partnership, trust, sole proprietorship or trade or business which, together with such Person, is treated as a single employer under Section 414(b) or (c) of the Code or, with respect to any liability for contributions under Section 302(b) of ERISA, Section 414(m) or Section 414(o) of the Code.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"Eurodollar Reserve Percentage" means, for any day during any Rate Period, the reserve percentage (expressed as a decimal, rounded upward to the next 1/100th of 1%) in effect on such day, whether or not applicable to any Investor, under regulations issued from time to time by the Board of Governors of the Federal Reserve System for determining the maximum reserve requirement (including any emergency, supplemental or other marginal reserve requirement) with respect to Eurocurrency funding (currently referred to as "eurocurrency liabilities"). The Offshore Rate shall be adjusted automatically as of the effective date of any change in the Eurodollar Reserve Percentage.

"Event of Bankruptcy" means, with respect to any Person, (a) that such Person becomes unable or admits in writing its inability or fails generally to pay its debts as they become due; (b) that any writ or warrant of attachment or execution or similar process is issued or levied against all or any material part of the property of any such Person and is not released, vacated or fully bonded within thirty (30) days after its issue or levy; (c) that such Person institutes or consents to the institution of any proceeding under any Debtor Relief Law, or makes an assignment for the benefit of creditors, or applies for or consents to the appointment of any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer for it or for all or any material part of its property; (d) that any receiver, trustee, custodian, conservator, liquidator, rehabilitator or similar officer is appointed without the application or consent of such Person and the appointment continues undischarged or unstayed for sixty (60) calendar days; or (e) that any proceeding under any Debtor Relief Law relating to any such Person or to all or any material part of its property is instituted without the consent of such Person and continues undismissed or unstayed for sixty (60) calendar days, or an order for relief is entered in any such proceeding.

"Excess Concentration" means, at any time, the sum of the following (without duplication):

(a) the aggregate of the amounts calculated for each Obligor of a Receivable equal to the amount (if any) by which (i) the aggregate Unpaid Balance of all Eligible Receivables of such Obligor exceeds (ii) an amount equal to the Concentration Percentage for such Obligor, multiplied by the Aggregate Unpaid Balance at such time; plus

(b) the amount (if any) by which the aggregate Unpaid Balance of all Eligible Receivables with respect to which, as of such date, any payment, or any part thereof, remains unpaid 31 days or more, but not more than 60 days, from the original due date thereof, exceeds 25.00% of the aggregate amount of sales by the Originators giving rise to Receivables in the second month prior to the month of determination; plus

(c) the amount (if any) by which the aggregate Unpaid Balance of all Eligible Receivables with respect to which, as of such date, any payment, or any part thereof, remains unpaid 61 days or more, but not more than 90 days, from the original due date thereof, exceeds 25.00% of the aggregate amount of sales by the Originators giving rise to Receivables in the third month prior to the month of determination; plus

(d) the amount (if any) by which (i) the aggregate Unpaid Balance of all Eligible Receivables with a maturity greater than 60 days but less than 121 days exceeds (ii) an amount equal to 17.50% multiplied by the Aggregate Unpaid Balance at such time, plus

(e) the amount (if any) by which (i) the aggregate Unpaid Balance of all Eligible Receivables with a maturity greater than 90 days but less than 121 days exceeds (ii) an amount equal to 7.50% multiplied by the Aggregate Unpaid Balance at such time, plus

(f) the amount (if any) by which (i) the aggregate Unpaid Balance of all Eligible Receivables originated on or after April 1st of any calendar year and payable on or prior to October 15th of such calendar year to an Obligor designated as an "Agricultural Receivable Eligible Obligor" by the SPV with the consent of the Agent exceeds (ii) an amount equal to 10.00% multiplied by the Aggregate Unpaid Balance at such time, plus

(g) the amount (if any) by which (i) the aggregate Unpaid Balance of all Eligible Receivables with foreign (non-U.S. and Canada) Obligors (denominated in Dollars) exceeds (ii) an amount equal to 5.00% multiplied by the Aggregate Unpaid Balance at such time.

"Excluded Amounts" is defined in Section 4.1(s).

"Excluded Taxes" means, with respect to the Managing Agent, any Investor, any other Secured Party, or any other recipient of any payment to be made by or on account of any obligation of a payor hereunder, (a) taxes imposed on or measured by its overall net income (however denominated), and franchise taxes imposed on it (in lieu of net income taxes), by the jurisdiction (or any political subdivision thereof) under the Laws of which such recipient is organized or in which its principal office is located

or, in the case of any Investor, in which its applicable Funding Office is located, (b) any branch profits taxes imposed by the United States or any similar tax imposed by any other jurisdiction in which the payor is located and U.S. federal backup withholding, (c) in the case of a Foreign Investor, any withholding tax that is imposed on amounts payable to such Foreign Investor at the time such Foreign Investor becomes a party hereto (or designates a new Funding Office) or is attributable to such Foreign Investor's failure or inability (other than as a result of a Change in Law) to comply with Section 9.5, except to the extent that such Foreign Investor (or its assignor, if any) was entitled, at the time of designation of a new Funding Office (or assignment), to receive additional amounts from the SPV with respect to such withholding tax pursuant to Section 9.4 and (d) any U.S. federal withholding taxes imposed under FATCA.

"Existing Agreement" is defined in the preliminary statements.

"Existing Agreement Closing Date" means September 28, 2016.

"Existing Agreement Outstanding Amounts" is defined in the preliminary statements.

"Existing First Tier Agreement" means that certain second amended and restated sale agreement, dated as of September 28, 2016, between the SPV and the Originators party thereto.

"Existing Law" means (a) the final rule title "Risk-Based Capital Guidelines: Capital Adequacy Guidelines: Capital Maintenance: Regulatory Capital: Impact of Modifications to Generally Accepted Accounting Principles: Consolidation of Asset-Backed Commercial Paper Programs: and Other Related Issues," adopted by the United States bank regulatory agencies on December 15, 2009 (the "FAS 166/167 Capital Guidelines"); (b) the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd Frank Act"); (c) the revised Basel Accord prepared by the Basel Committee on Banking Supervision as set out in the publication entitled "Basel II: International Convergence of Capital Measurements and Capital Standards: A Revised Framework" (as updated from time to time, "Basel II"); (d) the agreements reached by the Basel Committee on Banking Supervision in "Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems" (as amended, supplemented or otherwise modified or replaced from time to time, "Basel III"); or (e) any rules, regulations, guidance, interpretations, directives or requests from any Official Body relating to, or implementing the FAS 166/167 Capital Guidelines, the Dodd-Frank Act, Basel II or Basel III (whether or not having the force of law).

"Expected Dilution Ratio" means, for any Calculation Period, the average of the Dilution Ratios for the 12 calendar months ending on the most recent Month End Date.

"Extended Term Receivable" means any Eligible Receivable with a maturity greater than 60 days but less than 121 days.

"Facility Fee" is defined in the Fee Letter.

"Facility Limit" means at any time $275,000,000, as such amount may be increased in accordance with Section 2.17 or reduced in accordance with Section 2.16 or 2.17; *provided* that such amount may not at any time exceed the aggregate Commitments then in effect.

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof and any agreements entered into pursuant to Section 1471(b)(1) of the Code.

"Federal Funds Rate" means, for any day, the rate per annum (rounded upwards, if necessary, to the nearest 1/100 of 1%) equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers on such day, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; *provided* that (a) if such day is not a Business Day, the Federal Funds Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (b) if no such rate is so published on such next succeeding Business Day, the Federal Funds Rate for such day shall be the average rate charged to the applicable Managing Agent on such day on such transactions as determined by it.

"Fee Letter" means, as applicable, (i) the confidential letter agreement among the SPV, the Agent and the Managing Agent for each Investor Group and (ii) each confidential letter agreement entered into by the SPV, the Agent and any Managing Agent for an Investor Group that becomes a party to this Agreement on or after the Closing Date.

"Final Payout Date" means the date, after the Termination Date, on which the Net Investment has been reduced to zero, all accrued Servicing Fees have been paid in full and all other Aggregate Unpaids have been paid in full in cash.

"First Tier Agreement" means the Third Amended and Restated Sale Agreement, dated as of the Closing Date, among the Originators and the SPV.

"Foreign Investor" means (a) if the SPV is a U.S. Person, an Investor that is not a U.S. Person, and (b) if the SPV is not a U.S. Person, an Investor that is a resident or organized under the laws of a jurisdiction other than that in which the SPV is resident for tax purposes.

"Funding Office" of an Investor means the office from which such Investor funds its Investment.

"GAAP" means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such accounting profession, in effect from time to time.

"GP Originator" is defined in the Preamble.

"Greif Guaranty" or "Guaranty" means the Third Amended and Restated Guaranty dated as of the date hereof (as hereafter amended, supplemented or restated) delivered by Greif, Inc. to the Persons named therein in relation to the obligations of the Originators and the Servicer under the Transaction Documents.

"Group A Obligor" means any Obligor (or, if such Obligor is not rated, its parent company) with a short-term rating of at least: (a) "A-1" by S&P, or if such Obligor (or, if applicable, such parent company) does not have a short-term rating from S&P, a long-term rating of "A+" or better by S&P, and (b) "P-1" by Moody's, or if such Obligor (or, if applicable, such parent company) does not have a short-term rating from Moody's, a long-term rating of "A1" or better by Moody's.

"Group B Obligor" means any Obligor that is not a Group A Obligor, which Obligor (or, if such Obligor is not rated, its parent company) has a short-term rating of at least: (a) "A-2" by S&P, or if such Obligor does not have a short-term rating from S&P, a long-term rating of "BBB+" to "A" by S&P, and (b) "P-2" by Moody's, or if such Obligor (or, if applicable, such parent company) does not have a short-term rating from Moody's, a long-term rating of "Baa1" to "A2" by Moody's.

"Group C Obligor" means any Obligor that is not a Group A Obligor or Group B Obligor, which Obligor (or, if such Obligor is not rated, its parent) has a short-term rating of at least: (a) "A-3" by S&P, or if such Obligor does not have a short-term rating from S&P, a long-term rating of "BBB-" to "BBB" by S&P, and (b) "P-3" by Moody's, or if such Obligor (or, if applicable, such parent company) does not have a short-term rating from Moody's, a long-term rating of "Baa3" to "Baa2" by Moody's.

"Group D Obligor" means any Obligor that is not a Group A Obligor, Group B Obligor or Group C Obligor.

"Guarantee" means, with respect to any Person, (a) any obligation, contingent or otherwise, of such Person guaranteeing or having the economic effect of guaranteeing any Indebtedness or other obligation payable or performable by another Person (the "primary obligor") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness or other obligation, (ii) to purchase or lease property, securities or services for the purpose of assuring the obligee in respect of such Indebtedness or other obligation of the payment or performance of such Indebtedness or other obligation, (iii) to maintain working capital, equity capital or any other financial statement condition or liquidity or level of income or cash flow of the primary obligor so as to enable the primary obligor to pay such Indebtedness or other obligation, or (iv) entered into for the purpose of assuring in any other manner the obligee in respect of such Indebtedness or other obligation of the payment or performance thereof or to protect such obligee against loss in respect thereof (in whole or in part), or (b) any Lien on any assets of such Person securing any Indebtedness or other obligation of any other Person, whether or not such Indebtedness or other obligation is assumed by such Person (or any right, contingent or otherwise, of any holder of such Indebtedness to obtain any such Lien). The amount of any Guarantee shall be deemed to be an amount equal to the stated or determinable amount of the related primary obligation, or portion thereof, in respect of which such Guarantee is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by the guaranteeing Person in good faith. The term "Guarantee" as a verb has a corresponding meaning.

"Increase Amount" is defined in Section 2.17.

"Indebtedness" means, as to any Person at a particular time, without duplication, all of the following, whether or not included as indebtedness or liabilities in accordance with GAAP:

(a) all obligations of such Person for borrowed money and all obligations of such Person evidenced by bonds, debentures, notes, loan agreements or other similar instruments;

(b) the maximum amount of all direct or contingent obligations of such Person arising under letters of credit (including standby and commercial), bankers' acceptances, bank guaranties, surety bonds and similar instruments;

(c) net obligations of such Person under any Swap Contract;

(d) all obligations of such Person to pay the deferred purchase price of property or services (other than trade accounts and other accrued liabilities incurred payable in the ordinary course of business);

(e) indebtedness (excluding prepaid interest thereon) secured by a Lien on property owned or being purchased by such Person (including indebtedness arising under conditional sales or other title retention agreements), whether or not such indebtedness shall have been assumed by such Person or is limited in recourse;

(f) all Attributable Indebtedness in respect of Capitalized Leases, Synthetic Lease Obligations and Synthetic Debt of such Person; and

(g) all Guarantees of such Person in respect of any of the foregoing.

For all purposes hereof, the Indebtedness of any Person shall include the Indebtedness of any partnership or joint venture (other than a joint venture that is itself a corporation, limited liability company or other entity the obligations of which are not, by operation of law, the joint or several obligations of the holders of its Equity Interests) in which such Person is a general partner or a joint venturer, unless such Indebtedness is expressly made non-recourse to such Person or such Indebtedness would not be required to be consolidated with the other Indebtedness of such Person under GAAP. The amount of any net obligation under any Swap Contract on any date shall be deemed to be the Swap Termination Value thereof as of such date.

"Indemnified Amounts" is defined in Section 9.1.

"Indemnified Parties" is defined in Section 9.1.

"Interest Component" means, at any time of determination for any Conduit Investor, the aggregate Yield accrued and to accrue through the end of the current Rate Period for the Portion of Investment accruing Yield calculated by reference to the CP Rate at such time (determined for such purpose using the CP Rate most recently determined by its Administrator).

"Investment" is defined in Section 2.2(a).

"Investment Date" is defined in Section 2.3(a).

"Investment Request" means each request substantially in the form of Exhibit C.

"Investor(s)" means the Conduit Investors, the Committed Investors and/or the Uncommitted Investors, as the context may require.

"Investor Group" means each of the following groups of Investors:

(a) BANA, as Administrator and Managing Agent, and the BANA Committed Investors from time to time party hereto (the "BANA Investor Group");

(b) MUFG, as Administrator and Managing Agent and the MUFG Committed Investors from time to time party hereto (the "MUFG Investor Group");

(c) TD Bank, as Administrator and Managing Agent, the TD Bank Conduit Investor and the TD Bank Committed Investors from time to time party hereto (the "TD Bank Investor Group"); and

(d) any Conduit Investor, its Administrator, its Managing Agent and its related Committed Investors from time to time party hereto.

"Investor Group Percentage" means, for any Investor Group, the percentage equivalent (carried out to five decimal places) of a fraction the numerator of which is the aggregate amount of the Commitments of all Committed Investors in that Investor Group and the denominator of which is the sum of such numerators for each of the Investor Groups.

"KYC Package" means the documentation and other information requested by any Agent-Related Person in any KYC Request.

"KYC Request" means any reasonable request of any Agent-Related Person for documentation and other information so requested in connection with applicable "know your customer" and anti-money-laundering rules and regulations, including the PATRIOT Act.

"Law" means any law (including common law), constitution, statute, treaty, regulation, rule, ordinance, order, injunction, writ, decree, judgment or award of any Official Body.

"LIBOR Screen Rate" is defined in the definition of "Offshore Base Rate".

"LIBOR Successor Rate" is defined in Section 2.4(c).

"LIBOR Successor Rate Conforming Changes" means, with respect to any proposed LIBOR Successor Rate, any conforming changes to the definition of Base Rate, Offshore Base Rate, Rate Period and any related definitions, timing and frequency of determining rates and making payments of interest and other administrative matters as may be appropriate, in the discretion of the Agent in consultation with the SPV, to reflect the adoption of such LIBOR Successor Rate and to permit the administration thereof by the Agent in a manner substantially consistent with market practice (or, if the Agent determines that adoption of any portion of such market practice is not administratively feasible or that no market practice for the administration of such LIBOR Successor Rate exists, in such other manner of administration as the Agent determines in consultation with the SPV).

"Lien" means any mortgage, pledge, hypothecation, assignment, encumbrance, lien (statutory or other), charge, or preference, priority or other security interest or preferential arrangement in the nature of a security interest of any kind or nature whatsoever (including any conditional sale or other title retention agreement and any financing lease having substantially the same economic effect as any of the foregoing).

"Loss Horizon Ratio" means, for any Calculation Period, the quotient, expressed as a percentage, of (a) the aggregate initial Unpaid Balance of Eligible Receivables which arose during the four most recent Calculation Periods, divided by (b) the Net Pool Balance as of the most recent Month End Date.

"Loss Reserve Ratio" means, for any Calculation Period, the product, expressed as a percentage, of (a) the Stress Factor, (b) the highest three-month average, during the twelve-month period ending on the most recent Month End Date, of the Default Ratio and (c) the Loss Horizon Ratio for such Calculation Period.

"Majority Investors" means, (i) at any time there are two or fewer Committed Investors, all Committed Investors, (ii) at any time there are three Committed Investors, at least two such Committed Investors that hold Commitments aggregating in excess of fifty percent (50**%)** of the Facility Limit as of such date (or, if the Commitments shall have been terminated, the Investors whose aggregate pro rata shares of the Net Investment exceed fifty percent (50**%)** of the Net Investment) and (iii) at any time there are four or more Committed Investors, those Committed Investors that hold Commitments aggregating in excess of fifty percent (50**%)** of the Facility Limit as of such date (or, if the Commitments shall have been terminated, the Investors whose aggregate pro rata shares of the Net Investment exceed fifty percent (50**%)** of the Net Investment); *provided* that, in each of the cases of clauses (ii) and (iii), at any time BANA is the Agent hereunder, the BANA Committed Investors must be among the Majority Investors.

"Managing Agent" means, with respect to any Investor Group, the Person acting as Managing Agent for such Investor Group and designated as such on the signature pages hereto or in any Assignment and Assumption Agreement for such Investor Group under this Agreement, and each of its successors and assigns.

"Material Adverse Effect" means any change, effect, event, occurrence, state of facts or development that materially and adversely affects (a) the collectibility of a material portion of the Receivables, (b) the operations, business, properties, liabilities (actual or contingent), or condition (financial or otherwise) of the SPV individually or Greif, Inc. and its consolidated Subsidiaries (taken as a whole), (c) the ability of any of the SPV, the Servicer or any of the Originators to perform its respective material obligations under the Transaction Documents to which it is a party, or (d) the rights of or benefits available to the Agent, the Managing Agents or the Investors under the Transaction Documents.

"Material Subsidiary" has the meaning assigned to such term in the Senior Credit Agreement.

"Maximum Commitment" means, as of any date of determination, the sum of the maximum Commitments of all Committed Investors hereunder.

"Maximum Net Investment" means, at any time, an amount equal to the Facility Limit.

"Measurement Period" means, at any date of determination, the most recently completed four fiscal quarters of Greif, Inc. or any other Originator, as applicable.

"Minimum Dilution Reserve" means, at any time, the product (expressed as a percentage) of (a) the Expected Dilution Ratio and (ii) the Dilution Horizon Ratio.

"Minimum Reserve Ratio" means, for any Calculation Period, the sum, expressed as a percentage, of (a) the Minimum Dilution Reserve and (b) the Concentration Reserve.

"Month End Date" means the last day of each calendar month.

"Moody's" means Moody's Investors Service, Inc., or any successor that is a nationally recognized statistical rating organization.

"MUFG" means MUFG Bank, Ltd..

"MUFG Administrator" means MUFG, as administrator for the MUFG Investor Group.

"MUFG Committed Investor" means the financial institution party to this Agreement as a Committed Investor for the MUFG Investor Group.

"MUFG Investor Group" is defined in the definition of "Investor Group".

"Multiemployer Plan" is defined in Section 4001(a)(3) of ERISA.

"Net Investment" at any time means (a) the cash amounts paid to the SPV pursuant to Sections 2.2 and 2.3, together with the amount of any funding under a Program Support Agreement allocated to the Interest Component at the time of such funding less (b) the aggregate amount of Collections theretofore received and applied by the Agent to reduce such Net Investment pursuant to Section 2.12; *provided* that the Net Investment shall be restored and reinstated in the amount of any Collections so received and applied if at any time the distribution of such Collections is rescinded or must otherwise be returned for any reason; and *provided further* that the Net Investment shall be increased by the amount described in Section 3.1(b) as described therein.

"Net Pool Balance" means, at any time, (a) the Aggregate Unpaid Balance at such time, minus (b) the Excess Concentration, minus, (c) solely if Greif, Inc.'s corporate family rating is below "BB" by S&P or "Ba2" by Moody's, Offset Payables.

"Newark Originator" is defined in the Preamble.

"Notice Letter Agreement" means the letter agreement, dated as of the date hereof, among the parties hereto, setting forth certain notice and account information.

"Obligor" means, with respect to any Receivable, the Person obligated to make payments in respect of such Receivable pursuant to a Contract.

"OFAC" is defined in the definition of "Sanctioned Person".

"Official Body" means any government, supra-national body or political subdivision or any agency, authority, bureau, central bank, commission, department or instrumentality of any such government or political subdivision, or any court, tribunal, grand jury or arbitrator, or any accounting board or authority (whether or not a part of government) which is responsible for the establishment or interpretation of national or international accounting principles, in each case whether foreign or domestic.

"Offset Payables" means sum for each Eligible Receivable of the portion of the Unpaid Balance of such Eligible Receivable that is subject to offsets and holdbacks; *provided*, that for such purpose, "Offset Payables" shall be calculated without duplication of clause (g)(ii) of the definition of "Eligible Receivable".

"Offshore Base Rate" means, for any Rate Period:

(i) the rate per annum (carried out to the fifth decimal place) equal to the rate determined by the Agent to be the offered rate that appears on the page of the applicable Bloomberg screen page at 11:00 a.m. (London time) on the day that is two Business Days prior to the first day of such Rate Period that displays the London interbank offered rate administered by ICE Benchmark Administration Limited (such page currently

being LIBOR01, the "LIBOR Screen Rate") for deposits in United States dollars with a term equivalent to one month;

(ii) in the event the rate referenced in the preceding subsection (i) does not appear on such page or service or such page or service shall cease to be available, the rate per annum (carried to the fifth decimal place) equal to the rate determined by the Agent to be the offered rate on the day that is two Business Days prior to the first day of such Rate Period on such other page or other service that displays the London interbank offered rate administered by ICE Benchmark Administration Limited for deposits in United States dollars with a term equivalent to one month; or

(iii) in the event the rates referenced in the preceding subsections (i) and (ii) are not available, the rate per annum determined by the Agent on the day that is two Business Days prior to the first day of such Rate Period as the rate of interest at which Dollar deposits in same day funds in the approximate amount of the applicable investment to be funded by reference to the Offshore Rate and with a term equivalent to one month would be offered by its London Branch to major banks in the London interbank eurodollar market at their request.

"Offshore Rate" means, for any day during any Rate Period, a rate per annum determined by the applicable Managing Agent pursuant to the following formula:

$$\text{OffshoreRate} = \frac{\text{OffshoreBaseRate}}{1.00 - \text{EurodollarReservePercentage}}$$

"Originator" is defined in the Preamble.

"PATRIOT Act" is defined in Section 11.15.

"Pension Plan" means an employee pension benefit plan as defined in Section 3(2) of ERISA, which is subject to Title IV of ERISA (other than a Multiemployer Plan) and to which any Originator, the SPV or an ERISA Affiliate of any of them may have any liability, including any liability by reason of having been a substantial employer within the meaning of Section 4063 of ERISA or by reason of being deemed to be a contributing sponsor under Section 4069 of ERISA.

"Person" means an individual, partnership, limited liability company, corporation, joint stock company, trust (including a business trust), unincorporated association, joint venture, firm, enterprise, Official Body or any other entity.

"PNC Assignment" means that certain Assignment, Assumption and Resignation Agreement dated as of September 28, 2016, by and among, PNC Bank, National Association, as assignor, Cooperatieve Rabobank U.A., New York Branch, as assignee, the SPV, the GP Originator and the Servicer.

"Portion of Investment" is defined in Section 2.4(a).

"Potential Termination Event" means an event which but for the lapse of time or the giving of notice, or both, would constitute a Termination Event.

"Prior Assignments" means the Bank of America Assignment, the PNC Assignment and the Rabobank Assignment.

"Pro Rata Share" means, with respect to a Committed Investor and a particular Investor Group at any time, the Commitment of such Committed Investor, divided by the sum of the Commitments of all Committed Investors in such Investor Group (or, if the Commitments shall have been terminated, its pro rata share of the Net Investment funded by such Investor Group).

"Program Fee" is defined in the Fee Letter.

"Program Support Agreement" means and includes, with respect to any Conduit Investor, any agreement entered into by any Program Support Provider providing for the issuance of one or more letters of credit for the account of the Conduit Investor (or any related commercial paper issuer that finances the Conduit Investor), the issuance of one or more surety bonds for which the Conduit Investor (or such related issuer) is obligated to reimburse the applicable Program Support Provider for any drawings thereunder, the sale by the Conduit Investor (or such related issuer) to any Program Support Provider of the Asset Interest (or portions thereof or participations therein) and/or the making of loans and/or other extensions of credit to the Conduit Investor (or such related issuer) in connection with its commercial paper program, together with any letter of credit, surety bond or other instrument issued thereunder.

"Program Support Provider" means and includes, with respect to any Conduit Investor, any Person now or hereafter extending credit or having a commitment to extend credit to or for the account of, or to make purchases from, the Conduit Investor (or any related commercial paper issuer that finances the Conduit Investor) or issuing a letter of credit, surety bond or other instrument to support any obligations arising under or in connection with the Conduit Investor's (or such related issuer's) commercial paper program.

"Rabobank Assignment" means that certain Assignment, Assumption and Resignation Agreement dated as of September 24, 2019, by and among, Cooperative Rabobank U.A., New York Branch, as assignor, Bank of America, N.A., as assignee, the SPV, the GP Originator and the Servicer.

"Rate Period" means with respect to any Portion of Investment (a) initially the period commencing on (and including) the date of the initial purchase or funding of such Portion of Investment and ending on (but excluding) the next following Settlement Date, and (b) thereafter, each period commencing on (and including) a Settlement Date and ending on (but excluding) the next following Settlement Date; *provided* that

(A) any Rate Period with respect to any Portion of Investment that would otherwise end on a day which is not a Business Day shall be extended to the next succeeding Business Day; *provided* that if Yield in respect of such Rate Period is computed by reference to the Offshore Rate, and such Rate Period would otherwise end on a day which is not a Business Day, and there is no subsequent Business Day in the same calendar month as such day, such Rate Period shall end on the next preceding Business Day; and

(B) in the case of any Rate Period for any Portion of Investment that commences before the Termination Date and would otherwise end on a date occurring after the Termination Date, such Rate Period shall end on such Termination Date and the duration of each Rate Period which commences on or after the Termination Date shall be of such duration as shall be selected by such Managing Agent.

"Rate Type" means the Offshore Rate, the Base Rate or the CP Rate.

"Receivable" means any right to payment owed by any Obligor or evidenced by a Contract arising in connection with the sale of goods or the rendering of services by an Originator or any right of an Originator or the SPV to payment from or on behalf of an Obligor, in respect of any scheduled payment of interest, principal or otherwise under a Contract, or any right to reimbursement for funds paid or advanced by an Originator or the SPV on behalf of an Obligor under such Contract, whether constituting an account, chattel paper, instrument, payment intangible, or general intangible, (whether or not earned by performance), together with all supplemental or additional payments required by the terms of such Contract with respect to insurance, maintenance, ancillary products and services and any other specific charges (including the obligation to pay any finance charges, fees and other charges with respect thereto), other than a Retained Receivable.

"Recipient" is defined in Section 2.10.

"Records" means all Contracts and other documents, purchase orders, invoices, agreements, books, records and any other media, materials or devices for the storage of information (including tapes, disks, punch cards, computer programs and databases and related property) maintained by the SPV, any Originator or the Servicer with respect to the Receivables, any other Affected Assets or the Obligors.

