UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

(Mark One)

[X] **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2018

[ ] **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from ___ to ___

COMMISSION FILE NUMBER 000-50189

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

Pennsylvania	75-3099507
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
770 Township Line Road, Yardley, PA	19067-4232
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number, including area code: 215-698-5100

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of each class	Name of each exchange on which registered
Common Stock $5.00 Par Value	New York Stock Exchange
7 3/8% Debentures Due 2026	New York Stock Exchange
7 1/2% Debentures Due 2096	New York Stock Exchange

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: NONE
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [X] 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 [X]

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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	[X]	Accelerated filer	[ ]
Non-accelerated filer	[ ]	Smaller reporting company	[ ]
		Emerging growth company	[ ]

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

As of June 30, 2018, 135,174,989 shares of the Registrant’s Common Stock, excluding shares held in Treasury, were issued and outstanding, and the aggregate market value of such shares held by non-affiliates of the Registrant on such date was $6,050,432,508 based on the New York Stock Exchange closing price for such shares on that date.

As of February 28, 2019, 135,338,085 shares of the Registrant’s Common Stock were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Parts Into Which Incorporated
Proxy Statement for the Annual Meeting of Shareholders to be held April 25, 2019	Part III to the extent described therein

Crown Holdings, Inc.

2018 FORM 10-K ANNUAL REPORT

TABLE OF CONTENTS

PART I

Item 1	Business	1
Item 1A	Risk Factors	7
Item 1B	Unresolved Staff Comments	21
Item 2	Properties	21
Item 3	Legal Proceedings	23
Item 4	Mine Safety Disclosures	23
	PART II	
Item 5	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	24
Item 6	Selected Financial Data	26
Item 7	Management's Discussion and Analysis of Financial Condition and Results of Operations	27
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	41
Item 8	Financial Statements and Supplementary Data	42
Item 9	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	108
Item 9A	Controls and Procedures	108
Item 9B	Other Information	109
	PART III	
Item 10	Directors, Executive Officers and Corporate Governance	109
Item 11	Executive Compensation	109
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	110
Item 13	Certain Relationships and Related Transactions, and Director Independence	110
Item 14	Principal Accounting Fees and Services	110
	PART IV	
Item 15	Exhibits and Financial Statement Schedules	111
Item 16	Form 10-K Summary	117
SIGNATURES		118

PART I

ITEM 1. BUSINESS

Crown Holdings, Inc. (the "Company" or the "Registrant") (where the context requires, the "Company" shall include reference to the Company and its consolidated subsidiary companies) is a Pennsylvania corporation.

The Company is a worldwide leader in the design, manufacture and sale of packaging products and equipment for consumer goods and industrial products. The Company's packaging for consumer goods include steel and aluminum cans for food, beverage, household and other consumer products, glass bottles for beverage products, metal vacuum closures and steel crowns sold through the Company's sales organization to the soft drink, food, citrus, brewing, household products, personal care and various other industries. The Company's packaging for industrial products includes steel and plastic strap consumables and equipment, paper-based protective packaging, and plastic film consumables and equipment, which are sold into the metals, food and beverage, construction, agricultural, corrugated and general industries.

At December 31, 2018, the Company operated 241 plants along with sales and service facilities throughout 47 countries and had approximately 33,000 employees. Consolidated net sales for the Company in 2018 were $11.2 billion with 73% derived from operations outside the U.S.

DIVISIONS AND OPERATING SEGMENTS

The Company's business is generally organized by product line and geography within four divisions: Americas, Europe, Asia Pacific and Transit Packaging. See below for further information regarding the Company's divisions and reportable segments within each division. The Company's non-reportable segments include its North American food can business, its European aerosol and promotional packaging business, its North American aerosol can business and its tooling and equipment operations in the U.S. and U.K.

Additional financial information concerning the Company's operating segments is set forth within "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report and under Note X to the consolidated financial statements.

AMERICAS DIVISION

The Americas Division includes operations in the U.S., Brazil, Canada, the Caribbean, Colombia and Mexico. These operations manufacture beverage, food and aerosol cans and ends, glass bottles, specialty packaging, metal vacuum closures, steel crowns and caps. At December 31, 2018, the division operated 48 plants in seven countries and had approximately 7,500 employees. In 2018, the Americas Division had net sales of $4.2 billion.

Americas Beverage

The Americas Beverage segment manufactures aluminum beverage cans and ends, glass bottles, steel crowns and aluminum caps. Manufacturing facilities are located in the U.S., Brazil, Canada, Colombia and Mexico. Americas Beverage had net sales in 2018 of $3.3 billion and segment income (as defined under Note X to the consolidated financial statements) of $454 million.

EUROPEAN DIVISION

The European Division includes operations in Europe, the Middle East and Africa. These operations manufacture beverage, food and aerosol cans and ends, promotional packaging and metal vacuum closures and caps. At December 31, 2018, the division operated 61 plants in 22 countries and had approximately 11,500 employees. Net sales in 2018 were $3.7 billion.

European Beverage

The European Beverage segment manufactures steel and aluminum beverage cans and ends in Europe, the Middle East and North Africa. European Beverage had net sales in 2018 of $1.5 billion and segment income (as defined under Note X to the consolidated financial statements) of $193 million.

European Food

The European Food segment manufactures steel and aluminum food cans and ends, and metal vacuum closures, in Europe, Africa and the Middle East. European Food had net sales in 2018 of $2.0 billion and segment income (as defined under Note X to the consolidated financial statements) of $257 million.

ASIA PACIFIC DIVISION

The Asia Pacific Division is a reportable segment which primarily consists of beverage can operations in Cambodia, China, Indonesia, Malaysia, Myanmar, Singapore, Thailand and Vietnam and also includes the Company's non-beverage can operations, primarily food cans and specialty packaging. At December 31, 2018, the division operated 30 plants in eight countries and had approximately 4,500 employees.

The Asia Pacific segment had net sales in 2018 of $1.3 billion and segment income (as defined under Note X to the consolidated financial statements) of $186 million.

TRANSIT PACKAGING DIVISION

The Company's Transit Packaging Division is a reportable segment which includes the Company’s industrial and protective solutions and equipment and tools businesses. Industrial solutions include steel strap, plastic strap, industrial film and other related products that are used in a wide range of industries, including steel, lumber, brick/block, corrugated boxes, food and beverage goods, agriculture products, and a large variety of other goods. Protective solutions include transit protection products, such as airbags, edge protectors, and honeycomb products that help prevent movement of, and/or damage to, a wide range of industrial and consumer goods during transport. Equipment and tools includes manual, semi-automatic and automatic equipment and tools, which are primarily used in “end of line” manufacturing applications to apply consumables such as strap and film.

At December 31, 2018, the division operated 99 plants in 23 countries, including, Belgium, Germany, India, Sweden, Switzerland and the U.S. The division had approximately 9,000 employees at December 31, 2018.

The Transit Packaging segment had net sales of $1.8 billion and segment income (as defined under Note X to the consolidated financial statements) of $255 million for the period April 3, 2018 through December 31, 2018.

PRODUCTS

Beverage Cans and Glass Bottles

The Company supplies beverage cans and ends and other packaging products to a variety of beverage and beer companies, including Anheuser-Busch InBev, Coca-Cola, Keurig Dr Pepper, Heineken, Molson Coors, Pepsi-Cola and Refresco, among others. The Company’s beverage can business is built around local, regional and global markets, which has served to develop the Company’s understanding of global customer and consumer expectations. The Company's glass bottle business is based in Mexico and serves customers in the local market.

The beverage market is dynamic and highly competitive, with each packaging manufacturer working together with its customers to satisfy consumers’ ever-changing needs. The Company competes by offering its customers broad market knowledge, resources at all levels of its worldwide organization and extensive research and development capabilities that have enabled the Company to provide its customers with innovative products. The Company meets its customers’ beverage packaging needs with an array of two-piece beverage cans and ends and metal bottle caps. Innovations include the SuperEnd® and 360 End™ beverage can ends, and size variations. Size variations include slim and sleek cans for portion control, low calorie products or other product differentiation, as well as larger sizes for high volume consumption. The Company expects to continue to add capacity in many of the growth markets around the world.

Beverage can and glass bottle manufacturing is capital intensive, requiring significant investment in tools and machinery. The Company seeks to effectively manage its invested capital and is continuing its efforts to reduce the metal content of its cans and reduce non-metal costs, including water and energy usage, while improving production processes.

Food Cans and Closures

The Company manufactures a variety of food cans and ends, including two-piece and three-piece cans in assorted shapes and sizes, and sells food cans to food marketers such as Abbott Laboratories, Bonduelle, Morgan Foods, Nestlé, Princes Group and Simmons Foods, among others. The Company offers a wide variety of metal vacuum closures and sealing equipment solutions to leading marketers such as Abbott Laboratories, Danone, H. J. Heinz, Nestlé and Unilever, among others, from a network of metal vacuum closure plants around the world. The Company supplies total packaging solutions, including metal and composite closures, capping systems and services while working closely with customers, retailers and glass and plastic container manufacturers to develop innovative closure solutions and meet customer requirements.

Technologies used to produce food cans include three-piece welded, two-piece drawn and wall-ironed and two-piece drawn and redrawn. The Company also offers its LIFTOFF™ series of food ends, including its Easylift™ full aperture steel food can ends, and PeelSeam™ and PeelFit™ flexible aluminum foil laminated ends. The Company offers expertise in closure design and decoration, ranging from quality printing of the closure in up to nine colors, to inside-the-cap printing, which offers customers new promotional possibilities, to better product protection through Ideal Closures™, Orbit™ and Superplus™. The Company’s commitment to innovation has led to developments in packaging materials, surface finishes, can shaping, lithography, filling, retorting, sealing and opening techniques and environmental performance. The Company manufactures easy open, vacuum and conventional ends for a variety of heat-processed and dry food products including fruits and vegetables, meat and seafood, soups, ready-made meals, infant formula, coffee and pet food.

Transit Packaging

The Company's products are used to contain, unitize, and protect goods during manufacturing, transport, and warehousing and are sold around the world under a broad array of well-known brand names such as Signode, Strapex, Orgapack, Shippers Airbags, Angleboard, and MIMA. The Company serves diverse end markets, including metals, food and beverage, construction, agricultural, corrugated and general industrial. The Company's long operational history has resulted in a large base of equipment, which drives recurring revenue through the sale of consumables, parts and service offerings and future equipment replacement sales. The Company's customer concentration is low.

Aerosol Cans

The Company’s customers for aerosol cans and ends include manufacturers of personal care, food, household and industrial products, including Friesland Campina, Procter & Gamble, SC Johnson and Unilever, among others. The aerosol can business is highly competitive. The Company competes by offering its customers a broad range of products including multiple sizes, multiple color schemes and shaped packaging.

Promotional and Specialty Packaging

The Company’s promotional and specialty packaging businesses are primarily located in Europe and Asia. The Company produces a wide range of promotional and specialty packaging containers with numerous lid and closure variations. The Company’s customers include Britvic and Nestlé among others.

SALES AND DISTRIBUTION

Global marketers qualify suppliers on the basis of their ability to provide global service, innovative designs and technologies in a cost-effective manner.

With its global reach, the Company markets and sells products to customers through its own sales and marketing staffs. In some instances, contracts with customers are centrally negotiated, but products are ordered through and distributed directly by the Company’s local facilities. The Company’s facilities are generally located in proximity to their respective major customers. The Company works closely with customers in order to develop new business and to extend the duration of its existing contracts.

Many customers provide the Company with quarterly or annual estimates of product requirements along with related quantities pursuant to which periodic commitments are given. Such estimates assist the Company in managing production and controlling use of working capital. The Company schedules its production to meet customer requirements. Because the production time for the Company’s products is short, any backlog of customer orders in relation to overall sales is not significant.

SEASONALITY

The food packaging business is somewhat seasonal with the first quarter tending to be the slowest period as the autumn packing period in the Northern Hemisphere has ended and new crops are not yet planted. The industry generally enters its busiest period in the third quarter when the majority of fruits and vegetables are harvested and immediately canned. Due to this seasonality, inventory levels increase in the first half of the year to meet peak demand in the second and third quarters. Weather represents a substantial uncertainty in the yield of food products and is a major factor in determining the demand for food cans in any given year. Generally, beverage products are consumed in greater amounts during the warmer months of the year and sales have generally been higher in the second and third quarters of the calendar year.

The Company’s other businesses tend not to be as significantly affected by seasonal variations.

COMPETITION

Most of the Company’s packaging products for consumer goods are sold in highly competitive markets, primarily based on price, quality, service and performance. The Company competes with other packaging manufacturers as well as with fillers, food processors and packers, some of whom manufacture containers for their own use and for sale to others. The Company’s competitors include, but are not limited to, Ardagh Group, Ball Corporation, BWAY Corporation, Can-Pack S.A., Metal Container Corporation and Silgan Holdings Inc.

The Transit Packaging Division also faces substantial competition from many regional and local competitors of various sizes in the manufacture, distribution and sale of its products. The division differentiates itself from the competition by leveraging its global scale, broad product portfolio and established brand reputation. The division's products compete, to some extent, with various other packaging materials, including other products made of paper, plastics, wood and various types of metal.

CUSTOMERS

The Company’s largest customers consist of many of the leading manufacturers and marketers of packaged consumer products in the world. Consolidation trends among beverage and food marketers have led to a concentrated customer base. The Company’s top ten global customers represented in the aggregate approximately 29% of its 2018 net sales. In each of the years in the period 2016 through 2018, no one customer accounted for more than ten percent of the Company’s net sales. Each operating segment, with the exception of the Transit Packaging Segment, has major customers and the loss of one or more of these major customers could have a material adverse effect on an individual segment or the Company as a whole. Major customers include those listed above under the caption "Products". In addition to sales to Coca-Cola and Pepsi-Cola, the Company also supplies independent licensees of Coca-Cola and Pepsi-Cola.

RESEARCH AND DEVELOPMENT

The Company's principal Research, Development & Engineering ("RD&E") Centers for packaging products for consumer goods are located in Alsip, Illinois and Wantage, United Kingdom. The Company utilizes its centralized RD&E capabilities to advance and deliver technologies for the Company's worldwide packaging activities that (1) promote development of value-added metal packaging systems for its customers, (2) design cost-efficient manufacturing processes, systems and materials and material-efficient container designs that further the sustainability of metal packaging, (3) provide continuous quality and/or production efficiency improvements in its manufacturing facilities, (4) advance customer and supplier relationships, and (5) provide value-added engineering services and technical support. These capabilities facilitate (1) the identification of new and/or expanded market opportunities by working directly with customers to develop new packaging products or enhance existing packaging products through the application of new technologies that better differentiate customers' products in the retail environment (for example, the creation of new packaging shapes, novel decoration methods, or the addition of digital content through unique codes) and/or the incorporation of consumer-valued features (for example, improved openability and/or ease of use) and (2) the reduction of manufacturing costs by reducing the material content of the Company's products (while retaining necessary performance characteristics), reducing spoilage, and increasing operating efficiencies in manufacturing facilities.

The Company maintains a substantial portfolio of patents and other intellectual property ("IP") in the field of metal packaging systems and seeks strategic partnerships to extend its IP in existing and emerging markets. As a result, the Company has licensed IP in geographic regions where the Company has a limited market presence today. Existing technologies such as SuperEnd® beverage ends, 360 End™ beverage ends, Easy-Flow™ beverage ends, Eole™ easy-open food ends and can shaping have been licensed in Australia, Japan, and Africa to provide customers with global access to Crown's brand building innovations.

The Transit Packaging Division has a distributed RD&E model and is well known throughout its markets for its ability to drive product innovation and leadership in new technologies. The division focuses on market driven innovation and has a long history of creating product and service solutions that solve problems and create value for its customers. The division's individual business units are primarily responsible for designing and executing their own research and development projects and the division's development process is comprised of a customer-oriented, "outside-in" approach. The division works with customers to determine their most pressing industrial packaging challenges, utilizing a rigorous multi-step product development process to ensure that they shape the ultimate product for both the customer and the broader market. Transit Packaging's track record of new product innovation is due in large part to the success of this model.

The Transit Packaging Division has been an industry leader in industrial packaging innovation over the last 100 years as evidenced by their introduction of the first strap packaging product (1913), the first fully-automatic strapping machine (1946), the industry's first battery operated plastic strap hand tools (1995), and most recently the industry's first battery-operated steel strap hand tools (2013). At the core of its intellectual property strategy is a focus on obtaining quality patents that cover key products and technologies, in alignment with its business objectives. The Transit Packaging Division has grown its global patent portfolio to over 380 United States issued patents or pending patent applications and over 1,300 foreign issued patents or pending patent applications. The portfolio broadly covers about 400 customized technologies and spans diverse business platforms, as well as the different countries in which it operates. The division continues to grow its patent base and has filed 170 new patent applications since the beginning of 2010.

The Company spent $51 million in 2018, $39 million in 2017, and $41 million in 2016 in its RD&E activities. Certain of these activities are expected to improve and expand the Company's product lines in the future. These expenditures include projects to improve manufacturing efficiencies, reduce unit costs, and develop new and improved value-added packaging systems.

MATERIALS AND SUPPLIERS

The Company uses various raw materials, primarily aluminum and steel, in its manufacturing operations. The Transit Packaging division also uses materials derived from crude oil and natural gas, such as polyethylene and polypropylene. In general, these raw materials are purchased in highly competitive, price-sensitive markets, which have historically exhibited price and demand cyclicality. These and other materials used in the manufacturing process have historically been available in adequate supply from multiple sources.

The Company has agreements for what it considers adequate supplies of raw materials. However, sufficient quantities may not be available in the future due to, among other things, shortages due to excessive demand, weather or other factors, including disruptions in supply caused by raw material transportation or production delays. From time to time, some of the raw materials have been in short supply but, to date, these shortages have not had a significant impact on the Company’s operations.

In 2018, consumption of steel and aluminum represented 21% and 36% of consolidated cost of products sold, excluding depreciation and amortization. Due to the significance of these raw materials to the overall cost of products sold, raw material efficiency is a critical cost component of the products manufactured. Supplier consolidations, changes in ownership, government regulations, political unrest and increased demand for raw materials in the packaging and other industries, among other risk factors, could cause uncertainty as to the availability of and the level of prices at which the Company might be able to source such raw materials in the future. Moreover, the prices of aluminum and steel can be subject to significant volatility. The Company’s raw material supply contracts vary as to terms and duration, with steel contracts typically one year in duration with fixed prices or set repricing dates, and aluminum contracts typically multi-year in duration with fluctuating prices based on aluminum ingot costs. The Company generally attempts to mitigate its steel and aluminum price risk by matching its purchase obligations with its sales agreements; however, there can be no assurance that the Company will be able to fully mitigate that risk.

The Company also uses commodity and foreign currency forwards in an attempt to manage its exposure to aluminum price volatility.

There can be no assurance that the Company will be able to fully recover from its customers the impact of aluminum and steel price increases or that the use of derivative instruments will effectively manage the Company’s exposure to price volatility. In addition, if the Company were unable to purchase steel and aluminum for a significant period of time, its operations would be disrupted, and if the Company were unable to fully recover the higher cost of steel and aluminum, its financial results may be adversely affected. As a result of continuing global supply and demand pressures, other commodity-related costs affecting the Company’s business may increase as well, including utility and freight-related costs. The Company will attempt to increase prices on its products accordingly in order to recover these costs.

In response to the volatility of raw material prices, ongoing productivity and cost reduction efforts in recent years have focused on improving raw material cost management.

The Company's manufacturing facilities are dependent, in varying degrees, upon the availability of water and processed energy, such as natural gas and electricity. Certain of these may become difficult or impossible to obtain on acceptable terms due to external factors, which could increase the Company's costs or interrupt its business.

Aluminum and steel, by their very nature, can be recycled at high effectiveness and can be repeatedly reused to form new consumer packaging with minimal or no degradation in performance, quality or safety. By recycling these metals, large amounts of energy can be saved and significant water use and carbon dioxide emissions avoided.

SUSTAINABILITY AND ENVIRONMENTAL, HEALTH AND SAFETY MATTERS

The Company's operations are subject to numerous laws and regulations governing the protection of the environment, disposal of waste, discharges into water, emissions into the atmosphere and the protection of employee health and safety. Future regulations may impose stricter environmental requirements on the packaging industry and may require additional capital investment. Anticipated future restrictions in some jurisdictions on the use of certain coatings may require the Company to employ additional control equipment or process modifications. The Company has a Corporate Sustainability Policy and a Corporate Environmental Protection Policy. Environmental awareness is a key component of sustainability. Environmental considerations are among the criteria by which the Company evaluates projects, products, processes and purchases. The Company is committed to continuous improvement in product design and manufacturing practices to provide the best outcome for the human and natural environment, both now and in the future. By reducing the per-unit amount of raw materials used in manufacturing its products, the Company can significantly reduce the amount of energy, water and other resources and associated emissions necessary to manufacture metal containers. The Company aims to continue that process of improvement in its manufacturing process to assure that consumers and the environment are best served through the use of metal packaging. The Company is also committed to providing a safe work environment for its employees through programs that emphasize safety awareness and the elimination of injuries and incidents. There can be no assurance that current or future environmental laws or liabilities will not have a material effect on the Company's financial condition, liquidity or results of operations. Discussion of the Company's environmental matters is contained within "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report under the caption "Environmental Matters," and under Note P to the consolidated financial statements.