"Register" is defined in Section 11.8.

"Reinvestment" is defined in Section 2.2(b).

"Reinvestment Period" means the period commencing on the Closing Date and ending on the Termination Date.

"Related Committed Investor" means, with respect to any Uncommitted Investor, the Committed Investors in such Uncommitted Investor's Investor Group.

"Related Security" means, with respect to any Receivable, all of the applicable Originator's (without giving effect to any transfer under the First Tier Agreement) or the SPV's rights, title and interest in, to and under:

(a) any goods (including returned or repossessed goods) and documentation or title evidencing the shipment or storage of any goods relating to any sale giving rise to such Receivable;

(b) all other Liens and property subject thereto from time to time, if any, purporting to secure payment of such Receivable, whether pursuant to the related Contract or otherwise, together with all financing statements and other filings authorized by an Obligor relating thereto;

(c) all guarantees, indemnities, warranties, letters of credit, insurance policies and proceeds and premium refunds thereof and other agreements or arrangements of any kind from time to time supporting or securing payment of such Receivable, whether pursuant to the Contract related to such Receivable or otherwise;

(d) all records, instruments, documents and other agreements (including any Contract with respect thereto) related to such Receivable;

(e) all Collections with respect to such Receivable and all of the SPV's or the applicable Originator's right, title and interest in and to any deposit or other account (including the Blocked Accounts and the Collection Account) into which such Collections may be deposited or received; and

(f) all proceeds of the foregoing.

"Relevant Governmental Body" means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York for the purpose of recommending a benchmark rate to replace LIBOR in facilities similar to this Agreement.

"Reportable Event" means any event, transaction or circumstance which is required to be reported with respect to any Pension Plan under Section 4043 of ERISA and the applicable regulations thereunder.

"Reporting Date" is defined in Section 2.8.

"Required Reserves" at any time means the product of (x) the Net Pool Balance and (y) the greater of (I) 13.00% and (II) the sum of (a) the Yield Reserve Ratio, plus (b) the Servicing Fee Reserve Ratio, plus (c) the greater of (i) the sum of the Loss Reserve Ratio and the Dilution Reserve Ratio and (ii) the Minimum Reserve Ratio, each as in effect at such time.

"Responsible Officer" means: (a) in the case of a corporation, its president, senior vice president, executive vice president or treasurer, and, in any case where two Responsible Officers are acting on behalf of such corporation, the second such Responsible Officer may be a secretary or assistant secretary; (b) in the case of a limited partnership, the Responsible Officer of the general partner, acting on behalf of such general partner in its capacity as general partner; and (c) in the case of a limited liability company, the chairman, chief executive officer, president, chief operating officer, chief financial officer, executive vice president, senior vice president or treasurer of such limited liability company or of the manager, managing member or sole member of such limited liability company, acting on behalf of such manager, managing member or sole member in its capacity as manager, managing member or sole member.

"Restricted Payments" is defined in Section 6.2(l).

"Retained Receivable" has the meaning provided in the First Tier Agreement.

"S&P" means Standard & Poor's Ratings Services, a division of The McGraw-Hill Companies, Inc., or any successor that is a nationally recognized statistical rating organization.

"Sanctioned Country" is defined in the definition of "Sanctioned Person".

"Sanctioned Person" means a Person that is, or is owned more than 50% or otherwise controlled by Persons that are: (i) listed in any Sanctions related list of designated Persons that is published publicly and maintained by the U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC"), the U.S. Department of State, the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authority of a jurisdiction in which a Seller Party is located (collectively, "Sanctions"), or (ii) located, organized, operating or resident in a country or territory that is, or whose government is, the subject or target of Sanctions (a "Sanctioned Country").

"Sanctions" is defined in the definition of "Sanctioned Person".

"Scheduled Unavailability Date" is defined in Section 2.4(c).

"Seasonal Facility Limit Increase" is defined in Section 2.17.

"Seasonal Facility Limit Increase Request" is defined in Section 2.17.

"Seasonal Period" is defined in Section 2.17.

"Secured Parties" means the Investors, the Agent, each Managing Agent, each Administrator and the Program Support Providers.

"Seller Parties" means the SPV, each Originator, the initial Servicer, and Greif, Inc.

"Senior Credit Agreement" means:

(a) the Amended and Restated Credit Agreement dated as of February 11, 2019 (as amended, restated, supplemented or otherwise modified and in effect from time to time), by and mong Greif, Inc., a Delaware corporation, Greif Packaging LLC, a Delaware limited liability company, Greif UK International Holding Ltd., a private limited liability company incorporated and existing under the laws of the United Kingdom, Greif International Holding, B.V., a private limited liability company (*besloten vennootschap met beperlite aansprakelijkheid*) incorporated and existing under the laws of The Netherlands with statutory seat in Amstelveen, Greif Luxembourg Holding S.A R.L., a Luxembourg private limited liability company (societe a responsabilite limitee), organized under the laws of the Grand Duchy of Luxembourg, having its registered office at 12C, rue Guillaume Kroll, L-1882 Luxembourg, Grand Duchy of Luxembourg, and registered with the Luxembourg Register of Commerce and Companies (R.C.S. Luxembourg) and certain other wholly-owned subsidiaries of Greif, Inc. party thereto, each lender from time to time party thereto, and JPMorgan Chase Bank, National Association, as administrative agent and letter of credit issuer; or

(b) if the agreement referred to in paragraph (a) is terminated or cancelled, any secured or unsecured revolving credit or term loan agreement between or among Greif, Inc., as borrower, and any bank or banks or financial institutions, as lenders(s), for borrowed monies to be used for general corporate purposes of Greif, Inc. and/or its Subsidiaries, with an original term of not less than 3 years and an original aggregate loan commitment of at least U.S.$250,000,000 or the equivalent thereof in any other currency and, if there is more than one such revolving credit or term loan agreement, then such agreement which involves the greatest original aggregate loan commitment(s) and, as between agreements having the same aggregate original loan commitment(s), then the one which has the most recent date; or

(c) if the agreement referred to in paragraph (a) above and all agreements, if any, which apply under paragraph (b) have been terminated or cancelled, then so long as paragraph (b) does not apply as the result of one or more new agreements being entered into, the agreement which is the last such agreement under paragraph (a) or (b) to be so terminated or cancelled as in effect (for purposes of this definition) pursuant to such paragraphs immediately prior to such termination or cancellation.

"Servicer" is defined in the Preamble.

"Servicer Default" is defined in Section 7.5.

"Servicer Indemnified Amounts" is defined in Section 9.2.

"Servicer Indemnified Parties" is defined in Section 9.2.

"Servicer Report" means a report, in substantially the form attached hereto as Exhibit D or in such other form as is mutually agreed to by the SPV, the Servicer and the Agent, furnished by the Servicer pursuant to Section 2.8.

"Servicing Fee" means the fees payable to the Servicer from Collections, in an amount equal to either (i) at any time when the Servicer is an Affiliate of Greif, Inc., 1.0% per annum on the weighted daily average of the aggregate Unpaid Balances of the Receivables for the preceding calendar month, or (ii) at any time when the Servicer is not an Affiliate of Greif, Inc., the amount determined upon the agreement of the Servicer, and the Agent, payable in arrears on each Settlement Date from Collections pursuant to, and subject to the priority of payments set forth in, Section 2.12. With respect to any Portion of Investment, the Servicing Fee allocable thereto shall be equal to the Servicing Fee determined as set forth above, times a fraction, the numerator of which is the amount of such Portion of Investment and the denominator of which is the Net Investment.

"Servicing Fee Reserve Ratio" means, at any time, the quotient, expressed as a percentage, of (a) the product of (i) 1.5 times (ii) the current Servicing Fee rate, times (iii) the Days Sales Outstanding in effect on such date, divided by (b) the number of days in the calendar year in which such Servicing Fee rate is calculated (i.e., 365/366).

"Settlement Date" means (a) prior to the Termination Date, the 17th day of each calendar month (or, if such day is not a Business Day, the immediately succeeding Business Day) or such other day as agreed upon in writing by the SPV and the Agent,

after consultation with the Managing Agents, and (b) for any Portion of Investment on and after the Termination Date, each day selected from time to time by the Agent, after consultation with the Managing Agents (it being understood that the Agent may select such Settlement Date to occur as frequently as daily) or, in the absence of any such selection, the date which would be the Settlement Date for such Portion of Investment pursuant to clause (a) of this definition.

"SOFR" with respect to any day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York's website (or any successor source) and, in each case, that has been selected or recommended by the Relevant Governmental Body.

"SOFR-Based Rate" means SOFR or Term SOFR.

"Solvent" has the meaning provided in the First Tier Agreement.

"Special Concentration Percentage" means, for any Special Obligor, the "Special Concentration Percentage" assigned to such Special Obligor and agreed to in writing by the agent, the Majority Investors and the SPV substantially in the form of Exhibit G hereto.

"Specified Account" means the "Specified Account" set forth on Schedule 4.1(s) to the Disclosure Letter.

"Special Obligor" means any Obligor designated as a "Special Obligor" after the Closing Date by the Agent and the SPV pursuant to a written notice substantially in the form of Exhibit G hereto; *provided* that the Agent and the Majority Investors may revoke the designation of any Obligor as a Special Obligor at any time upon two (2) Business Days' prior written notice to the SPV.

"Stress Factor" means 2.0.

"SPV" is defined in the Preamble.

"Subsidiary" means, with respect to any Person, any corporation or other Person (a) of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other Persons performing similar functions are at the time directly or indirectly owned by such Person or (b) that is directly or indirectly controlled by such Person within the meaning of control under Section 15 of the Securities Act of 1933.

"Swap Contract" means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a "Master Agreement"), including any such obligations or liabilities under any Master Agreement.

"Swap Termination Value" means, in respect of any one or more Swap Contracts, after taking into account the effect of any legally enforceable netting agreement relating to such Swap Contracts, (a) for any date on or after the date such Swap Contracts have been closed out and termination value(s) determined in accordance therewith, such termination value(s), and (b) for any date prior to the date referenced in clause (a), the amount(s) determined as the mark-to-market value(s) for such Swap Contracts, as determined based upon one or more mid-market or other readily available quotations provided by any recognized dealer in such Swap Contracts.

"Synthetic Debt" means, with respect to any Person as of any date of determination thereof, all obligations of such Person in respect of transactions entered into by such Person that are intended to function primarily as a borrowing of funds (including any minority interest transactions that function primarily as a borrowing) but are not otherwise included in the definition of "Indebtedness" or as a liability on the consolidated balance sheet of such Person and its Subsidiaries in accordance with GAAP.

"Synthetic Lease Obligation" means the monetary obligation of a Person under (a) a so-called synthetic, off-balance sheet or tax retention lease, or (b) an agreement for the use or possession of property (including sale and leaseback transactions), in each

case, creating obligations that do not appear on the balance sheet of such Person but which, upon the application of any Debtor Relief Laws to such Person, would be characterized as the indebtedness of such Person (without regard to accounting treatment).

"Tama Originator" is defined in the Preamble.

"Taxes" is defined in Section 9.4(a).

"TD Bank" means The Toronto Dominion Bank.

"TD Bank Administrator" means TD Bank or an Affiliate thereof, as administrator for the TD Bank Investor Group.

"TD Bank Committed Investor" means the financial institution party to this Agreement as a TD Bank Committed Investor.

"TD Bank Conduit Investor" means Reliant Trust.

"TD Bank Investor Group" is defined in the definition of "Investor Group".

"Term SOFR" means the forward-looking term rate for any period that is approximately (as determined by the Agent") as long as any of the Rate Period options set forth in the definition of "Rate Period" and that is based on SOFR and that has been selected or recommended by the Relevant Governmental Body, in each case as published on an information service as selected by the Agent from time to time in its reasonable discretion.

"Termination Date" means the earliest of (a) the Business Day designated by the SPV to the Agent and the Managing Agents as the Termination Date at any time following not less than five (5) days' written notice to the Agent and the Managing Agents, (b) the day upon which the Termination Date is declared or automatically occurs pursuant to Section 8.2 and (c) the Commitment Termination Date.

"Termination Event" is defined in Section 8.1.

"Three-Month Days Sales Outstanding" means, for any Calculation Period, the average of the Days Sales Outstanding for such Calculation Period and each of the two immediately preceding Calculation Periods.

"Three-Month Default Ratio" means, for any Calculation Period, the average of the Default Ratio for such Calculation Period and each of the two immediately preceding Calculation Periods.

"Three-Month Delinquency Ratio" means, for any Calculation Period, the average of the Delinquency Ratio for such Calculation Period and each of the two immediately preceding Calculation Periods.

"Transaction Costs" is defined in Section 9.6(a).

"Transaction Documents" means, collectively, this Agreement, the First Tier Agreement, the Fee Letters, the Blocked Account Agreements, Guaranty, each Assignment and Assumption Agreement, the Disclosure Letter, the Notice Letter Agreement and all of the other instruments, documents and other agreements executed and delivered by the Servicer, any Originator or the SPV in connection with any of the foregoing.

"Two-Month Dilution Ratio" means, for any Calculation Period, the average of the Dilution Ratio for such Calculation Period and the immediately preceding Calculation Period.

"UCC" means the Uniform Commercial Code as in effect in the applicable jurisdiction or jurisdictions.

"Uncommitted Investor" means (a) the TD Bank Conduit Investor and (b) any other Conduit Investor designated as an "Uncommitted Investor" for any Investor Group and any of their respective Conduit Assignees.

"Unpaid Balance" of any Receivable means at any time the unpaid principal amount thereof.

"U.S." or "United States" means the United States of America.

"U.S. Person" means any Person that is a "United States Person" as defined in Section 7701(a)(30) of the Code.

"U.S. Tax Compliance Certificate" is defined in Section 9.5(iii).

“Volcker Rule” means Section 13 of the U.S. Bank Holding Company Act of 1956, as amended, and the applicable rules and regulations thereunder.

“Write-Down and Conversion Powers” means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

“Yield” means, for any Rate Period, the sum for each day in such Rate Period of:

(i) for any Portion of Investment to the extent a Conduit Investor funds such Portion of Investment through the issuance of Commercial Paper (directly or indirectly through a related commercial paper issuer) on such day,

$$CPR \times I \times \frac{D}{360}$$

(ii) for any Portion of Investment funded by a Committed Investor on such day and for any Portion of Investment to the extent a Conduit Investor will not be funding such Portion of Investment through the issuance of Commercial Paper (directly or indirectly through a related commercial paper issuer) on such day,

$$AR \times I \times \frac{D}{360}$$

where:

AR = the Alternate Rate for such Portion of Investment for such day,

CPR = the CP Rate for such Conduit Investor for such Portion of Investment for such day,

D = 1, and

I = such Portion of Investment for such day;

provided that no provision of this Agreement shall require the payment or permit the collection of Yield in excess of the maximum permitted by applicable law; and *provided further* that notwithstanding the forgoing, all computations of Yield based on the Base Rate shall be based on a year of 365 or 366 days, as applicable.

“Yield Reserve Ratio” means, as of any date of determination, the quotient, expressed as a percentage, of (a) the product of (i) 1.5 times (ii) the Days Sales Outstanding in effect on such date times (iii) the Base Rate in effect on such date (as determined by the Agent), divided by (b) the number of days in the calendar year in which such Base Rate is calculated (i.e., 365/366).

SECTION 1.2 Other Terms. All terms defined directly or by incorporation herein shall have the defined meanings when used in any certificate or other document delivered pursuant thereto unless otherwise defined therein. For purposes of this Agreement and all such certificates and other documents, unless the context otherwise requires: (a) accounting terms not otherwise defined herein, and accounting terms partly defined herein to the extent not defined, shall have the respective meanings given to them under, and shall be construed in accordance with, GAAP; (b) terms used in Article 9 of the UCC in the State of New York, and not specifically defined herein, are used herein as defined in such Article 9; (c) references to any amount as on deposit or outstanding on any particular date means such amount at the close of business on such day; (d) the words “hereof,” “herein” and “hereunder” and words of similar import refer to this Agreement (or the certificate or other document in which they are used) as a whole and not to any particular provision of this Agreement (or such certificate or document); (e) references to any Section, Schedule or Exhibit are references to Sections, Schedules and Exhibits in or to this Agreement (or the certificate or other document in which the reference is made) and references to any paragraph, subsection, clause or other subdivision within any Section or definition refer to such paragraph, subsection, clause or other subdivision of such Section or definition; (f) the term “including” means “including without limitation”; (g) references to any Law refer to that Law as amended from time to time and include any successor Law; (h) references to any agreement refer to that agreement as from time to time amended or supplemented or as the terms of such agreement are waived or modified in accordance with its terms; (i) references to any Person include that Person’s successors and permitted assigns; and (j) headings are for purposes of reference only and shall not otherwise affect the meaning or interpretation of any provision hereof.

SECTION 1.3 Computation of Time Periods. Unless otherwise stated in this Agreement, in the computation of a period of time from a specified date to a later specified date, the word "from" means "from and including", the words "to" and "until" each means "to but excluding", and the word "within" means "from and excluding a specified date and to and including a later specified date".

SECTION 1.4 Times of Day. Unless otherwise specified in this Agreement, time references are to time in New York, New York.

SECTION 1.5 Changes in GAAP. If at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Transaction Document, and either the SPV or the Majority Investors shall so request, the Agent, the Investors and the SPV shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP (subject to the approval of the Majority Investors); provided that, until so amended, (i) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (ii) the SPV shall provide to the Agent and the Investors financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP. Notwithstanding the foregoing, with respect to the accounting for leases as either operating leases or capital leases, the impact of FASB ASC 840 and FASB ASC 842 or any subsequent pronouncement having similar effect shall be disregarded.

ARTICLE II

PURCHASES AND SETTLEMENTS

SECTION 2.1 Transfer of Affected Assets; Intended Characterization. (a) Sale of Asset Interest. In consideration of the payment by each Managing Agent (on behalf of the applicable Investors in the related Investor Group as determined pursuant to Section 2.3 of the Existing Agreement and of this Agreement) of the amount of the applicable Investor Group Percentage of the initial Investment on the Existing Agreement Closing Date and each Managing Agent's agreement (on behalf of the applicable Investors as determined below) to make payments to the SPV from time to time in accordance with Sections 2.2 and 2.3 of the Existing Agreement and of this Agreement, effective upon the SPV's (or its designee's) receipt of payment for such Investment on the Existing Agreement Closing Date, the SPV sold, conveyed, transferred and assigned, and as of the Closing Date, hereby sells, conveys, transfers and assigns, to the Agent, on behalf of the Investors, (i) all Receivables existing on the Existing Agreement Closing Date or thereafter arising or acquired by the SPV from time to time prior to the date hereof under the Existing First Tier Agreement and under the First Tier Agreement, and (ii) all other Affected Assets, whether existing on the Existing Agreement Closing Date or thereafter arising at any time and acquired by the SPV under the Existing First Tier Agreement and under the First Tier Agreement.

(b) Purchase of Asset Interest. Subject to the terms and conditions hereof, the Agent (on behalf of the Investors) hereby purchases and accepts from the SPV the Receivables and all other Affected Assets sold, assigned and transferred pursuant to Section 2.1(a). The Agent's right, title and interest in and to such Receivables and all other Affected Assets (on behalf of the Investors) hereunder is herein called the "Asset Interest". Each Investment hereunder shall be made by the Investor Groups pro rata according to their respective Investor Group Percentages. The Agent shall hold the Asset Interest on behalf of the Investors in each Investor Group in accordance with the respective portions of the Net Investment funded by that Investor Group from time to time. Within each Investor Group, the Agent shall hold the applicable Investor Group Percentage of the Asset Interest on behalf of the Investors in that Investor Group in accordance with the respective outstanding portions of the Net Investment funded by them.

(c) Obligations Not Assumed. The foregoing sale, assignment and transfer does not constitute and is not intended to result in the creation, or an assumption by the Agent, the Managing Agents or any Investor, of any obligation of the SPV, any Originator, or any other Person under or in connection with the Receivables or any other Affected Asset, all of which shall remain the obligations and liabilities of the SPV and/or the Originators, as applicable.

(d) Intended Characterization; Grant of Security Interest.

(i) The SPV, the Agent, the Managing Agents and the Investors intend that the sale, assignment and transfer of the Affected Assets to the Agent (on behalf of the Investors) hereunder shall be treated as a sale for all purposes, other than accounting and federal and state income tax purposes. If notwithstanding the intent of the parties, the sale, assignment and transfer of the Affected Assets to the Agent (on behalf of the Investors) is not treated as a sale for all purposes, other than accounting and federal and state income tax purposes, the

sale, assignment and transfer of the Affected Assets shall be treated as the grant of, and the SPV hereby does grant, a security interest in the Affected Assets to secure the payment and performance of the SPV's obligations to the Agent (on behalf of the Investors) hereunder and under the other Transaction Documents or as may be determined in connection therewith by applicable Law. The SPV and Agent agree, and each Investor by acquiring an Investment or other interest in the Affected Assets agrees, to treat and report such Investment or other interests in the Affected Assets as indebtedness for U.S. federal and state income tax purposes. The SPV hereby authorizes the Agent to file financing statements naming the SPV as debtor or seller and describing as the collateral covered thereby as "all of the debtor's personal property or assets" or words to that effect, notwithstanding that such wording may be broader in scope than the collateral described in this Agreement.

(ii) The SPV hereby grants to the Agent (on behalf of the Investors) a security interest in the Accounts as additional collateral to secure the payment and performance of the SPV's obligations to the Agent (on behalf of the Investors) hereunder and under the other Transaction Documents or as may be determined in connection therewith by applicable Law.

(iii) Each of the parties hereto further expressly acknowledges and agrees that the Commitments of the Committed Investors hereunder, regardless of the intended true sale nature of the overall transaction, are financial accommodations (within the meaning of Section 365(c)(2) of the Bankruptcy Code) to or for the benefit of SPV.

SECTION 2.2 Purchase Price. Subject to the terms and conditions hereof, including Article V, in consideration for the sale, assignment and transfer of the Affected Assets by the SPV to the Agent (on behalf of the Investors) hereunder:

(a) Investments. On the Closing Date, and thereafter from time to time prior to the Termination Date, on request of the SPV in accordance with Section 2.3, each Managing Agent (on behalf of the applicable Investors as determined pursuant to Section 2.3) shall pay to the Agent, and the Agent shall pay to the SPV, the applicable Investor Group Percentage of an amount equal in each instance to the lesser of (i) the amount requested by the SPV under Section 2.3(a), and (ii) the largest amount that will not cause (A) the Net Investment to exceed the Maximum Net Investment and (B) the sum of the Net Investment and Required Reserves to exceed the Net Pool Balance. Each such payment is herein called an "Investment". Notwithstanding anything to the contrary in this Agreement, each Investor Group agrees to make the initial Investment on the Closing Date in accordance with the funds flow memorandum attached as Schedule 1.01(d) to the Disclosure Letter and agrees that, after giving effect to the making of such Investment in accordance with such funds flow memorandum, each Investor Group shall hold its Investor Group Percentage of the Net Investment.

(b) Reinvestments. On each Business Day during the Reinvestment Period, the Servicer, on behalf of the Agent (on behalf of the Managing Agents and the Investors), shall pay to the SPV, out of Collections, the amount available for Reinvestment in accordance with Section 2.12(a)(iii). Each such payment is hereinafter called a "Reinvestment". All Reinvestments with respect to the applicable Investor Group Percentage of the Asset Interest shall be made ratably on behalf of the Investors in the relevant Investor Group in accordance with the respective outstanding portions of the Net Investment funded by them.

(c) Deferred Purchase Price. On each Business Day on and after the Final Payout Date, the Servicer, on behalf of the Agent, shall pay to the SPV an amount equal to the Collections of Receivables received by the SPV less the accrued and unpaid Servicing Fee (and the SPV (or the Servicer on its behalf) shall apply such Collections in the manner described in Section 2.14).

(d) SPV Payments Limited to Collections. Notwithstanding any provision contained in this Agreement to the contrary, no Managing Agent shall, nor shall be obligated (whether on behalf of the applicable Uncommitted Investor or the Committed Investors in such Managing Agent's Investor Group) to, pay any amount to the SPV as the purchase price of Receivables pursuant to subsections (b) and (c) above except to the extent of Collections on Receivables available for distribution to the SPV in accordance with this Agreement (but without otherwise limiting any obligations under Section 2.3). Any amount that any Managing Agent (whether on behalf of the Uncommitted Investors or the Committed Investors in such Managing Agent's Investor Group) does not pay pursuant to the preceding sentence shall not constitute a claim (as defined in § 101 of the Bankruptcy Code) against or corporate obligation of such Managing Agent for any such insufficiency unless and until such amount becomes available for distribution to the SPV under Section 2.12.

SECTION 2.3 Investment Procedures.

(a) Notice. The SPV shall request an Investment hereunder, by request to the Agent (which shall promptly provide a copy to each Managing Agent) given by facsimile or e-mail in the form of an Investment Request at least one (1) Business Day prior to the proposed date of any Investment (including the initial Investment). Each such Investment Request shall specify

(i) the desired amount of such Investment (which shall be at least $1,000,000 in the aggregate for all Investor Groups or an integral aggregate multiple of $100,000 in excess thereof per Investor Group or, to the extent that the then available unused portion of the Maximum Net Investment is less than such amount, such lesser amount equal to such available unused portion of the Maximum Net Investment), and (ii) the desired date of such Investment (the "Investment Date") which shall be a Business Day.

(b) Conduit Investor Acceptance or Rejection; Investment Request Irrevocable.

(i) Each Managing Agent will promptly notify the Conduit Investors in its Investor Group and their respective Administrators of the Managing Agent's receipt of any Investment Request. If the Investment Request is received prior to the Conduit Investment Termination Date, each Conduit Investor shall instruct its Administrator to cause its Managing Agent to accept or reject such Investment Request by notice given to the SPV, its Managing Agent and the Agent by telephone or facsimile by no later than the close of its business on the Business Day following its receipt of any such Investment Request. Any rejection by a Conduit Investor shall not relieve or terminate the obligations of any Committed Investor hereunder to fund any Investment.

(ii) Each Investment Request shall be irrevocable and binding on the SPV, and the SPV shall indemnify each Investor against any loss or expense incurred by such Investor, either directly or indirectly (including, in the case of any Conduit Investor, through a Program Support Agreement) as a result of any failure by the SPV to complete such Investment, including any loss (including loss of profit) or expense incurred by the Agent, any Managing Agent or any Investor, either directly or indirectly (including, in the case of any Conduit Investor, pursuant to a Program Support Agreement) by reason of the liquidation or reemployment of funds acquired by such Investor (or the applicable Program Support Provider(s)) (including funds obtained by issuing commercial paper or promissory notes or obtaining deposits or loans from third parties) in order to fund such Investment.

(c) Committed Investor's Commitment. Subject to the satisfaction of the conditions precedent set forth in Sections 5.1 and 5.2 and the other terms and conditions hereof, each Committed Investor hereby agrees to make Investments during the period from and including the Closing Date to but not including the Commitment Termination Date in an aggregate amount up to but not exceeding the Commitment of such Committed Investor as in effect from time to time. Subject to Section 2.2(b) concerning Reinvestments, at no time will any Uncommitted Investor have any obligation to fund an Investment or Reinvestment. At all times on and after the Conduit Investment Termination Date with respect to a Conduit Investor, all Investments and Reinvestments shall be made by the Managing Agent on behalf of the Committed Investors in such Investor Group. At any time when any Uncommitted Investor has rejected a request to fund its Investor Group Percentage of an Investment, its Managing Agent shall so notify the Related Committed Investors and such Related Committed Investors shall fund their respective share of such Investment, on a pro rata basis, in accordance with their respective Pro Rata Shares. Notwithstanding anything contained in this Section 2.3(c) or elsewhere in this Agreement to the contrary, no Committed Investor shall be obligated to provide its Managing Agent or the SPV with funds in connection with an Investment in an amount that would result in the portion of the Net Investment then funded by it exceeding its Commitment then in effect (inclusive of any amounts funded by such Committed Investor under the Program Support Agreement to which it is a party). The obligation of the Committed Investors in each Investor Group to remit the applicable Investor Group Percentage of any Investment shall be several from that of the other Committed Investors in the other Investor Groups and within the each Investor Group each Committed Investor's obligation to fund its portion of the Investments shall be several from the obligations of the other Investors. The failure of any Committed Investor to so make such amount available to its Managing Agent shall not relieve any other Committed Investor of its obligation hereunder.

(d) Payment of Investment. On any Investment Date, each Uncommitted Investor or each Committed Investor, as the case may be, shall remit its share of the aggregate amount of such Investment (determined pursuant to Section 2.2(a)) to the account of the Managing Agent specified therefor from time to time by the Managing Agent by notice to such Persons by wire transfer of same day funds. Following the Managing Agent's receipt of funds from the Investors as aforesaid, the Managing Agent shall remit such funds received to the Agent, and the Agent shall remit such funds to the SPV's account at the location indicated in the Notice Letter Agreement, by wire transfer of same day funds.

(e) Managing Agent May Advance Funds. Unless a Managing Agent shall have received notice from any Investor in its Investor Group that such Person will not make its share of any Investment available on the applicable Investment Date therefor, a Managing Agent may (but shall have no obligation to) make any such Investor's share of any such Investment available to the Agent in anticipation of the receipt by the Managing Agent of such amount from the applicable Investor. Subject to Section 2.3(c), to the extent any such Investor fails to remit any such amount to its Managing Agent after any such advance by such Managing Agent on such Investment Date, such Investor, and if such Investor does not, upon the request of the applicable Managing Agent, the SPV, shall be required to pay such amount to the Agent for payment to such Managing Agent for its own account, together with interest thereon at a per annum rate equal to the Federal Funds Rate, in the case of such Investor, or the Base Rate, in the case of the SPV, to the Agent for payment to such Managing Agent (*provided* that a Conduit Investor shall have

no obligation to pay such interest amounts except to the extent that it shall have sufficient funds to pay the face amount of its Commercial Paper in full). Until such amount shall be repaid, such amount shall be deemed to be Net Investment paid by the applicable Managing Agent and such Managing Agent shall be deemed to be the owner of an interest in the Asset Interest hereunder to the extent of such Investment. Upon the payment of such amount to the Agent for payment to the applicable Managing Agent (i) by the SPV, the amount of the aggregate Net Investment shall be reduced by such amount or (ii) by such Investor, such payment shall constitute such Person's payment of its share of the applicable Investment.

SECTION 2.4 Determination of Yield and Rate Periods.

(a) From time to time, for purposes of determining the Rate Periods applicable to the different portions of the Net Investment funded by its Investor Group and of calculating Yield with respect thereto, each Managing Agent shall allocate the Net Investment allocable to its Investor Group to one or more tranches (each a "Portion of Investment"). At any time, each Portion of Investment shall have only one Rate Period and one Rate Type.

(b) Offshore Rate Protection; Illegality. (i) If any Managing Agent is unable to obtain on a timely basis the information necessary to determine the Offshore Rate for any proposed Rate Period, then:

(A) such Managing Agent shall forthwith notify its Conduit Investor or Committed Investors, as applicable, and the SPV that the Offshore Rate cannot be determined for such Rate Period, and

(B) while such circumstances exist, none of such Conduit Investor, such Committed Investors or such Managing Agent shall allocate any Portion of Investment with respect to Investments made during such period or reallocate any Portion of Investment allocated to any then existing Rate Period ending during such period, to a Rate Period with respect to which Yield is calculated by reference to the Offshore Rate.

(i) If, with respect to any outstanding Rate Period, a Conduit Investor or any Committed Investor on behalf of which a Managing Agent holds any Portion of Investment notifies such Managing Agent that it is unable to obtain matching deposits in the London interbank market to fund its purchase or maintenance of such Portion of Investment or that the Offshore Rate applicable to such Portion of Investment will not adequately reflect the cost to the Person of funding or maintaining such Portion of Investment for such Rate Period, then (A) such Managing Agent shall forthwith so notify the SPV and (B) upon such notice and thereafter while such circumstances exist none of such Managing Agent, such Conduit Investor or such Committed Investor, as applicable, shall allocate any other Portion of Investment with respect to Investments made during such period or reallocate any Portion of Investment allocated to any Rate Period ending during such period, to a Rate Period with respect to which Yield is calculated by reference to the Offshore Rate.

(ii) Notwithstanding any other provision of this Agreement, if a Conduit Investor or any of the Committed Investors, as applicable, shall notify their respective Managing Agent that such Person has determined (or has been notified by any Program Support Provider) that the introduction after the Closing Date of or any change in or in the interpretation of any Law makes it unlawful (either for such Conduit Investor, such Committed Investor or such Program Support Provider, as applicable), or any central bank or other Official Body asserts that it is unlawful for such Conduit Investor, such Committed Investor or such Program Support Provider, as applicable, to fund the purchases or maintenance of any Portion of Investment accruing Yield calculated by reference to the Offshore Rate, then (A) as of the effective date of such notice from such Person to its Managing Agent, the obligation or ability of such Conduit Investor or such Committed Investor, as applicable, to fund the making or maintenance of any Portion of Investment accruing Yield calculated by reference to the Offshore Rate shall be suspended until such Person notifies its Managing Agent that the circumstances causing such suspension no longer exist and (B) each Portion of Investment made or maintained by such Person shall either (1) if such Person may lawfully continue to maintain such Portion of Investment accruing Yield calculated by reference to the Offshore Rate until the last day of the applicable Rate Period, be reallocated on the last day of such Rate Period to another Rate Period and shall accrue Yield calculated by reference to the Base Rate (determined without regard to clause (c) of the definition thereof) or (2) if such Person shall determine that it may not lawfully continue to maintain such Portion of Investment accruing Yield calculated by reference to the Offshore Rate until the end of the applicable Rate Period, such Person's share of such Portion of Investment allocated to such Rate Period shall be deemed to accrue Yield at the Base Rate from the effective date of such notice until the end of such Rate Period.

(c) Notwithstanding anything to the contrary in this Agreement or any other Transaction Document, if the Agent determines (which determination shall be conclusive absent manifest error), or the SPV or the Majority Investors notify

the Agent (with, in the case of the Majority Investors, a copy to the SPV) that the SPV or Majority Investors (as applicable) have determined, that:

(i) adequate and reasonable means do not exist for ascertaining the Offshore Base Rate for any requested Rate Period, including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

(ii) the administrator of the LIBOR Screen Rate or an Official Body having jurisdiction over the Agent has made a public statement identifying a specific date after which the Offshore Base Rate or the LIBOR Screen Rate shall no longer be made available, or used for determining the interest rate of loans, provided that, at the time of such statement, there is no successor administrator that is satisfactory to the Agent, that will continue to provide the Offshore Base Rate after such specific date (such specific date, the "Scheduled Unavailability Date"); or

(iii) syndicated loans currently being executed, or that include language similar to that contained in this Section 2.4, are being executed or amended (as applicable) to incorporate or adopt a new benchmark interest rate to replace the Offshore Base Rate,

then, reasonably promptly after such determination by the Agent or receipt by the Agent of such notice, as applicable, the Agent and the SPV may amend this Agreement to replace the Offshore Base Rate with (x) one or more SOFR-Based Rates or (y) another alternate benchmark rate giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated syndicated facilities for such alternative benchmarks and, in each case, including any mathematical or other adjustments to such benchmark giving due consideration to any evolving or then existing convention for similar U.S. dollar denominated syndicated facilities for such benchmarks, which adjustment or method for calculating such adjustment shall be published on an information service as selected by the Agent from time to time in its reasonable discretion and may be periodically updated (the "Adjustment;" and any such proposed rate, a "LIBOR Successor Rate"), and any such amendment shall become effective at 5:00 p.m. on the fifth Business Day after the Agent shall have posted such proposed amendment to all Investors and the SPV unless, prior to such time, Majority Investors have delivered to the Agent written notice that such Majority Investors (A) in the case of an amendment to replace the Offshore Base Rate with a rate described in clause (x), object to the Adjustment; or (B) in the case of an amendment to replace the Offshore Base Rate with a rate described in clause (y), object to such amendment; provided that for the avoidance of doubt, in the case of clause (A), the Majority Investors shall not be entitled to object to any SOFR-Based Rate contained in any such amendment. Such LIBOR Successor Rate shall be applied in a manner consistent with market practice; provided that to the extent such market practice is not administratively feasible for the Agent, such LIBOR Successor Rate shall be applied in a manner as otherwise reasonably determined by the Agent.

If no LIBOR Successor Rate has been determined and the circumstances under clause (i) above exist or the Scheduled Unavailability Date has occurred (as applicable), the Agent will promptly so notify the SPV and each Investor. Thereafter, (x) the obligation of the Investors to make or maintain a Portion of Investment with an interest rate equal to the Offshore Rate shall be suspended (to the extent of the affected Portion of Investment or Rate Periods), and (y) the Offshore Rate component shall no longer be utilized in determining the Base Rate. Upon receipt of such notice, the SPV may revoke any pending Investment Request for a Portion of Investment with an interest rate equal to the Offshore Rate or request for conversion to or continuation of a Portion of Investment with an interest rate equal to the Offshore Rate (to the extent of the affected Portion of Investment or Rate Periods) or, failing that, will be deemed to have converted any such request into a request for a Portion of Investment with an interest rate equal to the Base Rate (subject to the foregoing clause (y)) in the amount specified therein.

Notwithstanding anything else herein, any definition of LIBOR Successor Rate shall provide that in no event shall such LIBOR Successor Rate be less than zero for purposes of this Agreement.

In connection with the implementation of a LIBOR Successor Rate, the Agent in consultation with the SPV will have the right to make LIBOR Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Transaction Document, any amendments implementing such LIBOR Successor Rate Conforming Changes will become effective without any further action or consent of any other party to this Agreement.

SECTION 2.5 Yield, Fees and Other Costs and Expenses. Notwithstanding any limitation on recourse herein, the SPV shall pay, as and when due in accordance with this Agreement:

(a) to the Agent, and to the Agent for the benefit of each Managing Agent, all fees hereunder and under each Fee Letter, all amounts payable pursuant to Article IX, if any, and the Servicing Fees, if required pursuant to Section 2.12(b); and

(b) on each Settlement Date, to the extent not paid pursuant to Section 2.12 for any reason, to the Agent, on behalf of the Conduit Investor or the Committed Investors, as applicable, an amount equal to the accrued and unpaid Yield for the related Rate Period.

Nothing in this Agreement shall limit in any way the obligations of the SPV to pay the amounts set forth in this Section 2.5.

SECTION 2.6 Deemed Collections. (a) Dilutions. If on any day the Unpaid Balance of an Eligible Receivable is reduced (but not cancelled) as a result of any Dilution, the SPV shall be deemed to have received on such day a Collection of such Receivable in the amount of such reduction. If on any day an Eligible Receivable is canceled as a result of any Dilution, the SPV shall be deemed to have received on such day a Collection of such Eligible Receivable in the amount of the Unpaid Balance (as determined immediately prior to such Dilution) of such Eligible Receivable. Any amount deemed to have been received under this Section 2.6(a) shall constitute a "Deemed Collection". Upon any such Deemed Collection, the SPV shall, on the second Business Day following its knowledge of such Dilution, pay to the Servicer an amount equal to such Deemed Collection and such amount shall be applied by the Servicer as a Collection in accordance with Section 2.12.

(b) Breach of Representation or Warranty. If on any day any representation or warranty in Sections 4.1(d), (k), (t) or (u) with respect to any Eligible Receivable (whether on or after the date of transfer thereof to the Agent, for the benefit of the Investors, as contemplated hereunder) is determined to have been incorrect at the time such representation or warranty was made or deemed made, the SPV shall be deemed to have received on such day a Collection of such Eligible Receivable equal to its Unpaid Balance. Any amount deemed to have been received under this Section 2.6(b) shall constitute a "Deemed Collection". Upon any such Deemed Collection, the SPV shall, on the second Business Day following its knowledge thereof, deposit into the Collection Account an amount equal to such Deemed Collection and such amount shall be applied by the Servicer as a Collection in accordance with Section 2.12.

SECTION 2.7 Payments and Computations, Etc. All amounts to be paid or deposited by the SPV or the Servicer hereunder shall be paid or deposited in accordance with the terms hereof no later than 12:00 noon on the day when due in immediately available funds; if such amounts are payable to the Agent (whether on behalf of any Managing Agent, Investor or otherwise) they shall be paid or deposited in the account indicated under the heading "Payment Information" in Section 11.3, until otherwise notified by the Agent. The Agent shall pay all amounts payable to each Managing Agent at the direction of such Managing Agent. The SPV shall, to the extent permitted by Law, pay to the Agent, or to the Agent for the benefit of the Investors, as applicable, upon demand, interest on all amounts not paid or deposited when due hereunder (subject to any applicable grace period) at the Default Rate. All computations of per annum fees hereunder shall be made on the basis of a year of 360 days for the actual number of days (including the first but excluding the last day) elapsed. Any computations made by the Agent of amounts payable by the SPV hereunder shall be binding upon the SPV absent manifest error.

SECTION 2.8 Reports. By no later than 4:00 p.m. on the second Business Day prior to each Settlement Date and, so long as Greif, Inc.'s corporate family rating is below "BB-" by S&P or "Ba3" by Moody's, on a weekly basis, within four (4) Business Days after a request from the Agent (each, a "Reporting Date"), the Servicer shall prepare and forward to the Agent and each Managing Agent a Servicer Report, certified by the Servicer.

SECTION 2.9 Collection Account. The SPV shall establish in its name on or prior to the Closing Date and shall maintain a segregated account (the "Collection Account"), bearing a designation clearly indicating that the funds deposited therein are held for the benefit of the Agent, on behalf of the Secured Parties. The Agent shall have exclusive dominion and control over the Collection Account and all monies, instruments and other property from time to time in the Collection Account; provided that the Servicer and the SPV shall be permitted to withdraw amounts from the Collection Account so long as (x) no Potential Termination Event or Termination Event has occurred and is continuing and (y) such withdrawal is otherwise permitted hereunder. The SPV and the Servicer shall remit to the Collection Account on the dates specified in Section 2.12(b) all amounts due and owing thereunder. At all other times, any Collections received directly by the SPV, any of the Originators or the Servicer shall be sent promptly (but in any event within two (2) Business Days of receipt) to a Blocked Account. Funds on deposit in the Collection Account (other than investment earnings) shall be invested, prior to the occurrence and continuance of a Potential Termination Event or Termination Event, by the SPV or the Servicer (on behalf of the SPV) in Eligible Investments that will mature so that such funds will be available so as to permit amounts in the Collection Account to be paid and applied on the next Settlement Date and otherwise in accordance with the provisions of Section 2.12; *provided* that such funds shall not reduce the Net Investment or accrued Yield hereunder until so applied under Section 2.12. On each Settlement Date, all interest and earnings (net of losses and investment expenses) on funds on deposit in the Collection Account shall be applied as Collections. On the Final Payout Date, any and all funds remaining on deposit in the Collection Account shall be paid to the SPV.

SECTION 2.10 Sharing of Payments, Etc. If any Investor (for purposes of this Section only, being a "Recipient") shall obtain any payment (whether voluntary, involuntary, through the exercise of any right of setoff, or otherwise) on account of the

portion of the Asset Interest owned by it (other than pursuant to a Fee Letter or Article IX and other than as a result of the differences in the timing of the applications of Collections pursuant to Section 2.12 and other than a result of the different methods for calculating Yield) in excess of its ratable share of payments on account of the Asset Interest obtained by the Investors entitled thereto, such Recipient shall forthwith purchase from the Investors entitled to a share of such amount participations in the portions of the Asset Interest owned by such Persons as shall be necessary to cause such Recipient to share the excess payment ratably with each such other Person entitled thereto; *provided* that if all or any portion of such excess payment is thereafter recovered from such Recipient, such purchase from each such other Person shall be rescinded and each such other Person shall repay to the Recipient the purchase price paid by such Recipient for such participation to the extent of such recovery, together with an amount equal to such other Person's ratable share (according to the proportion of (a) the amount of such other Person's required payment to (b) the total amount so recovered from the Recipient) of any interest or other amount paid or payable by the Recipient in respect of the total amount so recovered.

SECTION 2.11 Right of Setoff. Without in any way limiting the provisions of Section 2.10, each of the Agent, each Managing Agent and each Investor is hereby authorized (in addition to any other rights it may have) at any time after the occurrence of the Termination Date due to the occurrence and continuation of a Termination Event, upon prior written notice to the SPV, to set-off, appropriate and apply (without presentment, demand, protest or other notice which are hereby expressly waived) any deposits and any other indebtedness held or owing by the Agent, the Managing Agent or such Investor to, or for the account of, the SPV against the amount of the Aggregate Unpaids owing by the SPV to such Person or to the Agent or the Managing Agent on behalf of such Person (even if contingent or unmatured).

SECTION 2.12 Settlement Procedures. (a) Daily Procedure. On each day, the Servicer shall, out of the Collections received or deemed received by the SPV and after return of any Excluded Amounts received in error, any of the Originators or the Servicer (including in any Blocked Account) on such day:

(i) hold in trust for the benefit of the Agent (on behalf of each Managing Agent and such Managing Agents' Investor Groups) an amount equal to the aggregate of the Yield and the Program Fee, in each case for the related Rate Period accrued through such day for all Portions of Investment, the Facility Fee and the Servicing Fee accrued through such day, and any other Aggregate Unpaids (other than Net Investment not then due and owing) accrued through such day and not previously held in trust (and which are then due);

(ii) hold in trust for the benefit of the Agent (on behalf of each Managing Agent and such Managing Agents' Investor Groups) an amount equal to the excess, if any, of:

(A) the greatest of:

(1) if the SPV shall have elected to reduce the Net Investment under Section 2.13, the amount of the proposed reduction,

(2) the amount, if any, by which the sum of the Net Investment and Required Reserves shall exceed the Net Pool Balance, together with the amount, if any, by which the Net Investment shall exceed the Maximum Net Investment, and

(3) if such day is on or after the Termination Date, the Net Investment; over

(B) the aggregate of the amounts theretofore set aside and then so held for the benefit of the Managing Agents (on behalf of such Managing Agents' Investor Groups) pursuant to this clause (ii); and

(iii) pay the remainder, if any, of such Collections to the SPV for application to Reinvestment, for the benefit of the Agent (for the benefit of the Investor), in the Receivables and other Affected Assets in accordance with Section 2.2(b). To the extent and for so long as such Collections may not be reinvested pursuant to Section 2.2(b), the Servicer shall hold such Collections in trust for the benefit of the Agent (for the benefit of the Investors).

(b) Settlement Procedures.

(i) The Servicer shall deposit into the Collection Account, on each Business Day selected by the SPV for a reduction of the Net Investment under Section 2.13 the amount of Collections held for the Agent pursuant to Section 2.12(a)(ii)(A)(1).

(ii) On any date on or prior to the Termination Date, if the sum of the Net Investment and Required Reserves exceeds the Net Pool Balance, the Servicer shall immediately pay to the Collection Account from amounts set aside pursuant to Section 2.12(a)(ii)(A)(2) an amount equal to such excess.

(iii) On each Settlement Date, the Servicer shall deposit to the Collection Account out of the amount, if any, held in trust pursuant to Section 2.12(a)(i) and (to the extent not theretofore reinvested) Section 2.12(a)(iii) and not theretofore deposited to the Collection Account pursuant to this Section 2.12(b), an amount equal to the lesser of such amount and the Net Investment;

provided, that if the Agent gives its consent (which consent may be revoked at any time during the continuation of a Termination Event or a Potential Termination Event), the Servicer may retain amounts which would otherwise be deposited in respect of the accrued and unpaid Servicing Fee, in which case no distribution shall be made in respect of such Servicing Fee under clause (c) below. Any amounts set aside pursuant to Section 2.12(a) in excess of the amount required to be deposited in the Collection Account pursuant to this subsection (b) shall continue to be set aside and held in trust by the Servicer for application on the next succeeding Settlement Date, and *provided*, *further*, *that* if (i) the Servicer makes a deposit into the Collection Account in respect of a Collection of a Receivable and such Collection was received by the Servicer in the form of a check that is not honored for any reason, (ii) the Servicer makes a mistake with respect to the amount of any Collection and deposits an amount that is less than or more than the actual amount of such Collection or (iii) the deposit was made in error and constitutes an Excluded Amount, the Servicer shall appropriately adjust the amount subsequently deposited into the Collection Account to reflect such dishonored check or mistake. Any payment in respect of which a dishonored check is received shall be deemed not to have been paid.

(c) Order of Application. Upon receipt by the SPV of funds deposited to the Collection Account pursuant to Section 2.12(b), the Servicer or, following the occurrence and during the continuance of a Potential Termination Event or Termination Event, the Agent shall distribute them to the Persons, for the purposes and in the order of priority set forth below:

(i) to the Agent, for the benefit of each Managing Agent, pro rata based on the amount of accrued and unpaid Yield owing to such Managing Agent's Investor Group, in payment of the accrued and unpaid Yield and Program Fee on all Portions of Investment and for the related Rate Period and the Facility Fee then due and owing;

(ii) if an Originator or any Affiliate of an Originator is not then the Servicer, to the Servicer, in payment of the accrued and unpaid Servicing Fee then due and owing on such Settlement Date;

(iii) to the Agent, for the benefit of each Managing Agent, (A) prior to the Termination Date, except as otherwise provided in Section 2.17, pro rata based upon the Net Investment attributable to such Managing Agent's Investor Group in reduction of the outstanding Net Investment, an amount equal to the sum of (x) the positive difference (if any) of (I) the sum of the Net Investment plus the Required Reserves minus (II) the Net Pool Balance and (y) the amount of any optional reduction of the Net Investment specified by the SPV in accordance with Section 2.13, and (B) on or after the Termination Date, pro rata based upon the Net Investment attributable to such Managing Agent's Investor Group in reduction of the outstanding Net Investment, an amount equal to the outstanding Net Investment;

(iv) to the Agent, and to the Agent for the benefit of each other Secured Party as such Secured Party may be entitled to such payment, pro rata based on the amounts due and owing to each of them, in payment of any other Aggregate Unpaids (other than Net Investment not then due and owing) then due and owing by the SPV hereunder to such Person (including, without limitation, any amounts owed pursuant to Section 9.3 hereof) (in each case, without duplication);

(v) if an Originator or any Affiliate of an Originator is the Servicer, to the Servicer in payment of the accrued Servicing Fee then due and owing on such Settlement Date, to the extent not paid pursuant to clause (ii) above or retained pursuant to Section 2.12(b) above; and

(vi) to the SPV, any remaining amounts.

SECTION 2.13 Optional Reduction of Net Investment. The SPV may at any time elect to cause the reduction of the Net Investment as follows:

(a) the SPV shall instruct the Servicer to (and the Servicer shall) set aside Collections and hold them in trust for the Managing Agents (on behalf of such Managing Agents' Investor Groups) under Section 2.12(a)(ii)(A)(1) until the amount so set aside shall equal the desired amount of reduction;

(b) the SPV shall give the Agent and the Managing Agents at least one (1) Business Day's prior written notice of the amount of such reduction and the date on which such reduction will occur; and

(c) on any Business Day occurring at least one (1) Business Day after the date of the SPV's notice, the Servicer shall pay to each applicable Managing Agent (on a pro rata basis based on the Net Investment attributed to such Managing Agents' Investor Group), in reduction of the Net Investment, the amount of such Collections so held or, if less, the Net Investment (it being understood that the Net Investment shall not be deemed reduced by any amount set aside or held pursuant to this Section 2.13 unless and until, and then only to the extent that, such amount is finally paid to the applicable Managing Agents as aforesaid); *provided* that the amount of any such reduction shall be not less than $1,000,000 or an integral aggregate multiple of $100,000 in excess thereof.

SECTION 2.14 Application of Collections Distributable to SPV. The Servicer shall allocate and apply, on behalf of the SPV, Collections distributable to the SPV hereunder pursuant to Section 2.12(c)(vi), in accordance with the instructions of the SPV, provided that the SPV shall instruct the Servicer to allocate and apply such Collections so that the operating expenses and other contractual obligations of the SPV are timely paid when due.

SECTION 2.15 Collections Held in Trust. So long as the SPV or the Servicer shall hold any Collections or Deemed Collections then or thereafter required to be paid by the SPV to the Servicer or by the SPV or the Servicer to the Agent, it shall hold such Collections in trust, and shall deposit such Collections into a Blocked Account or the Collection Account at such times otherwise required by this Agreement. The Net Investment shall not be deemed reduced by any amount held in trust or in the Collection Account pursuant to Sections 2.12 or 2.13 unless and until, and then only to the extent that, such amount is finally paid to the Agent or the applicable Managing Agent in accordance with Sections 2.12 or 2.13.

SECTION 2.16 Reduction of Facility Limit. The SPV may, upon at least ten (10) Business Days' written notice to the Agent and each Managing Agent, terminate the facility provided in this Article II in whole or, from time to time, irrevocably reduce in part the unused portion of the Facility Limit; *provided* that each partial reduction shall be in the amount of at least $5,000,000, or an integral multiple of $1,000,000 in excess thereof, and that, unless terminated in whole, the Facility Limit shall in no event be reduced below $50,000,000; and *provided further* that (in addition to and without limiting any other requirements for termination or prepayment hereunder) no such termination in whole shall be effective unless and until all Aggregate Unpaids have been paid in full. The Agent shall advise the Managing Agents of any notice it receives pursuant to this Section 2.16.

SECTION 2.17 Increase of Facility Limit. So long as the Commitment Termination Date has not occurred and no Termination Event exists, at any time during the period commencing on June 1st and ending on September 30th of each calendar year (the "Seasonal Period"), the Servicer may, upon 10 Business Days' prior written notice to each Committed Investor, request (a "Seasonal Facility Limit Increase Request") that the Facility Limit be increased by an amount not to exceed $25,000,000 (the "Increase Amount") and that each Committed Investor's Commitment be increased ratably based upon such Committed Investor's pro rata share of the Increase Amount; *provided* that (x) no Committed Investor's Commitment shall be increased as a result of a Seasonal Facility Limit Increase Request unless such Committed Investor has consented to such increase in its sole discretion in writing and (y) on the last day of the Seasonal Period, (A) the Commitment of each Committed Investor that has agreed to increase such Committed Investor's Commitment for such Seasonal Period (each, an "Increasing Committed Investor") shall be automatically reduced by the amount by which such Committed Investor has agreed to increase its Commitment during such Seasonal Period, (B) the Facility Limit shall be automatically reduced by the aggregate amount by which each Committed Investor's Commitment is reduced pursuant to clause (A) above and (C) the SPV shall pay the Agent the amount, if any, by which the Net Investment exceeds the Maximum Net Investment after giving effect to the automatic reduction of the Facility Limit pursuant to clause (B) above and, unless a Potential Termination Event or a Termination Event exists, the Agent shall remit such payment to the Increasing Committed Investors ratably, based upon the amount by which each such Increasing Committed Investor's Commitment increased during such Seasonal Period.

ARTICLE III

ADDITIONAL COMMITTED INVESTOR PROVISIONS

SECTION 3.1 Assignment to Committed Investors.