WORKING CAPITAL

The Company generally uses cash during the first nine months of the year to finance seasonal working capital needs. The Company's working capital requirements are funded by cash flows from operations, revolving credit facilities and receivables securitization and factoring programs.

Further information relating to the Company's liquidity and capital resources is set forth within "Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Annual Report under the caption "Liquidity" and under Note M to the consolidated financial statements.

EMPLOYEES

At December 31, 2018, the Company had approximately 33,000 employees. Collective bargaining agreements with varying terms and expiration dates cover approximately 17,000 employees. The Company does not expect that renegotiation of the agreements expiring in 2018 will have a material adverse effect on its consolidated results of operations, financial position or cash flow.

AVAILABLE INFORMATION

The Company's website address is www.crowncork.com. Information on the Company's website is not incorporated by reference in this Annual Report on Form 10-K. The Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports filed by the Company with the U.S. Securities and Exchange Commission pursuant to sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, are accessible free of charge through the Company's website as soon as reasonably practicable after the documents are filed with, or otherwise furnished to, the U. S. Securities and Exchange Commission ("SEC"). The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The public can obtain any documents that the Company files with the SEC at http://www.sec.gov.

The Company's Code of Business Conduct and Ethics, its Corporate Governance Guidelines, and the charters of its Audit, Compensation and Nominating and Corporate Governance committees are available on the Company's website. These documents are also available in print to any shareholder who requests them. Amendments to and waivers of the Code of Business Conduct and Ethics requiring disclosure under applicable SEC rules will be disclosed on the Company's website.

ITEM 1A. RISK FACTORS

In addition to factors discussed elsewhere in this Annual Report and in “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” the following are some of the important factors that could materially and adversely affect the Company’s business, financial condition and results of operations.

The Company's international operations, which generated approximately 73% of its consolidated net sales in 2018, are subject to various risks that may lead to decreases in its financial results.

The Company is an international company, and the risks associated with operating in foreign countries may have a negative impact on the Company's liquidity and net income. The Company's international operations generated approximately 73% of its consolidated net sales in the year ended 2018, 78% of its consolidated net sales in 2017, and 77% of its consolidated net sales in 2016. In addition, the Company's business strategy includes continued expansion of international activities, including within developing markets and areas, such as the South America, Eastern Europe and Asia (including India), that may pose greater risk of political or economic instability. Approximately 35% of the Company's consolidated net sales in the year ended 2018 and approximately 38% of the Company's consolidated net sales in the years ended 2017 and 2016 were generated outside of the developed markets in Western Europe, the United States and Canada. Furthermore, if economic conditions in Europe deteriorate, there will likely be a negative effect on the Company's European business, as well as the businesses of the Company's European customers and suppliers. If a further downturn in European economic conditions ultimately leads to a significant devaluation of the euro, the value of the Company's financial assets that are denominated in euro would be significantly reduced when translated to U.S. dollars for financial reporting purposes. Any of these conditions could ultimately harm the Company's overall business, prospects, operating results, financial condition and cash flows.

Emerging markets are a focus of the Company's international growth strategy. The developing nature of these markets and the nature of the Company's international operations generally are subject to various risks, including:

- foreign governments' restrictive trade policies;
- inconsistent product regulation or policy changes by foreign agencies or governments;
- duties, taxes or government royalties, including the imposition or increase of withholding and other taxes on remittances and other payments by non-U.S. subsidiaries;
- customs, import/export and other trade compliance regulations;
- foreign exchange rate risks;
- difficulty in collecting international accounts receivable and potentially longer payment cycles;
- increased costs in maintaining international manufacturing and marketing efforts;
- non-tariff barriers and higher duty rates;
- difficulties associated with expatriating cash generated or held abroad in a tax-efficient manner and changes in tax laws;
- difficulties in enforcement of contractual obligations and intellectual property rights and difficulties in protecting intellectual property or sensitive commercial and operations data or information technology systems generally;
- exchange controls;
- national and regional labor strikes;
- geographic, language and cultural differences between personnel in different areas of the world;
- high social benefit costs for labor, including costs associated with restructurings;
- civil unrest or political, social, legal and economic instability;

- product boycotts, including with respect to the products of the Company's multi-national customers;
- customer, supplier, and investor concerns regarding operations in areas such as the Middle East;
- taking of property by nationalization or expropriation without fair compensation;
- imposition of limitations on conversions of foreign currencies into dollars or payment of dividends and other payments by non-U.S. subsidiaries;
- hyperinflation and currency devaluation in certain foreign countries where such currency devaluation could affect the amount of cash generated by operations in those countries and thereby affect the Company's ability to satisfy its obligations;
- war, civil disturbance, global or regional catastrophic events, natural disasters, including in emerging markets, and acts of terrorism;
- geographical concentration of the Company's factories and operations and regional shifts in its customer base;
- periodic health epidemic concerns;
- the complexity of managing global operations; and
- compliance with applicable anti-corruption or anti-bribery laws.

There can be no guarantee that a deterioration of economic conditions in countries in which the Company operates or may seek to operate in the future would not have a material impact on the Company's results of operations.

The Company is subject to the effects of fluctuations in foreign exchange rates, which may reduce its net sales and cash flow.

The Company is exposed to fluctuations in foreign currencies as a significant portion of its consolidated net sales, costs, assets and liabilities, are denominated in currencies other than the U.S. dollar. The Company's international operations generated approximately 73% of its consolidated net sales in the year ended 2018, 78% of its consolidated net sales in the year ended 2017, and 77% of its consolidated net sales in the year ended 2016. Volatility in exchange rates may increase the costs of its products, impair the purchasing power of its customers in different markets, result in significant competitive benefit to certain of its competitors who incur a material part of their costs in other currencies than it does, and increase its hedging costs and limit its ability to hedge exchange rate exposure. In its consolidated financial statements, the Company translates local currency financial results into U.S. dollars based on average exchange rates prevailing during a reporting period. During times of a strengthening U.S. dollar, its reported international revenue and earnings will be reduced because the local currency will translate into fewer U.S. dollars. Conversely, a weakening U.S. dollar will effectively increase the dollar-equivalent of the Company's expenses and liabilities denominated in foreign currencies. See “Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Market Risk” and "Quantitative and Qualitative Disclosure about Market Risk" in this Annual Report. Although the Company may use financial instruments such as foreign currency forwards from time to time to reduce its exposure to currency exchange rate fluctuations in some cases, it may not elect or have the ability to implement hedges or, if it does implement them, there can be no assurance that such agreements will achieve the desired effect.

For the year-ended December 31, 2018, a 0.10 movement in the average euro rate would have reduced net income by $22 million.

As the Company seeks to expand its business globally, growth opportunities may be impacted by greater political, economic and social uncertainty and the continuing and accelerating globalization of businesses could significantly change the dynamics of the Company's competition, customer base and product offerings.

The Company's efforts to grow its businesses depend to a large extent upon access to, and its success in developing market share and operating profitably in, geographic markets including but not limited to the Middle East, South America, Eastern Europe and Asia (including India). In some cases, countries in these regions have greater political and economic volatility, greater vulnerability to infrastructure and labor disruptions and differing local customer product preferences and requirements than the Company's other markets. Operating and seeking to expand business in a number of different regions and countries exposes the Company to multiple and potentially conflicting cultural practices, business practices and legal and regulatory requirements that are subject to change, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, repatriation of earnings and regulation of advanced technologies. Such expansion efforts may also use capital and other resources of the Company that could be invested in other areas. Expanding business operations globally also increases exposure to currency fluctuations which can materially affect the Company's financial results. As these emerging geographic markets become more important to the Company, its competitors are also seeking to expand their production capacities and sales in these same markets, which may lead to industry overcapacity that could adversely affect pricing, volumes and financial results in such markets. Although the Company is taking measures to adapt to these changing circumstances, the Company's reputation and/or business results could be negatively affected should these efforts prove unsuccessful.

The Company may not be able to manage its anticipated growth, and it may experience constraints or inefficiencies caused by unanticipated acceleration and deceleration of customer demand.

Unanticipated acceleration and deceleration of customer demand for the Company's products may result in constraints or inefficiencies related to the Company's manufacturing, sales force, implementation resources and administrative infrastructure, particularly in emerging markets where the Company is seeking to expand production. Such constraints or inefficiencies may adversely affect the Company as a result of delays, lost potential product sales or loss of current or potential customers due to their
dissatisfaction. Similarly, over-expansion, including as a result of overcapacity due to expansion by the Company's competitors, or investments in anticipation of growth that does not materialize, or develops more slowly than the Company expects, could harm the Company's financial results and result in overcapacity.

To manage the Company's anticipated future growth effectively, the Company must continue to enhance its manufacturing capabilities and operations, information technology infrastructure, and financial and accounting systems and controls. Organizational growth and scale-up of operations could strain its existing managerial, operational, financial and other resources. The Company's growth requires significant capital expenditures and may divert financial resources from other projects, such as
the development of new products or enhancements of existing products or reduction of the Company's outstanding indebtedness. If the Company's management is unable to effectively manage the Company's growth, its expenses may increase more than expected, its revenue could grow more slowly than expected and it may not be able to achieve its research and development and production goals. The Company's failure to manage its anticipated growth effectively could have a material effect on its business, operating results or financial condition.

The Company's profits will decline if the price of raw materials or energy rises and it cannot increase the price of its products, and the Company's financial results could be adversely affected if the Company was not able to obtain sufficient quantities of raw materials.

The Company uses various raw materials, such as steel, aluminum, tin, water, natural gas, electricity and other processed energy, as well as materials derived from crude oil and natural gas, such as polyethylene and polypropylene resins, in its manufacturing operations. Sufficient quantities of these raw materials may not be available in the future or may be available only at increased prices. The Company's raw material supply contracts vary as to terms and duration, with steel contracts typically one year in duration with fixed prices and aluminum contracts typically multi-year in duration with fluctuating prices based on aluminum ingot costs. The availability of various raw materials and their prices depends on global and local supply and demand forces, governmental regulations (including tariffs and duties), level of production, resource availability, transportation, and other factors, including natural disasters such as floods and earthquakes. In particular, in recent years the consolidation of steel suppliers, shortage of raw materials affecting the production of steel and the increased global demand for steel, including in China and other developing countries, have contributed to an overall tighter supply for steel, resulting in increased steel prices and, in some cases, special surcharges and allocated cut backs of products by steel suppliers. In addition, new tariffs and potential limits on steel supply in the United States from certain foreign countries could further negatively impact the Company's ability to obtain sufficient quantities of steel at competitive prices. Moreover, future steel supply contracts may provide for prices that fluctuate or adjust rather than provide a fixed price during a one-year period. As a result of continuing global supply and demand pressures, other commodity-related costs affecting the Company's business may increase as well, including natural gas, electricity and freight-related costs.

The prices of certain raw materials used by the Company, such as steel, aluminum, resins and processed energy, have historically been subject to volatility. In 2018, consumption of steel and aluminum represented 21% and 36% of the Company's consolidated cost of products sold, excluding depreciation and amortization. While certain, but not all, of the Company's contracts pass through raw material costs to customers, the Company may be unable to increase its prices to offset increases in raw material costs without suffering reductions in unit volume, revenue and operating income. In addition, any price increases may take effect after related cost increases, reducing operating income in the near term. Significant increases in raw material costs may increase the Company's working capital requirements, which may increase the Company's average outstanding indebtedness and interest expense and may exceed the amounts available under the Company's senior secured credit facilities and other sources of liquidity. In addition, the Company hedges raw material costs on behalf of certain customers and may suffer losses if such customers are unable to satisfy their purchase obligations.

If the Company is unable to purchase steel, aluminum, resins or other raw materials for a significant period of time, the Company's operations would be disrupted and any such disruption may adversely affect the Company's financial results. If customers believe that the Company's competitors have greater access to raw materials, perceived certainty of supply at the Company's competitors may put the Company at a competitive disadvantage regarding pricing and product volumes.

The substantial indebtedness of the Company could prevent it from fulfilling its obligations under its indebtedness.

The Company has substantial outstanding indebtedness. As a result of the Company's substantial indebtedness, a significant portion of the Company's cash flow will be required to pay interest and principal on its outstanding indebtedness, and the Company may not generate sufficient cash flow from operations, or have future borrowings available under its senior secured credit facilities, to enable it to repay its indebtedness or to fund other liquidity needs. As of December 31, 2018, the Company and its subsidiaries had approximately $8.8 billion of indebtedness.

The Company’s current sources of liquidity includes a securitization facility with a program limit of between $350 and $375 that expires in July 2020, a securitization facility with a program limit of $240 that expires in November 2022, and an uncommitted securitization facility with a program limit of $175 that expires in December 2019. Additional sources of the Company's liquidity include borrowings that mature as follows: its $1.7 billion revolving credit facilities in April 2022; its €650 million ($745 million at December 31, 2018) 4.0% senior notes in July 2022; its $1 billion 4.50% senior notes in January 2023; its €335 million ($384 million at December 31, 2018) 2.25% senior notes in February 2023; its €600 million ($688 million at December 31, 2018) 2.625% senior notes in September 2024; its €600 million ($688 million at December 31, 2018) 3.375% senior notes in May 2025; its $875 million 4.75% senior notes in February 2026; its €500 million ($573 million at December 31, 2018) 2.875% senior notes in February 2026; its $400 million 4.25% senior notes in September 2026; its $350 million 7.375% senior notes in December 2026; its $40 million 7.5% senior notes in December 2096; and its $95 million of other indebtedness in various currencies at various dates through 2036. In addition, the Company’s term loan facilities mature as follows: $60 million in 2019, $67 million in 2020, $67 million in 2021, $956 million in 2022, $8 million in 2023, $8 million in 2024 and $1,692 million in 2025.

The substantial indebtedness of the Company could:

- increase the Company's vulnerability to general adverse economic and industry conditions, including rising interest rates;
- restrict the Company from making strategic acquisitions or exploiting business opportunities, including any planned expansion in emerging markets;
- limit the Company's ability to make capital expenditures both domestically and internationally in order to grow the Company's business or maintain manufacturing plants in good working order and repair;
- limit, along with the financial and other restrictive covenants under the Company's indebtedness, the Company's ability to obtain additional financing, dispose of assets or pay cash dividends;
- require the Company to dedicate a substantial portion of its cash flow from operations to service its indebtedness, thereby reducing the availability of its cash flow to fund future working capital, capital expenditures, research and development expenditures and other general corporate requirements;
- require the Company to sell assets used in its business;
- limit the Company's ability to refinance its existing indebtedness, particularly during periods of adverse credit market conditions when refinancing indebtedness may not be available under interest rates and other terms acceptable to the Company or at all;
- increase the Company's cost of borrowing;
- limit the Company's flexibility in planning for, or reacting to, changes in its business and the industry in which it operates; and
- place the Company at a competitive disadvantage compared to its competitors that have less debt.

If its financial condition, operating results and liquidity deteriorate, the Company's creditors may restrict its ability to obtain future financing and its suppliers could require prepayment or cash on delivery rather than extend credit, which could further diminish the Company's ability to generate cash flows from operations sufficient to service its debt obligations. In addition, the Company's ability to make payments on and refinance its debt and to fund its operations will depend on the Company's ability to generate cash in the future.

Some of the Company's indebtedness is subject to floating interest rates, which would result in the Company's interest expense increasing if interest rates rise.

As of December 31, 2018, approximately $3.0 billion of the Company's $8.8 billion of total indebtedness and other outstanding obligations were subject to floating interest rates. Changes in economic conditions could result in higher interest rates, thereby increasing the Company's interest expense and reducing funds available for operations or other purposes. The Company's annual interest expense was $384 million, $252 million and $243 million for 2018, 2017 and 2016, respectively. Based on the amount of variable rate debt outstanding at December 31, 2018, a 0.25% increase in variable interest rates would increase its annual interest expense by approximately $7 million before tax. Accordingly, the Company may experience economic losses and a negative impact on earnings as a result of interest rate fluctuation. The actual effect of a 0.25% increase in these floating interest rates could be more than $7 million as the Company’s average borrowings on its variable rate debt may be higher during the year than the amount at December 31, 2018. In addition, the cost of the Company’s securitization and factoring facilities would also increase with an increase in floating interest rates. Although the Company may use interest rate protection agreements from time to time to reduce its exposure to interest rate fluctuations in some cases, it may not elect or have the ability to implement hedges or, if it does implement them, there can be no assurance that such agreements will achieve the desired effect. See “Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Market Risk” and “Quantitative and Qualitative Disclosures About Market Risk” in this Annual Report.

Notwithstanding the Company's current indebtedness levels and restrictive covenants, the Company may still be able to incur substantial additional debt or make certain restricted payments, which could exacerbate the risks described above.

The Company may be able to incur additional debt in the future, including in connection with acquisitions or joint ventures. Although the Company's senior secured credit facilities and indentures governing certain of its outstanding notes contain restrictions on the Company's ability to incur indebtedness, those restrictions are subject to a number of exceptions, and, under certain circumstances, indebtedness incurred in compliance with these restrictions could be substantial. The Company may also consider investments in joint ventures or acquisitions or increased capital expenditures, which may increase the Company's indebtedness.
Moreover, although the Company's senior secured credit facilities and indentures governing certain of its outstanding notes contain restrictions on the Company’s ability to make restricted payments, including the declaration and payment of dividends and the repurchase of the Company’s common stock, the Company is able to make such restricted payments under certain circumstances which may increase indebtedness, and the Company may in the future establish a regular dividend on the Company's common stock. Adding new debt to current debt levels or making otherwise restricted payments could intensify the related risks that the Company and its subsidiaries now face.

Restrictive covenants in the debt agreements governing the Company's current or future indebtedness could restrict the Company's operating flexibility.

The indentures and agreements governing the Company's senior secured credit facilities and outstanding notes contain affirmative and negative covenants that limit the ability of the Company and its subsidiaries to take certain actions. These restrictions may limit the Company's ability to operate its businesses and may prohibit or limit its ability to enhance its operations or take advantage of potential business opportunities as they arise. The Company's senior secured credit facilities require the Company to maintain specified financial ratios and satisfy other financial conditions. The agreements or indentures governing the Company's senior secured credit facilities and certain of its outstanding notes restrict, among other things, the ability of the Company and the ability of all or substantially all of its subsidiaries to:

- incur additional debt;
- pay dividends or make other distributions, repurchase capital stock, repurchase subordinated debt and make certain investments or loans;
- create liens and engage in sale and leaseback transactions;
- create restrictions on the payment of dividends and other amounts to the Company from subsidiaries;
- make loans, investments and capital expenditures;
- change accounting treatment and reporting practices;
- enter into agreements restricting the ability of a subsidiary to pay dividends to, make or repay loans to, transfer property to, or guarantee indebtedness of, the Company or any of its subsidiaries;
- sell or acquire assets, enter into leaseback transactions and merge or consolidate with or into other companies; and
- engage in transactions with affiliates.

In addition, the indentures and agreements governing the Company's senior secured credit facilities and certain of its outstanding notes limit, among other things, the ability of the Company to enter into certain transactions, such as mergers, consolidations, joint ventures, asset sales, sale and leaseback transactions and the pledging of assets. Furthermore, if the Company or certain of its subsidiaries experience specific kinds of changes of control, the Company's senior secured credit facilities will be due and payable and the Company will be required to offer to repurchase outstanding notes.

The breach of any of these covenants by the Company or the failure by the Company to meet any of these ratios or conditions could result in a default under any or all of such indebtedness. If a default occurs under any such indebtedness, all of the outstanding obligations thereunder could become immediately due and payable, which could result in a default under the Company's other outstanding debt and could lead to an acceleration of obligations related to the Company's senior secured credit facilities, outstanding notes and other outstanding debt. The ability of the Company to comply with these covenants or indentures governing other indebtedness it may incur in the future and its outstanding notes can be affected by events beyond its control and, therefore, it may be unable to meet these ratios and conditions.

Pending and future asbestos litigation and payments to settle asbestos-related claims could reduce the Company's cash flow and negatively impact its financial condition.

Crown Cork & Seal Company, Inc. (Crown Cork), a wholly-owned subsidiary of the Company, is one of many defendants in a substantial number of lawsuits filed throughout the United States by persons alleging bodily injury as a result of exposure to asbestos. In 1963, Crown Cork acquired a subsidiary that had two operating businesses, one of which is alleged to have manufactured asbestos-containing insulation products. Crown Cork believes that the business ceased manufacturing such products in 1963.

The Company recorded pre-tax charges of less than $1 million, $3 million and $21 million to increase its accrual for asbestos-related liabilities in 2018, 2017 and 2016. As of December 31, 2018, Crown Cork's accrual for pending and future asbestos-related claims and related legal costs was $295 million, including $251 million for unasserted claims. The Company determines its accrual without limitation to a specific time period. Assumptions underlying the accrual include that claims for exposure to asbestos that occurred after the sale of the subsidiary's insulation business in 1964 would not be entitled to settlement payouts and that state statutes described under Note O to the Company's audited consolidated financial statements included in this Annual Report, including Texas and Pennsylvania statutes, are expected to have a highly favorable impact on Crown Cork's ability to settle or defend against asbestos-related claims in those states and other states where Pennsylvania law may apply.

During the year ended December 31, 2018, Crown Cork received approximately 2,000 new claims, settled or dismissed approximately 1,500 claims, and had approximately 56,000 claims outstanding at the end of the period. Of these outstanding claims, approximately 16,500 claims relate to claimants alleging first exposure to asbestos after 1964 and approximately 39,500 relate to claimants alleging first exposure to asbestos before or during 1964, of which approximately 13,000 were filed in Texas, 1,500 were filed in Pennsylvania, 6,000 were filed in other states that have enacted asbestos legislation and 19,000 were filed in other states. The outstanding claims at December 31, 2018 also exclude approximately 19,000 inactive claims. Due to the passage of time, the Company considers it unlikely that the plaintiffs in these cases will pursue further action. The exclusion of these inactive claims had no effect on the calculation of the Company's accrual as the claims were filed in states where the Company's liability is limited by statute. The Company devotes significant time and expense to defend against these various claims, complaints and proceedings, and there can be no assurance that the expenses or distractions from operating the Company's businesses arising from these defenses will not increase materially.

On October 22, 2010, the Texas Supreme Court, in a 6-2 decision, reversed a lower court decision, Barbara Robinson v. Crown Cork & Seal Company, Inc., No. 14-04-00658-CV, Fourteenth Court of Appeals, Texas, which had upheld the dismissal of an asbestos-related case against Crown Cork. The Texas Supreme Court held that the Texas legislation was unconstitutional under the Texas Constitution when applied to asbestos-related claims pending against Crown Cork when the legislation was enacted in June of 2003. The Company believes that the decision of the Texas Supreme Court is limited to retroactive application of the Texas legislation to asbestos-related cases that were pending against Crown Cork in Texas on June 11, 2003 and therefore continues to assign no value to claims filed after June 11, 2003.

Crown Cork made cash payments of $21 million in 2018 and $30 million in each of the years, 2017 and 2016 for asbestos-related claims including settlement payments and legal fees. These payments and any such future payments will reduce the cash flow available to Crown Cork for its business operations and debt payments.

Asbestos-related payments including defense costs may be significantly higher than those estimated by Crown Cork because the outcome of this type of litigation (and, therefore, Crown Cork's reserve) is subject to a number of assumptions and uncertainties, such as the number or size of asbestos-related claims or settlements, the number of financially viable responsible parties, the extent to which state statutes relating to asbestos liability are upheld and/or applied by the courts, Crown Cork's ability to obtain resolution without payment of asbestos-related claims by persons alleging first exposure to asbestos after 1964, and the potential impact of any pending or future asbestos-related legislation. Accordingly, Crown Cork may be required to make payments for claims substantially in excess of its accrual, which could reduce the Company's cash flow and impair its ability to satisfy its obligations.

As a result of the uncertainties regarding its asbestos-related liabilities and its reduced cash flow, the ability of the Company to raise new money in the capital markets is more difficult and more costly, and the Company may not be able to access the capital markets in the future. Further information regarding Crown's Cork's asbestos-related liabilities is presented within “Management's Discussion and Analysis of Financial Condition and Results of Operations” under the headings, “Provision for Asbestos” and

“Critical Accounting Policies” and under Note L to the Company's audited consolidated financial statements included in this Annual Report.

The Company has significant pension plan obligations worldwide and significant unfunded postretirement obligations, which could reduce its cash flow and negatively impact its results of operations and its financial condition.

The Company sponsors various pension plans worldwide, with the largest funded plans in the U.K., U.S. and Canada. In 2018, 2017 and 2016, the Company contributed $20 million, $294 million and $103 million to its pension plans. Pension expense was$45 million, including settlement charges of $38 million, in 2018 and is expected to be $42 million in 2019, using foreign currency exchange rates in effect at December 31, 2018. In addition, the Company may trigger additional settlement charges in 2019 of approximately $50 million. A 0.25% change in the 2019 expected rate of return assumptions would change 2019 pension expense by approximately $11 million. A 0.25% change in the discount rates assumptions as of December 31, 2018 would change 2019 pension expense by approximately $4 million. The Company may be required to accelerate the timing of its contributions under its pension plans. The actual impact of any accelerated funding will depend upon the interest rates required for determining the plan liabilities and the investment performance of plan assets. An acceleration in the timing of pension plan contributions could decrease the Company's cash available to pay its outstanding obligations and its net income and increase the Company's outstanding indebtedness.

Based on current assumptions, the Company expects to make pension contributions of $17 million in 2019, $19 million in 2020, $61 million in 2021, $90 million in 2022 and $100 million in 2023. Future changes in the factors used to determine pension contributions, including investment performance of plan assets, could have a significant impact on the Company’s future contributions and its cash flow available for debt reduction, capital expenditures or other purposes.

The difference between pension plan obligations and assets, or the funded status of the plans, significantly affects the net periodic benefit costs of the Company's pension plans and the ongoing funding requirements of those plans. Among other factors, significant volatility in the equity markets and in the value of illiquid alternative investments, changes in discount rates, investment returns and the market value of plan assets can substantially increase the Company's future pension plan funding requirements and could have a negative impact on the Company's results of operations and profitability. See Note T to the Company's audited consolidated financial statements in this Annual Report. As long as the Company continues to maintain its various pension plans, the Company will continue to incur additional pension obligations. The Company's pension plan assets consist primarily of common stocks and fixed income securities and also include alternative investments such as interests in private equity and hedge funds. If the performance of plan assets does not meet the Company's assumptions or discount rates decline, the underfunding of the pension plans may increase and the Company may have to contribute additional funds to the pension plan, and its pension expense may increase. In addition, the Company's supplemental executive retirement plan and retiree medical plans are unfunded.

The Company's U.S. funded pension plan is subject to the Employee Retirement Income Security Act of 1974, or ERISA. Under ERISA, the Pension Benefit Guaranty Corporation, or PBGC, has the authority to terminate an underfunded plan under certain circumstances. In the event its U.S. pension plan is terminated for any reason while the plan is underfunded, the Company will incur a liability to the PBGC that may be equal to the entire amount of the underfunding, which under certain circumstances may be senior to the notes. In addition, as of December 31, 2018 the unfunded accumulated postretirement benefit obligation, as calculated in accordance with U.S. generally accepted accounting principles, for retiree medical benefits was approximately $147 million, based on assumptions set forth under Note T to the Company's audited consolidated financial statements in this Annual Report.

Acquisitions or investments that the Company is considering or may pursue could be unsuccessful, consume significant resources and require the incurrence of additional indebtedness.

The Company may consider acquisitions and investments that complement its existing business. These possible acquisitions and investments involve or may involve significant cash expenditures, debt incurrence (including the incurrence of additional indebtedness under the Company's senior secured revolving credit facilities or other secured or unsecured debt), operating losses and expenses that could have a material effect on the Company's financial condition and operating results.

In particular, if the Company incurs additional debt, the Company's liquidity and financial stability could be impaired as a result of using a significant portion of available cash or borrowing capacity to finance an acquisition. Moreover, the Company may face an increase in interest expense or financial leverage if additional debt is incurred to finance an acquisition, which may, among other things, adversely affect the Company's various financial ratios and the Company's compliance with the conditions of its existing indebtedness. In addition, such additional indebtedness may be incurred under the Company's senior secured credit facilities or otherwise secured by liens on the Company's assets.

Acquisitions involve numerous other risks, including:

- diversion of management time and attention;
- failures to identify material problems and liabilities of acquisition targets or to obtain sufficient indemnification rights to fully offset possible liabilities related to the acquired businesses;
- difficulties integrating the operations, technologies and personnel of the acquired businesses;
- inefficiencies and complexities that may arise due to unfamiliarity with new assets, businesses or markets;
- disruptions to the Company's ongoing business;
- inaccurate estimates of fair value made in the accounting for acquisitions and amortization of acquired intangible assets which would reduce future reported earnings;
- the inability to obtain required financing for the new acquisition or investment opportunities and the Company's existing business;
- the need or obligation to divest portions of an acquired business;
- challenges associated with operating in new geographic regions;
- difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects;
- potential loss of key employees, contractual relationships, suppliers or customers of the acquired businesses or of the Company; and
- inability to obtain required regulatory approvals.

To the extent the Company pursues an acquisition that causes it to incur unexpected costs or that fails to generate expected returns, the Company's financial position, results of operations and cash flows may be adversely affected, and the Company's ability to service its indebtedness may be negatively impacted.

The Company's principal markets may be subject to overcapacity and intense competition, which could reduce the Company's net sales and net income.

Food and beverage cans are standardized products, allowing for relatively little differentiation among competitors. This could lead to overcapacity and price competition among food and beverage can producers if capacity growth outpaced the growth in demand for food and beverage cans and overall manufacturing capacity exceeded demand. These market conditions could reduce product prices and contribute to declining revenue and net income and increasing debt balances. As a result of industry overcapacity (including in developed markets and certain emerging markets) and price competition, the Company may not be able to increase prices sufficiently to offset higher costs or to generate sufficient cash flow. The North American and Western European food and beverage can markets, in particular, are considered to be mature markets, characterized by slow growth and a sophisticated distribution system. Competitive pricing pressures, overcapacity, the failure to develop new product designs and technologies for products, as well as other factors, such as consolidation among the Company's competitors, could cause the Company to lose existing business or opportunities to generate new business and could result in decreased cash flow and net income.

The Company is subject to competition from substitute products and decreases in demand for its products, which could result in lower profits and reduced cash flows.

The Company is subject to substantial competition from producers of alternative packaging made from glass, paper, flexible materials and plastic. The Company's sales depend heavily on the volumes of sales by the Company's customers in the food and beverage markets. Changes in preferences for products and packaging by consumers of prepackaged food and beverage cans significantly influence the Company's sales. Changes in packaging by the Company's customers may require the Company to re-tool manufacturing operations, which could require material expenditures. In addition, a decrease in the costs of, or a further increase in consumer demand for, alternative packaging could result in lower profits and reduced cash flows for the Company. For example, increases in the price of aluminum and steel and decreases in the price of plastic resin, which is a petrochemical product and may fluctuate with prices in the oil and gas market, may increase substitution of plastic food and beverage containers for metal containers or increases in the price of steel may increase substitution of aluminum packaging for aerosol products. Moreover, due to its high percentage of fixed costs, the Company may be unable to maintain its gross margin at past levels if it is not able to achieve high capacity utilization rates for its production equipment. In periods of low worldwide demand for its products or in situations where industry expansion created excess capacity, the Company experiences relatively low capacity utilization rates in its operations, which can lead to reduced margins during that period and can have an adverse effect on the Company's business.

The Transit Packaging Division also faces substantial competition from many regional and local competitors of various sizes in the manufacture, distribution and sale of its products. Its products compete, to some extent, with various other packaging materials, including other products made of paper, plastics, wood and various types of metal. Although the division has long-term relationships with many of its customers, these relationships are typically not contractual. As a result, its customers may unilaterally reduce the purchase of its products and the division may not be able to quickly replace the revenue source, which could harm the Company's financial results.

The Company's business results depend on its ability to understand its customers' specific preferences and requirements, and to develop, manufacture and market products that meet customer demand.

The Company's ability to develop new product offerings for a diverse group of global customers with differing preferences, while maintaining functionality and spurring innovation, is critical to its success. This requires a thorough understanding of the Company's existing and potential customers on a global basis, particularly in potential high developing markets, including South America, Eastern Europe and Asia (including India). Failure to deliver quality products that meet customer needs ahead of competitors could have a significant adverse effect on the Company's business.

Loss of third-party transportation providers upon whom the Company depends or increases in fuel prices could increase the Company's costs or cause a disruption in the Company's operations.

The Company depends generally upon third-party transportation providers for delivery of products to customers. Strikes, slowdowns, transportation disruptions or other conditions in the transportation industry, including, but not limited to, shortages of truck drivers, disruptions in rail service, decreases in the availability of vessels or increases in fuel prices, could increase the Company's costs and disrupt Company’s operations and its ability to service customers on a timely basis.

The loss of a major customer and/or customer consolidation could reduce the Company's net sales and profitability.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of product purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may reduce the Company's net sales and net income.

The majority of the Company's sales are to companies that have leading market positions in the sale of packaged food, beverages and household products to consumers. Although no one customer accounted for more than 10% of its net sales in the years ended 2018, 2017 or 2016, the loss of any of its major customers, a reduction in the purchasing levels of these customers or an adverse change in the terms of supply agreements with these customers could reduce the Company's net sales and net income. A continued consolidation of the Company's customers could exacerbate any such loss.

The Company's business is seasonal and weather conditions could reduce the Company's net sales.

The Company manufactures metal and glass packaging primarily for the food and beverage can market. Its sales can be affected by weather conditions. Due principally to the seasonal nature of the soft drink, brewing, iced tea and other beverage industries, in which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year. Unseasonably cool weather can reduce consumer demand for certain beverages packaged in its containers. In addition, poor weather conditions that reduce crop yields of packaged foods can decrease customer demand for its food containers.

The Company is subject to costs and liabilities related to stringent environmental and health and safety standards.

Laws and regulations relating to environmental protection and health and safety may increase the Company’s costs of operating and reduce its profitability. The Company's operations are subject to numerous U.S. federal and state and non-U.S. laws and regulations governing the protection of the environment, including those relating to operating permit, treatment, storage and disposal of waste, the use of chemicals in the Company's products and manufacturing process, discharges into water, emissions into the atmosphere, remediation of soil and groundwater contamination and protection of employee health and safety. Future regulations may impose stricter environmental or employee safety requirements affecting the Company's operations or may impose additional requirements regarding consumer health and safety, such as potential restrictions on the use of bisphenol-A, a starting material used to produce internal and external coatings for some food, beverage, and aerosol containers and metal closures. Although the U.S. FDA currently permits the use of bisphenol-A in food packaging materials and confirmed in a January 2010 update that studies employing standardized toxicity tests have supported the safety of current low levels of human exposure to bisphenol-A, the FDA in that January 2010 update noted that more research was needed, and further suggested reasonable steps to reduce exposure to bisphenol-A. The FDA subsequently entered into a consent decree under which it agreed to issue, by March 31, 2012, a final decision on a citizen's petition requesting the agency take further regulatory steps with regard to bisphenol-A. On March 30, 2012, the FDA denied the request, responding, in part, that the appropriate course of action was to continue scientific study and review of all new evidence regarding the safety of bisphenol-A. In March 2010, the EPA issued an action plan for bisphenol-A, which includes, among other things, consideration of whether to add bisphenol-A to the chemical concern list on the basis of potential environmental effects and use of the EPA's Design for the Environment program to encourage reductions in bisphenol-A manufacturing and use. Moreover, certain U.S. Congressional bodies, states and municipalities, as well as certain foreign nations and some member states of the European Union, such as Denmark, Belgium and France, have considered, proposed or already passed legislation banning or suspending the use of bisphenol-A in certain products or requiring warnings regarding bisphenol-A. In July 2012, the FDA banned the use of bisphenol-A in baby bottles and children's drinking cups, and in July 2013, the FDA banned the use of bisphenol-A in epoxy resins that coat infant formula cans. In France, the production, importation, exportation and the placement on the market of baby bottles containing bisphenol-A was suspended by a law of 2010. This suspension was extended in 2013 to packaging and utensils for food intended for children under 3 and in 2015 to packaging and utensils for all other foods. Following a decision of the French Constitutional Court, the suspension is currently limited to the importation and the placement on the market of those packaging and utensils containing bisphenol-A. The law also includes certain product labeling requirements. More generally, France is very attentive to the issue of endocrine disruptors and food safety (e.g. Food Conference in 2017 (*Etats généraux de l'alimentation*)). In the first quarter of 2014, the European Food Safety Authority recommended that the tolerable daily intake of bisphenol-A be lowered. Further, the U.S. or additional international, federal, state or other regulatory authorities could restrict or prohibit the use of bisphenol-A in the future. For example, in 2015, the State of California declared bisphenol-A a reproductive system hazard and listed BPA as a hazardous chemical under California's Safe Water and Toxic Environment Act, which may trigger a requirement to include warning labels on consumer items containing bisphenol-A. In addition, recent public reports, litigation and other allegations regarding the potential health hazards of bisphenol-A could contribute to a perceived safety risk about the Company's products and adversely impact sales or otherwise disrupt the Company's business. While the Company is exploring various alternatives to the use of bisphenol-A and conversion to alternatives is underway in some applications, there can be no assurance the Company will be completely successful in its efforts or that the alternatives will not be more costly to the Company.

Also, for example, future restrictions in some jurisdictions on air emissions of volatile organic compounds and the use of certain paint and lacquering ingredients may require the Company to employ additional control equipment or process modifications. The Company's operations and properties, both in the United States and abroad, must comply with these laws and regulations. In addition, a number of governmental authorities in the United States and abroad have introduced or are contemplating enacting legal requirements, including emissions limitations, cap and trade systems or mandated changes in energy consumption, in response to the potential impacts of climate change. Given the wide range of potential future climate change regulations in the jurisdictions in which the Company operates, the potential impact to the Company's operations is uncertain. In addition, the potential impact of climate change on the Company's operations is highly uncertain. The impact of climate change may vary by geographic location and other circumstances, including weather patterns and any impact to natural resources such as water.

A number of governmental authorities both in the U.S. and abroad also have enacted, or are considering, legal requirements relating to product stewardship, including mandating recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials such as plastics. In addition, some companies with packaging needs have responded to such developments, and/or to perceived environmental concerns of consumers, by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products, and/or increase its costs.

The Company is subject to certain restrictions that may limit its ability to make payments on its debt out of the cash reserves shown on the Company's consolidated financial statements.

The ability of the Company's subsidiaries and joint ventures to pay dividends, make distributions, provide loans or make other payments to the Company may be restricted by applicable state and foreign laws, potentially adverse tax consequences and their agreements, including agreements governing their debt.

In addition, the equity interests of the Company's joint venture partners or other shareholders in the Company's non-wholly owned subsidiaries in any dividend or other distribution made by these entities would need to be satisfied on a proportionate basis with the Company. As a result, the Company may not be able to access a portion of its cash flow to service the Company's debt.

The Company has a significant amount of goodwill that, if impaired in the future, would result in lower reported net income and a reduction of its net worth.

Impairment of the Company's goodwill would require a write down of goodwill, which would reduce the Company's net income in the period of any such write down. At December 31, 2018, the carrying value of the Company's goodwill was $4.4 billion. The Company is required to evaluate goodwill reflected on its balance sheet at least annually, or when circumstances indicate a potential impairment. If it determines that the goodwill is impaired, the Company would be required to write off a portion or all of the goodwill.

If the Company fails to retain key management and personnel, the Company may be unable to implement its business plan.

Members of the Company's senior management have extensive industry experience, and it might be difficult to find new personnel with comparable experience. Because the Company's business is highly specialized, the Company believes that it would also be difficult to replace its key technical personnel. The Company believes that its future success depends, in large part, on its experienced senior management team. Losing the services of key members of its management team could limit the Company's ability to implement its business plan. In addition, under the Company's unfunded Senior Executive Retirement Plan certain members of senior management are entitled to lump sum payments upon retirement or other termination of employment and a lump sum death benefit of five times the annual retirement benefit.

A significant portion of the Company's workforce is unionized and labor disruptions could increase the Company's costs and prevent the Company from supplying its customers.

A significant portion of the Company's workforce is unionized and a prolonged work stoppage or strike at any facility with unionized employees could increase its costs and prevent the Company from supplying its customers. In addition, upon the expiration of existing collective bargaining agreements, the Company may not reach new agreements without union action in certain jurisdictions and any such new agreements may not be on terms satisfactory to the Company. If the Company is unable to negotiate acceptable collective bargaining agreements, it may become subject to union-initiated work stoppages, including strikes. Moreover, additional groups of currently non-unionized employees may seek union representation in the future.

Failure by the Company's joint venture partners to observe their obligations could adversely affect the business and operations of the joint ventures and, in turn, the business and operations of the Company.

A portion of the Company's operations, including certain beverage can operations in Asia, the Middle East and South America, is conducted through joint ventures. The Company participates in these ventures with third parties. In the event that the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans or that the Company would have to increase its level of commitment to the joint venture.

If the Company fails to maintain an effective system of internal control, the Company 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. Any inability to provide reliable financial reports or prevent fraud could harm the Company's business. The Company must annually evaluate its internal 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. If the Company fails to remedy or maintain the adequacy of its internal controls, as such standards are modified, supplemented or amended from time to time, the Company could be subject to regulatory scrutiny, civil or criminal penalties or shareholder litigation.

In addition, failure to maintain adequate internal controls could result in financial statements that do not accurately reflect the Company's financial condition. There can be no assurance that the Company will be able to complete the work necessary to fully comply with the requirements of the Sarbanes-Oxley Act or that the Company's management and external auditors will continue to conclude that the Company's internal controls are effective.