(a) Assignment Amounts. At any time on or prior to the Commitment Termination Date for the applicable Conduit Investor, if the related Administrator on behalf of such Conduit Investor in such Investor Group so elects, by written notice to the Agent, the SPV hereby irrevocably requests and directs that such Conduit Investor assign, and such Conduit Investor does hereby assign effective on the Assignment Date referred to below all or such portions as may be elected by the Conduit Investor of its interest in the Net Investment and the Asset Interest at such time to the Committed Investors in its Investor Group pursuant to this Section 3.1 and the SPV hereby agrees to pay the amounts described in Section 3.1(b); *provided* that unless such

signment is an assignment of all of such Conduit Investor's interest in the Net Investment and the Asset Interest in whole on or after such Conduit Investment Termination Date, no such assignment shall take place pursuant to this Section 3.1 if a Termination Event described in Section 8.1(g) shall then exist; and *provided further* that no such assignment shall take place pursuant to this Section 3.1 at a time when an Event of Bankruptcy with respect to such Conduit Investor exists. No further documentation or action on the part of such Conduit Investor or the SPV shall be required to exercise the rights set forth in the immediately preceding sentence, other than the giving of the notice by the related Administrator on behalf of such Conduit Investor referred to in such sentence and the delivery by the related Administrator of a copy of such notice to each Committed Investor in its Investor Group (the date of the receipt by such Administrator of any such notice being the "Assignment Date"). Each Committed Investor hereby agrees, unconditionally and irrevocably and under all circumstances, without setoff, counterclaim or defense of any kind, to pay the full amount of its Assignment Amount on such Assignment Date to the applicable Conduit Investor in immediately available funds to an account designated by the related Administrator. Upon payment of its Assignment Amount, each related Committed Investor shall acquire an interest in the Asset Interest and the Net Investment equal to its pro rata share (based on the outstanding portions of the Net Investment funded by it) of the assigned portion of the Net Investment. Upon any assignment in whole by a Conduit Investor to the Committed Investors in its Investor Group on or after the Conduit Investment Termination Date as contemplated hereunder, such Conduit Investor shall cease to make any additional Investments or Reinvestments hereunder. At all times prior to the Conduit Investment Termination Date, nothing herein shall prevent the Conduit Investor from making a subsequent Investment or Reinvestment hereunder, in its sole discretion, following any assignment pursuant to this Section 3.1 or from making more than one assignment pursuant to this Section 3.1.

(b) SPV's Obligation to Pay Certain Amounts; Additional Assignment Amount. The SPV shall pay to the applicable Administrator, for the account of the applicable Uncommitted Investor, in connection with any assignment by such Uncommitted Investor to the Committed Investors in its Investor Group pursuant to this Section 3.1, an aggregate amount equal to all Yield to accrue through the end of the current Rate Period to the extent attributable to the portion of the Net Investment so assigned to the Committed Investors (as determined immediately prior to giving effect to such assignment), plus all other Aggregate Unpaids then owing to such Uncommitted Investor (other than the Net Investment and other than any Yield not described above) related to the portion of the Net Investment so assigned to the Committed Investors in its Investor Group. If the SPV fails to make payment of such amounts at or prior to the time of assignment by the Uncommitted Investor to the Committed Investors, such amount shall be paid by the Committed Investors (in accordance with their respective Pro Rata Shares) to the Uncommitted Investor as additional consideration for the interests assigned to the Committed Investors and the amount of the "Net Investment" hereunder held by the Committed Investors shall be increased by an amount equal to the additional amount so paid by the Committed Investors.

(c) Administration of Agreement after Assignment from Conduit Investor to Committed Investors following the Conduit Investment Termination Date. After any assignment in whole by a Conduit Investor to the Committed Investors in its Investor Group pursuant to this Section 3.1 at any time on or after the related Conduit Investment Termination Date (and the payment of all amounts owing to the Conduit Investor in connection therewith), all rights of the applicable Administrator set forth herein shall be given to the Managing Agent on behalf of the applicable Committed Investors instead of the Administrator.

(d) Payments to Agent's Account. After any assignment in whole by a Conduit Investor to the Committed Investors in its Investor Group pursuant to this Section 3.1 at any time on or after the related Conduit Investment Termination Date, all payments to be made hereunder by the SPV or the Servicer to such Conduit Investor shall be made to the Agent's account, for the benefit of the Managing Agent of such Conduit Investor, as such account shall have been notified to the SPV and the Servicer.

(e) Recovery of Net Investment. In the event that the aggregate of the Assignment Amounts paid by the Committed Investors pursuant to this Section 3.1 on any Assignment Date occurring on or after the Conduit Investment Termination Date is less than the Net Investment of the Conduit Investor on such Assignment Date, then to the extent Collections thereafter received by its Managing Agent hereunder in respect of the Net Investment exceed the aggregate of the unrecovered Assignment Amounts and Net Investment funded by such Committed Investors, such excess shall be remitted by such Managing Agent to the Conduit Investor (or to the applicable Administrator on its behalf) for the account of the Conduit Investor.

SECTION 3.2 [Reserved].

SECTION 3.3 Extension of Commitment Termination Date/Non-Renewing Committed Investors. If at any time the SPV requests that the Committed Investors renew their Commitments hereunder and some but less than all the Committed Investors consent to such renewal, the SPV may arrange for an assignment, and such non-consenting Committed Investors shall agree to assign and to cause their related Conduit Investors (if any) to assign, to one or more financial institutions (and, if applicable, related commercial paper conduits) acceptable to the Agent, the Majority Investors and the SPV of all the rights and obligations hereunder of each such non-consenting Committed Investor and Conduit Investor (if applicable) in accordance with Section 11.8. Any such assignment shall become effective on the then-current Commitment Termination Date. Each Committed Investor which does not

so consent to any renewal shall cooperate fully with the SPV in effectuating any such assignment. If none or less than all the Commitments of the non-renewing Committed Investors are so assigned as provided above, then the Commitment Termination Date shall not be renewed.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES

SECTION 4.1 Representations and Warranties of the SPV and the Initial Servicer. Each of the SPV and the initial Servicer represents and warrants to the Agent, each Managing Agent, the Administrators, the Investors and the other Secured Parties, as to itself only, that, on the Closing Date, on each Investment Date and on each date of Reinvestment:

(a) Corporate Existence and Power. It (i) is validly existing and in good standing under the laws of its jurisdiction of formation, (ii) with respect to the SPV, was duly organized, (iii) with respect to the Servicer, was duly organized, (iv) has all limited liability company power and all licenses, authorizations, consents and approvals of all Official Bodies required to carry on its business in each jurisdiction in which its business is now and proposed to be conducted (except where the failure to have any such licenses, authorizations, consents and approvals would not individually or in the aggregate reasonably be expected to have a Material Adverse Effect) and (v) is duly qualified to do business and is in good standing in every other jurisdiction in which the nature of its business requires it to be so qualified, except where the failure to be so qualified or in good standing would not reasonably be expected to have a Material Adverse Effect.

(b) Authorization; No Contravention. The execution, delivery and performance by it of this Agreement and the other Transaction Documents to which it is a party (i) are within its limited liability company powers, (ii) have been duly authorized by all necessary limited liability company action, (iii) require no action by or in respect of, or filing with, any Official Body or official thereof (except as contemplated by this Agreement, all of which have been (or as of the Closing Date will have been) duly made and in full force and effect), (iv) do not contravene or constitute a default under (A) its organizational documents, (B) any Law applicable to it, (C) any contractual restriction binding on or affecting it or its property or (D) any order, writ, judgment, award, injunction, decree or other instrument binding on or affecting it or its property or (v) result in the creation or imposition of any Adverse Claim upon or with respect to its property (except as contemplated hereby).

(c) Binding Effect. Each of this Agreement and the other Transaction Documents to which it is a party has been duly executed and delivered and constitutes its legal, valid and binding obligation, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, moratorium or other similar laws affecting the rights of creditors generally (whether at law or equity).

(d) Perfection. In the case of the SPV, the representations and warranties set forth on Schedule 4.1(d) hereto are true and correct.

(e) Accuracy of Information. All factual information (taken as a whole) heretofore or contemporaneously furnished by or on behalf of the SPV, the Servicer, each Originator or Greif, Inc. or any of their Subsidiaries or Affiliates in writing to any Investor, Managing Agent or the Agent (including, without limitation, all information contained in the Transaction Documents) for purposes of or in connection with this Agreement or any transaction contemplated herein is, and all other such factual information (taken as a whole) hereafter furnished by or on behalf of the SPV, the Servicer, each Originator or Greif, Inc. or any of their Subsidiaries or Affiliates in writing to any Investor, Managing Agent or the Agent for purposes of or in connection with this Agreement or any transaction contemplated herein, when taken as a whole, do not contain as of the date furnished any untrue statement of material fact or omit to state a material fact necessary in order to make the statements contained herein or therein, in light of the circumstances under which they were made, not misleading. The SPV, the Servicer, each Originator and Greif, Inc. and any of their Subsidiaries or Affiliates have disclosed to each Investor, each Managing Agent and the Agent (a) all agreements, instruments and corporate or other restrictions to which SPV, the Servicer, each Originator or Greif, Inc. or any of their Subsidiaries or Affiliates is subject, and (b) all other matters known to any of them, that individually or in the aggregate with respect to (a) and (b) above, would reasonably be expected to result in a Material Adverse Effect. The information included in any Beneficial Ownership Certification is true and correct in all respects.

(f) Tax Status. It has (i) timely filed all material tax returns (federal, state and local) required to be filed and (ii) paid or made adequate provision for the payment of all taxes, assessments and other governmental charges, except (a) taxes, assessments and other governmental charges that are being contested in good faith by appropriate proceedings and for which adequate reserves have been set aside on the books and records, or (b) to the extent that the failure to do so would not reasonably be expected to result in a Material Adverse Effect.

(g) Action, Suits. It is not in violation of any order of any Official Body. Except as set forth in Schedule 4.1(g) to the Disclosure Letter, there are no actions, suits or proceedings pending or, to the best knowledge of the SPV, threatened (i) against the SPV, the Servicer, any Originator or Greif, Inc. or any of their Subsidiaries or Affiliates challenging the validity or enforceability of any material provision of any Transaction Document, or (ii) that would reasonably be expected to have a Material Adverse Effect.

(h) Use of Proceeds. In the case of the SPV, no proceeds of any Investment or Reinvestment will be used by it (i) to acquire any security in any transaction which is subject to Section 13 or 14 of the Securities Exchange Act of 1934, (ii) to acquire any equity security of a class which is registered pursuant to Section 12 of such act or (iii) for any other purpose that violates applicable Law, including Regulation U of the Federal Reserve Board.

(i) Principal Place of Business; Chief Executive Office; Location of Records. Its principal place of business, chief executive office and the offices where it keeps all its Records, are located at the address(es) described on Schedule 4.1(i) to the Disclosure Letter or such other locations notified to each Managing Agent in accordance with Section 7.7 in jurisdictions where all action required by Section 7.7 has been taken and completed.

(j) Subsidiaries; Tradenames, Etc. In the case of the SPV, as of the Closing Date: (i) it has no Subsidiaries; and (ii) it has not, within the last five (5) years, operated under any tradename other than its legal name, and, within the last five (5) years, it has not changed its name, merged with or into or consolidated with any other Person or been the subject of any proceeding under the Bankruptcy Code. Schedule 4.1(j) to the Disclosure Letter lists the correct Federal Employer Identification Number of the SPV.

(k) Good Title. In the case of the SPV, upon each Investment and Reinvestment, the Agent shall acquire a valid and enforceable perfected first priority ownership interest or a first priority perfected security interest in each Receivable and all other Affected Assets that exist on the date of such Investment or Reinvestment, with respect thereto, free and clear of any Adverse Claim.

(l) Nature of Receivables. Each Receivable (i) represented by it to be an Eligible Receivable in any Servicer Report or (ii) included in the calculation of the Net Pool Balance in such Servicer Report in fact satisfies at the time of such calculation the definition of “Eligible Receivable” set forth herein. On the date of the applicable initial Investment therein by the Investors hereunder, it has no knowledge of any fact (including any defaults by the Obligor thereunder on any other Receivable) that would cause it or should have caused it to expect any payments on such Eligible Receivable not to be paid in full when due. Substantially all of the Receivables arise from the sale of goods or services.

(m) Coverage Requirement. In the case of the SPV, the sum of the Net Investment plus the Required Reserves does not exceed the Net Pool Balance.

(n) Credit and Collection Policy. It has at all times complied in all material respects with the Credit and Collection Policy with regard to each Eligible Receivable.

(o) Material Adverse Effect. On and since the Closing Date, there has been no Material Adverse Effect.

(p) No Termination Event or Potential Termination Event. In the case of the SPV, no event has occurred and is continuing and no condition exists which constitutes a Termination Event or a Potential Termination Event.

(q) Not an Investment Company or Covered Fund. It is (i) not a "covered fund" under the Volcker Rule and (ii) it is not, and is not controlled by, an “investment company” within the meaning of the Investment Company Act of 1940, or is exempt from all provisions of such act. In determining that the SPV is not an investment company, the SPV is relying on the exemption from the definition of "investment company" set forth in Section 3(c)(5) of the Investment Company Act of 1940, as amended.

(r) ERISA. Except as, in the aggregate, would not reasonably be expected to have a Material Adverse Effect, no steps have been taken by any Person to terminate any Pension Plan the assets of which are not sufficient to satisfy all of its benefit liabilities (as determined under Title IV of ERISA), no contribution failure has occurred or is expected to occur with respect to any Pension Plan sufficient to give rise to a lien under Section 303(k) of ERISA, and each Pension Plan has been administered in all material respects in compliance with its terms and applicable provision of ERISA and the Code.

(s) Accounts. The names and addresses of all the Blocked Account Banks, together with the account numbers of the Blocked Accounts and the Collection Account at such Blocked Account Banks, are specified in Schedule 4.1(s) to the Disclosure Letter (or at such other Blocked Account Banks and/or with such other Blocked Accounts as have been notified to each Managing Agent and for which Blocked Account Agreements have been executed in accordance with Section 7.3 and

delivered to the Servicer and the Agent). All Blocked Accounts and the Collection Account are subject to Blocked Account Agreements. All Obligors have been instructed to make payment to a Blocked Account; *provided* that if cash or cash proceeds other than Collections on Receivables are deposited into a Blocked Account or the Collection Account (the "Excluded Amounts"), such Excluded Amounts shall not constitute Related Security, and the Agent shall have no right, title or interest in any such Excluded Amounts.

(t) Bulk Sales. In the case of the SPV, no transaction contemplated hereby or by the First Tier Agreement requires compliance with any bulk sales act or similar law.

(u) Transfers Under First Tier Agreement. In the case of the SPV, each Receivable has been purchased or otherwise acquired by it from the applicable Originator pursuant to, and in accordance with, the terms of the First Tier Agreement.

(v) Preference; Voidability. In the case of the SPV, it shall have given reasonably equivalent value to each Originator in consideration for the transfer to it of the Affected Assets from such Originator, and each such transfer shall not have been made for or on account of an antecedent debt owed by any Originator to it and no such transfer is or may be voidable under any section of the Bankruptcy Code.

(w) Compliance with Applicable Laws; Licenses, etc. (i) Each of the SPV and Servicer is in compliance in all material respects with the requirements of all applicable laws, rules, regulations, and orders of all Official Bodies (including the Federal Consumer Credit Protection Act, as amended, Regulation Z of the Board of Governors of the Federal Reserve System, as amended, laws, rules and regulations relating to usury, truth in lending, fair credit billing, fair credit reporting, equal credit opportunity, fair debt collection practices and privacy and all other consumer laws, rules and regulations applicable to the Receivables), a breach of any of which, individually or in the aggregate, would be reasonably likely to have a Material Adverse Effect; and

(ii) it has not failed to obtain any licenses, permits, franchises or other governmental authorizations necessary to the ownership of its properties or to the conduct of its business (including any registration requirements or other actions as may be necessary in any applicable jurisdiction in connection with the ownership of the Contracts or the Receivables and other related assets), which violation or failure to obtain would be reasonably likely to have a Material Adverse Effect.

(x) Nonconsolidation. The SPV is operated in such a manner that the separate corporate existence of the SPV, on the one hand, and the Servicer and each Originator or any Affiliate thereof, on the other, would not be disregarded in the event of the bankruptcy or insolvency of the Servicer, such Originator or any Affiliate thereof and, without limiting the generality of the foregoing:

(i) the SPV is a limited purpose entity whose activities are restricted in its organizational documents to activities related to purchasing or otherwise acquiring receivables (including the Receivables) and related assets and rights and conducting any related or incidental business or activities it deems necessary or appropriate to carry out its primary purpose, including entering into the Transaction Documents;

(ii) the SPV has not engaged, and does not presently engage, in any activity other than those activities expressly permitted hereunder and under the other Transaction Documents, nor, after the execution of the Rabobank Assignment, will the SPV be party to any agreement other than this Agreement, the other Transaction Documents to which it is a party and a services agreement with its independent manager, and with the prior written consent of the Agent, any other agreement necessary to carry out more effectively the provisions and purposes hereof or thereof;

(iii) (A) the SPV maintains its own deposit account or accounts, separate from those of any of its Affiliates, with commercial banking institutions, (B) the funds of the SPV are not and have not been diverted to any other Person or for other than the corporate use of the SPV and (C) except as may be expressly permitted by this Agreement, the funds of the SPV are not and have not been commingled with those of any of its Affiliates;

(iv) to the extent that the SPV contracts or does business with vendors or service providers where the goods and services provided are partially for the benefit of any other Person, the costs incurred in so doing are fairly allocated to or among the SPV and such entities for whose benefit the goods and services are provided, and each of the SPV and each such entity bears its fair share of such costs; and all material transactions between the SPV and any of its Affiliates shall be on an arm's-length basis;

(v) the SPV maintains a principal executive and administrative office through which its business is conducted and a telephone number and stationery through which all business correspondence and communication are conducted, in each case separate from those of any Originator and its Affiliates;

(vi) the SPV conducts its affairs strictly in accordance with its organizational documents and observes all necessary, appropriate and customary limited liability company formalities, including (A) holding all regular and special directors'/managers' meetings appropriate to authorize all limited liability company action, (B) keeping separate and accurate minutes of such meetings, (C) passing all resolutions or consents necessary to authorize actions taken or to be taken, and (D) maintaining accurate and separate books, records and accounts, including intercompany transaction accounts;

(vii) all decisions with respect to its business and daily operations are independently made by the SPV (although the officer making any particular decision may also be an employee, officer or director of an Affiliate of the SPV) and are not dictated by any Affiliate of the SPV (it being understood that the Servicer, which is an Affiliate of the SPV, will undertake and perform all of the operations, functions and obligations of it set forth herein and it may appoint Sub-Servicers, which may be Affiliates of the SPV, to perform certain of such operations, functions and obligations);

(viii) the SPV acts solely in its own name and through its own authorized officers and agents, and no Affiliate of the SPV shall be appointed to act as its agent, except as expressly contemplated by this Agreement;

(ix) no Affiliate of the SPV advances funds to the SPV, other than as is otherwise provided herein or in the other Transaction Documents, and no Affiliate of the SPV otherwise supplies funds to, or guaranties debts of, the SPV; *provided* that an Affiliate of the SPV may provide funds to the SPV in connection with the capitalization of the SPV;

(x) other than organizational expenses and as expressly provided herein, the SPV pays all expenses, Indebtedness and other obligations incurred by it;

(xi) the SPV does not guarantee, and is not otherwise liable, with respect to any obligation of any of its Affiliates;

(xii) any financial reports required of the SPV comply with GAAP and are issued separately from, but may be consolidated with, any reports prepared for any of its Affiliates;

(xiii) at all times the SPV is adequately capitalized to engage in the transactions contemplated in its organizational documents;

(xiv) the financial statements and books and records of the SPV and the Originators reflect the separate limited liability company existence of the SPV;

(xv) the SPV does not act as agent for any of the Originators or any Affiliate thereof, but instead presents itself to the public as an entity separate from each such Person and independently engaged in the business of purchasing and financing Receivables;

(xvi) the SPV maintains a five-person board of managers, including at least one independent manager, who (A) for the five-year period prior to his or her appointment as independent manager has not been, and during the continuation of his or her service as independent manager shall not be: (I) an employee, director, stockholder, member, manager, partner or officer of the SPV, Greif, Inc. or any of their respective Affiliates (other than his or her service as an independent manager of the SPV); (II) except for CT Corporation, Corporation Service Company, Global Securitization Services, LLC, Lord Securities Corporation, AMACAR Group, L.L.C. or any of their respective Affiliates or any other similar service provider unless objected to in writing by Agent (collectively, the "Approved Service Providers"), a customer or supplier of the SPV, Greif, Inc. or any of their respective Affiliates (other than his or her service as an independent manager of the SPV); or (iii) any member of the immediate family of a person described in (I) or (II), (B) has, (I) prior experience as an independent manager for a corporation or limited liability company whose charter documents required the unanimous consent of all independent manager thereof before such corporation or limited liability company could consent to the institution of bankruptcy or insolvency proceedings against it or could file a petition seeking relief under any applicable federal or state law relating to bankruptcy and (II) at least three years of employment experience with one or more entities that provide, in the ordinary course of their respective businesses, advisory, management

or placement services to issuers of securitization or structured finance instruments, agreements or securities, and (C) if approved as an independent manager of the SPV after the Closing Date and is not otherwise affiliated with an Approved Service Provider, has been consented to in writing by the Agent (such consent not to be unreasonably withheld or delayed);

(xvii) the organizational documents of the SPV require the affirmative vote of the independent manager before a voluntary petition under Section 301 of the Bankruptcy Code may be filed by the SPV; and

(xviii) the SPV complies with (and causes to be true and correct) each of the facts and assumptions relating to it contained in the opinion(s) of Vorys, Sater, Seymour and Pease LLP, delivered pursuant to Section 5.1(m) of the Existing Agreement and this Agreement.

(y) Other Debt. Except as provided herein, the SPV has not created, incurred, assumed or suffered to exist any Indebtedness whether current or funded, or any other liability other than (i) Indebtedness of the SPV representing fees, expenses and indemnities arising hereunder or under the First Tier Agreement for the purchase price of the Receivables and other Affected Assets under the First Tier Agreement, (ii) indebtedness to one or more Originators for the Deferred Purchase Price, (iii) other outstanding Indebtedness incurred in the ordinary course of its business in an amount that does not exceed $16,750 and (iv) Continuing Obligations.

(z) Representations and Warranties in other Related Documents. Each of the representations and warranties made by it contained in the Transaction Documents is true, complete and correct in all material respects (except any representation or warranty qualified by materiality or by reference to a material adverse effect, which is true, complete and correct in all respects) on and as of such day as though made on and as of such day and shall be deemed to have been made on such day (unless such representations and warranties specifically refer to a previous day, in which case, they shall be complete and correct in all material respects (or with respect to such representations and warranties qualified by materiality or by reference to a material adverse effect complete and correct in all respects) on and as of such previous day), and it hereby makes each such representation and warranty to, and for the benefit of, the Agent, each Managing Agent, the Administrators, the Investors and the other Secured Parties as if the same were set forth in full herein.

(aa) No Servicer Default. In the case of the Servicer, no event has occurred and is continuing and no condition exists which constitutes or may reasonably be expected to constitute a Servicer Default.

(bb) [Reserved].

(cc) Ordinary Course of Business. In the case of the SPV, that each remittance of Collections by or on behalf of the SPV to the Agent and the Managing Agents under this Agreement will have been (i) in payment of a debt incurred by the SPV in the ordinary course of business or financial affairs of the SPV and (ii) made in the ordinary course of business or financial affairs of the SPV.

(dd) Senior Credit Agreement. The transactions contemplated by this Agreement and the other Transaction Documents constitute a “Permitted Accounts Receivable Securitization” under and as defined in the Senior Credit Agreement, and the execution, delivery and performance by the SPV and the Servicer of this Agreement and the other Transaction Documents to which such Person is a party do not contravene or constitute a default or breach under the Senior Credit Agreement.

(ee) Anti-Corruption Laws and Sanctions. Each Seller Party has implemented and maintains in effect policies and procedures reasonably designed to promote and achieve compliance in all material respects by it and its directors, officers, employees and agents with Anti-Corruption Laws and applicable Sanctions. Each Seller Party, its Affiliates and Subsidiaries and their respective officers and directors and, to the knowledge of Greif, Inc., their employees and agents are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. No Seller Party, nor any Person directly or indirectly controlling or controlled by a Seller Party, or any Affiliate of any of the foregoing, (a) is a Sanctioned Person; (b) is controlled by or is acting on behalf of a Sanctioned Person; or (c) will use any proceeds of an Investment in any manner that would result in violation of any Sanctions applicable to any party hereto. The transactions contemplated by this Agreement will not violate Anti-Corruption Laws or applicable Sanctions. No Seller Party, its respective Subsidiaries and their respective officers and directors and, to the knowledge of Greif, Inc., its employees and agents are knowingly engaged in any activity that would reasonably be expected to result in such Seller Party, any such Subsidiary, and any of their respective officers or directors or, to the knowledge of Greif, Inc., any of its employees and agents, being designated as a Sanctioned Person.

(ff) Beneficial Ownership. In the case of the SPV, as of the Closing Date, the SPV is an entity that is organized under the laws of the United States or of any state and at least 51 percent of whose common stock or analogous equity

interest is owned by a listed entity and is excluded on that basis from the definition of Legal Entity Customer as defined in the Beneficial Ownership Rule.

ARTICLE V

CONDITIONS PRECEDENT

SECTION 5.1 Conditions Precedent to Closing. The occurrence of the Closing Date and the effectiveness of the Commitments hereunder shall be subject to the conditions precedent that (i) the SPV or the Originators shall have paid in full (A) all amounts required to be paid by each of them on or prior to the Closing Date pursuant to the Fee Letters and (B) the fees and expenses described in clause (i) of Section 9.4(a) and invoiced prior to the Closing Date, (ii) satisfactory completion by the Agent of its due diligence process, and (iii) each Managing Agent shall have received, for itself and each of the Investors in its Investor Group, counterparts of each of the following documents, each in form and substance satisfactory to each Managing Agent:

(a) A duly executed counterpart of this Agreement, the First Tier Agreement, the Guaranty, the Fee Letters, the Notice Letter Agreement and each of the other Transaction Documents executed by the Originators, the SPV or the Servicer, as applicable.

(b) A certificate, substantially in the form of Exhibit E, of the secretary or assistant secretary of the SPV, certifying and attaching as exhibits thereto, among other things:

(i) the organizational documents;

(ii) resolutions of the board of managers or other governing body of the SPV authorizing the execution, delivery and performance by the SPV of this Agreement, the First Tier Agreement and the other Transaction Documents to be delivered by the SPV hereunder or thereunder and all other documents evidencing necessary limited liability company action and government approvals, if any; and

(iii) the incumbency, authority and signature of each officer of the SPV executing the Transaction Documents or any certificates or other documents delivered hereunder or thereunder on behalf of the SPV.

(c) A certificate, substantially in the form of Exhibit F, of the secretary or assistant secretary of each Originator and the Servicer certifying and attaching as exhibits thereto, among other things:

(i) the articles of incorporation or other organizing document of each Originator and the Servicer (certified by the Secretary of State or other similar official of its jurisdiction of incorporation or organization, as applicable, as of a recent date);

(ii) the by-laws or operating agreement, as applicable, of each Originator and the Servicer;

(iii) resolutions of the board of directors or other governing body of each Originator and the Servicer authorizing the execution, delivery and performance by it of this Agreement, the First Tier Agreement and the other Transaction Documents to be delivered by it hereunder or thereunder and all other documents evidencing necessary corporate action (including shareholder consents) and government approvals, if any; and

(iv) the incumbency, authority and signature of each officer of each of the Originators and the Servicer executing the Transaction Documents or any certificates or other documents delivered hereunder or thereunder on its behalf.

(d) A good standing certificate for the SPV issued by the Secretary of State or a similar official of the SPV's jurisdiction of formation, dated as of a recent date.

(e) A good standing certificate for each of the Originators and the Servicer issued by the Secretary of State or a similar official of its jurisdiction of incorporation or organization, as applicable, dated as of a recent date.