The Company is subject to litigation risks which could negatively impact its operations and net income.

The Company is subject to various lawsuits and claims with respect to matters such as governmental, environmental and employee benefits laws and regulations, securities, labor, and actions arising out of the normal course of business, in addition to asbestos-related litigation described under the risk factor titled “Pending and future asbestos litigation and payments to settle asbestos-related claims could reduce the Company's cash flow and negatively impact its financial condition.” The Company is currently unable to determine the total expense or possible loss, if any, that may ultimately be incurred in the resolution of such legal proceedings. Regardless of the ultimate outcome of such legal proceedings, they could result in significant diversion of time by the Company's management. The results of the Company's pending legal proceedings, including any potential settlements, are uncertain and the outcome of these disputes may decrease its cash available for operations and investment, restrict its operations or otherwise negatively impact its business, operating results, financial condition and cash flow.

Some of the Company's transit packaging products are relied upon by customers or end users in their facilities or operations, or are manufactured for relatively broad industrial, transportation or consumer use. The Company faces an inherent risk of exposure to claims and damage to its reputation or brands in the event that the failure, use or misuse of its products results, or is alleged to result, in death, bodily injury, property damage or economic loss. For instance, certain of these products may fail while being used to transport heavy, industrial equipment. A successful product liability claim or series of claims against the Company, or a significant warranty claim or series of claims, could have a material adverse effect on the Company.

In March 2015, the Bundeskartellamt, or German Federal Cartel Office (“FCO”), conducted unannounced inspections of the premises of several metal packaging manufacturers, including one of the Company’s German subsidiaries. The local court order authorizing the inspection cited FCO suspicions of anti-competitive agreements in the market for the supply of metal packaging products. The Company conducted an internal investigation into the matter and discovered instances of inappropriate conduct by certain employees of German subsidiaries of the Company. The Company cooperated with the FCO and submitted a leniency application with the FCO which disclosed the findings of its internal investigation to date. In April 2018, the FCO discontinued its national investigation and referred the matter to the European Commission (the “Commission”). Following the referral, Commission officials conducted unannounced inspections of the premises of several metal packaging manufacturers, including Company subsidiaries in Germany, France and the United Kingdom.

The Commission’s investigation is ongoing and, to date, the Commission has not officially charged the Company or any of its subsidiaries with violations of competition law. The Company is cooperating with the Commission and submitted a leniency application with the Commission with respect to the findings of the investigation in Germany referenced above. This application may lead to the reduction of possible future penalties. At this stage of the investigation the Company believes that a loss is probable but is unable to predict the ultimate outcome of the Commission’s investigation and is unable to estimate the loss or possible range of losses that could be incurred, and has therefore not recorded a charge in connection with the actions by the Commission. If the Commission finds that the Company or any of its subsidiaries violated competition law, fines levied by the Commission could be material to the Company’s operating results and cash flows for the periods in which they are resolved or become reasonably estimable.

The downturn in certain global economies could have adverse effects on the Company.

The downturn in certain global economies could have significant adverse effects on the Company's operations, including as a result of any the following:

- downturns in the business or financial condition of any of the Company's key customers or suppliers, potentially resulting in customers' inability to pay the Company's invoices as they become due, or at all, or suppliers' failure to fulfill their commitments;
- potential losses associated with hedging activity by the Company for the benefit of the Company's customers including counterparty risk associated with such hedging activity, or costs associated with changing suppliers;
- a decline in the fair value of the Company's pension assets or a decline in discount rates used to measure the Company's pension obligations, potentially requiring the Company to make significant additional contributions to its pension plans to meet prescribed funding levels;
- the deterioration of any of the lending parties under the Company's senior secured revolving credit facilities or the creditworthiness of the counterparties to the Company's derivative transactions, which could result in such parties' failure to satisfy their obligations under their arrangements with the Company;
- noncompliance with the covenants under the Company's indebtedness as a result of a weakening of the Company's financial position or results of operations; and
- the lack of currently available funding sources, which could have a negative impact upon the liquidity of the Company as well as that of its customers and suppliers.

The vote by the United Kingdom to leave the European Union could adversely affect the Company.

The United Kingdom is expected to cease to be a member of the European Union ("E.U.") on March 29, 2019 (commonly referred to as "Brexit"), although it is possible that the effective date of Brexit will be postponed or that Brexit will not occur. There is uncertainty as to the scope, nature and terms of the relationship between the U.K. and the E.U. after Brexit. Brexit could adversely affect economic and market conditions in the U.K., in the E.U. and its member states and elsewhere, and could contribute to uncertainty and instability in global financial markets. In particular, Brexit could significantly impact volatility, liquidity and/or the market value of securities. Accordingly, Brexit could adversely affect the Company's business, results of operations, financial condition and cash flows, particularly if no withdrawal agreement is reached prior to the March 29, 2019 deadline. However, until the terms of the U.K.'s withdrawal from the E.U. are clearer, it is not possible to determine what effect Brexit may have on the Company's business.

The Company relies on its information technology and the failure or disruption of its information technology could disrupt its operations and adversely affect its results of operations.

The Company's business increasingly relies on the successful and uninterrupted functioning of its information technology systems to process, transmit, and store electronic information. A significant portion of the communication between the Company's personnel around the world, customers, and suppliers depends on information technology. As with all large systems, the Company's information technology systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, computer viruses, attacks by computer hackers, telecommunication failures, user errors or catastrophic events. In addition, security breaches could result in unauthorized disclosure of confidential information.

The concentration of processes in shared services centers means that any disruption could impact a large portion of the Company's business within the operating zones served by the affected service center. If the Company does not allocate, and effectively manage, the resources necessary to build, sustain and protect the proper technology infrastructure, the Company could be subject to transaction errors, processing inefficiencies, loss of customers, business disruptions, the loss of or damage to intellectual property through security breach, as well as potential civil liability and fines under various states' laws in which the Company does business. While the Company has security measures in place designed to protect the integrity of customer information and prevent data loss, misappropriation, and other security breaches, the Company's information technology system could nevertheless be penetrated by outside parties intent on extracting information, corrupting information or disrupting business processes. In addition, if the Company's information technology systems suffer severe damage, disruption or shutdown and the Company's business continuity plans do not effectively resolve the issues in a timely manner, the Company may lose revenue and profits as a result of its inability to timely manufacture, distribute, invoice and collect payments from its customers, and could experience delays in reporting its financial results, including with respect to the Company's operations in emerging markets. Furthermore, if the Company is unable to prevent security breaches, it may suffer financial and reputational damage because of lost or misappropriated confidential information belonging to the Company or to its customers or suppliers. Failure or disruption of these systems, or the back-up systems, for any reason could disrupt the Company's operations and negatively impact the Company's cash flows or financial condition.

The Company may not be able to use all of its foreign tax credit carryforwards in the event it undergoes an ownership change as defined by the U.S. Internal Revenue Code of 1986.

The Company has substantial foreign tax carryforwards that can, subject to complex limitations, reduce U.S. taxes owed on foreign income. In the event the Company undergoes an ownership change as determined, its use of those foreign tax credit carryovers may be severely curtailed under section 383 of the U.S. Internal Revenue Code of 1986. An ownership change may occur if the percentage of the Company's stock owned by one or more 5% shareholders increases by more than 50 percentage points over the lowest percentage of the Company's stock owned by those shareholders, measured over a three year period.

Changes in accounting standards, taxation requirements and other law could negatively affect the Company's financial results.

New accounting standards or pronouncements that may become applicable to the Company from time to time, or changes in the interpretation of existing standards and pronouncements, could have a significant effect on the Company's reported results for the affected periods. The Company is also subject to income tax in the numerous jurisdictions in which the Company operates. Increases in income tax rates or other changes to tax laws could reduce the Company's after-tax income from affected jurisdictions or otherwise affect the Company's tax liability. For example, certain elements of the Tax Cuts and Jobs Act of 2017 (the "Tax Act"), including the limitation of tax deductions for interest expense, the treatment of global intangible low-taxed income and foreign-derived intangible income and the allocation of deductions for purposes of computing the foreign tax credit limitation, among others, are pending final regulations from the Internal Revenue Service and the enactment of these final regulations could adversely affect the Company's financial results.

In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in indirect taxes could affect the Company's products' affordability and therefore reduce demand for its products.

The Company may experience significant negative effects to its business as a result of new federal, state or local taxes, increases to current taxes or other governmental regulations specifically targeted to decrease the consumption of certain types of beverages.

Public health and government officials have become increasingly concerned about the health consequences associated with over-consumption of certain types of beverages, such as sugar-sweetened beverages and including those sold by certain of the Company's significant customers. Possible new federal, state or local taxes, increases to current taxes or other governmental regulations specifically targeted to decrease the consumption of these beverages may significantly reduce demand for the beverages of the Company's customers, which could in turn affect demand of the Company's customers for the Company's products. For example, taxes on certain sugar-sweetened beverages have been enacted in France, the United Kingdom, and Mexico. France has also imposed taxes on energy drinks using certain amounts of taurine and caffeine. Some state and local governments are also considering similar taxes, and Philadelphia, Pennsylvania (where the Company's Americas and Corporate headquarters were located prior to September 2018), Cook County, Illinois (where the Company's Transit Packaging headquarters is located), and several cities in California have enacted taxes on certain sugar-sweetened beverages. The imposition of such taxes may decrease the demand for certain soft drinks and beverages that the Company's customers produce, which may cause the Company's customers to respond by decreasing their purchases from the Company. Consumer tax legislation and future attempts to tax sugar-sweetened or energy drinks by other jurisdictions could reduce the demand for the Company's products, adversely affect the Company's profitability and materially adversely affect the Company's business and financial results.

The Company's senior secured credit facilities provide that certain change of control events constitute an event of default. In the event of a change of control, the Company may not be able to satisfy all of its obligations under the senior secured credit facilities or other indebtedness.

The Company may not have sufficient assets or be able to obtain sufficient third-party financing on favorable terms to satisfy all of its obligations under the Company's senior secured credit facilities or other indebtedness in the event of a change of control. The Company's senior secured credit facilities provide that certain change of control events constitute an event of default under the senior secured credit facilities. Such an event of default entitles the lenders thereunder to, among other things, cause all outstanding debt obligations under the senior secured credit facilities to become due and payable and to proceed against the collateral securing the senior secured credit facilities. Any event of default or acceleration of the senior secured credit facilities will likely also cause a default under the terms of other indebtedness of the Company. In addition, the indentures governing certain of the Company's outstanding notes require that the Company offer to repurchase the notes at an offer price of 101% of principal upon certain change of control repurchase events.

The loss of the Company's intellectual property rights may negatively impact its ability to compete.

If the Company is unable to maintain the proprietary nature of its technologies, its competitors may use its technologies to compete with it. The Company has a number of patents covering various aspects of its products, including its SuperEnd® beverage can end, whose primary patent expired in 2016, Easylift™ full aperture steel food can ends, PeelSeam™ and PeelFit™ flexible lidding and Ideal™ product line. The Company's patents may not withstand challenge in litigation, and patents do not ensure that competitors will not develop competing products or infringe upon the Company's patents. Moreover, the costs of litigation to defend the Company's patents could be substantial and may outweigh the benefits of enforcing its rights under its patents. The Company markets its products internationally and the patent laws of foreign countries may offer less protection than the patent laws of the United States. Not all of the Company's domestic patents have been registered in other countries. The Company also relies on trade secrets, know-how and other unpatented proprietary technology, and others may independently develop the same or similar technology or otherwise obtain access to the Company's unpatented technology. In addition, the Company has from time to time received letters from third parties suggesting that it may be infringing on their intellectual property rights, and third parties may bring infringement suits against the Company, which could result in the Company needing to seek licenses from these third parties or refraining altogether from use of the claimed technology.

Demand for the Company's products could be affected by changes in laws and regulations applicable to food and beverages and changes in consumer preferences.

The Company manufactures and sells metal and glass packaging primarily for the food and beverage can market. As a result, many of the Company's products come into direct contact with food and beverages. Accordingly, the Company's products must comply with various laws and regulations for food and beverages applicable to its customers. Changes in such laws and regulations could negatively impact customers' demand for the Company's products as they comply with such changes and/or require the Company to make changes to its products. Such changes to the Company's products could include modifications to the coatings and compounds that the Company uses, possibly resulting in the incurrence of additional costs. Additionally, because many of the Company's products are used to package consumer goods, the Company is subject to a variety of risks that could influence consumer behavior and negatively impact demand for the Company's products, including changes in consumer preferences driven by various health-related concerns and perceptions.

ITEM 1B. UNRESOLVED STAFF COMMENTS

There are no unresolved written comments that were received from the SEC staff 180 days or more before the end of the Company's fiscal year relating to its periodic or current reports under the Securities Exchange Act of 1934.

ITEM 2. PROPERTIES

As of December 31, 2018, the Company operated 241 manufacturing facilities of which 70 were leased. The Company has four divisions, primarily defined geographically, within which it manufactures and markets its products. The Americas Division had 48 operating facilities of which eight were leased. Within the Americas Division, 29 facilities operated in the U.S. of which six were leased. The European Division had 61 operating facilities of which 11 were leased and the Asia Pacific Division had 30 operating facilities of which three were leased. The Transit Packaging Division had 99 operating facilities of which 47 were leased. The Company also had three canmaking equipment and spare part operations in the U.S. and the U.K., one of which was a leased facility. Certain leases provide renewal or purchase options. The principal manufacturing facilities at December 31, 2018 are listed below and are grouped by product and by division.

The Company's Americas and Corporate headquarters relocated in September 2018 from Philadelphia, Pennsylvania to Yardley, Pennsylvania. Its European headquarters is in Baar, Switzerland, its Asia Pacific headquarters is in Singapore and its Transit Packaging headquarters is in Glenview, Illinois. The Company maintains research facilities in Alsip, Illinois and Wantage, England.

The Company's manufacturing and support facilities are designed according to the requirements of the products to be manufactured. Therefore, the type of construction may vary from plant to plant. Warehouse space is generally provided at each of the manufacturing locations, although the Company also leases outside warehouses.

Ongoing productivity improvements and cost reduction efforts in recent years have focused on upgrading and modernizing facilities to reduce costs, improve efficiency and productivity and phase out uncompetitive facilities. The Company has also opened new facilities to meet increases in market demand for its products. These actions reflect the Company's continued commitment to realign manufacturing facilities to maintain its competitive position in its markets. The Company continually reviews its operations and evaluates strategic opportunities. The list below includes a beverage can facility in Asia which will be closed in 2019. Further discussion of the Company's recent restructuring actions is contained within "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the caption "Provision for Restructuring," and under Note K to the consolidated financial statements.

Utilization of any particular facility varies based upon product demand. While not possible to measure with any degree of certainty or uniformity the productive capacity of these facilities, management believes that, if necessary, production can be increased at several existing facilities through the addition of personnel, capital equipment and, in some facilities, square footage available for production. In addition, the Company may from time to time acquire additional facilities or dispose of existing facilities.

Excluded from the list below are operating facilities in unconsolidated subsidiaries as well as service or support facilities. The service or support facilities include machine shop operations, plant operations dedicated to printing for cans and closures, coil shearing, coil coating and RD&E operations. Some operating facilities produce more than one product but have been presented below under the product with the largest contribution to sales.

	Americas		Europe		Asia Pacific
Beverage and Closures	Kankakee, IL Mankato, MN Batesville, MS Nichols, NY Dayton, OH Cheraw, SC Conroe, TX Fort Bend, TX Winchester, VA Olympia, WA La Crosse, WI Worland, WY Cabreuva, Brazil Teresina, Brazil	Estancia, Brazil Manaus, Brazil Ponta Grossa, Brazil Calgary, Canada Weston, Canada Santafe de Bogota, Colombia Chihuahua, Mexico Ensenada, Mexico Guadalajara, Mexico Monterrey, Mexico (2) Orizaba, Mexico Toluca, Mexico	Custines, France Korinthos, Greece Patras, Greece Amman, Jordan Dammam, Saudi Arabia Jeddah, Saudi Arabia Kosice, Slovakia Agoncillo, Spain	Sevilla, Spain Valencia, Spain El Agba, Tunisia Izmit, Turkey Osmaniye, Turkey Dubai, UAE Botcherby, U.K. Braunstone, U.K.	Phnom Penh, Cambodia (2) Sihanoukville, Cambodia Huizhou, China Hangzhou, China Heshan, China Ziyang, China Karawang, Indonesia Bangi, Malaysia Yangon, Myanmar Singapore Nong Khae, Thailand Danang, Vietnam Dong Nai, Vietnam Hanoi, Vietnam Ho Chi Minh City, Vietnam
Food and Closures	Winter Garden, FL Owatonna, MN Omaha, NE Lancaster, OH Massillon, OH Mill Park, OH Connellsville, PA	Hanover, PA Suffolk, VA Oshkosh, WI Kingston, Jamaica La Villa, Mexico Barbados, West Indies	Carpentras, France Concarneau, France Laon, France Nantes, France Outreau, France Perigueux, France Lubeck, Germany Mühldorf, Germany Seesen, Germany (2) Thessaloniki, Greece Tema, Ghana Kornye, Hungary Nagykoros, Hungary Athy, Ireland Aprilia, Italy Battipaglia, Italy Calerno S. Ilario d'Enza, Italy Nocera Superiore, Italy Parma, Italy	Abidjan, Ivory Coast Toamasina, Madagascar Agadir, Morocco Casablanca, Morocco Goleniow, Poland Pruszcz, Poland Alcochete, Portugal Novotitarovskaya, Russia Timashevsk, Russia Aldeanueva De Ebro, Spain Las Torres De Cotillas, Spain Llanera, Spain Merida, Spain Osuna, Spain Pontavedra, Spain Sevilla, Spain Karacabey, Turkey Wisbech, U.K.	Bangpoo, Thailand Hat Yai, Thailand Nakhon Pathom, Thailand Samrong, Thailand Songkhla, Thailand
Aerosol	Alsip, IL Decatur, IL	Faribault, MN Spartanburg, SC	Spilamberto, Italy (2)	Sutton, U.K.	
Promotional & Specialty Packaging	Belcamp, MD		Chatillon-sur-Seine, France Hoorn, Netherlands	Carlisle, U.K. Mansfield, U.K.	Henan, China Huizhou, China Kunshan, China Qingdao Chengyan, China Shanghai, China Tianjin, China Tongxiang, China Singapore Dong Nai, Vietnam
Canmaking Equipment and Other	Norwalk, CT Trevose, PA	Chippewa Falls, WI Acayucan, Mexico	Shipley, U.K. (2)		

	Americas		Europe		Asia Pacific
Transit Packaging	Benton, AR (2)	Cincinnati, OH	Virton, Belgium	Weischlitz, Germany	Derrimut, Australia
	Fordyce, AR	Cleveland, OH	Kardjali, Bulgaria	Gorey, Ireland	Kurri Kurri, Australia
	Sheridan, AR	Loveland, OH	Noerresundby, Denmark	Kilkenny, Ireland	Qingdao, China
	Phoenix, AZ	Elizabethtown, PA	Soenderborg, Denmark	Nairobi, Kenya	Bangalore, India (3)
	Bay Point, CA	Hazleton, PA	Liljendal, Finland	Heerlen, Netherlands	Dahej, India
	Stockton, CA	South Canaan, PA	Masku, Finland	Nuenen, Netherlands	Dehradun, India
	Denver, CO	East Providence, RI (2)	Castelsarrasin, France	Zwijndrecht, Netherlands	Karnataka, India
	Carrollton, GA	Chapin, SC	Fontaine les Luxeuil, France	Kosice, Slovakia	Rudraram, India (2)
	Douglasville, GA	Darlington, SC (2)	Manneville sur Risle, France	Burseryd, Sweden	Silvassa, India (2)
	LaGrange, GA	Greer, SC	Tournus, France	Hjo, Sweden	Pohang, South Korea
	Macon, GA	Latta, SC	Dinslaken, Germany (2)	Sandared, Sweden	Sriracha, Thailand
	Bridgeview, IL	Orange, TX	Goldkronach, Germany	Ystad, Sweden	
	Dixmoor, IL	San Antonio, TX	Hilden, Germany	Dietikon, Switzerland (2)	
	Glenview, IL	Danville, VA	Nurnberg, Germany	Merenschwand, Switzerland	
	Kankakee, IL (2)	Martinsville, VA		Izmir, Turkey	
	Elkhart, IN	Woodland, WA		Dudley, U.K.	
	Gary, IN	Weirton, WV			
	Florence, KY	Cabreuva, Brazil			
	Monroe, LA	Cambridge Ontario, Canada			
	West Monroe, LA	Amatlan de los Reyes, Mexico			
	Brighton, MI	Cinega de Flores, Mexico			
	Eden, NC	Toluca, Mexico			
	Salisbury, NC (2)				
	Irvington, NJ				
	Newark, NJ				

ITEM 3. LEGAL PROCEEDINGS

Crown Cork is one of many defendants in a substantial number of lawsuits filed throughout the U.S. by persons alleging bodily injury as a result of exposure to asbestos. These claims arose from the insulation operations of a U.S. company, the majority of whose stock Crown Cork purchased in 1963. Approximately ninety days after the stock purchase, this U.S. company sold its insulation assets and was later merged into Crown Cork. At December 31, 2018, the accrual for pending and future asbestos claims and related legal costs that are probable and estimable was $295 million.

The Company has been identified by the Environmental Protection Agency as a potentially responsible party (along with others, in most cases) at a number of sites.

Further information on these matters and other legal proceedings is presented within “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the captions “Provision for Asbestos” and “Environmental Matters,” within the risk factor titled "The Company is subject to litigation risks which could negatively impact its operations and net income" and under Note O and Note P to the consolidated financial statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Information concerning the principal executive officers of the Company, including their ages and positions, is set forth in “Directors, Executive Officers and Corporate Governance” of this Annual Report.

PART II

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

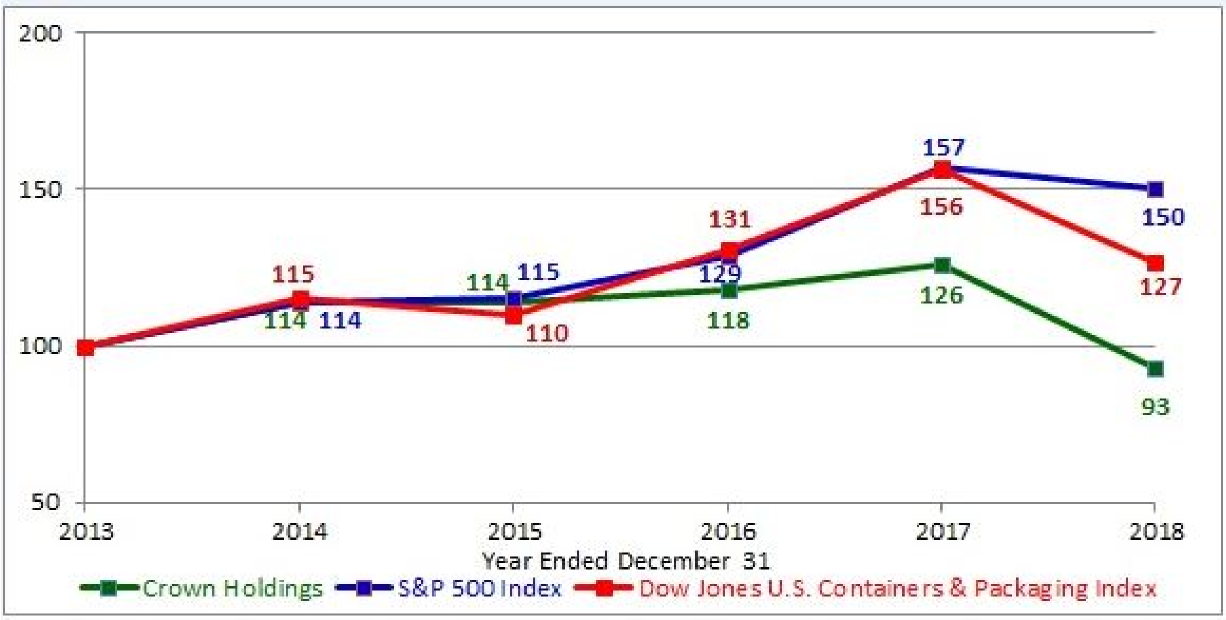
The Registrant’s common stock is listed on the New York Stock Exchange under ticker symbol CCK. On February 27, 2019 there were 3,786 registered shareholders of the Registrant’s common stock, including 1,220 participants in the Company’s Employee Stock Purchase Plan. The market price of the Registrant’s common stock at December 31, 2018 is set forth in Part II of this Annual Report under Quarterly Data (unaudited). The foregoing information regarding the number of registered shareholders of common stock does not include persons holding stock through clearinghouse systems. Details regarding the Company’s policy as to payment of cash dividends and repurchase of shares are set forth under Note T to the consolidated financial statements included in this Annual Report. Information with respect to shares of common stock that may be issued under the Company’s equity compensation plans is set forth in “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters,” of this Annual Report.

Issuer Purchases of Equity Securities

There were no purchases of Company's equity securities or shares surrendered to cover taxes on the vesting of restricted stock during the three months ended December 31, 2018.

In December 2016, the Company's Board of Directors authorized the repurchase of an aggregate amount of $1 billion of the Company's common stock through the end of 2019. Share repurchases under the Company's programs may be made in the open market or through privately negotiated transactions, and at times and in such amounts as management deems appropriate. The timing and actual number of shares repurchased will depend on a variety of factors including price, corporate and regulatory requirements and other market conditions. As of December 31, 2018, $669 million of the Company’s outstanding common stock may be repurchased under the program.

COMPARATIVE STOCK PERFORMANCE (a)
Comparison of Five-Year Cumulative Total Return (b)
Crown Holdings, S&P 500 Index, Dow Jones U.S. Containers & Packaging Index (c)



December 31,	2013	2014	2015	2016	2017	2018
Crown Holdings	$ 100	$ 114	$ 114	$ 118	$ 126	$ 93
S&P 500 Index	100	114	115	129	157	150
Dow Jones U.S. Containers & Packaging Index	100	115	110	131	156	127

(a) The preceding Comparative Stock Performance Graph is not deemed filed with the SEC and shall not be incorporated by reference in any of the Company's filings under the Security Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

(b) Assumes that the value of the investment in Crown Holdings common stock and each index was $100 on December 31, 2013 and that all dividends were reinvested.

(c) Industry index is weighted by market capitalization and, as of December 31, 2018, was composed of Crown Holdings, AptarGroup, Avery Dennison, Ball, Bemis, Berry Plastics, Graphic Packaging, International Paper, Owens-Illinois, Packaging Corp. of America, Sealed Air, Silgan, Sonoco and WestRock.

ITEM 6. SELECTED FINANCIAL DATA

(in millions, except per share, ratios and other statistics)	2018 (a) (b)	2017	2016	2015 (c)	2014 (d)
Summary of Operations					
Net sales	$ 11,151	$ 8,698	$ 8,284	$ 8,762	$ 9,097
Cost of products sold, excluding depreciation and amortization	9,028	7,006	6,623	7,140	7,529
Depreciation and amortization	425	247	247	237	190
Selling and administrative expense	558	367	366	382	390
Provision for asbestos	—	3	21	26	40
Restructuring and other	44	51	30	64	121
Loss from early extinguishments of debt	—	7	37	9	34
Other pension and postretirement	(25)	(53)	(24)	(14)	12
Interest expense, net of interest income	363	237	231	259	246
Foreign exchange	18	4	(16)	20	14
Income before income taxes and equity earnings	740	829	769	639	521
Provision for income taxes	216	401	186	178	43
Equity in net earnings of affiliates	4	—	—	—	—
Net income	528	428	583	461	478
Net income attributable to noncontrolling interests	(89)	(105)	(87)	(68)	(88)
Net income attributable to Crown Holdings	$ 439	$ 323	$ 496	$ 393	$ 390
Financial Position at December 31					
Working capital	$ 166	$ (176)	$ (55)	$ 141	$ 695
Total assets	15,262	10,663	9,599	10,050	9,673
Total cash and cash equivalents	607	424	559	717	965
Total debt	8,692	5,343	4,911	5,518	5,194
Total equity	1,286	923	668	385	337
Common Share Data (dollars per share)					
Earnings:					
Basic	$ 3.28	$ 2.39	$ 3.58	$ 2.85	$ 2.84
Diluted	3.28	2.38	3.56	2.82	2.82
Market price on December 31	41.57	56.25	52.57	50.70	50.90
Number of shares outstanding at year-end	135.2	134.3	139.8	139.4	139.0
Average shares outstanding					
Basic	133.6	135.3	138.5	137.9	137.2
Diluted	133.9	135.6	139.3	139.1	138.5
Other					
Capital expenditures	$ 462	$ 498	$ 473	$ 354	$ 328

(a) On January 1 2018, the Company adopted new accounting guidance on accounting for revenue recognition. This guidance was applied on a modified retrospective basis. Prior period amounts have not been recast and continue to be reported in accordance with accounting guidance in effect for those periods.
(b) Includes the results of the Signode acquisition from April 3, 2018 through December 31, 2018.
(c) Includes the results of the Empaque acquisition from February 18, 2015 through December 31, 2015.
(d) Includes the results of the Mivisa acquisition from April 23, 2014 through December 31, 2014.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS
(in millions, except per share, average settlement cost per asbestos claim, employee, shareholder and statistical data)

INTRODUCTION

The following discussion summarizes the significant factors affecting the results of operations and financial condition of Crown Holdings, Inc. (the "Company") as of and during the three-year period ended December 31, 2018. This discussion should be read in conjunction with the consolidated financial statements included in this Annual Report.

BUSINESS STRATEGY AND TRENDS

The Company's strategy is to grow its businesses in targeted international growth markets, while improving operations and results in more mature markets through disciplined pricing, cost control and careful capital allocation.

In April 2018, the Company completed its acquisition of Signode Industrial Group, a leading global provider of transit packaging systems and solutions, for consideration of $3.9 billion. With the acquisition, the Company added a portfolio of premier transit and protective packaging franchises to its existing metal packaging businesses, thereby broadening and diversifying its customer base and product offerings and significantly increasing cash flow.

The Company's global beverage can business continues to be a major strategic focus for organic growth. For several years, global industry demand for beverage cans has been growing and this is expected to continue in the coming years. While emerging markets such as Southeast Asia and Mexico have experienced higher growth rates due to rising per capita incomes and accompanying increases in beverage consumption, the more mature economies in Europe and North America have also seen market expansion. Beverage cans are the world’s most sustainable and recycled beverage packaging and continue to gain market share in carbonated soft drinks, sparkling waters, energy drinks, nutritional beverages, teas, coffees, craft beers, cocktails and wines. One of the Company’s key initiatives to drive brand differentiation has been to increase its ability to offer a number of different can sizes.

While the opportunity for organic volume growth in the Company's mature markets is not comparable to that in targeted international growth markets, the Company continues to generate strong returns on invested capital and significant cash flow from these businesses. The Company monitors capacity across all of its businesses and, where necessary, may take action such as closing a plant or reducing headcount to better manage its costs. Any or all of these actions may result in additional restructuring charges in the future which may be material.

Aluminum and steel prices can be subject to significant volatility and there has not been a consistent and predictable trend in pricing. As part of the Company's efforts to manage cost, it attempts to pass-through increases in the cost of aluminum and steel to its customers. The Company's ability to pass-through aluminum premium costs to its customers varies by market. There can be no assurance that the Company will be able to recover from its customers the impact of any such increased costs.

Through 2020, the Company's primary capital allocation focus will be to reduce leverage, as was successfully accomplished following the Mivisa and Empaque acquisitions in 2014 and 2015.

RESULTS OF OPERATIONS

The key measure used by the Company in assessing performance is segment income, a non-GAAP measure generally defined by the Company as income from operations adjusted to exclude intangibles amortization charges, provisions for asbestos and restructuring and other, the impact of fair value adjustments to inventory acquired in an acquisition and the timing impact of hedge ineffectiveness. Effective January 1, 2018, the Company made changes to its segment reporting to reflect refinements to its internal reporting. The Company classified the North America Food segment as a non-reportable segment. Additionally, the Company revised its definition of segment income to exclude intangibles amortization charges. Prior period segment income amounts have been recast to conform to current year presentation, including the new guidance related to the presentation of pension and other postretirement benefit costs discussed in Note A.

The foreign currency translation impacts referred to in the discussion below were primarily due to changes in the euro and pound sterling in the Company's European segments, the Canadian dollar and Mexican peso in the Company's Americas segments and the Chinese renminbi, Malaysian ringgit and Thai baht in the Company's Asia Pacific segment. The Company calculates the impact of foreign currency translation by multiplying or dividing, as appropriate, current year U.S. dollar results by the current year average foreign exchange rates and then multiplying or dividing, as appropriate, those amounts by the applicable prior year average exchange rates.

NET SALES AND SEGMENT INCOME

	2018	2017	2016
Net sales	$ 11,151	$ 8,698	$ 8,284

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to $1,800 from the acquisition of Signode, pass-through of higher raw material costs, 4% higher global beverage sales unit volumes, $134 from the impact of foreign currency translation and $27 from the impact of new accounting guidance adopted during the year which accelerated the timing of revenue recognition on certain products.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to the pass-through of higher raw material costs, higher global beverage and food can sales unit volumes and $19 related to the impact of foreign currency translation.

Discussion and analysis of net sales and segment income by segment follows.

Americas Beverage

The Americas Beverage segment manufactures aluminum beverage cans and ends, steel crowns, glass bottles and aluminum closures and supplies a variety of customers from its operations in the U.S., Brazil, Canada, Colombia and Mexico. The U.S. and Canadian beverage can markets are mature markets which experienced increased volumes in 2018. In Brazil and Mexico, the Company's sales unit volumes have increased in recent years primarily due to market growth driven by increased per capita incomes and consumption, combined with an increased preference for cans over other forms of beverage packaging.

In December 2016, the Company began commercial production at a new beverage can plant in Monterrey, Mexico that is capable of producing multiple can sizes. Additionally, in the first half of 2017, the Company began commercial shipments from its new beverage can plant in Nichols, New York. In addition to enhancing the Company's presence in specialty beverage can sizes, the plant provides an attractive cost platform from which to serve customers in the northeastern region of the U.S. and the eastern region of Canada. In January 2018, the Company commenced operations in a new glass bottle facility in Chihuahua, Mexico to serve the expanding beer market in the northern part of the country. During the fourth quarter of 2019, the Company will begin operations at a new one-line beverage can plant in Rio Verde, Brazil. Additionally, in January 2018, the Company closed a U.S. beverage can facility in an effort to consolidate manufacturing processes. The Company continues to review its supply and demand profile and long-term plans and it is possible that the Company may record additional charges in the future.

Net sales and segment income in the Americas Beverage segment were as follows:

	2018	2017	2016
Net sales	$ 3,282	$ 2,928	$ 2,757
Segment income	454	470	456

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to 6% higher sales unit volumes and the pass-through of higher aluminum costs of $167 partially offset by $11 related to the impact of foreign currency translation.

Segment income decreased primarily due to higher freight costs in North America, which offset the impact of higher sales unit volumes.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to the pass-through of higher aluminum costs of $135 and a 3% increase in sales unit volumes.

Segment income increased primarily due to higher sales unit volumes and geographic mix, partially offset by $10 of incremental start-up costs associated with the Company's new facility in Nichols, New York.

European Beverage

The Company's European Beverage segment manufactures steel and aluminum beverage cans and ends and supplies a variety of customers from its operations throughout Europe, the Middle East and North Africa. In recent years, the Western European beverage can markets have been growing, whereas sales unit volumes in the Middle East beverage can markets have declined.

The Company completed the conversion of its plant in Custines, France, from steel to aluminum with the start-up of the second high-speed line in April 2017. The first line of a new beverage can plant in Valencia, Spain began operations in October 2018, with the second line to begin in February 2019. The new plant will facilitate the conversion from steel to aluminum beverage cans in that region. Additionally, in December 2018, the Company commenced operations at a new plant in Parma, Italy.

Net sales and segment income in the European Beverage segment were as follows:

	2018	2017	2016
Net sales	$ 1,489	$ 1,457	$ 1,420
Segment income	193	235	240

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to $34 related to the impact of foreign currency translation and the pass-through of higher raw material costs, partially offset by 10% lower sales unit volumes in the Middle East.

Segment income decreased primarily due to lower sales in the Middle East and higher startup costs at new operations.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to 2% higher sales unit volumes, with higher volumes in Europe partially offset by lower volumes in the Middle East, and the pass-through of higher aluminum costs.

Segment income decreased primarily due to lower sales in the Middle East being partially offset by higher sales unit volumes in Europe.

European Food

The European Food segment manufactures steel and aluminum food cans and ends and metal vacuum closures, and supplies a variety of customers from its operations throughout Europe and Africa. The European food can market is a mature market which has experienced stable to slightly declining volumes in recent years.

Net sales and segment income in the European Food segment were as follows:

	2018	2017	2016
Net sales	$ 1,982	$ 1,935	$ 1,855
Segment income	257	264	260

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to the pass-through of higher tinplate costs and $78 related to the impact of foreign currency translation partially offset by 6% lower sales unit volumes. Lower sales unit volumes were primarily the result of lower demand due to challenging weather conditions which resulted in poor harvest yields.

Segment income decreased primarily due to lower sales unit volumes, partially offset by improved cost performance and $10 related to the impact of foreign currency translation.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to the pass-through of higher tinplate costs and $26 related to the impact of foreign currency translation partially offset by the negative impact of product mix.

Segment income was comparable to 2016 as benefits of $5 related to foreign currency translation, prior year restructuring actions and improved cost performance offset the negative impact of product mix.

Asia Pacific

The Company's Asia Pacific segment primarily consists of beverage can operations in Cambodia, China, Indonesia, Malaysia, Myanmar, Singapore, Thailand and Vietnam and non-beverage can operations, primarily food cans and specialty packaging. In recent years, the beverage can market in Southeast Asia has been growing. The Company's new beverage can facility in Jakarta, Indonesia, and a second line at its beverage can plant in Danang, Vietnam, began operations in June and October 2017. In addition, production began at a new beverage can plant in Yangon, Myanmar in July 2018. A third beverage can line at the Phnom Penh, Cambodia plant commenced operations in January 2019. In response to recent market conditions in China, the Company closed its Shanghai facility in 2016, its Beijing facility in 2017, its Putian facility in 2018 and announced plans to close it Huizhou facility in early 2019. After these closures, the Company will have three beverage can plants in China with approximately $100 in sales.

Net sales and segment income in the Asia Pacific segment were as follows:

	2018	2017	2016
Net sales	$ 1,316	$ 1,177	$ 1,116
Segment income	186	168	152

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to 13% higher sales unit volume in Southeast Asia and $21 related to the impact of foreign currency translation, partially offset by lower sales related to the closure of the Beijing beverage can facility in 2017.

Segment income increased primarily due to higher sales unit volumes.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to 11% higher sales unit volume in Southeast Asia partially offset by a sales unit volume decrease related to the closure of the Shanghai and Beijing beverage can facilities.

Segment income increased primarily due to increased sales unit volumes and cost reductions related to the closure of the Shanghai and Beijing beverage can facilities, partially offset by higher raw material costs.

Transit Packaging

On April 3, 2018, the Company completed its acquisition of Signode, which is reported as the Company's Transit Packaging segment. The integration of Signode is progressing as planned. Transit Packaging contributed net sales of $1,800 and segment income of $255, including a charge of $40 for fair value adjustments related to the sale of inventory, for the period April 3, 2018 through December 31, 2018.

Non-reportable Segments

The Company's non-reportable segments include its North American food can business, its European aerosol can and promotional packaging business, its North American aerosol can business and its tooling and equipment operations in the U.S. and U.K.

Net sales and segment income in non-reportable segments were as follows:

	2018	2017	2016
Net sales	$ 1,282	$ 1,201	$ 1,136
Segment income	122	123	123

Year ended December 31, 2018 compared to 2017

Net sales increased primarily due to $67 related to the pass-through of higher tinplate costs in the North America food can business and global aerosol businesses and $12 related to the impact of foreign currency translation. Higher sales volumes in the Company's

North America food can business and equipment operations were offset by lower sales unit volumes in the Company's global aerosol businesses.

Segment income was comparable as the impact of higher sales unit volumes in the North America food can business and the Company's equipment operations were partially offset by higher freight costs in the North America food can business.

Year ended December 31, 2017 compared to 2016

Net sales increased primarily due to the pass-through of higher tinplate costs in the Company's North America food can business and global aerosol businesses and 5% higher sales unit volumes in the Company's North America food can business. Segment income was comparable.

Corporate and unallocated

	2018	2017	2016
Corporate and unallocated	$ (139)	$ (143)	$ (142)

Corporate and unallocated costs were comparable in each year presented.

COST OF PRODUCTS SOLD (EXCLUDING DEPRECIATION AND AMORTIZATION)

Cost of products sold (excluding depreciation and amortization) increased from $7,006 in 2017 to $9,028 in 2018 primarily due to the acquisition of Signode, the impact of higher raw material costs and $115 from the impact of foreign currency translation.

Cost of products sold (excluding depreciation and amortization) increased from $6,623 in 2016 to $7,006 in 2017 primarily due to the impact of higher raw material costs.

Cost of products sold (excluding depreciation and amortization) as a percentage of net sales was 81% in 2018 and 2017 and 80% in 2016.

DEPRECIATION AND AMORTIZATION

Depreciation and amortization expense increased from $247 in 2017 to $425 in 2018 primarily due to the impact of the Signode acquisition. Depreciation and amortization expense was $247 in 2016.

SELLING AND ADMINISTRATIVE EXPENSE

Selling and administrative expense increased from $367 in 2017 to $558 in 2018 primarily due to the acquisition of Signode partially offset by lower general corporate costs.