(f) Acknowledgment copies or other evidence of filing acceptable to the Agent of proper financing statements, naming the SPV, as debtor, in favor of the Agent, as secured party, for the benefit of the Secured Parties or other similar instruments or documents as may be necessary or in the reasonable opinion of the Agent desirable under the UCC of all appropriate jurisdictions or any comparable law to perfect the Agent's ownership or security interest in all Receivables and the other Affected Assets.

(g) Acknowledgment copies or other evidence of filing acceptable to the Agent of proper financing statements, naming each Originator, as the debtor, in favor of the SPV, as assignor secured party, and the Agent, for the benefit of the Secured Parties, as assignee secured party, or other similar instruments or documents as may be necessary or in the reasonable opinion of the Agent desirable under the UCC of all appropriate jurisdictions or any comparable law to perfect the SPV's ownership interest in all Receivables and the other Affected Assets.

(h) Copies of proper financing statements necessary to terminate all security interests and other rights of any Person in Receivables or the other Affected Assets previously granted by each Originator and the SPV.

(i) Certified copies of requests for information or copies (or a similar search report certified by parties acceptable to the Agent) dated a date reasonably near the Closing Date listing all effective financing statements which name the SPV or each Originator as debtor and which are filed in jurisdictions in which the filings were made pursuant to clauses (f) or (g) above and such other jurisdictions where the Agent may reasonably request, together with copies of such financing statements, and similar search reports with respect to federal tax liens and liens of the Pension Benefit Guaranty Corporation in such jurisdictions.

(j) Executed copies of the Blocked Account Agreements relating to each of the Blocked Accounts.

(k) A favorable opinion of Gary R. Martz, General Counsel of Greif, Inc., covering certain corporate matters with respect to the Servicer, the Delta Originator, the AFM Originator, the Caraustar Mill Originator, the Caraustar Industrial Originator, the Caraustar Fiber Originator, the Newark Originator, the Caraustar Consumer Originator, the Caraustar Custom Originator, the Tama Originator, the Cascade Originator and the SPV in form and substance satisfactory to the Agent and Agent's counsel.

(l) A favorable opinion of Vorys, Sater, Seymour and Pease LLP, special counsel to the SPV, the Servicer and the Originators, covering certain corporate and UCC matters in form and substance satisfactory to the Agent and Agent's counsel.

(m) A favorable opinion of Vorys, Sater, Seymour and Pease LLP, special counsel to the SPV and the Originators, covering certain bankruptcy and insolvency matters in form and substance satisfactory to the Agent and Agent's counsel.

(n) An electronic file identifying all Receivables and the Unpaid Balances thereon and such other information with respect to the Receivables as any Managing Agent may reasonably request.

(o) Satisfactory results of a review and audit of the SPV's and the Originators' collection, operating and reporting systems, Credit and Collection Policy, historical receivables data and accounts, including satisfactory results of a review of the Originators' operating location(s) and satisfactory review and approval of the Eligible Receivables in existence on the date of the initial purchase under the First Tier Agreement and a written outside audit report of a nationally-recognized accounting firm as to such matters.

(p) A Servicer Report as of August 31, 2019.

(q) Evidence that the Collection Account has been established.

(r) Executed copies of the Rabobank Assignment, in form and substance satisfactory to the Agent and Agent's counsel.

(s) Such other approvals, documents, instruments, certificates and opinions as the Agent, any Managing Agent, any Administrator or any Investor may reasonably request.

SECTION 5.2 Conditions Precedent to All Investments and Reinvestments. Each Investment hereunder (including the initial Investment) and each Reinvestment hereunder shall be subject to the conditions precedent that (i) the Closing Date shall have occurred, and (ii) on the date of such Investment or Reinvestment, as the case may be, the following statements shall be true (and the SPV by accepting the amount of such Investment or Reinvestment shall be deemed to have certified that):

(a) The representations and warranties contained in Section 4.1 are true and correct in all material respects (except those representations and warranties qualified by materiality or by reference to a material adverse effect, which are true and correct in all respects) on and as of such day as though made on and as of such day and shall be deemed to have been made on such day (unless such representations and warranties specifically refer to a previous day, in which case, they shall be complete and correct in all material respects (or, with respect to such representations or warranties qualified by materiality or by reference to a material adverse effect, complete and correct in all respects) on and as of such previous day); *provided* that no such

representation, warranty, or certification hereunder shall be deemed to be incorrect or violated to the extent any affected Receivable is subject to a Deemed Collection and all required amounts with respect to which have been deposited into a Blocked Account or the Collection Account.

(b) In the case of an Investment, each Managing Agent shall have received an Investment Request, appropriately completed, within the time period required by Section 2.3.

(c) In the case of an Investment, the Agent and each Managing Agent shall have received a Servicer Report dated no more than 30 days prior to the proposed Investment Date, and the information set forth therein shall be true, complete and correct in all material respects.

(d) The Termination Date has not occurred.

(e) In the case of an Investment, the amount of such Investment will not exceed the amount available therefor under Section 2.2 and, after giving effect thereto, the sum of the Net Investment and the Required Reserves will not exceed the Net Pool Balance.

ARTICLE VI

COVENANTS

SECTION 6.1 Affirmative Covenants of the SPV and Servicer. At all times from the date hereof to the Final Payout Date, unless the Majority Investors shall otherwise consent in writing:

(a) Reporting Requirements. The SPV shall furnish to the Agent (with a copy to each Managing Agent):

(i) Annual Reporting. (A) Within ninety (90) days after the close of Greif, Inc.'s fiscal year, audited financial statements, prepared by a nationally-recognized accounting firm in accordance with GAAP on a consolidated basis for Greif, Inc. and its Subsidiaries (which shall include the SPV), including balance sheets as of the end of such period, related statements of operations, shareholder's equity and cash flows, accompanied by an unqualified audit report certified by independent certified public accountants, acceptable to each Managing Agent, prepared in accordance with GAAP and any management letter prepared by said accountants and a certificate of said accountants that, in the course of the foregoing, they have obtained no knowledge of any Termination Event or Potential Termination Event, or if, in the opinion of such accountants, any Termination Event or Potential Termination Event shall exist, stating the nature and status thereof, and (B) prior to each annual anniversary of the Closing Date, a report covering such fiscal year to the effect that such accounting firm has applied certain agreed-upon procedures (a copy of which procedures are attached as Schedule 6.1(a) to the Disclosure Letter, it being understood that the Servicer and the Agent will provide an updated Schedule 6.1(a) to the Disclosure Letter reflecting any further amendments to such Schedule 6.1(a) to the Disclosure Letter prior to the issuance of the first such agreed-upon procedures report, a copy of which shall replace the then existing Schedule 6.1(a) to the Disclosure Letter) to certain documents and records relating to the Collateral under any Transaction Document, compared the information contained in the Servicer Reports delivered during the period covered by such report with such documents and records and that no matters came to the attention of such accountants that caused them to believe that such servicing was not conducted in compliance with this Article VI, except for such exceptions as such accountants shall believe to be immaterial and such other exceptions as shall be set forth in such statement.

(ii) Quarterly Reporting. Within forty-five (45) days after the close of the first three quarterly periods of Greif, Inc.'s fiscal year, for Greif, Inc. and its other Subsidiaries (which shall include the SPV), in each case, consolidated balance sheets as at the close of each such period and consolidated related statements of operations, shareholder's equity and cash flows for the period from the beginning of such fiscal year to the end of such quarter, all certified by its chief financial officer or treasurer.

(iii) Compliance Certificate. Together with the financial statements required hereunder, a compliance certificate signed by Greif, Inc.'s chief financial officer or treasurer stating that (A) the attached financial statements have been prepared in accordance with GAAP and accurately reflect the financial condition of the SPV or the Originators and their respective Subsidiaries, as applicable, and (B) to the best of such Person's knowledge, no Termination Event or Potential Termination Event exists, or if any Termination Event or Potential Termination Event exists, stating the nature and status thereof and showing the computation of, and showing

compliance with, each of the financial triggers set forth in Sections 7.5(g) and (h) and Sections 8.1(h), (i), (j) and (k) hereof.

(iv) Notices. Promptly after receipt thereof, copies of all notices received by the SPV from any Originator. Promptly following any change that would result in a change to the status as an excluded Legal Entity Customer under and as defined in the Beneficial Ownership Rule, the SPV shall execute and deliver to the Agent a Beneficial Ownership Certification complying with the Beneficial Ownership Rule, in form and substance reasonably acceptable to the Agent.

(v) SEC Filings. So long as they include the information set forth in subclauses (i) and (ii), the timely filings by Greif, Inc. of its form 10-K and form 10-Q, respectively, will satisfy the delivery requirements set forth in such clauses. Promptly upon the filing thereof, copies of all registration statements and annual, quarterly, monthly or other regular reports and all special shareholder reports and proxy statements, if any, which any Originator or any Subsidiary thereof files with the Securities and Exchange Commission; *provided* that, so long as such reports are publicly available on the SEC's EDGAR website or any successor thereto, physical delivery of such documents shall not be required.

(vi) Notice of Termination Events or Potential Termination Events; Etc. (A) As soon as possible and in any event within two (2) Business Days after it obtains knowledge of the occurrence of each Termination Event or Potential Termination Event, a statement of its chief financial officer or chief accounting officer setting forth details of such Termination Event or Potential Termination Event and the action which it proposes to take with respect thereto, which information shall be updated promptly from time to time upon the request of the Agent; (B) promptly after it obtains knowledge thereof, notice of any litigation, investigation or proceeding that may exist at any time between it and any Person, as to which there is a reasonable possibility of an adverse determination and that, if adversely determined, would reasonably be expected to have a Material Adverse Effect or any litigation or proceeding relating to any Transaction Document; and (C) promptly after knowledge of the occurrence thereof, notice of a Material Adverse Effect.

(vii) Change in Credit and Collection Policy. At least ten (10) Business Days prior to the date any material change in or amendment to the Credit and Collection Policy is made, a copy of the Credit and Collection Policy then in effect indicating such change or amendment.

(viii) Credit and Collection Policy. If so requested by the Agent, within ninety (90) days after the close of each of the Originator's and the SPV's fiscal years, a complete copy of the Credit and Collection Policy then in effect, if requested by any Managing Agent in writing.

(ix) ERISA. Promptly after the filing, giving or receiving thereof, copies of all reports and notices with respect to any Reportable Event pertaining to any Pension Plan and copies of any notice by any Person of its intent to terminate any Pension Plan, and promptly upon the occurrence thereof, written notice of any contribution failure with respect to any Pension Plan sufficient to give rise to a lien under Section 303(k) of ERISA, in each case if it is reasonably likely that such occurrence would have a Material Adverse Effect.

(x) Change in Accountants or Accounting Policy. Promptly after the occurrence thereof, notice of any change in the accountants of the SPV or any of the Originators.

(xi) Other Information. Such other information (including non-financial information) as the Agent, any Managing Agent or the Administrators may from time to time reasonably request with respect to any Originator, the SPV or the Servicer.

(b) Conduct of Business; Ownership. Each of the SPV and the Servicer shall continue to engage in business of the same general types as now conducted by them (including businesses reasonably related or incidental thereto) as it is presently conducted and do all things necessary to remain duly organized, validly existing and in good standing in its jurisdiction of formation and maintain all requisite authority to conduct its business in each jurisdiction in which its business is conducted. The SPV shall at all times be a wholly-owned direct or indirect Subsidiary of Greif, Inc.

(c) Compliance with Laws, Etc. Each of the SPV and the Servicer shall comply in all material respects with all Laws to which it or its respective properties may be subject and preserve and maintain its limited liability company existence, rights, franchises, qualifications and privileges, except to the extent any non-compliance would not reasonably be expected to have a Material Adverse Effect.

(d) Furnishing of Information and Inspection of Records. Each of the SPV and the Servicer shall furnish to the Agent and each Managing Agent from time to time such information with respect to the Affected Assets as the Agent or a Managing Agent may reasonably request, including listings identifying the Obligor and the Unpaid Balance for each Receivable. Each of the SPV and the Servicer shall, at any time and from time to time during regular business hours upon reasonable notice (which shall be at least two (2) Business Days), as requested by the Agent or a Managing Agent, permit the Agent or Managing Agent, or its agents or representatives, (i) to examine and make copies of and take abstracts from all books, records and documents (including computer tapes and disks) relating to the Receivables or other Affected Assets, including the related Contracts and (ii) to visit the offices and properties of the SPV, each Originator or the Servicer, as applicable, for the purpose of examining such materials described in clause (i), and to discuss matters relating to the Affected Assets or the SPV's, each Originator's or the Servicer's performance hereunder, under the Contracts and under the other Transaction Documents to which such Person is a party with any of the officers, directors, employees or independent public accountants of the SPV (but only in the presence of an officer of the SPV), each Originator or the Servicer, as applicable, having knowledge of such matters; *provided* that unless a Termination Event or Potential Termination Event shall have occurred and be continuing, the SPV and the Servicer shall not be required to reimburse the reasonable expenses of more than one (1) such visit in the aggregate among the SPV and the Servicer per calendar year.

(e) Keeping of Records and Books of Account. Each of the SPV and the Servicer shall maintain and implement administrative and operating procedures (including an ability to recreate records evidencing Receivables and related Contracts in the event of the destruction of the originals thereof), and keep and maintain all documents, books, computer tapes, disks, records and other information, reasonably necessary or advisable for the collection of all Receivables (including records adequate to permit the daily identification of each new Receivable and all Collections of and adjustments to each existing Receivable). Each of the SPV and the Servicer shall give the Agent and each Managing Agent prompt notice of any material change in its administrative and operating procedures referred to in the previous sentence.

(f) Performance and Compliance with Receivables, Contracts and Credit and Collection Policy. Each of the SPV and the Servicer shall, (i) at its own expense, timely and fully perform and comply with all material provisions, covenants and other promises required to be observed by it under the Contracts related to the Receivables in accordance with the Credit and Collection Policy; and (ii) timely and fully comply in all material respects with the Credit and Collection Policy in regard to each Eligible Receivable and the related Contract.

(g) Notice of Agent's Interest. In the event that the SPV shall sell or otherwise transfer any interest in accounts receivable or any other financial assets (other than as contemplated by the Transaction Documents), any computer tapes or files or other documents or instruments provided by the Servicer in connection with any such sale or transfer shall disclose the SPV's ownership of the Receivables and the Agent's interest therein.

(h) Collections. The SPV and the Servicer have instructed, or shall instruct, all Obligors to cause all Collections to be deposited directly to a Blocked Account or to post office boxes to which only Blocked Account Banks have access and shall instruct the Blocked Account Banks to cause all items and amounts relating to such Collections received in such post office boxes to be removed and deposited into a Blocked Account on a daily basis.

(i) Collections Received. Each of the SPV and the Servicer shall hold in trust, and deposit, promptly, but in any event not later than two (2) Business Days following its receipt thereof, to a Blocked Account or, if required by Section 2.9, to the Collection Account, all Collections received by it from time to time.

(j) Accounts. Each Blocked Account and the Collection Account shall at all times be subject to a Blocked Account Agreement.

(k) Sale Treatment. The SPV shall not (i) treat the transactions contemplated by the First Tier Agreement in any manner other than as a sale or contribution (as applicable) of Receivables by the Originators to the SPV, except to the extent that such transactions are not recognized on account of consolidated financial reporting in accordance with GAAP or are disregarded for tax purposes or (ii) treat (other than for tax and accounting purposes) the transactions contemplated hereby in any manner other than as a sale of the Asset Interest by the SPV to the Agent on behalf of the Investors. In addition, the SPV shall disclose (in a footnote or otherwise) in all of its financial statements (including any such financial statements consolidated with any other Person's financial statements) the existence and nature of the transaction contemplated hereby and by the First Tier Agreement and the interest of the SPV (in the case of an Originator's financial statements) and the Agent, on behalf of the Investors, in the Affected Assets.

(l) Separate Business; Nonconsolidation. The SPV shall not (i) engage in any business not permitted by its organizational documents or (ii) conduct its business or act in any other manner which is inconsistent with Section 4.1(w).

(m) Corporate Documents. The SPV shall only amend, alter, change or repeal its organizational documents with the prior written consent of the Agent.

(n) Ownership Interest, Etc. The SPV shall, at its expense, take all action necessary or desirable to establish and maintain a valid and enforceable ownership or security interest in the Receivables, the Related Security and proceeds with respect thereto, and a first priority perfected security interest in the Affected Assets, in each case free and clear of any Adverse Claim, in favor of the Agent for the benefit of the Secured Parties, including taking such action to perfect, protect or more fully evidence the interest of the Agent, as any Managing Agent may request.

(o) Enforcement of First Tier Agreement. The SPV, on its own behalf and, during the continuation of a Termination Event or Potential Termination Event, on behalf of the Agent, each Managing Agent and each Secured Party, shall promptly enforce all covenants and obligations of the Originators contained in the First Tier Agreement. During the continuation of a Termination Event or Potential Termination Event, the SPV shall deliver consents, approvals, directions, notices, waivers and take other actions under the First Tier Agreement as may be directed by any Managing Agent consistent with the SPV's rights thereunder.

(p) Perfection Covenants. The SPV shall comply with each of the covenants set forth in the Schedule 4.1(d) which are incorporated herein by reference.

(q) Solvency of SPV. The fair value of the assets of the SPV, at a fair valuation, will, at all times prior to the Final Payout Date, exceed its debts and liabilities, subordinated, contingent or otherwise. The present fair saleable value of the property of the SPV, at all times prior to the Final Payout Date, will be greater than the amount that will be required to pay the probable liability of its debts and other liabilities, subordinated, contingent or otherwise, as such debts and other liabilities become absolute and matured. The SPV will, at all times prior to the Final Payout Date, be able to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured. The SPV will not, at any time prior to the Final Payout Date, have unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted.

(r) Good Title. In the case of the SPV, upon each Investment and Reinvestment, the Agent shall acquire a valid and enforceable perfected first priority ownership interest or a first priority perfected security interest in each Eligible Receivable and all other Affected Assets that exist on the date of such Investment or Reinvestment, with respect thereto, free and clear of any Adverse Claim.

(s) Regulation W. The SPV agrees to respond promptly to any reasonable requests for information related to its use of Investment proceeds to the extent required by any Investor in connection with such Investor's determination of its compliance with Section 23A of the Federal Reserve Act (12 U.S.C. § 371c) and the Federal Reserve Board's Regulation W (12 C.F.R. Part 223). The SPV shall not to its actual knowledge use the proceeds of any Investment hereunder to purchase any asset or securities from any Investor's "affiliate" as such term is defined in 12 C.F.R. Part 223. In connection with each request for an Investment hereunder, the SPV shall be deemed to have represented and warranted to the Agent and Managing Agents on the date such Investment is made that, to its actual knowledge, as of such date, the proceeds of such Investment will not be used by the SPV to, directly or indirectly, either (x) purchase any asset or securities from any Investor's "affiliate" as such term is defined in 12 C.F.R. Part 223 or (y) invest in any fund sponsored by an Investor or Affiliate thereof.

(t) Sanctions; Anti-Corruption Laws and Anti-Money Laundering Laws. Neither the Servicer nor the SPV shall request or use the proceeds of any Investment hereunder, or lend, contribute, or otherwise make available such proceeds to any subsidiary, joint venture partner, or other Person (i) in furtherance of a direct offer, payment, promise to pay, or authorization of the direct payment or giving of money, or anything else of value, to any Person in violation of any Anti-Corruption Laws or Anti-Money Laundering Laws, (ii) for the purpose of directly funding, financing or facilitating any activities, business or transaction of or with any Sanctioned Person, or in any Sanctioned Country, to the extent such activities, business or transaction would be prohibited by Sanctions if conducted by an entity organized in the United States, the United Kingdom or in a European Union member state, or (iii) in any manner that would result in the violation of any Sanctions applicable to any party hereto. Grief Inc. will maintain in effect and enforce policies and procedures reasonably designed to promote and achieve compliance in all material respects by the Seller Parties, each Subsidiary and Affiliate of the Seller Parties and their respective officers, directors, employees and agents with Anti-Corruption Laws, Anti-Money Laundering Laws and applicable Sanctions.

SECTION 6.2 Negative Covenants of the SPV and Servicer. At all times from the date hereof to the Final Payout Date, unless the Majority Investors shall otherwise consent in writing:

(a) No Sales, Liens, Etc. (i) Except as otherwise provided herein and in the First Tier Agreement, neither the SPV nor the Servicer shall sell, assign (by operation of law or otherwise) or otherwise dispose of, or create or suffer to exist

any Adverse Claim upon (or the filing of any financing statement) or with respect to (A) any of the Affected Assets, or (B) any proceeds of inventory or goods, the sale of which may give rise to a Receivable, or assign any right to receive income in respect thereof and (ii) the SPV shall not issue any security to, or sell, transfer or otherwise dispose of any of its property or other assets (including the property sold to it by an Originator under Section 2.1 of the First Tier Agreement) to, any Person other than an Affiliate (which Affiliate is not a special purpose entity organized for the sole purpose of issuing asset backed securities) or as otherwise expressly provided for in the Transaction Documents.

(b) No Extension or Amendment of Receivables. Except as otherwise permitted in Section 7.2, neither the SPV nor the Servicer shall extend, amend or otherwise modify the terms of any Receivable, or amend, modify or waive any term or condition of any Contract related thereto.

(c) No Change in Business or Credit and Collection Policy. Neither the SPV nor the Servicer shall make any change in the character of its business or in the Credit and Collection Policy, which change would, in either case, materially impair the collectibility of any Eligible Receivable or reasonably be expected to have a Material Adverse Effect.

(d) No Subsidiaries, Divisions, Mergers, Etc. Neither the SPV nor the Servicer shall consolidate or merge with or into, or sell, lease or transfer all or substantially all of its assets to, any other Person, unless in the case of any such action by the Servicer (i) no Termination Event or Material Adverse Effect would occur or be reasonably likely to occur as a result of such transaction and (ii) such Person executes and delivers to the Agent and each Managing Agent an agreement by which such Person assumes the obligations of the Servicer hereunder and under the other Transaction Documents to which it is a party, or confirms that such obligations remain enforceable against it, together with such certificates and opinions of counsel as any Managing Agent may reasonably request. The SPV shall not form or create any Subsidiary or division or create a plan of division.

(e) Change in Payment Instructions to Obligors. Neither the SPV nor the Servicer shall add or terminate any bank as a Blocked Account Bank or any account as a Blocked Account or the Collection Account to or from those listed in Schedule 4.1(s) to the Disclosure Letter or make any change in its instructions to Obligors regarding payments to be made to any Blocked Account, unless (i) such instructions are to deposit such payments to another existing Blocked Account or to the Collection Account or (ii) the Agent shall have received written notice of such addition, termination or change at least thirty (30) days prior thereto and the Agent shall have received a Blocked Account Agreement executed by each new Blocked Account Bank or an existing Blocked Account Bank with respect to each new Blocked Account or the Collection Account, as applicable.

(f) Deposits to Blocked Accounts. Neither the SPV nor the Servicer shall deposit or otherwise credit, or cause or permit to be so deposited or credited, to any Blocked Account or the Collection Account cash or cash proceeds other than Collections. If any Excluded Amounts are deposited or credited to any Blocked Account or the Collection Account, the SPV shall transfer such Excluded Amounts to an account of the SPV or an Originator other than the Blocked Accounts or the Collection Account within two (2) Business Days of such deposit or credit thereof to the applicable Blocked Account or the Collection Account, as applicable. The Agent and the other Secured Parties acknowledge they shall have no right, title or interest in any such Excluded Amounts. The SPV and the Servicer shall cause the Blocked Account Agreement Amendment Date to occur within five (5) Business Days after the Specified Account becomes operational and is ready to receive deposits; provided that no amounts shall be deposited to the Specified Account prior to the Blocked Account Agreement Amendment Date.

(g) Change of Name, Etc. The SPV shall not change its name, identity or structure (including a merger) or the location of its jurisdiction of formation or any other change which could render any UCC financing statement filed in connection with this Agreement or any other Transaction Document to become "seriously misleading" under the UCC, unless at least thirty (30) days prior to the effective date of any such change the SPV delivers to each Managing Agent (i) such documents, instruments or agreements, executed by the SPV as are necessary to reflect such change and to continue the perfection of the Agent's ownership interests or security interests in the Affected Assets and (ii) new or revised Blocked Account Agreements executed by the Blocked Account Banks which reflect such change and enable the Agent to continue to exercise its rights contained in Section 7.3.

(h) Amendment to First Tier Agreement. The SPV shall not amend, modify, or supplement the First Tier Agreement or waive any provision thereof, in each case except with the prior written consent of the Majority Investors; nor shall the SPV take, or permit any Originator to take, any other action under the First Tier Agreement that would reasonably be expected to result in a material adverse effect on the Agent, any Managing Agent or any Investor or which is inconsistent in any material manner with the terms of this Agreement.

(i) Amendment to Organizational Documents. The SPV will not amend its Articles of Organization filed with the Secretary of the State of Delaware or any provision of its limited liability company operating agreement without the consent of the Agent.

(j) Other Debt. Except as provided herein and the Continuing Obligations, after the date hereof, the SPV shall not create, incur, assume or suffer to exist any Indebtedness whether current or funded, or any other liability other than (i) Indebtedness of the SPV representing fees, expenses and indemnities arising hereunder or under the First Tier Agreement for the purchase price of the Receivables and other Affected Assets under the First Tier Agreement, (ii) the Deferred Purchase Price payable in respect of the Receivables acquired pursuant to the First Tier Agreement and (iii) other Indebtedness incurred in the ordinary course of its business in an amount not to exceed $16,750 at any time outstanding.

(k) Payment to the Originators. The SPV shall not acquire any Receivable other than through, under, and pursuant to the terms of the First Tier Agreement, through the payment by the SPV either in cash or by increase of the capital contribution of the Originators pursuant to the First Tier Agreement, by increase in the Deferred Purchase Price, in an amount equal to the unpaid purchase price for such Receivable as required by the terms of the First Tier Agreement.

(l) Restricted Payments. The SPV shall not (A) purchase or redeem any equity interest in the SPV, (B) prepay, purchase or redeem any Indebtedness, (C) lend or advance any funds or (D) repay any loans or advances to, for or from any of its Affiliates (the amounts described in clauses (A) through (D) being referred to as "Restricted Payments"), except that the SPV may (1) make Restricted Payments out of funds received pursuant to Section 2.2 and (2) may make other Restricted Payments (including the payment of dividends or distributions, and payments of the Deferred Purchase Price) if, after giving effect thereto, no Termination Event or Potential Termination Event shall have occurred and be continuing.

ARTICLE VII

ADMINISTRATION AND COLLECTIONS

SECTION 7.1 Appointment of Servicer.

(a) The servicing, administering and collection of the Receivables shall be conducted by the Person (the "Servicer") so designated from time to time as Servicer in accordance with this Section 7.1. Each of the SPV, the Managing Agents and the Investors hereby appoints as its agent the Servicer, from time to time designated pursuant to this Section, to enforce its respective rights and interests in and under the Affected Assets. To the extent permitted by applicable law, each of the SPV and the Originators (to the extent not then acting as Servicer hereunder and only to the extent consistent with its obligations under the First Tier Agreement) hereby grants to any Servicer appointed hereunder an irrevocable power of attorney to take any and all steps in the SPV's and/or such Originator's name and on behalf of the SPV or such Originator as necessary or desirable, in the reasonable determination of the Servicer, to collect all amounts due under any and all Receivables, including endorsing the SPV's and/or such Originator's name on checks and other instruments representing Collections and enforcing such Receivables and the related Contracts and to take all such other actions set forth in this Article VII. Until the Agent gives notice to the existing Servicer (in accordance with this Section 7.1) of the designation of a new Servicer, the existing Servicer is hereby designated as, and hereby agrees to perform the duties and obligations of, the Servicer pursuant to the terms hereof. At any time following the occurrence and during the continuation of a Servicer Default, the Agent may upon the direction of the Majority Investors, designate as Servicer any Person (including the Agent) to succeed the initial Servicer or any successor Servicer, on the condition in each case that any such Person so designated shall agree to perform the duties and obligations of the Servicer pursuant to the terms hereof.

(b) Upon the designation of a successor Servicer as set forth above, the existing Servicer agrees that it will terminate its activities as Servicer hereunder in a manner which the Agent determines will facilitate the transition of the performance of such activities to the new Servicer, and the existing Servicer shall cooperate with and assist such new Servicer. Such cooperation shall include access to and transfer of records and use by the new Servicer of all records, licenses, hardware or software necessary or desirable to collect the Receivables and the Related Security.

(c) The existing Servicer acknowledges that the SPV, the Agent, each Managing Agent and the Investors have relied on the existing Servicer's agreement to act as Servicer hereunder in making their decision to execute and deliver this Agreement. Accordingly, the existing Servicer agrees that it will not voluntarily resign as Servicer.

(d) The Servicer may delegate its duties and obligations hereunder to any subservicer (each, a "Sub-Servicer"); *provided* that, in each such delegation, (i) such Sub-Servicer shall agree in writing to perform the duties and obligations of the Servicer pursuant to the terms hereof, (ii) the Servicer shall remain primarily liable to the SPV, the Agent, the Managing Agents and the Investors for the performance of the duties and obligations so delegated, (iii) the SPV and the Majority Investors shall consent in writing to any material delegation of servicing duties different in scope or nature than those delegations typically made by the Servicer as of the Closing Date and (iv) the terms of any agreement with any Sub-Servicer shall provide that the Agent may terminate such agreement upon the termination of the Servicer hereunder by giving notice of its desire to terminate such agreement to the Servicer (and the Servicer shall provide appropriate notice to such Sub-Servicer).

SECTION 7.2 Duties of Servicer. (a) The Servicer shall take or cause to be taken all reasonable action as may be necessary or advisable to collect each Receivable from time to time, all in accordance with this Agreement and all applicable Law, with reasonable care and diligence, and in accordance with the Credit and Collection Policy. The Servicer shall set aside (and, if applicable, segregate) and hold in trust for the accounts of the SPV, the Agent and each Managing Agent the amount of the Collections to which each is entitled in accordance with Article II. So long as no Termination Event or Potential Termination Event shall have occurred and be continuing, the Servicer may, in accordance with the Credit and Collection Policy, extend the maturity or adjust the Unpaid Balance of any Receivable, including any Defaulted Receivable, or amend, modify or waive any term or condition of any Contract related thereto, in each case, as the Servicer may determine to be appropriate to maximize Collections thereof; *provided* that (i) such extension, adjustment or modification shall not alter the status of such Receivable as a Defaulted Receivable or limit the rights of the SPV or any Secured Party under this Agreement and (ii) if a Termination Event is continuing, then the Servicer may make such extension, adjustment or modification only with the approval of the Agent. The SPV shall deliver to the Servicer and the Servicer shall hold in trust for the SPV and the Agent, on behalf of the Investors, in accordance with their respective interests, all Records which evidence or relate to any Affected Asset. Notwithstanding anything to the contrary contained herein, at any time when a Termination Event is continuing, the Agent shall have the right to direct the Servicer to commence or settle any legal action to enforce collection of any Receivable or to foreclose upon or repossess any Affected Asset. The Servicer shall not make the Administrator, the Agent, any Managing Agent or any other Secured Party a party to any litigation without the prior written consent of such Person. At any time when a Termination Event exists and is continuing, the Agent may notify any Obligor of its interest in the Receivables and the other Affected Assets.

(b) The Servicer shall, as soon as practicable following receipt thereof, turn over to the SPV all collections from any Person of indebtedness of such Person which are not on account of a Receivable. Notwithstanding anything to the contrary contained in this Article VII, the Servicer, if not the SPV, an Originator or any Affiliate of the SPV or an Originator, shall have no obligation to collect, enforce or take any other action described in this Article VII with respect to any indebtedness that is not included in the Asset Interest other than to deliver to the SPV the Collections and documents with respect to any such indebtedness as described above in this Section 7.2(b).

(c) Any payment by an Obligor in respect of any indebtedness owed by it to an Originator shall, except as otherwise specified by such Obligor, required by contract or law or clearly indicated by facts or circumstances (including by way of example an equivalence of a payment and the amount of a particular invoice), and unless otherwise instructed by the Agent, be applied as a Collection of any Receivable of such Obligor (starting with the oldest such Receivable) to the extent of any amounts then due and payable thereunder before being applied to any other receivable or other indebtedness of such Obligor.

SECTION 7.3 Blocked Account Arrangements. Prior to the Closing Date the Servicer and SPV shall enter into Blocked Account Agreements with all of the Blocked Account Banks, and deliver original counterparts thereof to the Agent. The Agent may at any time after the occurrence and during the continuation of a Termination Event or Potential Termination Event give notice to each Blocked Account Bank that the Agent is exercising its rights under the Blocked Account Agreements to do any or all of the following: (i) to have the exclusive control of the Blocked Accounts and the Collection Account transferred to the Agent and to exercise exclusive dominion and control over the funds deposited therein, (ii) to have the proceeds that are sent to the respective Blocked Accounts and the Collection Account be redirected pursuant to its instructions rather than deposited in the applicable Blocked Account or the Collection Account, and (iii) to take any or all other actions permitted under the applicable Blocked Account Agreement; *provided* that the Agent shall have no right, title or interest in any Excluded Amounts deposited into Blocked Accounts or the Collection Account and shall cause such Excluded Amounts to be transferred to the applicable Originator at its direction. Each of the Servicer and SPV hereby agrees that if the Agent, at any time, takes any action set forth in the preceding sentence, the Agent shall have exclusive control of the proceeds (including Collections) of all Receivables and each of the Servicer and SPV hereby further agrees to take any other action that the Agent may reasonably request to transfer such control. Except as provided in Section 2.9, any proceeds of Receivables received by any of the Originators, the Servicer or the SPV thereafter shall be sent promptly (but in any event within two (2) Business Days of receipt) to a Blocked Account. The parties hereto hereby acknowledge that if at any time the Agent takes control of any Blocked Account or the Collection Account, the Agent shall distribute or cause to be distributed such funds in accordance with Section 7.2(b) and Article II (in each case as if such funds were held by the Servicer thereunder). The Servicer and the SPV further agree that at any time after the occurrence and during the continuation of a Termination Event or Potential Termination Event, they will not withdraw or transfer any amounts (x) from a Blocked Account, except: (i) to another Blocked Account, (ii) to the Collection Account as and when required hereunder, or (iii) otherwise with the written consent of the Agent or (y) from the Collection Account, except with the written consent of the Agent.

SECTION 7.4 Enforcement Rights. (a) At any time following the occurrence and during the continuation of a Termination Event:

(i) the Agent may direct the Obligors that payment of all amounts payable under any Receivable be made directly to the Agent or its designee;

(ii) the SPV shall, at the Agent's request and at the SPV's expense, give notice of the Agent's, the SPV's, and/or the Investors' ownership of the Receivables and (in the case of the Agent) interest in the Asset Interest to each Obligor and direct that payments be made directly to the Agent or its designee, except that if the SPV fails to so notify each obligor, the Agent may so notify the Obligors; and

(iii) the SPV shall, at the Agent's request, (A) assemble all of the Records and shall make the same available to the Agent or its designee at a place selected by the Agent or its designee, and (B) segregate all cash, checks and other instruments received by it from time to time constituting Collections in a manner acceptable to the Agent and shall, promptly upon receipt, remit all such cash, checks and instruments, duly endorsed or with duly executed instruments of transfer, to the Agent or its designee.

(b) Each of the SPV and the Originators hereby authorizes the Agent, and irrevocably appoints the Agent as its attorney-in-fact with full power of substitution and with full authority in the place and stead of the SPV or the Originators, as applicable, which appointment is coupled with an interest, to take any and all steps in the name of the SPV or the Originators, as applicable, and on behalf of the SPV or the Originators, as applicable, necessary or desirable, in the determination of the Agent, to collect any and all amounts or portions thereof due under any and all Receivables or Related Security, including endorsing the name of the applicable Originator on checks and other instruments representing Collections and enforcing such Receivables, Related Security and the related Contracts. Notwithstanding anything to the contrary contained in this subsection (b), none of the powers conferred upon such attorney-in-fact pursuant to the immediately preceding sentence shall subject such attorney-in-fact to any liability if any action taken by it shall prove to be inadequate or invalid, nor shall they confer any obligations upon such attorney-in-fact in any manner whatsoever, in each case, other than actions resulting from the gross negligence or willful misconduct of such attorney-in-fact. The Agent hereby agrees only to use such power of attorney following the occurrence and during the continuation of a Termination Event.

SECTION 7.5 Servicer Default. The occurrence of any one or more of the following events shall constitute a "Servicer Default":

(a) The Servicer (i) shall fail to make any payment or deposit required to be made by it hereunder when due and such failure continues for one (1) Business Day or the Servicer shall fail to observe or perform any term, covenant or agreement on the Servicer's part to be performed under Sections 6.1(b) (*conduct of business, ownership*), 6.1(f) (*performance and compliance with receivables, contracts and credit and collection policy*), 6.1(h) (*obligor payments*), 6.1(i) (*handling collections*), 6.2(a) (*no sales or liens*), 6.2(c) (*no change in business or credit and collection policy*), 6.2(d) (*no subsidiaries, divisions, mergers, etc.*), 6.2(e) (*change in payment instructions to obligors*), or 6.2(f) (*deposits to lock-box accounts*) (any of the preceding parenthetical phrases in this clause (i) are for purposes of reference only and shall not otherwise affect the meaning or interpretation of any provision hereof) and such failure continues for two (2) Business Days, or (ii) shall fail to observe or perform any other term, covenant or agreement to be observed or performed by it under Sections 2.8, 2.9, 2.12 or 2.15 and such failure continues for two (2) Business Days, or (iii) shall fail to observe or perform in any material respect any other term, covenant or agreement hereunder or under any of the other Transaction Documents to which such Person is a party or by which such Person is bound, and such failure shall remain unremedied for fifteen (15) days after the earlier to occur of (i) receipt of notice thereof from any Managing Agent, any Investor or the Agent or (ii) actual knowledge thereof by a Responsible Officer; or

(b) any representation, warranty, certification or statement made by the Servicer in this Agreement or in any of the other Transaction Documents or in any certificate or report delivered by it pursuant to any of the foregoing shall prove to have been incorrect in any material respect when made or deemed made (except any representation or warranty qualified by materiality or by reference to a material adverse effect, which shall prove to have been incorrect in any respect) when made or confirmed and such circumstance shall remain uncured for fifteen (15) days after the earlier to occur of (i) receipt of notice thereof from any Managing Agent, any Investor or the Agent or (ii) actual knowledge thereof by a Responsible Officer; *provided* that no such representation, warranty, or certification hereunder shall be deemed to be incorrect or violated to the extent any affected Receivable is subject to a Deemed Collection and all required amounts with respect to such Receivable have been deposited into a Blocked Account or the Collection Account; or

(c) failure of the Servicer or any of its Subsidiaries (other than the SPV) to pay when due any amounts due under any agreement under which any Indebtedness greater than $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement) is governed; or the default by the Servicer or any of its Subsidiaries in the performance of any term, provision or condition contained in any agreement under which any Indebtedness greater than $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement) was created or is governed, regardless of whether such event is an "event of default" or "default" under any such agreement; or any Indebtedness of the Servicer or any of its Subsidiaries (other than the SPV) greater than $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement) shall be declared to be due and payable or required to be prepaid (other than by a regularly scheduled payment) prior to the scheduled date of maturity thereof; or

(d) there is entered against the Servicer or any Subsidiary thereof (i) one or more final judgments or orders for the payment of money in an aggregate amount (as to all such judgments and orders) exceeding $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement) (to the extent not covered by independent third-party insurance as to which the insurer is rated at least "A" by A.M. Best Company, has been notified of the potential claim and does not dispute coverage), or (ii) any one or more non-monetary final judgments that have, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect and, in either case, (A) enforcement proceedings are commenced by any creditor upon such judgment or order, or (B) there is a period of ten (10) consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect; or

(e) [Reserved]; or

(f) any Event of Bankruptcy shall occur with respect to the Servicer or any of its Material Subsidiaries; or

(g) [Reserved]; or

(h) a breach of any financial covenant set forth in Section 7.15 of the Senior Credit Agreement has occurred and is continuing; for the avoidance of doubt, if any breach of any financial covenant set forth in Section 7.15 of the Senior Credit Agreement does not constitute an Event of Default (as defined in the Senior Credit Agreement) which is continuing under the Senior Credit Agreement as in effect from time to time, such breach shall not consititute a Servicer Default hereunder.

SECTION 7.6 Servicing Fee. The Servicer shall be paid a Servicing Fee in accordance with 2.12 and subject to the priorities therein.

SECTION 7.7 Protection of Ownership Interest of the Investors. Each of the Originators and the SPV agrees that it shall, from time to time, at its expense, promptly execute and deliver all instruments and documents and take all actions as may be necessary or as the Agent may reasonably request in order to perfect or protect the Asset Interest or to enable the Agent, each Managing Agent or the Investors to exercise or enforce any of their respective rights hereunder. Without limiting the foregoing, each of the Originators and the SPV shall, upon the request of the Agent, any Managing Agent or any of the Investors, in order to accurately reflect the transactions evidenced by the Transaction Documents, (i) execute and file such financing or continuation statements or amendments thereto or assignments thereof (as otherwise permitted to be executed and filed pursuant hereto) as may be requested by the Agent, any Managing Agent or any of the Investors and (ii) mark its respective master data processing records and other documents with a legend describing the conveyance to the Agent, for the benefit of the Secured Parties, of the Asset Interest. Each of the Originators and the SPV shall, upon request of the Agent, any Managing Agent or any of the Investors, obtain such additional search reports as the Agent, any Managing Agent or any of the Investors shall request. To the fullest extent permitted by applicable law, the Agent is hereby authorized to sign and file continuation statements and amendments thereto and assignments thereof without the SPV's or any Originator's signature. Carbon, photographic or other reproduction of this Agreement or any financing statement shall be sufficient as a financing statement. The SPV shall not change its name, identity or corporate (or limited liability company) structure nor change its jurisdiction of formation unless it shall have: (A) given the Agent at least thirty (30) days prior notice thereof and (B) prepared at the SPV's expense and delivered to the Agent all financing statements, instruments and other documents necessary to preserve and protect the Asset Interest or requested by the Agent in connection with such change. Any filings under the UCC or otherwise that are occasioned by such change shall be made at the expense of the SPV.

ARTICLE VIII

TERMINATION EVENTS

SECTION 8.1 Termination Events. The occurrence of any one or more of the following events shall constitute a "Termination Event":

(a) the SPV or any Originator shall fail to make any payment or deposit to be made by it hereunder or under any other Transaction Document when due hereunder or thereunder and such failure shall continue for two (2) Business Days; or

(b) any representation, warranty, certification or statement made or deemed made by the SPV or any Originator in this Agreement, any other Transaction Document to which it is a party or in any other information, report or document delivered pursuant hereto or thereto shall prove to have been incorrect in any material respect (except any representation or warranty qualified by materiality or by reference to a material adverse effect, which shall prove to have been incorrect in any respect) when made or confirmed and such circumstance shall remain uncured for thirty (30) days after the earlier to occur of (i) receipt of notice thereof from any Managing Agent, any Investor or the Agent or (ii) actual knowledge thereof by a Responsible Officer; *provided* that no such representation, warranty, or certification hereunder shall be deemed to be incorrect or violated to the extent any

affected Receivable is subject to a Deemed Collection and all required amounts with respect to such Receivable have been deposited into a Blocked Account or the Collection Account; or

(c) the SPV or any Originator (i) shall fail to perform or observe in any material respect any other term, covenant or agreement contained in this Agreement on its part to be performed or observed and any such failure remains unremedied for 10 days or (ii) shall fail to perform a covenant listed in Section 6.1(a)(iv) and such failure remains unremedied for 30 days after written notice thereof has been given to the SPV or any Originator by the Agent; or

(d) any Event of Bankruptcy shall occur with respect to the SPV, Greif, Inc., any Originator, or any Material Subsidiary.

(e) the Agent, on behalf of the Secured Parties, shall for any reason (other than as a result of the actions of the Agent or any of the other Secured Parties) fail or cease to have a valid and enforceable perfected first priority ownership or security interest in the Affected Assets, free and clear of any Adverse Claim (it being understood that the forgoing shall not apply to any Receivable subject to a Deemed Collection and all required amounts with respect to which have been deposited into a Blocked Account or the Collection Account); or

(f) a Servicer Default shall have occurred and be continuing; or

(g) the Net Investment (as determined after giving effect to all distributions pursuant to this Agreement on such date) plus the Required Reserves shall exceed the Net Pool Balance for one (1) Business Day; or

(h) the Three-Month Days Sales Outstanding is greater than 55; or

(i) the Two-Month Dilution Ratio is greater than 5.00%; or

(j) the Three-Month Default Ratio is greater than 1.50%; or

(k) the Three-Month Delinquency Ratio is greater than 4.50%; or

(l) [Reserved]; or

(m) failure of the SPV or any Originator to pay when due any amounts due under any agreement to which any such Person is a party and under which any Indebtedness greater than $16,750 in the case of the SPV, or $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement), in the case of any Originator; or the default by the SPV or any Originator in the performance of any term, provision or condition contained in any agreement to which any such Person is a party and under which any Indebtedness owing by the SPV or any Originator greater than such respective amounts was created or is governed, regardless of whether such event is an “event of default” or “default” under any such agreement if the effect of such default is to cause, or to permit the holder of such Indebtedness to cause, such Indebtedness to become due and payable prior to its stated maturity; or any Indebtedness owing by the SPV or any Originator greater than such respective amounts shall be declared to be due and payable or required to be prepaid (other than by a regularly scheduled payment) prior to the date of maturity thereof; or

(n) the SPV is not Solvent and each Originator ceases selling Receivables to the SPV under the First Tier Agreement; or

(o) there shall be a Change of Control; or

(p) any Person shall institute steps to terminate any Pension Plan if the assets of such Pension Plan are insufficient to satisfy all of its benefit liabilities (as determined under Title IV of ERISA), or a contribution failure occurs with respect to any Pension Plan which is sufficient to give rise to a lien under Section 303(k) of ERISA if as of the date thereof or any subsequent date, the sum of each of Greif, Inc.’s and its Subsidiaries’ various liabilities as a result of such events listed in this clause exceeds $90,000,000 (or such other amount as may from time to time be set forth in the Senior Credit Agreement) in the aggregate; or

(q) any material provision of this Agreement or any other Transaction Document to which an Originator, the Servicer or the SPV is a party shall cease to be in full force and effect or such Originator, the Servicer or the SPV shall so state in writing; or

(r) there is entered against any Originator or any Subsidiary thereof (i) one or more final judgments or orders for the payment of money in an aggregate amount (as to all such judgments and orders) exceeding $90,000,000 (or such

other amount as may from time to time be set forth in the Senior Credit Agreement) (to the extent not covered by independent third-party insurance as to which the insurer is rated at least "A" by A.M. Best Company, has been notified of the potential claim and does not dispute coverage), or (ii) any one or more non-monetary final judgments that have, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect and, in either case, (A) enforcement proceedings are commenced by any creditor upon such judgment or order, or (B) there is a period of ten (10) consecutive days during which a stay of enforcement of such judgment, by reason of a pending appeal or otherwise, is not in effect.

SECTION 8.2 Termination. During the continuation of any Termination Event, the Agent may, or at the direction of the Majority Investors shall, by notice to the SPV and the Servicer, declare the Termination Date to have occurred; *provided* that in the case of any event described in Section 8.1(d), the Termination Date shall be deemed to have occurred automatically upon the occurrence of such event. Upon any such declaration or automatic occurrence, the Agent shall have, in addition to all other rights and remedies under this Agreement or otherwise, all other rights and remedies provided under the UCC of the applicable jurisdiction and other applicable laws, all of which rights shall be cumulative.

ARTICLE IX

INDEMNIFICATION; EXPENSES; RELATED MATTERS

SECTION 9.1 Indemnities by the SPV. Without limiting any other rights which the Indemnified Parties may have hereunder or under applicable Law, the SPV hereby agrees to indemnify the Investors, the Agent, each Managing Agent, each Administrator, the Program Support Providers, and their respective officers, directors, employees, counsel and other agents (collectively, "Indemnified Parties") from and against any and all damages, losses, claims, liabilities, costs and expenses, including reasonable attorneys' fees (which attorneys may be employees of the Indemnified Parties) and disbursements (all of the foregoing being collectively referred to as "Indemnified Amounts") awarded against or incurred by any of them in any action or proceeding between the SPV or any Originator (including any Originator in its capacity as the Servicer or any Affiliate of an Originator acting as Servicer) and any of the Indemnified Parties or between any of the Indemnified Parties and any third party, in each case arising out of or as a result of this Agreement, the other Transaction Documents, the ownership or maintenance, either directly or indirectly, by the Agent, any Managing Agent or any Investor of the Asset Interest or any of the other transactions contemplated hereby or thereby, excluding, however, (i) Indemnified Amounts to the extent resulting from gross negligence or willful misconduct on the part of such Indemnified Party, as finally determined by a court of competent jurisdiction, (ii) recourse for uncollectible Receivables or (iii) any Taxes which are covered by Section 9.4 or any Excluded Taxes. Without limiting the generality of the foregoing, the SPV shall indemnify each Indemnified Party for Indemnified Amounts relating to or resulting from:

(a) any representation or warranty made by the SPV, any Originator (including any Affiliate of any Originator in its capacity as the Servicer) or any officers of the SPV, any Originator (including, in its capacity as the Servicer or any Affiliate of an Originator acting as Servicer) under or in connection with this Agreement, the First Tier Agreement, any of the other Transaction Documents, any Servicer Report or any other information or report delivered by the SPV, the Servicer or any Originator pursuant hereto, or pursuant to any of the other Transaction Documents which shall have been incomplete, false or incorrect in any respect when made or deemed made;

(b) the failure by the SPV or any Originator (including, in its capacity as the Servicer or any Affiliate of an Originator acting as Servicer) to comply with any applicable Law with respect to any Receivable or the related Contract, or the nonconformity of any Receivable or the related Contract with any such applicable Law;

(c) the failure (i) to vest and maintain vested in the Agent, on behalf of the Secured Parties, a first priority, perfected ownership interest in the Asset Interest free and clear of any Adverse Claim or (ii) to create or maintain a valid and perfected first priority security interest in favor of the Agent, for the benefit of the Secured Parties, in the Affected Assets, free and clear of any Adverse Claim, in each case, other than as a result of actions of the Agent or any other Secured Creditor;

(d) at the request of the Agent, the failure by the SPV, any Originator or the Servicer to file, or any delay in filing, financing statements, continuation statements, or other similar instruments or documents under the UCC of any applicable jurisdiction or other applicable laws with respect to any of the Affected Assets;

(e) any dispute, claim, offset or defense (other than discharge in bankruptcy or uncollectibility of a Receivable from the related Obligor) of the Obligor to the payment of any Receivable (including a defense based on such Receivable or the related Contract not being the legal, valid and binding obligation of such Obligor enforceable against it in accordance with its terms), or any other claim resulting from the sale of merchandise or services related to such Receivable or the furnishing or failure to furnish such merchandise or services, or from any breach or alleged breach of any provision of the Receivables or the related Contracts restricting assignment of any Receivables;

(f) any failure of the Servicer to perform its duties or obligations in accordance with the provisions hereof;

(g) any products liability claim or personal injury or property damage suit or other similar or related claim or action of whatever sort arising out of or in connection with merchandise or services which are the subject of any Receivable;

(h) the failure by the SPV or any of the Originators to comply with any term, provision or covenant contained in this Agreement or any of the other Transaction Documents to which it is a party or to perform any of its respective duties or obligations under the Receivables or related Contracts;

(i) the Net Investment plus the Required Reserves exceeding the Net Pool Balance at any time (other than as a result of the uncollectibility of any Receivable);

(j) the failure of the SPV or any Originator to pay when due any sales, excise or personal property taxes payable in connection with any of the Receivables;

(k) any repayment by any Indemnified Party of any amount previously distributed in reduction of Net Investment which such Indemnified Party believes in good faith is required to be made;

(l) the commingling by the SPV, any Originator or the Servicer of Collections at any time with any other funds;

(m) any investigation, litigation or proceeding related to this Agreement, any of the other Transaction Documents, the use of proceeds of Investments by the SPV or any Originator, the ownership of the Asset Interest, or any Affected Asset;

(n) failure of any Blocked Account Bank to remit any amounts held in the Blocked Accounts or any related lock-boxes or the Collection Account pursuant to the instructions of the Servicer, the SPV, any Originator or the Agent (to the extent such Person is entitled to give such instructions in accordance with the terms hereof and of any applicable Blocked Account Agreement) whether by reason of the exercise of set-off rights or otherwise, or any claim or demand for indemnification made by any Blocked Account Bank to any Indemnified Party pursuant to any Blocked Account Agreement;

(o) any inability to obtain any judgment in or utilize the court or other adjudication system of, any state in which an Obligor may be located as a result of the failure of the SPV, the Servicer or any Originator to qualify to do business or file any notice of business activity report or any similar report;

(p) any attempt by any Person to void, rescind or set-aside any transfer by any Originator to the SPV of any Receivable or Related Security under statutory provisions or common law or equitable action, including any provision of the Bankruptcy Code or other insolvency law;

(q) any action taken by the SPV, any Originator, or the Servicer (if the Servicer is an Originator or any Affiliate or designee of an Originator) in the enforcement or collection of any Receivable (unless such action is directed by the Agent or the Investors in bad faith or with gross negligence or willful misconduct); or

(r) the use of the proceeds of any Investment or Reinvestment.

SECTION 9.2 Indemnities by the Servicer. Without limiting any other rights which the Servicer Indemnified Parties may have hereunder or under applicable Law, the Servicer hereby agrees, to indemnify the Indemnified Parties and their successors, transferees and assigns and all officers, directors, shareholders, controlling persons, employees, counsel and other agents of any of the foregoing (collectively, "Servicer Indemnified Parties") from and against any and all damages, losses, claims, liabilities, costs and expenses, including reasonable attorneys' fees (which attorneys may be employees of any Servicer Indemnified Party) and disbursements (all of the foregoing being collectively referred to as "Servicer Indemnified Amounts") awarded against or incurred by any of them in any action or proceeding between the Servicer and any of the Servicer Indemnified Parties or between any of the Servicer Indemnified Parties and any third party arising out of the following clauses (a) through (j), excluding however, (i) Servicer Indemnified Amounts to the extent resulting from gross negligence or willful misconduct on the part of such Servicer Indemnified Party, as finally determined by a court of competent jurisdiction, (ii) recourse for uncollectible Receivables or (iii) any Taxes which are covered by Section 9.4 or any Excluded Taxes. The Servicer shall indemnify each Servicer Indemnified Party for Servicer Indemnified Amounts relating to or resulting from:

(a) any representation or warranty made by the Servicer or any of its officers under or in connection with this Agreement, any of the other Transaction Documents, any Servicer Report or any other information or report delivered by the

Servicer pursuant hereto, or pursuant to any of the other Transaction Documents which shall have been incomplete, false or incorrect in any respect when made or confirmed;

(b) the failure by the Servicer to comply with any applicable Law with respect to any Receivable or the related Contract;

(c) the failure by the Servicer to file, or any delay in filing, financing statements, continuation statements, or other similar instruments or documents under the UCC of any applicable jurisdiction or other applicable laws with respect to any of the Affected Assets, if such filings were previously requested in writing to be filed by the Agent;

(d) any failure of the Servicer to perform its duties or obligations in accordance with the provisions hereof;

(e) the failure by the Servicer to comply with any term, provision or covenant contained in this Agreement or any of the other Transaction Documents to which it is a party or to perform any of its servicing duties or obligations under the Receivables or related Contracts;

(f) the commingling by the Servicer of Collections at any time with any other funds;

(g) any inability to obtain any judgment in or utilize the court or other adjudication system of, any state in which an Obligor may be located as a result of the failure of the Servicer to qualify to do business or file any notice of business activity report or any similar report;

(h) any dispute, claim, offset or defense of an Obligor to the payment of any Receivable resulting from or related to the collection activities of the Servicer in respect of such Receivable (unless such action is directed by the Agent or Investors in bad faith or with gross negligence or willful misconduct);

(i) any action taken by the Servicer in the enforcement or collection of any Receivable (unless such action is directed by the Agent or Investors in bad faith or with gross negligence or willful misconduct); or

(j) any claim or demand for indemnification made by any Blocked Account Bank to any Indemnified Party pursuant to any Blocked Account Agreement.