Selling and administrative expense was comparable in 2016 and 2017.

PROVISION FOR ASBESTOS

Crown Cork & Seal Company, Inc. is one of many defendants in a substantial number of lawsuits filed throughout the U.S. by persons alleging bodily injury as a result of exposure to asbestos. During 2018, 2017 and 2016 the Company recorded charges of less than $1, $3 and $21 to increase its accrual for asbestos-related costs and made asbestos-related payments of $21, $30, and $30 respectively. The Company currently expects 2019 payments to be approximately $25. See Note O to the consolidated financial statements for additional information regarding the provision for asbestos-related costs. Also, see the Critical Accounting Policies section of this “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for a discussion of the Company’s policies with respect to asbestos liabilities.

INTEREST EXPENSE

For the year ended December 31, 2018 compared to 2017, interest expense increased from $252 to $384 primarily due to higher outstanding debt from borrowings incurred to finance the Signode acquisition.

For the year ended December 31, 2017 compared to 2016, interest expense increased from $243 to $252 primarily due to increased average borrowing rates.

TAXES ON INCOME

The Company's effective income tax rates were as follows:

	2018	2017	2016
Income before income taxes	$ 740	$ 829	$ 769
Provision for income taxes	216	401	186
Effective income tax rate	29.2%	48.4%	24.1%

The effective rate in 2018 included $24 related to taxes on the distributions of foreign earnings, which were previously asserted to be indefinitely reinvested. This change in assertion is expected to impact the annual provision for income taxes by approximately $8 in 2019.

The higher effective tax rate in 2017 was primarily due to a net charge of $177 to recognize the provisional impact of the new U.S. federal tax reform legislation. The Tax Act reduced the U.S. corporate tax rate from 35% to 21%, imposed a limitation on the tax deduction for interest expense, net of interest income, to 30% of a U.S. corporation's adjusted taxable income and also changed certain provisions related to the taxation of non-U.S. subsidiary earnings. As a result, beginning in 2018, the Company no longer records U.S. federal income tax on its share of certain foreign subsidiaries (except for certain categories of passive and intangible income), nor does the Company record a benefit for foreign tax credits related to that income.

The low effective tax rate in 2016 was primarily due to a benefit of $31 from the release of a valuation allowance against the Company's net deferred tax assets in Canada.

For additional information regarding income taxes, see Note S to the consolidated financial statements and the Critical Accounting Policies section of this “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for a discussion of the Company’s policies with respect to valuation allowances.

NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS

Net income attributable to noncontrolling interest decreased from $105 in 2017 to $89 in 2018 primarily due to lower earnings in the Company's beverage can operations in Brazil and the Middle East.

Net income attributable to noncontrolling interests increased from $87 in 2016 to $105 in 2017 primarily due to higher earnings in the Company's beverage can operations in Brazil.

LIQUIDITY AND CAPITAL RESOURCES

OPERATING ACTIVITIES

Operating activities used cash of $251 in 2017 and provided cash of $571 in 2018 primarily due to higher proceeds from the Company's securitization programs. See Note A and Note D to the consolidated financial statements for a discussion of the Company's securitization programs and the impact of new accounting guidance on the Company's presentation of these programs in its Consolidated Statements of Cash Flows. In 2017, operating activities also included a voluntary contribution of $241 to the Company's U.K. defined benefit pension plan.

Receivables increased from $1,041 in 2017 to $1,602 in 2018 primarily due to the impact of the Signode acquisition and $181 related to the impact of newly adopted revenue guidance. Days sales outstanding for trade receivables, excluding the impact of unbilled receivables recognized under the new revenue guidance, increased from 34 in 2017 to 41 in 2018, primarily related to the impact of the Signode acquisition.

Inventories increased from $1,385 in 2017 to $1,690 in 2018 primarily due to the impact of the Signode acquisition, expected higher sales unit volumes in certain geographies and higher raw material costs partially offset by $155 related to the impact of newly adopted revenue guidance. Inventory turnover, excluding the impact of the derecognition of inventory under the new revenue guidance, was 67 days at December 31, 2017 compared to 64 days at December 31, 2018.

The food can business is seasonal with the first quarter tending to be the slowest period as the autumn packaging period in the Northern Hemisphere has ended and new crops are not yet planted. The industry enters its busiest period in the third quarter when the majority of fruits and vegetables in the Northern Hemisphere are harvested. Due to this seasonality, inventory levels increase in the first half of the year to meet peak demand in the second and third quarters. The beverage can business is also seasonal with inventory levels generally increasing in the first half of the year to meet peak demand in the summer months in the Northern Hemisphere.

Accounts payable increased from $2,367 in 2017 to $2,732 in 2018 primarily due to the impact of the Signode acquisition and higher raw material costs partially offset by the impact of foreign currency translation. Days outstanding for trade payables decreased from 119 days at December 31, 2017 to 107 days at December 31, 2018 primarily due to the impact of the Signode acquisition.

INVESTING ACTIVITIES

Investing activities provided cash of $496 in 2017 and used cash of $3,843 in 2018. In 2018, the Company paid $3,912 to acquire Signode and $25 for the settlement of a foreign exchange contract related to the acquisition. In 2018, the Company also had lower cash collections on beneficial interests in transferred receivables as compared to 2017.

The Company currently expects capital expenditures in 2019 to be in the range of $400 to $425.

At December 31, 2018, the Company had approximately $70 of capital commitments. The Company expects to fund these commitments primarily through cash generated from operations.

FINANCING ACTIVITIES

Financing activities provided cash of $3,533 primarily due to proceeds from borrowings incurred to finance the Signode acquisition.

Financing activities used cash of $400 in 2017 primarily due to purchases of the Company's common stock.

LIQUIDITY

As of December 31, 2018, $465 of the Company's $607 in cash and cash equivalents was located outside the U.S. The Company is not currently aware of any legal restrictions under foreign law that materially impact its access to cash held outside the U.S. The Company funds its cash needs in the U.S. through a combination of cash flows from operations, dividends from certain foreign subsidiaries, borrowings under its revolving credit facility and the acceleration of cash receipts under its receivable securitization and factoring facilities. Of the cash and cash equivalents located outside the U.S., $316 was held by subsidiaries for which earnings are considered indefinitely reinvested, if such earnings were repatriated the Company may be required to record incremental foreign taxes on the repatriated funds.

Effective April 2018, the Company amended its revolving credit agreements to provide capacity of $1,650 under the revolving credit facility upon completion of the Signode acquisition, increase total leverage ratios and extend the timetable for compliance with total leverage ratios. As of December 31, 2018, the Company had available capacity of $1,582 under its revolving credit facilities. The Company could have borrowed this amount at December 31, 2018 and would still be in compliance with its leverage ratio covenants.

The ratio of total debt, less cash and cash equivalents, to total capitalization was 86.3% and 84.2% at December 31, 2018 and 2017. Total capitalization is defined by the Company as total debt plus total equity, less cash and cash equivalents.

The Company's debt agreements contain covenants that limit the ability of the Company and its subsidiaries to, among other things, incur additional debt, pay dividends or repurchase capital stock, make certain other restricted payments, create liens and engage in sale and leaseback transactions. These restrictions are subject to a number of exceptions, however, which allow the Company to incur additional debt, create liens or make otherwise restricted payments.

The Company’s revolving credit facilities and term loan facilities also contain a total leverage ratio covenant. The leverage ratio is calculated as total net debt divided by Consolidated EBITDA (as defined in the credit agreement). Total net debt is defined in the credit agreement as total debt less cash and cash equivalents. Consolidated EBITDA is calculated as the sum of, among other things, net income attributable to Crown Holdings, net income attributable to certain of the Company's subsidiaries, income taxes, interest expense, depreciation and amortization, and certain non-cash charges. The Company’s total net leverage ratio of 4.45 to 1.0 at December 31, 2018 was in compliance with the covenant requiring a ratio no greater than 6.50 to 1.0. The ratio is calculated at the end of each quarter using debt and cash balances as of the end of the quarter and Consolidated EBITDA for the most recent twelve months. Failure to meet the financial covenant could result in the acceleration of any outstanding amounts due under the revolving credit facilities and term loan facilities.

The Company’s current sources of liquidity include a securitization facility with a program limit of between $350 and $375 that expires in July 2020, a securitization facility with a program limit of $240 that expires in November 2022, and an uncommitted securitization facility with a program limit of $175 that expires in December 2019. Additional sources of the Company's liquidity include borrowings that mature as follows: its $1,700 revolving credit facilities in April 2022; its €650 ($745 at December 31, 2018) 4.0% senior notes in July 2022; its $1,000 4.50% senior notes in January 2023; its €335 ($384 at December 31, 2018) 2.25% senior notes in February 2023; its €600 ($688 at December 31, 2018) 2.625% senior notes in September 2024; its €600 ($688 at December 31, 2018) 3.375% senior notes in May 2025; its $875 4.75% senior notes in February 2026; its €500 ($573 at December 31, 2018) 2.875% senior notes in February 2026; its $400 4.25% senior notes in September 2026; its $350 7.375% senior notes in December 2026; its $40 7.5% senior notes in December 2096; and its $95 of other indebtedness in various currencies at various dates through 2036. In addition, Crown’s term loan facilities mature as follows: $60 in 2019, $67 in 2020, $67 in 2021, $956 in 2022, $8 in 2023, $8 in 2024 and $1,692 in 2025.

CONTRACTUAL OBLIGATIONS

Contractual obligations as of December 31, 2018 are summarized in the table below.

	Payments Due by Period						
	2019	2020	2021	2022	2023	2024 & after	Total
Long-term debt	$ 86	$ 88	$ 76	$ 1,711	$ 1,400	$ 5,335	$ 8,696
Interest on long-term debt	318	315	312	281	207	197	1,630
Operating leases	54	42	34	26	21	117	294
Projected pension contributions	17	19	61	90	100	—	287
Postretirement obligations	14	13	13	12	12	52	116
Purchase obligations	3,332	1,499	1,030	20	—	—	5,881
Total contractual cash obligations	$ 3,821	$ 1,976	$ 1,526	$ 2,140	$ 1,740	$ 5,701	$ 16,904

All amounts due in foreign currencies are translated at exchange rates as of December 31, 2018.

The Company expects to fund its obligations through a combination of cash flows from operations, borrowings under its revolving credit facilities and the acceleration of cash receipts under its receivables securitization and factoring programs.

Aggregate maturities of long-term debt, including capital lease obligations, for the five years subsequent to 2018 exclude unamortized discounts and debt issuance costs.

Interest on long-term debt is presented through 2024 only and represents the interest that will accrue by year based on debt outstanding and interest rates in effect as of December 31, 2018.

Projected pension contributions represent the Company's expected funding contributions for the next five years.

Postretirement obligations represent expected payments to retirees for medical and life insurance coverage for the next ten years. Pension and postretirement obligation projections require the use of numerous estimates and assumptions such as discount rates, rates of return on plan assets, compensation increases, health care cost increases, mortality and employee turnover and have therefore been provided for only five years for pension and ten years for postretirement.

Purchase obligations include commitments for raw materials and utilities at December 31, 2018. These commitments specify significant terms, including fixed or minimum quantities to be purchased; fixed, minimum or variable pricing provisions; and the approximate timing of transactions.

The table above excludes $37 of liabilities for unrecognized tax benefits because the Company is unable to estimate when these amounts may be paid, if at all. See Note S to the consolidated financial statements for additional information on the Company’s unrecognized tax benefits.

In order to reduce leverage and future interest payments, the Company may from time to time repurchase outstanding notes and debentures with cash, exchange shares of its common stock for the Company’s outstanding notes and debentures, or seek to refinance its existing credit facilities and other indebtedness. The Company will evaluate any such transactions in light of then existing market conditions and may determine not to pursue such transactions.

MARKET RISK

In the normal course of business the Company is subject to risk from adverse fluctuations in foreign exchange rates, interest rates and commodity prices. The Company manages these risks through a program that includes the use of derivative financial instruments, primarily swaps and forwards. Counterparties to these contracts are major financial institutions. These instruments are viewed as risk management tools, involve little complexity, and are not used for trading or speculative purposes. The extent to which the Company uses such instruments is dependent upon its access to them in the financial markets and its use of other methods, such as netting exposures for foreign exchange risk and establishing sales arrangements that permit the pass-through to customers of changes in commodity prices and foreign exchange rates, to effectively achieve its goal of risk reduction. The Company's objective in managing its exposure to market risk is to limit the impact on earnings and cash flow.

The Company manages foreign currency exposures at the operating unit level. Exposures that cannot be naturally offset within an operating unit may be hedged with derivative financial instruments where possible and cost effective in the Company's judgment. Foreign exchange contracts generally mature within twelve months.

The table below provides information in U.S. dollars as of December 31, 2018 about the Company's forward currency exchange contracts. The contracts primarily hedge anticipated transactions, unrecognized firm commitments and intercompany debt. The contracts with no amounts in the fair value column have a fair value of less than $1.

Buy/Sell	Contract amount	Contract fair value gain/(loss)	Average contractual exchange rate
Euro/Sterling	$ 603	$ 6	1.12
Sterling/Euro	245	(4)	0.89
Euro/U.S. dollars	198	—	0.86
U.S. dollars/Euro	76	2	1.24
Euro/Swiss francs	112	—	0.89
Singapore dollars/U.S. dollars	76	1	1.37
Euro/Singapore dollars	78	(1)	0.63
Euro/Polish zloty	64	—	0.23
Polish zloty/Euro	19	—	4.31
Euro/Swedish krona	44	(1)	0.10
U.S. dollars/Thai baht	39	(1)	0.03
Euro/Danish krone	42	—	0.13
	$ 1,596	$ 2	

At December 31, 2018, the Company had additional contracts with an aggregate notional value of $94 to purchase or sell other currencies, primarily Asian currencies, including the Malaysian ringgit, Thai baht, Japanese yen, and Hong Kong dollar; European currencies, including the Hungarian florint; the South African rand; and the Canadian dollar. The aggregate fair value of these contracts was a loss of less than $1.

At December 31, 2018, the Company had cross-currency swaps with an aggregate notional of $875 (€768). The swaps are designated as hedges of the Company's net investment in a euro-based subsidiary and matures in 2026. Under the cross-currency swaps, the Company will receive semi-annual fixed U.S. dollar payments at a rate of 4.75% of the U.S. notional value and pay 1.84% on the euro notional value. The fair value of these contracts at December 31, 2018 was a gain of $14.

The Company, from time to time, may manage its interest rate risk associated with fluctuations in variable interest rates through interest rate swaps. The use of interest rate swaps and other methods of mitigating interest rate risk may increase overall interest expense.

The table below presents principal cash flows and related interest rates by year of maturity for the Company's long-term debt obligations as of December 31, 2018. Interest rates represent the rates in effect as of December 31, 2018.

	Year of Maturity					
Debt	2019	2020	2021	2022	2023	Thereafter
Fixed rate	$ 21	$ 16	$ 3	$ 748	$ 1,388	$ 3,629
Average interest rate	6.0%	5.6%	7.0%	4.0%	3.9%	4.0%
Variable rate	$ 65	$ 72	$ 73	$ 963	$ 12	$ 1,706
Average interest rate	2.6%	2.6%	2.6%	2.6%	2.3%	3.2%

Total future payments of long-term debt obligations at December 31, 2018 include $4,443 of U.S. dollar-denominated debt, $4,248 of euro-denominated debt and $5 of debt denominated in other currencies.

The Company uses various raw materials, such as steel and aluminum in its manufacturing operations, which expose it to risk from adverse fluctuations in commodity prices. In 2018, consumption of steel and aluminum represented 21% and 36% of the Company's consolidated cost of products sold, excluding depreciation and amortization. The Company primarily manages its risk to adverse commodity price fluctuations and surcharges through contracts that pass through raw material costs to customers. The Company may, however, be unable to increase its prices to offset increases in raw material costs without suffering reductions in unit volume, revenue and operating income, and any price increases may take effect after related cost increases, reducing operating income in the near term. As of December 31, 2018, the Company had forward commodity contracts to hedge aluminum price fluctuations with a notional value of $409 and a net loss of $31. The maturities of the commodity contracts closely correlate to the anticipated purchases of those commodities.

In addition, the Company's manufacturing facilities are dependent, to varying degrees, upon the availability of water and processed energy, such as natural gas and electricity.

See Note N to the consolidated financial statements for further information on the Company's derivative financial instruments.

OFF-BALANCE SHEET ARRANGEMENTS

The Company has certain guarantees and indemnification agreements that could require the payment of cash upon the occurrence of certain events. The guarantees and agreements are further discussed under Note P to the consolidated financial statements. The Company also utilizes receivables securitization and factoring facilities and derivative financial instruments as further discussed under Note D and Note N to the consolidated financial statements.

ENVIRONMENTAL MATTERS

Compliance with the Company's Environmental Protection Policy is mandatory and the responsibility of each employee of the Company. The Company is committed to the protection of human health and the environment and is operating within the increasingly complex laws and regulations of national, state, and local environmental agencies or is taking action to achieve compliance with such laws and regulations. Environmental considerations are among the criteria by which the Company evaluates projects, products, processes and purchases.

The Company is dedicated to a long-term environmental protection program and has initiated and implemented many pollution prevention programs with an emphasis on source reduction. The Company continues to reduce the amount of metal used in the manufacture of steel and aluminum containers through "lightweighting" programs. The Company recycles nearly 100% of scrap aluminum, steel and copper used in its manufacturing processes. Many of the Company's programs for pollution prevention reduce operating costs and improve operating efficiencies.

The potential impact on the Company's operations of climate change and potential future climate change regulation in the jurisdictions in which the Company operates is highly uncertain. See the risk factor entitled "The Company is subject to costs and liabilities related to stringent environmental and health and safety standards" in Part I, Item 1A of this Annual Report.

See Note P to the consolidated financial statements for additional information on environmental matters including the Company's accrual for environmental remediation costs.

INFLATION

Certain of the Company's sales contracts contain non-metal pass-through provisions that include annual selling price adjustments based on a producer price index. In certain years the referenced index would be negative, requiring the Company to reduce its selling prices while its actual costs may have increased.

CRITICAL ACCOUNTING POLICIES

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America which require that management make numerous estimates and assumptions. Actual results could differ from those estimates and assumptions, impacting the reported results of operations and financial position of the Company. The Company's significant accounting policies are more fully described under Note A to the consolidated financial statements. Certain accounting policies, however, are considered to be critical in that (i) they are most important to the depiction of the Company's financial condition and results of operations and (ii) their application requires management's most subjective judgment in making estimates about the effect of matters that are inherently uncertain.

Asbestos Liabilities

The Company's potential liability for asbestos cases is highly uncertain due to the difficulty of forecasting many factors, including the level of future claims, the rate of receipt of claims, the jurisdiction in which claims are filed, the nature of future claims (including the seriousness of alleged disease, whether claimants allege first exposure to asbestos before or during 1964 and the alleged link to Crown Cork), the terms of settlements of other defendants with asbestos-related liabilities, bankruptcy filings of other defendants (which may result in additional claims and higher settlement demands for non-bankrupt defendants) and the effect of state asbestos legislation (including the validity and applicability of the Pennsylvania legislation to non-Pennsylvania jurisdictions, where the substantial majority of the Company's asbestos cases are filed). See Note O to the consolidated financial statements for additional information regarding the provision for asbestos-related costs.

At the end of each quarter, the Company considers whether there have been any material developments that would cause it to update its asbestos accrual calculations. Absent any significant developments in the asbestos litigation environment in general or with respect to the Company specifically, the Company updates its accrual calculations in the fourth quarter of each year. The Company estimates its liability without limitation to a specified time period and provides for the estimated amounts expected to be paid related to outstanding claims, projected future claims and legal costs.

Outstanding claims used in the accrual calculation are adjusted for factors such as claims filed in those states where the Company's liability is limited by statute, claims alleging first exposure to asbestos after 1964 which are assumed to have no value and claims which are unlikely to ever be paid and are assumed to have a reduced or nominal value based on the length of time outstanding. Projected future claims are calculated based on actual data for the most recent five years and are adjusted to account for the expectation that a percentage of these claims will never be paid. Outstanding and projected claims are multiplied by the average settlement cost of claims for the most recent five years. As claims are not submitted or settled evenly throughout the year, it is difficult to predict at any time during the year whether the number of claims or average settlement cost over the five year period ending December 31 of such year will increase compared to the prior five year period.

In 2018, the Company recorded a charge of less than $1 to increase its asbestos liability compared to charges of $3 in 2017 and $21 in 2016. The five year average settlement cost per claim increased from $13,800 in 2016 and 2017 to $14,900 in 2018. While the average settlement cost per claim increased in 2018, the increase was offset in the Company's accrual calculation by a decrease in projected future claim settlements.

Crown Cork's experience continues to be settling a higher percentage of claims alleging serious disease (primarily mesothelioma) which are settled at higher dollar amounts. Accordingly, a higher percentage of claims projected into the future continue to relate to serious diseases and are therefore valued at higher dollar amounts. For example, in each of the years 2018, 2017 and 2016, of the projected claims related to claimants alleging first exposure to asbestos before or during 1964 and filed in states that have not enacted asbestos legislation, approximately 60% relate to claims alleging serious diseases such as mesothelioma.