SECTION 9.3 Indemnity for Taxes, Reserves and Expenses. (a) If after the Closing Date, (w) the adoption of any Law or bank regulatory guideline or any amendment or change in the administration, interpretation or application of any existing or future Law or bank regulatory guideline by any Official Body charged with the administration, interpretation or application thereof (including, without limitation, any issuance pursuant to any Existing Law of any regulation that is not in effect on the date hereof or the application or implementation of any Existing Law, whether or not in effect on the date hereof, with respect to any Indemnified Party), (x) any directive, guidance or request of any Official Body (in the case of any bank regulatory guideline, whether or not having the force of Law), (y) the compliance of the Indemnified Party with, or the application or implementation by the Indemnified Party of, any of the foregoing subclauses (w) or (x), or (z) any change as determined in the reasonable discretion of the Indemnified Party after the date hereof, in the compliance of the Indemnified Party with, or the application or implementation by the Indemnified Party of, any Existing Law (a "Change in Law"):

(i) shall subject any Indemnified Party (or its applicable lending office) to any Taxes, duty or other charge (other than Taxes which are covered by Section 9.4 or Excluded Taxes) with respect to this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest, or payments of amounts due hereunder, or shall change the basis of taxation of payments to any Indemnified Party of amounts payable in respect of this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest, or payments of amounts due hereunder or its obligation to advance funds hereunder, under a Program Support Agreement or the credit or liquidity support furnished by a Program Support Provider or otherwise in respect of this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest (except for Taxes which are covered by Section 9.4, and the imposition or changes in the rate of any Excluded Tax imposed on such Indemnified Party); or

(ii) shall impose, modify or deem applicable any reserve, special deposit or similar requirement (including any such requirement imposed by the Board of Governors of the Federal Reserve System) against assets of, deposits with or for the account of, or credit extended by, any Indemnified Party or shall impose on any Indemnified Party or on the United States market for certificates of deposit or the London interbank market any other condition affecting this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest, or payments of amounts due hereunder or its obligation to advance funds hereunder, under a Program Support Agreement or the credit or liquidity support provided by a Program Support

Provider or otherwise in respect of this Agreement, the other Transaction Documents, or the ownership, maintenance or financing of the Asset Interest (other than reserves already taken into account in calculating the Eurodollar Reserve Percentage); or

(iii) shall impose upon any Indemnified Party any other condition or expense (including any loss of margin, reasonable attorneys' fees and expenses, and expenses of litigation or preparation therefor in contesting any of the foregoing, but excluding Taxes and Excluded Taxes) with respect to this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest, or payments of amounts due hereunder or its obligation to advance funds hereunder or under a Program Support Agreement or the credit or liquidity support furnished by a Program Support Provider or otherwise in respect of this Agreement, the other Transaction Documents, or the ownership, maintenance or financing of the Asset Interests;

and the result of any of the foregoing is to increase the cost to, or to reduce the amount of any sum received or receivable by, such Indemnified Party with respect to this Agreement, the other Transaction Documents, the ownership, maintenance or financing of the Asset Interest, the Receivables, the obligations hereunder, the funding of any Investments hereunder or under a Program Support Agreement, by an amount deemed by such Indemnified Party to be material, then, on the next Settlement Date occurring at least ten (10) days after the demand by such Indemnified Party through the applicable Managing Agent, the SPV shall pay to the applicable Managing Agent, for the benefit of such Indemnified Party, such additional amount or amounts as will compensate such Indemnified Party for such increased cost or reduction.

(b) If any Indemnified Party shall have determined that after the date hereof, (i) the adoption of any applicable Law, bank regulatory guideline regarding capital adequacy or liquidity requirements, or generally accepted accounting standard, or any change therein, or any change in the interpretation or administration thereof by any Official Body, (including, without limitation, any issuance pursuant to any Existing Law of any regulation that is not in effect on the date hereof), (ii) any guidance, request or directive regarding capital adequacy or liquidity requirements (in the case of any bank regulatory guideline, whether or not having the force of law) of any such Official Body, or (iii) the compliance of the Indemnified Party with, or the application or implementation by the Indemnified Party of, any of the foregoing subclauses (i) or (ii), or (iii) any change as determined in the reasonable discretion of the Indemnified Party, after the date hereof, in the compliance of the Indemnified Party with, or the application or implementation by the Indemnified Party of, any Existing Law, has or would have the effect of reducing the rate of return on capital of such Indemnified Party (or its parent) as a consequence of such Indemnified Party's obligations hereunder or with respect hereto to a level below that which such Indemnified Party (or its parent) could have achieved but for the occurrences described in the foregoing subclauses (i), (ii) or (iii) (taking into consideration its policies with respect to capital adequacy or liquidity requirements) by an amount deemed by such Indemnified Party to be material, then on the next Settlement Date occurring at least ten (10) days after demand, in the form of a notice as set forth in clause (c) below, by such Indemnified Party through the Agent or the applicable Managing Agent, the SPV shall pay to the applicable Managing Agent, for the benefit of such Indemnified Party, such additional amount or amounts as will compensate such Indemnified Party (or its parent) for such reduction.

(c) Each Indemnified Party shall, as soon as practicable, notify the SPV in writing of any event of which it has knowledge, occurring after the date hereof for which such Indemnified Party will or will likely seek compensation pursuant to this Section 9.3; *provided* that no failure to give or any delay in giving such notice shall affect the Indemnified Party's right to receive such compensation. A notice by the Agent or a Managing Agent on behalf of the applicable Indemnified Party claiming compensation under this Section 9.3 and setting forth the additional amount or amounts to be paid to it hereunder shall be conclusive in the absence of manifest error. In determining such amount, the Agent or any applicable Indemnified Party may use any reasonable averaging and attributing methods and shall have applied consistent return metrics to other similarly situated Persons (after consideration of, among other things, factors including facility pricing, structure, usage patterns, capital treatment and relationship) with respect to such amount and compensation. Any demand for compensation under this Section 9.3 shall be accompanied by a certificate as to the amount requested which shall set forth a reasonably detailed calculation for such requested amount. Notwithstanding anything in this Agreement to the contrary, the SPV shall not be obligated to make any payment to any Indemnified Party under this Section 9.3 for any period prior to the date on which such Indemnified Party gives written notice to the SPV of its intent to request such payment under this Section 9.3.

(d) Notwithstanding anything herein to the contrary, any indemnity payable under this Section 9.3 shall be payable by the SPV in accordance with the priority of payments in Section 2.12.

SECTION 9.4 Taxes.

All payments and distributions made hereunder by the SPV, the Originators or the Servicer (each, a "payor") to any Investor, any Managing Agent or any other Secured Party (each, a "recipient") shall be made free and clear of and without deduction for any present or future income, excise, stamp or franchise taxes and any other taxes, fees, duties, withholdings or other charges

of any nature whatsoever imposed by any taxing authority on any recipient (or any assignee of such parties) but excluding Excluded Taxes (such non-excluded items being called "Taxes"). In the event that any withholding or deduction from any payment made by the payor hereunder is required in respect of any Taxes, then such payor shall:

(i) pay directly to the relevant authority the full amount required to be so withheld or deducted;

(ii) promptly forward to the applicable Managing Agent an official receipt or other documentation satisfactory to such Managing Agent evidencing such payment to such authority; and

(iii) pay to the recipient such additional amount or amounts as is necessary to ensure that the net amount actually received by the recipient will equal the full amount such recipient would have received had no such withholding or deduction been required.

Moreover, if any Taxes are directly asserted against any recipient with respect to any payment received by such recipient hereunder, the recipient may pay such Taxes and the payor will promptly pay, after written demand therefor by the recipient, such additional amounts (including any penalties interest or expenses, other than those arising from the gross negligence or willful misconduct of the Agent or the recipient) as shall be necessary in order that the net amount received by the recipient after the payment of such Taxes (including any Taxes on such additional amount) shall equal the amount such recipient would have received had such Taxes not been asserted. Any demand for compensation under this Section 9.4 shall be accompanied by a certificate as to the amount requested which shall set forth a reasonably detailed calculation for such requested amount. Any demand by a recipient under this Section 9.4 shall be made no later than 360 days after the earlier of (i) the date on which the recipient pays such Taxes or (ii) the date on which the relevant taxing authority makes written demand for payment of such Taxes by the recipient.

If the payor fails to pay any Taxes when due to the appropriate taxing authority or fails to remit to the recipient the required receipts or other required documentary evidence, the payor shall indemnify the recipient for any incremental Taxes, interest, or penalties that may become payable by any recipient as a result of any such failure.

SECTION 9.5 Status of Investors. Any Foreign Investor that is entitled to an exemption from or reduction of withholding tax under the law of the jurisdiction in which the SPV is resident for tax purposes, or any treaty to which such jurisdiction is a party, with respect to payments hereunder or under any other Transaction Document shall deliver to the SPV (with a copy to the Agent), at the time or times or reasonably requested by the payor or the Agent, such properly completed and executed documentation prescribed by applicable law as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Foreign Investor, if requested by the SPV or the Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the SPV or the Agent as will enable the SPV or the Agent to determine whether or not such Investor is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution or submission of such documentation (other than such documentation set forth in Section 9.5(i), (ii), (iii) and (iv) below and Section 9.8 below) shall not be required if in the Foreign Investor's reasonable judgment, such completion, execution or submission would subject such Foreign Investor to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Foreign Investor.

Without limiting the generality of the foregoing, in the event that the SPV is a U.S. Person, any Foreign Investor shall deliver to the SPV and the Agent (in such number of copies as shall be requested) on or prior to the date on which such Foreign Investor becomes an Investor under this Agreement, whichever of the following is applicable:

(i) in the case of a Foreign Investor claiming the benefits of an income tax treaty to which the United States is a party, duly completed copies of Internal Revenue Service Form W-8BEN or W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding tax;

(ii) duly completed copies of Internal Revenue Service Form W-8ECI;

(iii) in the case of a Foreign Investor claiming the benefits of the exemption for portfolio interest under section 881(c) of the Code, (x) a certificate signed under penalties of perjury, in a form reasonably satisfactory to the payor, to the effect that such Foreign Investor is not (A) a "bank" within the meaning of section 881(c)(3)(A) of the Code, (B) a "10 percent shareholder" of the payor within the meaning of section 881(c)(3)(B) of the Code, or (C) a "controlled foreign corporation" described in section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) duly completed copies of Internal Revenue Service Form W-8BEN or W-8BEN-E;

(iv) to the extent a Foreign Investor is not the beneficial owner, executed originals of Internal Revenue Service Form W-8IMY, accompanied by Internal Revenue Service Form W-8ECI, Internal Revenue

Service Form W-8BEN or W-8BEN-E, a U.S. Tax Compliance Certificate in a form reasonably satisfactory to the payor, Internal Revenue Service Form W-9, and/or other certification documents that would be required from each beneficial owner if such beneficial owner were an Investor, as applicable; or

(v) any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in United States Federal withholding tax duly completed together with such supplementary documentation as may be prescribed by applicable law to permit the payor to determine the withholding or deduction required to be made.

In addition, each such Foreign Investor shall deliver such forms and certificates promptly upon the obsolescence, expiration, or invalidity of any form or certificate previously delivered by the Foreign Investor. Each such Foreign Investor shall promptly notify the payor and the Agent at any time it determines that it is no longer in a position to provide any previously delivered certificate to the payor and the Agent (or any other form of certification adopted by the United States taxing authorities for such purpose). Notwithstanding any other provision of this Section 9.5, a Foreign Investor shall not be required to deliver any documentation pursuant to this Section 9.5 that such Foreign Investor is not legally able to deliver.

SECTION 9.6 Other Costs and Expenses; Breakage Costs. (a) The SPV agrees, upon receipt of a written invoice, to pay or cause to be paid, and to hold the Investors, the Agent, each Managing Agent and each Administrator harmless against liability for the payment of, all reasonable and documented out-of-pocket expenses (including Mayer Brown LLP's, any rating agencies', or any other single law firm's, accountants' and other third parties' fees and expenses, any filing fees and expenses incurred by officers or employees of any Investor, the Agent, each Managing Agent or any Administrator) or intangible, documentary or recording taxes incurred by or on behalf of any Investor, the Agent, any Managing Agent or any Administrator (i) in connection with the preparation, negotiation, execution and delivery of this Agreement, the other Transaction Documents and any documents or instruments delivered pursuant hereto and thereto and the transactions contemplated hereby or thereby (including the perfection or protection of the Asset Interest) and (ii) from time to time (A) relating to any amendments, waivers or consents under this Agreement and the other Transaction Documents, (B) arising in connection with the Agent's, any Investor's or any Managing Agent's enforcement or preservation of rights (including the perfection and protection of the Asset Interest under this Agreement), or (C) arising in connection with any audit, dispute, disagreement, litigation or preparation for litigation involving this Agreement or any of the other Transaction Documents (all of such amounts, collectively, "Transaction Costs").

(b) The SPV shall pay the Managing Agents for the account of the Investors, as applicable, on demand, such amount or amounts as shall compensate the Investors for any loss (including loss of profit), cost or expense incurred by the Investors (as reasonably determined by its Managing Agent) as a result of any reduction of any Portion of Investment other than on the last day of the related Rate Period or on the maturity date of the Commercial Paper (or other financing source) funding such Portion of Investment, such compensation to be (i) limited to an amount equal to any loss or expense suffered by the Investors during the period from the date of receipt of such repayment to (but excluding) the last day of the related Rate Period or the maturity date of such Commercial Paper (or other financing source) and (ii) net of the income, if any, received by the recipient of such reductions from investing the proceeds of such reductions of such Portion of Investment. The determination by any Managing Agent of the amount of any such loss or expense shall be set forth in a written notice to the SPV in reasonable detail and shall be conclusive, absent manifest error.

SECTION 9.7 Mitigation Obligations. If any Investor requests compensation under Section 9.3, or a payor is required to pay any additional amount to any Investor (or any Official Body for the account of any Investor) pursuant to Section 9.4, then such Investor shall use reasonable efforts to designate a different Funding Office for funding or booking its Investment hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Investor, such designation or assignment (i) would eliminate or reduce amounts payable pursuant to Section 9.3 or 9.4, as the case may be, in the future, and (ii) in each case, would not subject such Investor to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Investor. The SPV hereby agrees to pay all reasonable costs and expenses incurred by any Investor in connection with any such designation or assignment.

SECTION 9.8 FATCA Compliance. If a payment made hereunder to an Investor would be subject to U.S. federal withholding tax imposed by FATCA if such Investor were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Internal Revenue Code, as applicable), such Investor shall deliver to the SPV and the Agent at the time or times prescribed by law and at such time or times reasonably requested in writing by the SPV or the Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested in writing by the SPV or the Agent as may be necessary for the SPV and the Agent to comply with their obligations under FATCA and to determine that such Investor has complied with such Investors's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this Section 9.8, "FATCA" shall include any amendments to FATCA after the date of this Agreement.

ARTICLE X

THE AGENT

SECTION 10.1 Appointment and Authorization of Agent. Each Secured Party hereby irrevocably appoints, designates and authorizes the Agent and its applicable Managing Agent to take such action on its behalf under the provisions of this Agreement and each other Transaction Document and to exercise such powers and perform such duties as are expressly delegated to such Agent or Managing Agent, as applicable, by the terms of this Agreement and any other Transaction Document, together with such other powers as are reasonably incidental thereto. Notwithstanding any provision to the contrary contained elsewhere in this Agreement or in any other Transaction Document, no Agent or Managing Agent shall have any duties or responsibilities except those expressly set forth in this Agreement, nor shall the Agent or any Managing Agent have or be deemed to have any fiduciary relationship with any Investor or other Secured Party, and no implied covenants, functions, responsibilities, duties, obligations or liabilities shall be read into this Agreement or any other Transaction Document or otherwise exist against any Agent or Managing Agent. Without limiting the generality of the foregoing sentence, the use of the term “agent” in this Agreement with reference to any Agent or Managing Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead, such term is used merely as a matter of market custom, and is intended to create or reflect only an administrative relationship between independent contracting parties.

SECTION 10.2 Delegation of Duties. The Agent and each Managing Agent may execute any of its duties under this Agreement or any other Transaction Document by or through agents, employees or attorneys-in-fact and shall be entitled to advice of counsel concerning all matters pertaining to such duties. Neither the Agent nor any Managing Agent shall be responsible for the negligence or misconduct of any agent or attorney-in-fact that it selects with reasonable care.

SECTION 10.3 Liability of Agents and Managing Agents. No Agent-Related Person shall (a) be liable for any action taken or omitted to be taken by any of them under or in connection with this Agreement or any other Transaction Document or the transactions contemplated hereby (except for its own gross negligence or willful misconduct), or (b) be responsible in any manner to any Secured Party for any recital, statement, representation or warranty made by the SPV, any Originator or the Servicer, or any officer thereof, contained in this Agreement or in any other Transaction Document, or in any certificate, report, statement or other document referred to or provided for in, or received by the Agent or such Managing Agent under or in connection with, this Agreement or any other Transaction Document, or the validity, effectiveness, genuineness, enforceability or sufficiency of this Agreement or any other Transaction Document, or for any failure of the SPV, any Originator, the Servicer or any other party to any Transaction Document to perform its obligations hereunder or thereunder. No Agent-Related Person shall be under any obligation to any Secured Party to ascertain or to inquire as to the observance or performance of any of the agreements contained in, or conditions of, this Agreement or any other Transaction Document, or to inspect the properties, books or records of the SPV, any Originator, the Servicer or any of their respective Affiliates.

SECTION 10.4 Reliance by Agent. (a) The Agent and each Managing Agent shall be entitled to rely, and shall be fully protected in relying, upon any writing, resolution, notice, consent, certificate, affidavit, letter, telegram, facsimile, telex or telephone message, statement or other document or conversation believed by it to be genuine and correct and to have been signed, sent or made by or on behalf of the proper Person or Persons, and upon advice and statements of legal counsel (including counsel to the SPV, any Originator and the Servicer), independent accountants and other experts selected by the Agent or such Managing Agent. The Agent and each Managing Agent shall be fully justified in failing or refusing to take any action under this Agreement or any other Transaction Document unless it shall first receive such advice or concurrence of the Managing Agents or the Investors in its Investor Group, as applicable, as it deems appropriate and, if it so requests, it shall first be indemnified to its satisfaction by the Investors against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any such action. The Agent and each Managing Agent shall in all cases be fully protected in acting, or in refraining from acting, under this Agreement or any other Transaction Document in accordance with a request or consent of the Managing Agents or the Investors in its Investor Group, as applicable, or, if required hereunder, all Investors and such request and any action taken or failure to act pursuant thereto shall be binding upon all of the Investors.

(b) For purposes of determining compliance with the conditions specified in Article V on the Closing Date, each Investor that has executed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter either sent by the Agent or the Managing Agent to such Investor for consent, approval, acceptance or satisfaction, or required thereunder to be consented to or approved by or acceptable or satisfactory to such Investor.

SECTION 10.5 Notice of Termination Event, Potential Termination Event or Servicer Default. Neither the Agent nor any Managing Agent shall be deemed to have knowledge or notice of the occurrence of a Potential Termination Event, a Termination Event or a Servicer Default, unless it has received written notice from an Investor or the SPV referring to this Agreement, describing such Potential Termination Event, Termination Event or Servicer Default and stating that such notice is a “Notice of Termination

Event or Potential Termination Event" or "Notice of Servicer Default," as applicable. Each Managing Agent will notify the Investors in its Investor Group of its receipt of any such notice. The Agent and each Managing Agent shall (subject to Section 10.4) take such action with respect to such Potential Termination Event, Termination Event or Servicer Default as may be requested by the Managing Agents (or its Investors in its Investor Group), *provided* that, unless and until the Agent shall have received any such request, the Agent (or Managing Agent) may (but shall not be obligated to) take such action, or refrain from taking such action, with respect to such Potential Termination Event, Termination Event or Servicer Default as it shall deem advisable or in the best interest of the Secured Parties or Investors, as applicable.

SECTION 10.6 Credit Decision; Disclosure of Information by the Agent. Each Secured Party acknowledges that none of the Agent-Related Persons has made any representation or warranty to it, and that no act by the Agent or any Managing Agent hereinafter taken, including any consent to and acceptance of any assignment or review of the affairs of the SPV, the Servicer, the Originators or any of their respective Affiliates, shall be deemed to constitute any representation or warranty by any Agent-Related Person to any Secured Party as to any matter, including whether the Agent-Related Persons have disclosed material information in their possession. Each Secured Party, including any Investor by assignment, represents to the Agent and its Managing Agent that it has, independently and without reliance upon any Agent-Related Person and based on such documents and information as it has deemed appropriate, made its own appraisal of, and investigation into, the business, prospects, operations, property, financial and other condition and creditworthiness of the SPV, the Servicer, each Originator or their respective Affiliates, and all applicable bank regulatory laws relating to the transactions contemplated hereby, and made its own decision to enter into this Agreement and to extend credit to the SPV hereunder. Each Secured Party also represents that it shall, independently and without reliance upon any Agent-Related Person and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit analysis, appraisals and decisions in taking or not taking action under this Agreement and the other Transaction Documents, and to make such investigations as it deems necessary to inform itself as to the business, prospects, operations, property, financial and other condition and creditworthiness of the SPV, the Servicer or the Originators. Except for notices, reports and other documents expressly herein required to be furnished to the Security Parties by the Agent or any Managing Agent herein, neither the Agent nor any Managing Agent shall have any duty or responsibility to provide any Secured Party with any credit or other information concerning the business, prospects, operations, property, financial and other condition or creditworthiness of the SPV, the Servicer, any Originator or their respective Affiliates which may come into the possession of any of the Agent-Related Persons.

SECTION 10.7 Indemnification of the Agent. Whether or not the transactions contemplated hereby are consummated, the Committed Investors (or the Committed Investors in the applicable Investor Group) shall indemnify upon demand each Agent-Related Person (to the extent not reimbursed by or on behalf of the SPV and without limiting the obligation of the SPV to do so), pro rata, and hold harmless each Agent-Related Person from and against any and all Indemnified Amounts incurred by it; *provided* that no Committed Investor shall be liable for the payment to any Agent-Related Person of any portion of such Indemnified Amounts resulting from such Person's gross negligence or willful misconduct, as finally determined by a court of competent jurisdiction; *provided* that no action taken by Agent (or any Managing Agent) in accordance with the directions of the Managing Agents (or the Investors in its Investor Group) shall be deemed to constitute gross negligence or willful misconduct for purposes of this Section. Without limitation of the foregoing, each Investor shall reimburse its Managing Agent and the Agent upon demand for its ratable share of any costs or out-of-pocket expenses (including attorney's fees) incurred in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of rights or responsibilities under, this Agreement, any other Transaction Document, or any document contemplated by or referred to herein, to the extent that the Agent or such Managing Agent is not reimbursed for such expenses by or on behalf of the SPV. The undertaking in this Section shall survive payment on the Final Payout Date and the resignation or replacement of the Agent or such Managing Agent.

SECTION 10.8 Agent in Individual Capacity. The Agent and each Managing Agent (and any successor thereto in such capacity) and its Affiliates may make loans to, issue letters of credit for the account of, accept deposits from, acquire equity interests in and generally engage in any kind of banking, trust, financial advisory, underwriting or other business with any of the SPV, the Originators, the Servicer, or any of their Subsidiaries or Affiliates as though it were not the Agent, a Managing Agent or an Investor hereunder, as applicable, and without notice to or consent of the Secured Parties. The Secured Parties acknowledge that, pursuant to such activities, any such Person or its Affiliates may receive information regarding the SPV, the Originators, the Servicer or their respective Affiliates (including information that may be subject to confidentiality obligations in favor of such Person) and acknowledge that the Agent shall be under no obligation to provide such information to them. With respect to its Commitment, the Agent and each Managing Agent (and any successor thereto in such capacity) in its capacity as a Committed Investor hereunder shall have the same rights and powers under this Agreement as any other Committed Investor and may exercise the same as though it were not the Agent, a Managing Agent or a Committed Investor, as applicable, and the term "Committed Investor" or "Committed Investors" shall, unless the context otherwise indicates, include the Agent and each Managing Agent in its individual capacity.

SECTION 10.9 Resignation of Agents. The Agent or any Managing Agent may resign upon thirty (30) days' notice to the applicable Investors. If the Agent resigns under this Agreement, the Majority Investors shall (with the consent of the SPV prior to a Termination Event) appoint from among the Committed Investors a successor agent for the Secured Parties. If no successor agent is appointed prior to the effective date of the resignation of the Agent, the Agent may appoint, after consulting with the Investors and, prior to a Termination Event, the SPV, a successor agent from among the Committed Investors. Upon the acceptance of its appointment as successor agent hereunder, such successor agent shall succeed to all the rights, powers and duties of the retiring Agent and the term "Agent" shall mean such successor agent and the retiring Agent's appointment, powers and duties as Agent shall be terminated. After any retiring Agent's resignation hereunder as Agent, the provisions of this Section 10.9 and Sections 10.3 and 10.7 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was the Agent under this Agreement. If no successor agent has accepted appointment as Agent by the date which is thirty (30) days following a retiring Agent's notice of resignation, the retiring Agent's resignation shall nevertheless thereupon become effective and the Committed Investors shall perform all of the duties of the Agent hereunder until such time, if any, as the Majority Investors appoint a successor agent as provided for above. If a Managing Agent resigns under this Agreement, the Investors in such Investor Group shall appoint a successor agent.

SECTION 10.10 Payments by the Agent. Unless specifically allocated to a Committed Investor pursuant to the terms of this Agreement, all amounts received by the Agent or a Managing Agent on behalf of the Investors shall be paid to the applicable Managing Agent or Investors pro rata in accordance with amounts then due on the Business Day received, unless such amounts are received after 12:00 noon on such Business Day, in which case the applicable agent shall use its reasonable efforts to pay such amounts on such Business Day, but, in any event, shall pay such amounts not later than the following Business Day.

ARTICLE XI

MISCELLANEOUS

SECTION 11.1 Term of Agreement. This Agreement shall terminate on the Final Payout Date; *provided* that (i) the rights and remedies of the Agent, the Managing Agents, the Investors, the Administrators and the other Secured Parties with respect to any representation and warranty made or deemed to be made by the SPV, the Originators or the Servicer pursuant to this Agreement, (ii) the indemnification and payment provisions of Article IX, (iii) the provisions of Section 10.7 and (iv) the agreements set forth in Sections 11.11 and 11.12, shall be continuing and shall survive any termination of this Agreement.

SECTION 11.2 Waivers; Amendments. (a) No failure or delay on the part of the Agent, any Managing Agent, the Investors, any Administrator or any Committed Investor in exercising any power, right or remedy under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or remedy preclude any other further exercise thereof or the exercise of any other power, right or remedy. The rights and remedies herein provided shall be cumulative and nonexclusive of any rights or remedies provided by law.

(b) Any provision of this Agreement or any other Transaction Document may be amended or waived if, but only if, such amendment or waiver is in writing and is signed by the SPV, the Originators, the Servicer (but only with respect to the provisions applicable to it), the Agent and the Majority Investors; *provided* that no such amendment or waiver shall, unless signed by each Committed Investor directly affected thereby, (i) increase the Commitment of such Committed Investor, (ii) reduce the Net Investment or rate of Yield to accrue thereon or any fees or other amounts payable hereunder, (iii) postpone any date fixed for the payment of any scheduled distribution in respect of the Net Investment or Yield with respect thereto or any fees or other amounts payable hereunder or for termination of any Commitment, (iv) change the percentage of the Commitments of Committed Investors which shall be required for the Committed Investors or any of them to take any action under this Section or any other provision of this Agreement, (v) release all or substantially all of the property with respect to which a security or ownership interest therein has been granted hereunder to the Agent or the Committed Investors or (vi) extend or permit the extension of the Commitment Termination Date (it being understood that a waiver of a Termination Event shall not constitute an extension or increase in the Commitment of any Committed Investor); and *provided further* that the signature of the SPV and the Originators shall not be required for the effectiveness of any amendment which modifies the representations, warranties, covenants or responsibilities of the Servicer at any time when the Servicer is not an Originator or any Affiliate of an Originator or a successor Servicer is designated pursuant to Section 7.1.

SECTION 11.3 Notices; Payment Information. Except as provided below, all communications and notices provided for hereunder shall be in writing (including facsimile or electronic transmission or similar writing) and shall be given to the other party at its address or facsimile number set forth in the Notice Letter Agreement or at such other address or facsimile number as such party may hereafter specify for the purposes of notice to such party. Each such notice or other communication shall be effective (i) if given by facsimile, when such facsimile is transmitted to the facsimile number specified in this Section 11.3 and confirmation is received, (ii) if given by mail, three (3) Business Days following such posting, if postage prepaid, and if sent via

U.S. certified or registered mail, (iii) if given by overnight courier, one (1) Business Day after deposit thereof with a national overnight courier service, or (iv) if given by any other means, when received at the address specified in this Section 11.3, *provided* that an Investment Request shall only be effective upon receipt by the Managing Agents. However, anything in this Section 11.3 to the contrary notwithstanding, the SPV hereby authorizes the Agent and the Managing Agents to make investments in Eligible Investments and to make Investments based on telephonic notices made by any Person which the Agent or the Managing Agents in good faith believe to be acting on behalf of the SPV. The SPV agrees to deliver promptly to the Agent or the Managing Agents a written confirmation of each telephonic notice signed by an authorized officer of SPV. However, the absence of such confirmation shall not affect the validity of such notice. If the written confirmation differs in any material respect from the action taken by the Agent or the Investors, the records of the Agent or the Managing Agents shall govern.

SECTION 11.4 Governing Law; Submission to Jurisdiction; Appointment of Service Agent.

(a) **THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK (WITHOUT REFERENCE TO THE CONFLICTS OF LAW PRINCIPLES THEREOF OTHER THAN SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW).** EACH OF THE SPV, THE ORIGINATORS, THE SERVICER, THE AGENT AND THE INVESTORS HEREBY SUBMITS TO THE NONEXCLUSIVE JURISDICTION OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK AND OF ANY NEW YORK STATE COURT SITTING IN THE CITY OF NEW YORK FOR PURPOSES OF ALL LEGAL PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT, ANY OTHER TRANSACTION DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH OF THE SPV, THE SERVICER, THE ORIGINATORS, THE AGENT AND THE INVESTORS HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT IT MAY EFFECTIVELY DO SO, ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF THE VENUE OF ANY SUCH PROCEEDING BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH PROCEEDING BROUGHT IN SUCH A COURT HAS BEEN BROUGHT IN AN INCONVENIENT FORUM. NOTHING IN THIS SECTION 11.4 SHALL AFFECT THE RIGHT OF THE SECURED PARTIES TO BRING ANY ACTION OR PROCEEDING AGAINST ANY OF THE SPV, THE ORIGINATOR OR THE SERVICER OR ANY OF THEIR RESPECTIVE PROPERTY IN THE COURTS OF OTHER JURISDICTIONS.

(b) EACH OF THE PARTIES HERETO HEREBY WAIVES ANY RIGHT TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE, AMONG ANY OF THEM ARISING OUT OF, CONNECTED WITH, RELATING TO OR INCIDENTAL TO THE RELATIONSHIP BETWEEN THEM IN CONNECTION WITH THIS AGREEMENT OR THE OTHER TRANSACTION DOCUMENTS.

SECTION 11.5 Integration. This Agreement contains the final and complete integration of all prior expressions by the parties hereto with respect to the subject matter hereof and shall constitute the entire Agreement among the parties hereto with respect to the subject matter hereof superseding all prior oral or written understandings.

SECTION 11.6 Severability of Provisions. If any one or more of the provisions of this Agreement shall for any reason whatsoever be held invalid, then such provisions shall be deemed severable from the remaining provisions of this Agreement and shall in no way affect the validity or enforceability of such other provisions.

SECTION 11.7 Counterparts; Facsimile Delivery. This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same Agreement. Delivery by facsimile of an executed signature page of this Agreement shall be effective as delivery of an executed counterpart hereof.

SECTION 11.8 Successors and Assigns; Binding Effect. (a) This Agreement shall be binding on the parties hereto and their respective successors and assigns; *provided* that none of the SPV, the Servicer or the Originators may assign any of its rights or delegate any of its duties hereunder or under the First Tier Agreement or under any of the other Transaction Documents to which it is a party without the prior written consent of each Managing Agent. Except as provided in clause (b) below, no provision of this Agreement shall in any manner restrict the ability of any Investor to assign, participate, grant security interests in, or otherwise transfer any portion of the Asset Interest.

(b) Any Committed Investor may assign all or any portion of its Commitment and its interest in the Net Investment, the Asset Interest and its other rights and obligations hereunder to any Person (other than a Disqualified Investor) with the written approval of the applicable Administrator, on behalf of its Conduit Investor, and the applicable Managing Agent and, if no Termination Event is continuing, with the consent of the SPV (such consent not to be unreasonably withheld). In connection with any such assignment, the assignor shall deliver to the assignee(s) an Assignment and Assumption Agreement, duly executed, assigning to such assignee a pro rata interest in such assignor's Commitment and other obligations hereunder and in the Net Investment, the Asset Interest and other rights hereunder, and such assignor shall promptly execute and deliver all further

instruments and documents, and take all further action, that the assignee may reasonably request, in order to protect, or more fully evidence, the assignee's right, title and interest in and to such interest and to enable the Agent, on behalf of such assignee, to exercise or enforce any rights hereunder and under the other Transaction Documents to which such assignor is or, immediately prior to such assignment, was a party. Upon any such assignment, (i) the assignee shall have all of the rights and obligations of the assignor hereunder and under the other Transaction Documents to which such assignor is or, immediately prior to such assignment, was a party with respect to such assignor's Commitment and interest in the Net Investment and the Asset Interest for all purposes of this Agreement and under the other Transaction Documents to which such assignor is or, immediately prior to such assignment, was a party (provided that no assignee (including an assignee that is already an Investor hereunder at the time of the assignment) shall be entitled to receive any greater amount pursuant to Section 9.4 than that to which the assignor would have been entitled had no such assignment occurred) and (ii) the assignor shall have no further obligations with respect to the portion of its Commitment which has been assigned and shall relinquish its rights with respect to the portion of its interest in the Net Investment and the Asset Interest which has been assigned for all purposes of this Agreement and under the other Transaction Documents to which such assignor is or, immediately prior to such assignment, was a party. No such assignment shall be effective unless a fully executed copy of the related Assignment and Assumption Agreement shall be delivered to the Agent and the SPV. In addition, if the assignee is not already an Investor, such assignee shall deliver to the Agent, the SPV and the Servicer, all applicable tax documentation (whether pursuant to Section 9.5 or otherwise) requested by the Agent, the SPV or the Servicer. All costs and expenses of the Agent incurred in connection with any assignment hereunder shall be borne by the assignee. No Committed Investor shall assign any portion of its Commitment hereunder without also simultaneously assigning an equal portion of its interest in the Program Support Agreement to which it is a party or under which it has acquired a participation.

(c) By executing and delivering an Assignment and Assumption Agreement, the assignor and assignee thereunder confirm to and agree with each other and the other parties hereto as follows: (i) other than as provided in such Assignment and Assumption Agreement, the assignor makes no representation or warranty and assumes no responsibility with respect to any statements, warranties or representations made in or in connection with this Agreement, the other Transaction Documents or any other instrument or document furnished pursuant hereto or thereto or the execution, legality, validity, enforceability, genuineness, sufficiency or value or this Agreement, the other Transaction Documents or any such other instrument or document; (ii) the assignor makes no representation or warranty and assumes no responsibility with respect to the financial condition of the SPV, any Originator or the Servicer or the performance or observance by the SPV, any Originator or the Servicer of any of their respective obligations under this Agreement, the First Tier Agreement, the other Transaction Documents or any other instrument or document furnished pursuant hereto; (iii) such assignee confirms that it has received a copy of this Agreement, the First Tier Agreement, each other Transaction Document and such other instruments, documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into such Assignment and Assumption Agreement and to purchase such interest; (iv) such assignee will, independently and without reliance upon the Agent, any Managing Agent, any Investor or any of their Affiliates, or the assignor and based on such agreements, documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under this Agreement and the other Transaction Documents; (v) such assignee appoints and authorizes the Agent and its Managing Agent to take such action as agent on its behalf and to exercise such powers under this Agreement, the other Transaction Documents and any other instrument or document furnished pursuant hereto or thereto as are delegated to the Agent or its Managing Agent, as applicable, by the terms hereof or thereof, together with such powers as are reasonably incidental thereto and to enforce its respective rights and interests in and under this Agreement, the other Transaction Documents and the Affected Assets; (vi) such assignee agrees that it will perform in accordance with their terms all of the obligations which by the terms of this Agreement and the other Transaction Documents are required to be performed by it as the assignee of the assignor; and (vii) such assignee agrees that it will not institute against any Conduit Investor any proceeding of the type referred to in Section 11.11 prior to the date which is one (1) year and one (1) day after the payment in full of all Commercial Paper of such Conduit Investor.

(d) Without limiting the foregoing, a Conduit Investor may, from time to time, with prior or concurrent notice to the SPV and the Servicer, in one transaction or a series of transactions, assign all or a portion of the Net Investment and its rights and obligations under this Agreement and any other Transaction Documents to which it is a party to a Conduit Assignee. Upon and to the extent of such assignment by a Conduit Investor to a Conduit Assignee, (i) such Conduit Assignee shall be the owner of the assigned portion of the Net Investment, (ii) the related Administrator for such Conduit Assignee will act as the Administrator for such Conduit Assignee, with all corresponding rights and powers, express or implied, granted to the Administrator hereunder or under the other Transaction Documents, (iii) such Conduit Assignee (and any related commercial paper issuer, if such Conduit Assignee does not itself issue commercial paper) and their respective liquidity support provider(s) and credit support provider(s) and other related parties shall have the benefit of all the rights and protections provided to the Conduit Investor and its Program Support Provider(s) herein and in the other Transaction Documents (including any limitation on recourse against such Conduit Assignee or related parties, any agreement not to file or join in the filing of a petition to commence an insolvency proceeding against such Conduit Assignee, and the right to assign to another Conduit Assignee as provided in this paragraph), (iv) such Conduit Assignee shall assume all (or the assigned or assumed portion) of the Conduit Investor's obligations, if any, hereunder or any other Transaction Document, and the Conduit Investor shall be released from such obligations, in each case to the extent of such

assignment, and the obligations of the Conduit Investor and such Conduit Assignee shall be several and not joint, (v) all distributions in respect of the Net Investment shall be made to the applicable Managing Agent or the related Administrator, as applicable, on behalf of the Conduit Investor and such Conduit Assignee on a pro rata basis according to their respective interests, (vi) [reserved], (vii) the defined terms and other terms and provisions of this Agreement and the other Transaction Documents shall be interpreted in accordance with the foregoing, (viii) the Conduit Assignee, if it shall not be an Investor already, shall deliver to the Agent, the SPV and the Servicer, all applicable tax documentation reasonably requested by the Agent, the SPV or the Servicer and (ix) if requested by the related Managing Agent or the related Administrator with respect to the Conduit Assignee, the parties will execute and deliver such further agreements and documents and take such other actions as the related Managing Agent or such Administrator may reasonably request to evidence and give effect to the foregoing. No assignment by a Conduit Investor to a Conduit Assignee of all or any portion of the Net Investment shall in any way diminish the related Committed Investors' obligations under Section 2.3 to fund any Investment not funded by the related Conduit Investor or such Conduit Assignee or to acquire from the Conduit Investor or such Conduit Assignee all or any portion of the Net Investment pursuant to Section 3.1.

(e) In the event that a Conduit Investor makes an assignment to a Conduit Assignee in accordance with clause (d) above, the Related Committed Investors: (i) if requested by the related Administrator, shall terminate their participation in the applicable Program Support Agreement to the extent of such assignment, (ii) if requested by the related Administrator, shall execute (either directly or through a participation agreement, as determined by such Administrator) the program support agreement related to such Conduit Assignee, to the extent of such assignment, the terms of which shall be substantially similar to those of the participation or other agreement entered into by such Committed Investor with respect to the applicable Program Support Agreement (or which shall be otherwise reasonably satisfactory to the Administrator and the Related Committed Investors), (iii) if requested by the related Conduit Investor, shall enter into such agreements as requested by such Conduit Investor pursuant to which they shall be obligated to provide funding to the Conduit Assignee on substantially the same terms and conditions as is provided for in this Agreement in respect of such Conduit Investor (or which agreements shall be otherwise reasonably satisfactory to such Conduit Investor and the Committed Investors), and (iv) shall take such actions as the Agent shall reasonably request in connection therewith.

(f) Each of the SPV, the Servicer and the Originators hereby agrees and consents to the assignment by any Conduit Investor from time to time pursuant to this Section 11.8 of all or any part of its rights under, interest in and title to this Agreement and the Asset Interest to any Program Support Provider.

(g) The Agent shall, on behalf of the SPV, maintain at its address referred to in ☒Section 11.3 a copy of each Assignment and Assumption Agreement delivered to it and a register (the "Register") on or in which it will record the names and addresses of the Investors and assignees, and the Commitments of, and interest in the Net Investment of each Investor and assignee from time to time. The entries in the Register shall be conclusive, in the absence of manifest error, and the SPV, the Agent, and the Secured Parties shall treat each person whose name is recorded in the Register as the owner of the interest in the Net Investment recorded therein for all purposes of this Agreement. Any assignment of any Commitment and interest in the Net Investment and Asset Interest shall be effective only upon appropriate entries with respect thereto being made in the Register. The Agent will make the Register available to the SPV and any Investor (with respect to any entry relating to such Investor) at any reasonable time and from time to time upon reasonable prior notice.

(h) Notwithstanding any other provision of this Agreement to the contrary, any Investor may at any time pledge or grant a security interest in all or any portion of its rights (including any portion of the Net Investment and any rights to payment of the outstanding Net Investment and Yield) under this Agreement to secure obligations of such Investor to a Federal Reserve Bank, the U.S. Treasury or the Federal Deposit Insurance Corporation without notice to, or the consent of, any Originator, the SPV, Greif, Inc. or any Agent; *provided*, *however*, that no such pledge or grant of a security interest shall release an Investor from any of its obligations hereunder, or substitute any such pledgee or grantee for such Investor as a party hereto.

SECTION 11.9 Waiver of Confidentiality. Each of the SPV, the Servicer and the Originators hereby consents to the disclosure of any non-public information with respect to it received by the Agent, any Managing Agent, any Investor or any Administrator to any other Investor or potential Investor, any Managing Agent, any nationally recognized statistical rating organization rating a Conduit Investor's Commercial Paper or otherwise in accordance with Rule 17g-5 of the Securities Exchange Act of 1934, any dealer or placement agent of or depositary for the Conduit Investor's Commercial Paper, any Administrator, any Program Support Provider, any credit/financing provider to any Conduit Investor or any of such Person's counsel or accountants in relation to this Agreement or any other Transaction Document if they agree to hold it confidential pursuant to a written agreement of confidentiality in form and substance reasonably satisfactory to the SPV. Subject to the foregoing, the Agent, the Managing Agents, the Investors, the Program Support Providers and the Administrators hereby agree to maintain the confidentiality of any non-public information.

SECTION 11.10 Confidentiality Agreement. Each of the SPV, the Servicer and the Originators hereby agrees that it will not disclose the contents of this Agreement or any other Transaction Document or any other proprietary or confidential

information of or with respect to any Investor, the Agent, any Managing Agent, any Administrator or any Program Support Provider to any other Person except (a) its auditors and attorneys, employees or financial advisors (other than any commercial bank) and any nationally recognized statistical rating organization, *provided* such auditors, attorneys, employees, financial advisors or rating agencies are informed of the highly confidential nature of such information and agree to use such information solely in connection with their evaluation of, or relationship with, the SPV, the Servicer, the and its affiliates, (b) as otherwise required by applicable law or order of a court of competent jurisdiction or (c) as disclosed in any public filing.

SECTION 11.11 No Bankruptcy Petition Against the Conduit Investor. Each of the SPV, the Servicer and the Originators hereby covenants and agrees that, prior to the date which is one (1) year and one (1) day after the payment in full of all outstanding Commercial Paper or other rated indebtedness of any Conduit Investor (or its related commercial paper issuer), it will not institute against, or join any other Person in instituting against, such Conduit Investor any proceeding of a type referred to in the definition of Event of Bankruptcy.

SECTION 11.12 No Recourse.

(a) Notwithstanding anything to the contrary contained in this Agreement, the obligations of any Conduit Investor under this Agreement and all other Transaction Documents are solely the corporate obligations of such Conduit Investor and shall be payable solely to the extent of funds received from the SPV in accordance herewith or from any party to any Transaction Document in accordance with the terms thereof are in excess of funds necessary to pay its matured and maturing Commercial Paper.

(b) Any amounts which such Conduit Investors does not pay pursuant to the operation of the preceding sentence shall not constitute a claim (as defined in §101 of the Bankruptcy Code) against or corporate obligation of such Conduit Investors for any such insufficiency unless and until such Conduit Investors satisfies the provisions above.

(c) This Section 11.12 shall survive termination of this Agreement.

SECTION 11.3 No Proceedings; Limitations on Payments.

(a) Each of the parties hereto, by entering into this Agreement, hereby covenants and agrees that it will not at any time institute against the SPV, or join in any institution against the SPV of, any bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, or other proceedings under any United States federal or State bankruptcy or similar law in connection with any of the SPV's obligations under this Agreement or other Transaction Documents.

(b) Notwithstanding any provisions contained in this Agreement to the contrary, the parties hereto acknowledge and agree that (i) all amounts payable by the SPV hereunder and under the other Transaction Documents shall be paid in accordance with the priorities set forth in Section 2.12 and (ii) the SPV shall only be required to pay amounts payable by the SPV hereunder and under the other Transaction Documents from funds of the SPV other than the proceeds of the Affected Assets to the extent it has such funds. Any amounts which the SPV does not pay pursuant to the operation of clause (ii) of the preceding sentence shall not constitute a claim (as defined in §101 of the Bankruptcy Code) against or corporate obligation of the SPV for any such insufficiency unless and until the SPV satisfies the provisions of clause (ii) above.

(c) This Section 11.13 shall survive termination of this Agreement.

SECTION 11.14 Amendment and Restatement. This Agreement amends, restates, supersedes and replaces the Existing Agreement in its entirety.

SECTION 11.15 USA Patriot Act. Each of the Agent-Related Persons hereby notifies the SPV that pursuant to the requirements of the USA PATRIOT Act, Title III of Pub. L. 107 56 (signed into law October 26, 2001) (the "Patriot Act"), the Agent-Related Persons may be required to obtain, verify and record information that identifies the SPV, which information includes the name, address, tax identification number and other information regarding the SPV that will allow the Agent-Related Persons to identify the SPV in accordance with the PATRIOT Act. This notice is given in accordance with the requirements of the PATRIOT Act. The SPV shall promptly following a request by such Agent-Related Persons respond to any KYC Request and provide the Agent-Related Persons, from time to time, all documentation and other information that such Agent-Related Person requests in order for such Agent-Related Person to comply with its ongoing obligations under applicable "know your customer" and anti money laundering rules and regulations, including, without limitation, the PATRIOT Act and the Beneficial Ownership Rule.

SECTION 11.16 Waiver of Consequential Damages, Etc. To the fullest extent permitted by applicable law, the SPV shall not assert any claim against any Agent-Related Person or their respective members, directors, officers, employees, agents, trustees, administrators, managers or advisors on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Transaction

Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby. No Agent-Related Person or their respective members, directors, officers, employees, agents, trustees, administrators, managers or advisors referred to above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed to such unintended recipients by such Agent-Related Person through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Transaction Documents or the transactions contemplated hereby or thereby other than for direct or actual damages resulting from the gross negligence or willful misconduct of such Agent-Related Persons as determined by a final and nonappealable judgment of a court of competent jurisdiction.

SECTION 11.17 Acknowledgement Regarding Any Supported QFCs. To the extent that the Transaction Documents provide support, through a guarantee or otherwise, for any Swap Contract or any other agreement or instrument that is a QFC (such support, "QFC Credit Support", and each such QFC, a "Supported QFC"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "U.S. Special Resolution Regimes") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Transaction Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

(a) In the event a Covered Entity that is party to a Supported QFC (each, a "Covered Party") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Transaction Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Transaction Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of the parties with respect to a defaulting Investor or Agent-Related Person shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

(b) As used in this Section 11.17, the following terms have the following meanings:

"BHC Act Affiliate" of a party means an "affiliate" (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

"Covered Entity" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

"Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"QFC" has the meaning assigned to the term "qualified financial contract" in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

SECTION 11.18 Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Transaction Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Transaction Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-in Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Transaction Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

[Signatures Follow]

In Witness Whereof, the parties hereto have executed and delivered this Agreement as of the date first written above.

GREIF RECEIVABLES FUNDING LLC

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

GREIF PACKAGING LLC,
Individually, as an Originator and as the Servicer

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

DELTA PETROLEUM COMPANY, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

AMERICAN FLANGE & MANUFACTURING CO. INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CARAUSTAR MILL GROUP, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CARAUSTAR INDUSTRIAL AND CONSUMER PRODUCTS GROUP, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CARAUSTAR RECOVERED FIBER GROUP, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

THE NEWARK GROUP, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CARAUSTAR CONSUMER PRODUCTS GROUP, LLC,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CARAUSTAR CUSTOM PACKAGING GROUP, INC.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

CASCADE PAPER CONVERTERS CO., converters co.,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

TAMA PAPERBOARD, LLC,
as an Originator

By: /s/ DAVID C. LLOYD
Name: David C. Lloyd
Title: Vice President and Treasurer

BANK OF AMERICA, N.A.,
as a Committed Investor, a Managing Agent and an Administrator for the BANA Investor Group and the Agent

By: /s/ DANIEL GHANEM
Name: Daniel Ghanem
Title: Vice President

Commitment: $125,000,000

MUFG BANK, LTD. F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.,
as a Committed Investor, a Managing Agent and an Administrator for the MUFG Investor Group

By: /s/ YOHSUKE TAKAHASHI
Name: Yohsuke Takahashi
Title: Managing Director

Commitment: $75,000,000

THE TORONTO DOMINION BANK,
as a Committed Investor, a Managing Agent and an Administrator for the TD Bank Investor Group

By: /s/ BRADLEY PURKIS
Name: Bradley Purkis
Title: Managing Director

Commitment: $75,000,000

COMPUTERSHARE TRUST COMPANY OF CANADA, in its capacity as trustee of RELIANT TRUST, by its U.S. Financial Services Agent, THE TORONTO DOMINION BANK, as a Conduit Investor for the TD Bank Investor Group

By: /s/ BRADLEY PURKIS
Name: Bradley Purkis
Title: Managing Director

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EXHIBIT 21

SUBSIDIARIES OF REGISTRANT

Per item 601(b)(21)(ii) of Regulation S-K, names of particular subsidiaries may be omitted if the unnamed subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary as of October 31, 2019. Significant subsidiaries are defined in Rule 1-02(w) of Regulation S-X.

Name of Subsidiary	Incorporated or Organized Under Laws of
United States:	
Caraustar Custom Packaging Group, Inc.	Delaware
Caraustar Industrial and Consumer Products Group, Inc.	Delaware
Caraustar Recovered Fiber Group, Inc.	Delaware
Container Life Cycle Management LLC	Delaware
CorrChoice (PA) LLC	Delaware
Greif Packaging LLC	Delaware
Soterra LLC	Delaware
Tama Paperboard, LLC	Delaware
Greif Flexibles USA Inc.	Illinois
Delta Petroleum Company, Inc.	Louisiana
The Newark Group, Inc.	New Jersey
Box Board Products, Inc.	North Carolina
Caraustar Mill Group, Inc.	Ohio
International:	
Greif Algeria Spa	Algeria
Greif Argentina S.A.	Argentina
Greif Belgium BVBA	Belgium
Greif Embalagens Industrialis Do Brasil Ltda	Brazil
Caraustar Industrial Canada, Inc.	Canada
Greif Bros. Canada Inc.	Canada
Greif Embalajes Industriales S.A.	Chile
Greif Tianjin Packaging Co. Ltd	China
Greif (Shanghai) Packaging Co., Ltd.	China
Greif (Taicang) Packaging Co., Ltd.	China
Greif Flexibles Changzhou Co. Ltd	China
Greif Huizhou Packaging Co., Ltd.	China
Greif Czech Republic a.s.	Czech Republic
Greif Flexibles France SARL	France
Greif France Holdings SAS	France
EarthMinded Germany GmbH	Germany
Greif Flexibles Germany GmbH & Co. KG	Germany
Pachmas Packaging Ltd	Israel
Greif Italy SpA	Italy
Greif Italy SRL	Italy
Greif Malaysia Sdn Bhd	Malaysia

Greif Mexico, S.A. de C.V.	Mexico
Greif Flexibles Benelux B.V.	Netherlands
Greif International Holding B.V.	Netherlands
Greif Netherland B.V.	Netherlands
Greif Tholu B.V.	Netherlands
Greif Poland Sp zoo	Poland
Greif Portugal, S.A.	Portugal
Greif Kazan LLC	Russia
Greif Omsk LLC	Russia
Greif Perm LLC	Russia
Greif Vologda LLC	Russia
Greif Saudi Arabia Ltd.	Saudi Arabia
Greif Eastern Packaging Pte. Ltd.	Singapore
Greif South Africa Pty Ltd	South Africa
Greif Packaging Spain S.L.	Spain
Greif Sweden AB	Sweden
Greif Mimaysan Ambalaj Sanayi AS	Turkey
Greif Flexibles UK Ltd.	United Kingdom
Greif UK Ltd.	United Kingdom

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-26767, 333-26977, 333-35048, 333-61058, 333-61068, 333-123133, and 333-151475 on Form S-8 of our reports dated December 18, 2019, relating to the consolidated financial statements and financial statement schedule of Greif, Inc. and subsidiary companies, and the effectiveness of Greif, Inc. and subsidiary companies' internal control over financial reporting, appearing in the Annual Report on Form 10-K of Greif, Inc. and subsidiary companies for the year ended October 31, 2019.

/s/ Deloitte & Touche LLP

Columbus, Ohio
December 18, 2019

EXHIBIT 31.1

CERTIFICATION

I, Peter G. Watson, certify that:

1. I have reviewed this Annual Report on Form 10-K 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 (the registrant's fourth fiscal quarter in the case of an annual report) 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: December 18, 2019

/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 Annual Report on Form 10-K 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 (the registrant’s fourth fiscal quarter in the case of an annual report) 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: December 18, 2019

/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 Annual Report of Greif, Inc. (the "Company") on Form 10-K for the annual period ended October 31, 2019, 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: December 18, 2019

/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 Annual Report of Greif, Inc. (the “Company”) on Form 10-K for the annual period ended October 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Lawrence A. Hilsheimer, Executive Vice President and 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: December 18, 2019

/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.