If the trend of settling a higher percentage of claims alleging serious disease (primarily mesothelioma) at higher dollar amounts continues, average settlement costs per claim are likely to increase and, if not offset by a reduction in overall claims and settlements, the Company may record additional charges in the future. A 10% change in either the average cost per claim or the number of projected claims would increase or decrease the estimated liability at December 31, 2018 by $29. A 10% increase in these two factors at the same time would increase the estimated liability at December 31, 2018 by $62. A 10% decrease in these two factors at the same time would decrease the estimated liability at December 31, 2018 by $56.

Goodwill Impairment

The Company performs a goodwill impairment review in the fourth quarter of each year or when facts and circumstances indicate goodwill may be impaired. In accordance with the accounting guidance, the Company may first perform a qualitative assessment on none, some, or all of its reporting units to determine whether further quantitative impairment testing is necessary. Factors that the Company may consider in its qualitative assessment include, but are not limited to, general economic conditions, changes in the markets in which the Company operates, changes in input costs that may affect earnings and cash flows, trends over multiple periods and the difference between the reporting unit's fair value and carrying amount as determined in the most recent fair value calculation.

The quantitative impairment test involves a number of assumptions and judgments, including the calculation of fair value for the Company’s identified reporting units. The Company determines the estimated fair value for each reporting unit based on an average of the estimated fair values calculated using an income and a market approach. The Company uses an average of the two methods in estimating fair value because it believes they both provide an appropriate fair value for the reporting units. The Company’s estimates of future cash flows include assumptions concerning future operating performance and economic conditions and may differ from actual future cash flows. Under the market approach, the Company obtains available information regarding multiples used in recent transactions, if any, involving transfers of controlling interests in the consumer and industrial packaging industry. The Company also reviews publicly available trading multiples based on the enterprise value of companies in the consumer and industrial packaging industry whose shares are publicly traded. The appropriate multiple is applied to the respective financial results of the reporting unit to obtain an estimated fair value. Under the income approach, fair value is calculated as the sum of the projected discounted cash flows of the reporting unit over the next five years and the terminal value at the end of those five years. The projected cash flows generally include moderate to no growth assumptions, depending on the reporting unit, unless there has recently been a material change in the business or a material change is forecasted. The discount rate used is based on the average weighted-average cost of capital of companies in the consumer and industrial packaging industry, which information is available through various sources.

The Company completed its annual review for 2018 and determined that no adjustments to the carrying value of goodwill were necessary. Although no goodwill impairment was recorded, there can be no assurances that future goodwill impairments will not occur.

As of October 1, 2018, the estimated fair value of the European Aerosols and Promotional Packaging reporting unit, using the methods and assumptions described above, an EBITDA multiple of 8.0 times and a discount rate of 7.25%, was 29% higher than its carrying value. The maximum potential effect of weighting the two valuation methods other than equally would have been to increase or decrease the estimated fair value by $2. Assuming all other factors remain the same, a $1 change in forecasted annual Adjusted EBITDA (a non-GAAP item defined by the Company as net customer sales, less cost of products sold excluding depreciation and amortization, less selling and administrative expenses) changes the excess of estimated fair value over carrying value by $8; a change of 0.5 in the assumed EBITDA multiple changes the excess of estimated fair value over carrying value by $10; and an increase in the discount rate from 7.25% to 8.25% changes the excess of estimated fair value over carrying value by $4. Under each of these scenarios, the reporting unit's fair value exceeded its carrying value. If Adjusted EBITDA decreased by 21% the fair value of the reporting unit would approximate carrying value.

As of October 1, 2018, the estimated fair value of the North America Food reporting unit, using the methods and assumptions described above, an EBITDA multiple of 8.0 times and a discount rate of 7.25%, was 41% higher than its carrying value. The maximum potential effect of weighting the two valuation methods other than equally would have been to increase or decrease the estimated fair value by $4. Assuming all other factors remain the same, a $1 change in forecasted annual Adjusted EBITDA changes the excess of estimated fair value over carrying value by $8; a change of 0.5 in the assumed EBITDA multiple changes the excess of estimated fair value over carrying value by $18; and an increase in the discount rate from 7.25% to 8.25% changes the excess of estimated fair value over carrying value by $8. Under each of these scenarios, the reporting unit's fair value exceeded its carrying value. If Adjusted EBITDA decreased by 26% the fair value of the reporting unit would approximate carrying value.

These reporting units operate in low-growth environments with multiple competitors, which could result in lower selling prices. In addition, shifts in consumer demand could result in lower volumes. While the Company believes current Adjusted EBITDA projections are reasonable, the reporting units' ability to maintain or grow Adjusted EBITDA could be negatively impacted by the above factors. To the extent future operating results were to decline causing the estimated fair value to fall below carrying value, it is possible that an impairment charge of up to $90 for European Aerosols and Promotional Packaging and $113 for North America Food could be recorded.

In addition, as described in Note B, the Company recorded an additional $1,552 of goodwill in 2018 in connection with the acquisition of Signode.

Long-lived Assets Impairment

The Company performs an impairment review of its long-lived assets, including definite-lived intangible assets and property, plant and equipment, when facts and circumstances indicate the carrying value may not be recoverable from its undiscounted cash flows. Any impairment loss is measured by comparing the carrying amount of the asset to its fair value. The Company's estimates of future cash flows involve assumptions concerning future operating performance, economic conditions and technological changes that may affect the future useful lives of the assets. These estimates may differ from actual cash flows or useful lives.

Tax Valuation Allowance

The Company records a valuation allowance to reduce its deferred tax assets when it is more likely than not that a portion of the tax assets will not be realized. The estimate of the amount that will not be realized requires the use of assumptions concerning the Company's future taxable income. These estimates are projected through the life of the related deferred tax assets based on assumptions that management believes are reasonable. The Company considers all sources of taxable income in estimating its
valuation allowances, including taxable income in any available carry back period; the reversal of taxable temporary differences; tax-planning strategies; and taxable income expected to be generated in the future other than from reversing temporary differences.
Should the Company change its estimate of the amount of deferred tax assets that it would be able to realize, an adjustment to the valuation allowance would result in an increase or decrease in tax expense in the period such a change in estimate was made.

See Note S to the consolidated financial statements for additional information on the Company's valuation allowances.

Pension and Postretirement Benefits

Accounting for pensions and postretirement benefit plans requires the use of estimates and assumptions regarding numerous factors, including discount rates, rates of return on plan assets, compensation increases, health care cost increases, future rates of inflation, mortality and employee turnover. Actual results may differ from the Company's actuarial assumptions, which may have an impact on the amount of reported expense or liability for pensions or postretirement benefits. The Company recorded pension expense of $45, including settlement charges of $38, in 2018 and currently projects its 2019 pension expense to be $42, using foreign currency exchange rates in effect at December 31, 2018. In addition, the Company may incur additional settlement charges of approximately $50 in 2019. The Company uses the spot yield curve approach to estimate the service and interest cost components of pension and postretirement benefits expense by applying the specific spot rates along the yield curve used to determine the benefit plan obligations to relevant projected cash outflows. The expected long-term rate of return on plan assets is determined by taking into consideration expected long-term returns associated with each major asset class based on long-term historical ranges, inflation assumptions and the expected net value from active management of the assets based on actual results.

The U.S. plan's assumed rate of return was 7.25 % in 2018 and is 7.25% in 2019. The U.K. plan's assumed rate of return was 4.25% in 2018 and is 4.25% in 2019. A 0.25% change in the expected rates of return would change 2019 pension expense by approximately $11.

Discount rates were selected using a method that matches projected payouts from the plans to an actuarially determined yield curve based on market observable AA bond yields in the respective plan jurisdictions and currencies. In certain jurisdictions, government securities were used along with corporate bonds to develop country-specific yield curves the extent that the underlying markets were not deemed sufficiently developed. A 0.25% change in the discount rates from those used at December 31, 2018 would change 2019 pension expense by approximately $4 and postretirement expense by less than $1. A 0.25% change in the discount rates from those used at December 31, 2018 would have changed the pension benefit obligation by approximately $155 and the postretirement benefit obligation approximately $4 as of December 31, 2018. See Note T to the consolidated financial statements for additional information on pension and postretirement benefit obligations and assumptions.

As of December 31, 2018, the Company had pre-tax unrecognized net losses in other comprehensive income of $1,962 related to its pension plans and $31 related to its other postretirement benefit plans. Unrecognized gains and losses arise each year primarily due to changes in discount rates, differences in actual plan asset returns compared to expected returns, and changes in actuarial assumptions such as mortality. For example, the unrecognized net loss in the Company's pension plans included a current year loss of $291 primarily due to actual asset returns lower than expected returns, partially offset by a gain of $188 primarily due to lower discount rates at the end of 2018 compared to 2017. Unrecognized gains and losses are accumulated in other comprehensive income and the portion in each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income over future periods. The Company's pension expense for the year ended December 31, 2018 included charges of $96 for the amortization of unrecognized net losses, and the Company estimates charges of $96 in 2019. Amortizable losses are being recognized over either the average expected life of inactive employees or the remaining service life of active participants depending on the status of the individual plans. The weighted average amortization periods range between 8 - 19 years. An increase of 10%

in the number of years used to amortize unrecognized losses in each plan would decrease estimated charges for 2019 by $9. A decrease of 10% in the number of years would increase the estimated 2019 charge by $11.

The unrecognized net losses in the Company's postretirement benefit plans are being recognized over the average remaining service life of active participants of 10 years. The Company's postretirement benefits expense for the year ended December 31, 2018 included a loss of $4 for the amortization of unrecognized net losses, and the Company estimates losses of $3 in 2019.

RECENT ACCOUNTING GUIDANCE

In February 2016, the FASB issued new guidance on lease accounting. Under the new guidance, lease classification criteria and income statement recognition are similar to current guidance; however, all leases with a term longer than one year will be recorded on the balance sheet through a right-of-use asset and a corresponding lease liability. The Company is in the process of implementing changes to processes, systems and controls to adopt the standard on a modified retrospective basis on January 1, 2019. The Company plans to elect the package of practical expedients that provides certain relief from reassessing prior lease accounting conclusions and will not apply the recognition requirements to short-term leases. Although the Company continues to evaluate the effect on the Company's Consolidated Balance Sheet, the Company currently anticipates that the impact of adoption will result in an insignificant cumulative effect of adoption and the recognition of material right of use assets and operating lease liabilities. The Company does not expect a material impact on its Consolidated Statement of Operations or Cash Flows.

In June 2016, the FASB issued revised guidance for the accounting for credit losses on financial instruments. The new standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities, net investments in leases and off-balance-sheet credit exposures. This guidance is effective for the Company on January 1, 2020. Early adoption is permitted. The Company is currently evaluating the impact of adopting this standard.

See Note A to the consolidated financial statements for information on recently adopted accounting guidance.

FORWARD LOOKING STATEMENTS

Statements in this Annual Report, including those in "Management's Discussion and Analysis of Financial Condition and Results of Operations," in the discussions of the provision for asbestos under Note O and other contingencies under Note P to the consolidated financial statements included in this Annual Report and in discussions incorporated by reference into this Annual Report (including, but not limited to, those in the section titled "Compensation Discussion and Analysis" in the Company's Proxy Statement), which are not historical facts (including any statements concerning plans and objectives of management for future operations or economic performance, or assumptions related thereto), are "forward-looking statements," within the meaning of the federal securities laws. In addition, the Company and its representatives may from time to time make other oral or written statements which are also "forward-looking statements." Forward-looking statements can be identified by words, such as "believes," "estimates," "anticipates," "expects" and other words of similar meaning in connection with a discussion of future operating or financial performance. These may include, among others, statements relating to (i) the Company's plans or objectives for future operations, products or financial performance, (ii) the Company's indebtedness and other contractual obligations, (iii) the impact of an economic downturn or growth in particular regions, (iv) anticipated uses of cash, (v) cost reduction efforts and expected savings, (vi) the Company's policies with respect to executive compensation and (vii) the expected outcome of contingencies, including with respect to asbestos-related litigation and pension and postretirement liabilities.

These forward-looking statements are made based upon management's expectations and beliefs concerning future events impacting the Company and, therefore, involve a number of risks and uncertainties. Management cautions that forward-looking statements are not guarantees and that actual results could differ materially from those expressed or implied in the forward-looking statements.

Important factors that could cause the actual results of operations or financial condition of the Company to differ include, but are not necessarily limited to, the ability of the Company to expand successfully in international and emerging markets; whether the acquisition of Signode will be accretive to the Company's earnings; whether sales and profits of Signode will continue to grow;
whether the combination of the Company and Signode will provide benefits to customers and shareholders; whether the operations of Signode can be successfully integrated into the Company's operations; the ability of the Company to repay, refinance or restructure its short and long-term indebtedness on adequate terms and to comply with the terms of its agreements relating to debt; the impact of Brexit; the Company's ability to generate significant cash to meet its obligations and invest in its business and to maintain appropriate debt levels; restrictions on the Company's use of available cash under its debt agreements; changes or differences in U.S. or international economic or political conditions, such as inflation or fluctuations in interest or foreign exchange rates (and

the effectiveness of any currency or interest rate hedges), tax rates, the Tax Act and other tax laws (including with respect to taxation of unrepatriated non-U.S. earnings or as a result of the depletion of net loss or foreign tax credit carryforwards); the impact of foreign trade laws and practices; the collectability of receivables; war or acts of terrorism that may disrupt the Company's production or the supply or pricing of raw materials, including in the Company's Middle East operations, impact the financial condition of customers or adversely affect the Company's ability to refinance or restructure its remaining indebtedness; changes in the availability and pricing of raw materials (including aluminum can sheet, steel tinplate, energy, water, inks and coatings) and the Company's ability to pass raw material, energy and freight price increases and surcharges through to its customers or to otherwise manage these commodity pricing risks; the Company's ability to obtain and maintain adequate pricing for its products, including the impact on the Company's revenue, margins and market share and the ongoing impact of price increases; energy and natural resource costs; the cost and other effects of legal and administrative cases and proceedings, settlements and investigations; the outcome of asbestos-related litigation (including the number and size of future claims and the terms of settlements, and the impact of bankruptcy filings by other companies with asbestos-related liabilities, any of which could increase Crown Cork's asbestos-related costs over time, the adequacy of reserves established for asbestos-related liabilities, Crown Cork's ability to obtain resolution without payment of asbestos-related claims by persons alleging first exposure to asbestos after 1964, and the impact of state legislation dealing with asbestos liabilities and any litigation challenging that legislation and any future state or federal legislation dealing with asbestos liabilities); the Company's ability to realize deferred tax benefits; changes in the Company's critical or other accounting policies or the assumptions underlying those policies; labor relations and workforce and social costs, including the Company's pension and postretirement obligations and other employee or retiree costs; investment performance of the Company's pension plans; costs and difficulties related to the acquisition of a business and integration of acquired businesses; the impact of any potential dispositions, acquisitions or other strategic realignments, which may impact the Company's operations, financial profile, investments or levels of indebtedness; the Company's ability to realize efficient capacity utilization and inventory levels and to innovate new designs and technologies for its products in a cost-effective manner; competitive pressures, including new product developments, industry overcapacity, or changes in competitors' pricing for products; the Company's ability to achieve high capacity utilization rates for its equipment; the Company's ability to maintain, develop and capitalize on competitive technologies for the design and manufacture of products and to withstand competitive and legal challenges to the proprietary nature of such technology; the Company's ability to protect its information technology systems from attacks or catastrophic failure; the strength of the Company's cyber-security (including with respect to human vulnerabilities associated with cyber-security risks); the Company's ability to generate sufficient production capacity; the Company's ability to improve and expand its existing product and product lines; the impact of overcapacity on the end-markets the Company serves; loss of customers, including the loss of any significant customers; changes in consumer preferences for different packaging products; the financial condition of the Company's vendors and customers; weather conditions, including their effect on demand for beverages and on crop yields for fruits and vegetables stored in food containers; the impact of natural disasters, including in emerging markets; changes in governmental regulations or enforcement practices, including with respect to environmental, health and safety matters and restrictions as to foreign investment or operation; the impact of increased governmental regulation on the Company and its products, including the regulation or restriction of the use of bisphenol-A; the impact of the Company's recent initiatives to generate additional cash, including the reduction of working capital levels and capital spending; the ability of the Company to realize cost savings from its restructuring programs; the Company's ability to maintain adequate sources of capital and liquidity; costs and payments to certain of the Company's executive officers in connection with any termination of such executive officers or a change in control of the Company; the impact of existing and future legislation regarding refundable mandatory deposit laws in Europe for non-refillable beverage containers and the implementation of an effective return system; the impact of existing and future legislation regarding the taxation of sugar-sweetened beverages or energy drinks, the impact of new tariffs and potential limits on steel supply in the U.S. from certain foreign countries; and changes in the Company's strategic areas of focus, which may impact the Company's operations, financial profile or levels of indebtedness.

Some of the factors noted above are discussed elsewhere in this Annual Report and prior Company filings with the SEC, including within Part I, Item 1A, "Risk Factors" in this Annual Report. In addition, other factors have been or may be discussed from time to time in the Company's SEC filings.

While the Company periodically reassesses material trends and uncertainties affecting the Company's results of operations and financial condition in connection with the preparation of "Management's Discussion and Analysis of Financial Condition and Results of Operations" and certain other sections contained in the Company's quarterly, annual or other reports filed with the SEC, the Company does not intend to review or revise any particular forward-looking statement in light of future events.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information set forth within “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the caption “Market Risk” in this Annual Report is incorporated herein by reference.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO FINANCIAL STATEMENTS

Financial Statements

Management’s Report on Internal Control Over Financial Reporting	43
Report of Independent Registered Public Accounting Firm	44
Consolidated Statements of Operations for the years ended December 31, 2018, 2017 and 2016	46
Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, 2017 and 2016	47
Consolidated Balance Sheets as of December 31, 2018 and 2017	48
Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016	49
Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2018, 2017 and 2016	50
Notes to Consolidated Financial Statements	51
Supplementary Information	107

Financial Statement Schedule

Schedule II – Valuation and Qualifying Accounts and Reserves for the years ended December 31, 2018, 2017 and 2016	108

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended). The Company's system of internal control over financial reporting is 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.

Because of the inherent limitations, a system of 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control - Integrated Framework (2013)*. Based on its assessment, management has concluded that, as of December 31, 2018, the Company's internal control over financial reporting was effective based on those criteria.

The scope of management's assessment of the effectiveness of internal control over financial reporting includes all of the Company's consolidated operations except for the operations of Signode Industrial Group Holdings (Bermuda) Ltd. ("Signode"), which the Company acquired through a purchase business combination during the year ended December 31, 2018. Signode represents approximately 16% of the Company's consolidated revenues for the year ended December 31, 2018 and 7% of the Company's consolidated total assets as of December 31, 2018.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Crown Holdings, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Crown Holdings, Inc. and its subsidiaries (“the Company”) as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income, changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2018, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of December 31, 2018, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note A to the consolidated financial statements, the Company changed the manner in which it accounts for revenues from contracts with customers in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management’s Report on Internal Control over Financial Reporting, management has excluded Signode Industrial Group Holdings (Bermuda) Ltd. (“Signode”) from its assessment of internal control over financial reporting as of December 31, 2018 because it was acquired by the Company in a purchase business combination during 2018. We have also excluded Signode from our audit of internal control over financial reporting. Signode is a wholly-owned subsidiary whose total assets and total revenues excluded from management’s assessment and our audit of internal control over financial reporting represent 7% and 16%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2018.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
February 28, 2019

We have served as the Company’s auditor since 1928.

CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions except per share data)

For the Years Ended December 31	2018	2017	2016
Net sales	$ 11,151	$ 8,698	$ 8,284
Cost of products sold, excluding depreciation and amortization	9,028	7,006	6,623
Depreciation and amortization	425	247	247
Selling and administrative expense	558	367	366
Provision for asbestos	—	3	21
Restructuring and other	44	51	30
Income from operations	1,096	1,024	997
Loss from early extinguishments of debt	—	7	37
Other pension and postretirement	(25)	(53)	(24)
Interest expense	384	252	243
Interest income	(21)	(15)	(12)
Foreign exchange	18	4	(16)
Income before income taxes	740	829	769
Provision for income taxes	216	401	186
Equity in net earnings of affiliates	4	—	—
Net income	528	428	583
Net income attributable to noncontrolling interests	(89)	(105)	(87)
Net income attributable to Crown Holdings	$ 439	$ 323	$ 496
Earnings per common share attributable to Crown Holdings:			
Basic	$ 3.28	$ 2.39	$ 3.58
Diluted	$ 3.28	$ 2.38	$ 3.56

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions)

For the Years Ended December 31	2018	2017	2016
Net income	$ 528	$ 428	$ 583
Other comprehensive income / (loss), net of tax			
Foreign currency translation adjustments	(137)	201	(435)
Pension and other postretirement benefits	50	(59)	166
Derivatives qualifying as hedges	(52)	20	23
Total other comprehensive income / (loss)	(139)	162	(246)
Total comprehensive income	389	590	337
Net income attributable to noncontrolling interests	(89)	(105)	(87)
Translation adjustments attributable to noncontrolling interests	1	(3)	2
Derivatives qualifying as hedges attributable to noncontrolling interests	2	—	(2)
Comprehensive income attributable to Crown Holdings	$ 303	$ 482	$ 250

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED BALANCE SHEETS
(in millions, except share data)

December 31	2018	2017
Assets		
Current assets		
Cash and cash equivalents	$ 607	$ 424
Receivables, net	1,602	1,041
Inventories	1,690	1,385
Prepaid expenses and other current assets	180	224
Total current assets	4,079	3,074
Goodwill	4,442	3,046
Intangible assets	2,193	472
Property, plant and equipment, net	3,745	3,239
Other non-current assets	803	832
Total	$ 15,262	$ 10,663
Liabilities and equity		
Current liabilities		
Short-term debt	$ 89	$ 62
Current maturities of long-term debt	86	64
Accounts payable	2,732	2,367
Accrued liabilities	1,006	757
Total current liabilities	3,913	3,250
Long-term debt, excluding current maturities	8,517	5,217
Postretirement and pension liabilities	683	588
Other non-current liabilities	863	685
Commitments and contingent liabilities (Note P)		
Equity		
Noncontrolling interests	349	322
Preferred stock, authorized: 30,000,000; none issued (Note T)	—	—
Common stock, par value: $5.00; authorized: 500,000,000 shares; issued: 185,744,072 shares (Note T)	929	929
Additional paid-in capital	186	167
Accumulated earnings	3,449	3,004
Accumulated other comprehensive loss	(3,374)	(3,241)
Treasury stock at par value (2018 - 50,570,124 shares; 2017 - 51,468,463 shares)	(253)	(258)
Crown Holdings shareholders’ equity	937	601
Total equity	1,286	923
Total	$ 15,262	$ 10,663

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

For the Years Ended December 31	2018	2017	2016
Cash flows from operating activities			
Net income	$ 528	$ 428	$ 583
Adjustments to reconcile net income to net cash provided by / (used for) operating activities:			
Depreciation and amortization	425	247	247
Restructuring and other	44	51	30
Pension expense	45	13	42
Pension contributions	(20)	(294)	(103)
Stock-based compensation	27	23	20
Deferred income taxes	35	247	16
Changes in assets and liabilities:			
Receivables	(493)	(1,143)	(1,057)
Inventories	(201)	(65)	(85)
Accounts payable and accrued liabilities	209	253	163
Other, net	(28)	(11)	10
Net cash provided by / (used for) operating activities	571	(251)	(134)
Cash flows from investing activities			
Capital expenditures	(462)	(498)	(473)
Beneficial interest in transferred receivables	490	1,010	1,086
Acquisition of businesses, net of cash acquired	(3,912)	—	—
Foreign exchange derivatives related to acquisition	(25)	—	—
Net investment hedges	34	—	—
Proceeds from sale of property, plant and equipment	36	8	10
Other	(4)	(24)	10
Net cash (used for) / provided by investing activities	(3,843)	496	633
Cash flows from financing activities			
Proceeds from long-term debt	4,082	1,054	1,380
Payments of long-term debt	(333)	(1,137)	(1,914)
Net change in revolving credit facility and short-term debt	(69)	95	(32)
Premiums paid to retire debt	—	—	(22)
Debt issuance costs	(70)	(16)	(18)
Common stock issued	1	9	10
Common stock repurchased	(4)	(339)	(8)
Dividends paid to noncontrolling interests	(60)	(93)	(80)
Contribution from noncontrolling interests	—	—	4
Foreign exchange derivatives related to debt	(14)	27	42
Net cash provided by / (used for) financing activities	3,533	(400)	(638)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(37)	14	(30)
Net change in cash, cash equivalents and restricted cash	224	(141)	(169)
Cash, cash equivalents and restricted cash at January 1	435	576	745
Cash, cash equivalents and restricted cash at December 31	$ 659	$ 435	$ 576

The accompanying notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
(in millions)

	Crown Holdings, Inc. Shareholders' Equity							
	Common Stock	Paid-in Capital	Accumulated Earnings	Accumulated Other Comprehensive Loss	Treasury Stock	Total Crown Equity	Noncontrolling Interests	Total
Balance at January 1, 2016	$ 929	$ 426	$ 2,125	$ (3,154)	$ (232)	$ 94	$ 291	$ 385
Net income			496			496	87	583
Other comprehensive loss				(246)		(246)		(246)
Dividends paid to noncontrolling interests						—	(80)	(80)
Contribution from noncontrolling interests						—	4	4
Restricted stock awarded		(1)			1	—		—
Stock-based compensation		20				20		20
Common stock issued		8			2	10		10
Common stock repurchased		(7)			(1)	(8)		(8)
Balance at December 31, 2016	$ 929	$ 446	$ 2,621	$ (3,400)	$ (230)	$ 366	$ 302	$ 668
Net income			323			323	105	428
Cumulative effect of change in accounting principle			60			60		60
Other comprehensive income				159		159	3	162
Dividends paid to noncontrolling interests						—	(93)	(93)
Contribution from noncontrolling interests						—	5	5
Restricted stock awarded		(1)			1	—		—
Stock-based compensation		23				23		23
Common stock issued		7			2	9		9
Common stock repurchased		(308)			(31)	(339)		(339)
Balance at December 31, 2017	$ 929	$ 167	$ 3,004	$ (3,241)	$ (258)	$ 601	$ 322	$ 923
Net income			439			439	89	528
Cumulative effect of change in accounting principle			6	3		9	1	10
Other comprehensive loss				(136)		(136)	(3)	(139)
Dividends paid to noncontrolling interests						—	(60)	(60)
Restricted stock awarded		(5)			5	—		—
Stock-based compensation		27				27		27
Common stock issued		1				1		1
Common stock repurchased		(4)				(4)		(4)
Balance at December 31, 2018	$ 929	$ 186	$ 3,449	$ (3,374)	$ (253)	$ 937	$ 349	$ 1,286

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in millions, except share, per share, employee and statistical data)

A. Summary of Significant Accounting Policies

Business and Principles of Consolidation. The consolidated financial statements include the accounts of Crown Holdings, Inc. (the “Company”) and its consolidated subsidiary companies (where the context requires, the “Company” shall include reference to the Company and its consolidated subsidiary companies).

The Company is a worldwide leader in the design, manufacture and sale of packaging products and equipment for consumer goods and industrial products. The Company’s packaging for consumer goods include steel and aluminum cans for food, beverage, household and other consumer products, glass bottles for beverage products and metal vacuum closures and steel crowns sold through the Company's sales organization to the soft drink, food, citrus, brewing, household products, personal care and various other industries. The Company's packaging for industrial products includes steel and plastic strap consumables and equipment, paper-based protective packaging, and plastic film consumables and equipment, which are sold into the metals, food and beverage, construction, agricultural, corrugated and general industries.

The financial statements were prepared in conformity with accounting principles generally accepted in the United States of America and reflect management’s estimates and assumptions. Actual results could differ from those estimates, impacting reported results of operations and financial position. All intercompany accounts and transactions are eliminated in consolidation. In deciding which entities should be reported on a consolidated basis, the Company first determines whether the entity is a variable interest entity (“VIE”). If an entity is a VIE, the Company determines whether it is the primary beneficiary and therefore, should consolidate the VIE. If an entity is not a VIE, the Company consolidates those entities in which it has control, including certain subsidiaries that are not majority-owned. Certain of the Company’s agreements with noncontrolling interests contain provisions in which the Company would surrender certain decision-making rights upon a change in control of the Company. Accordingly, consolidation of these operations may no longer be appropriate subsequent to a change in control of the Company, as defined in the agreements. Investments in companies in which the Company does not have control, but has the ability to exercise significant influence over operating and financial policies, are accounted for by the equity method. Other investments are carried at cost.

Foreign Currency Translation. For non-U.S. subsidiaries which operate in a local currency environment, assets and liabilities are translated into U.S. dollars at year-end exchange rates. Income, expense and cash flow items are translated at average exchange rates prevailing during the year. Translation adjustments for these subsidiaries are accumulated as a separate component of accumulated other comprehensive income in equity. For non-U.S. subsidiaries that use a U.S. dollar functional currency, local currency inventories and property, plant and equipment are translated into U.S. dollars at approximate rates prevailing when acquired; all other assets and liabilities are translated at year-end exchange rates. Inventories charged to cost of sales and depreciation are remeasured at historical rates; all other income and expense items are translated at average exchange rates prevailing during the year. Gains and losses which result from remeasurement are included in earnings.

Revenue Recognition. On January 1, 2018, the Company adopted new accounting guidance which outlined a single comprehensive model to use in accounting for revenue arising from contracts with customers and superseded most previous revenue recognition guidance. Under previous guidance, the Company generally recognized revenue from products sales when the goods were shipped and title and risk of loss passed to the customer. Under the new guidance, revenue is recognized when a customer obtains control of promised goods or services which is either at a point in time or over time. In addition to accelerating the timing of revenue recognition, an unbilled receivable is recognized with an offsetting decrease to inventory. See Note C for more information on the Company's accounting policies related to revenue under the new guidance.

Stock-Based Compensation. For awards with a service or market condition, compensation expense is recognized over the vesting period on a straight-line basis using the grant date fair value of the award and the estimated number of awards that are expected to vest. For awards with a performance condition, the Company reassess the probability of vesting at each reporting period and adjust compensation cost based on its probability assessment. The Company’s plans provide for stock awards which may include accelerated vesting upon retirement, disability, or death of eligible employees. The Company considers a stock-based award to be vested when the service period is no longer contingent on the employee providing future service. Accordingly, the related compensation cost is recognized immediately for awards granted to retirement-eligible individuals, or over the period from the grant date to the date that retirement eligibility is achieved if less than the stated vesting period.

Cash, Cash Equivalents and Restricted Cash. Cash equivalents represent investments with maturities of three months or less from the time of purchase and are carried at cost, which approximates fair value because of the short maturity of those instruments. Outstanding checks in excess of funds on deposit are included in accounts payable. The Company generally classifies any cash that is legally restricted as to withdrawal or usage as restricted cash.

Accounts Receivable and Allowance for Doubtful Accounts. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is the best estimate of the amount of probable credit losses in the existing accounts receivable. The allowance is determined based on a review of individual accounts for collectability, generally focusing on those accounts that are past due or experiencing financial difficulties. The current year expense to adjust the allowance for doubtful accounts is recorded within selling and administrative expense in the Consolidated Statements of Operations.

Inventory Valuation. Inventories are stated at the lower of cost or market, with cost principally determined under the first-in, first-out ("FIFO") or average cost method.

Property, Plant and Equipment. Property, plant and equipment ("PP&E") is carried at cost less accumulated depreciation and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. Cost of constructed assets includes capitalized interest incurred during the construction and development period. Maintenance and repairs, including labor and material costs for planned major maintenance such as annual production line overhauls, are expensed as incurred. When PP&E is retired or otherwise disposed, the net carrying amount is eliminated with any gain or loss on disposition recognized in earnings at that time.

Depreciation is provided on a straight-line basis over the estimated useful lives of the assets described below (in years). The Company periodically reviews the estimated useful lives of its PP&E and, where appropriate, changes are made prospectively.

Land improvements	25
Buildings and Building Improvements	25 – 40
Machinery and Equipment	3 – 18

Goodwill and Intangible Assets. Assets and liabilities of acquired businesses are recorded under the acquisition method of accounting at their estimated fair values at the dates of acquisition. Goodwill represents costs in excess of fair values assigned to the underlying identifiable net assets of acquired businesses. Goodwill is carried at cost and reviewed for impairment annually in the fourth quarter of each year or when facts and circumstances indicate goodwill may be impaired. Goodwill was allocated to the reporting units at the time of each acquisition based on the relative fair values of the reporting units. In assessing goodwill for impairment, the Company may first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. Further quantitative assessment may then be required. If the carrying value of a reporting unit exceeds its fair value, any impairment loss is measured by comparing the carrying value of the reporting unit to its fair value, not to exceed the carrying amount of goodwill.

Definite-lived intangible assets are carried at cost less accumulated amortization. Definite-lived intangibles are amortized on a straight-line basis over their estimated useful lives. Definite-lived intangible assets are tested for impairment when facts and circumstances indicate the carrying value may not be recoverable from their undiscounted cash flows. If impaired, the assets are written down to fair value based on either discounted cash flows or appraised values.

Impairment or Disposal of Long-Lived Assets. In the event that facts and circumstances indicate that the carrying value of long-lived assets, primarily PP&E and certain identifiable intangible assets with finite lives, may be impaired, the Company performs a recoverability evaluation. If the evaluation indicates that the carrying value of an asset is not recoverable from its undiscounted cash flows, an impairment loss is measured by comparing the carrying value of the asset to its fair value, based on discounted cash flows. Long-lived assets classified as held for sale are presented in the balance sheet at the lower of their carrying value or fair value less cost to sell.

Taxes on Income. The provision for income taxes is determined using the asset and liability approach. Deferred taxes represent the future expected tax consequences of differences between the financial reporting and tax bases of assets and liabilities based upon enacted tax rates and laws. The Tax Act created a new requirement that certain intangible income of foreign subsidiaries must be included currently in the gross income of the U.S. shareholder. The Company has made an accounting policy election to treat taxes due on future U.S. inclusions in taxable income related to this intangible income as a current period expense when incurred.

Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. Investment tax credits are accounted for using the deferral method. Income tax-related interest and penalties are reported as income tax expense.

Derivatives and Hedging. All outstanding derivative financial instruments are recognized in the balance sheet at their fair values. The impact on earnings from recognizing the fair values of these instruments depends on their intended use, their hedge designation and their effectiveness in offsetting changes in the fair values of the exposures they are hedging. Changes in the fair values of instruments designated to reduce or eliminate adverse fluctuations in the fair values of recognized assets and liabilities are reported currently in earnings along with changes in the fair values of the hedged items. Changes in the effective portions of the fair values of instruments used to reduce or eliminate adverse fluctuations in cash flows of anticipated or forecasted transactions are reported in equity as a component of accumulated other comprehensive income. Amounts in accumulated other comprehensive income are reclassified to earnings when the related hedged items impact earnings or the anticipated transactions are no longer probable. Changes in the fair values of derivative instruments that are not designated as hedges or do not qualify for hedge accounting treatment are reported currently in earnings. Amounts reported in earnings are classified consistent with the item being hedged.

The effectiveness of derivative instruments in reducing risks associated with the hedged exposures is assessed at inception and on an ongoing basis. Time value, a component of an instrument's fair value, is excluded in assessing effectiveness for fair value hedges, except hedges of firm commitments, and included for cash flow hedges.

Hedge accounting is discontinued prospectively when (i) the instrument is no longer effective in offsetting changes in fair value or cash flows of the underlying hedged item, (ii) the instrument expires, is sold, terminated or exercised, or (iii) designating the instrument as a hedge is no longer appropriate.

The Company formally documents all relationships between its hedging instruments and hedged items at inception, including its risk management objective and strategy for establishing various hedge relationships. Cash flows from hedging instruments are classified in the Consolidated Statements of Cash Flows consistent with the items being hedged.

Treasury Stock. Treasury stock is reported at par value. The excess of fair value over par value is first charged to paid-in capital, if any, and then to retained earnings.

Research and Development. Research, development and engineering costs of $51 in 2018, $39 in 2017, and $41 in 2016 were expensed as incurred and reported in selling and administrative expense in the Consolidated Statements of Operations. Substantially all engineering and development costs are related to developing new products or designing significant improvements to existing products or processes. Costs primarily include employee salaries and benefits and facility costs.

Reclassifications. Certain reclassifications of prior years' data have been made to conform to the current year presentation.

Recent Accounting and Reporting Pronouncements.

Recently Adopted Accounting Standards

Pension and other postretirement benefit costs

On January 1, 2018, the Company adopted new guidance related to the presentation of pension and other postretirement benefit costs. Under the new guidance, only the service cost component of pension and other postretirement benefit costs is presented with other employee compensation costs within income from operations or capitalized in assets. The other components are reported separately outside of income from operations and are not eligible for capitalization.

The Company reclassified the following net (benefits) charges on the Statement of Operations to conform to current year presentation:

	2017	2016
Cost of products sold, excluding depreciation and amortization	$ 54	$ 40
Selling and administrative expense	(4)	(2)
Restructuring and other	3	(14)
Other pension and postretirement	(53)	(24)

Statement of Cash Flows

On January 1, 2018, the Company adopted new guidance related to the classification of certain cash receipts and payments on the Statement of Cash Flows. Under the new guidance, premiums paid for debt extinguishments are classified as cash outflows from financing activities. For the year ended December 31, 2016, the Company reclassified $22 of premiums paid from net cash used for operating activities to net cash used for financing activities. In addition, beneficial interests obtained in a securitization of financial assets are disclosed as a noncash activity and cash receipts from the beneficial interests are classified as cash inflows from investing activities. Under previous guidance, the Company classified cash receipts from beneficial interests in securitized receivables and premiums paid for debt extinguishments as cash flows from operating activities. The Company recast prior period amounts to conform to the current year presentation. For the years ended December 31, 2017 and 2016, the Company reclassified $1,010 and $1,086 from net cash used for operating activities to net cash provided by investing activities. Additionally, for the years ended December 31, 2018, 2017 and 2016, beneficial interests obtained in securitized receivables were $456, $1,047 and $1,032.

On January 1, 2018, the Company adopted new accounting guidance that requires the Statement of Cash Flows to explain the change in the total of cash, cash equivalents and restricted cash. In addition, restricted cash is included in a cash reconciliation of beginning of- period and end-of-period total amounts shown on the Statements of Cash Flows. The Company recast prior period amounts to conform to the current year presentation.

Cash, cash equivalents and restricted cash included in the Company's Consolidated Balance Sheets were as follows:

	2018	2017
Cash and cash equivalents	$ 607	$ 424
Restricted cash included in prepaid expenses and other current assets	45	2
Restricted cash included in other non-current assets	7	9
Total cash, cash equivalents and restricted cash	$ 659	$ 435

Amounts included in restricted cash primarily represent amounts required to be segregated by certain of the Company's receivables securitization agreements.

Revenue recognition

The Company adopted the new revenue guidance discussed above using the modified retrospective method applied to those contracts which were outstanding as of January 1, 2018. The Company recognized the cumulative effect of initially applying the standard as an adjustment to the opening balance of retained earnings. Results for reporting periods beginning after January 1, 2018 are presented under the new revenue guidance, while prior period amounts are not adjusted and continue to be reported in accordance with accounting guidance in effect for those periods.

The cumulative effect of the changes made to the Company’s Consolidated Balance Sheet as of January 1, 2018 for the adoption of the new revenue guidance was as follows:

Consolidated Balance Sheet	As reported December 31, 2017	Adjustment	As revised January 1, 2018
Receivables, net	$ 1,041	$ 154	$ 1,195
Inventories	1,385	(144)	1,241
Prepaid and other current assets	224	26	250
Total current assets	3,074	36	3,110
Other non-current assets	832	1	833
Total assets	10,663	37	10,700
Accrued liabilities	757	17	774
Total current liabilities	3,250	17	3,267
Other non-current liabilities	685	10	695
Noncontrolling interests	322	1	323
Accumulated earnings	3,004	9	3,013
Crown Holdings shareholders' equity	601	9	610
Total equity	923	10	933
Total liabilities and equity	10,663	37	10,700

The impact of adoption on the Company’s Consolidated Balance Sheet as of December 31, 2018 and Statement of Operations for the year ended December 31, 2018 was as follows:

Consolidated Balance Sheet	As reported December 31, 2018	Effects of change	Balances without adoption of new standard
Receivables, net	$ 1,602	$ (181)	$ 1,421
Inventories	1,690	155	1,845
Prepaid and other current assets	180	(16)	164
Total current assets	4,079	(42)	4,037
Total assets	15,262	(42)	15,220
Accrued liabilities	1,006	(21)	985
Total current liabilities	3,913	(21)	3,892
Other non-current liabilities	863	(9)	854
Noncontrolling interests	349	(1)	348
Accumulated earnings	3,449	(11)	3,438
Crown Holdings shareholders' equity	937	(11)	926
Total equity	1,286	(12)	1,274
Total liabilities and equity	15,262	(42)	15,220

Statement of Operations	As reported For the year ended December 31, 2018	Effects of change	Amounts without adoption of new standard
Net sales	$ 11,151	$ (27)	$ 11,124
Cost of products sold, excluding depreciation and amortization	9,028	(21)	9,007
Income from operations	1,096	(6)	1,090
Foreign exchange	18	(3)	15
Income before taxes	740	(3)	737
Provision for income taxes	216	(1)	215
Net income	528	(2)	526
Net income attributable to Crown Holdings	439	(2)	437
Earnings per common share attributable to Crown Holdings:			—
Basic	$ 3.28	$ (0.02)	$ 3.26
Diluted	$ 3.28	$ (0.01)	$ 3.27

Hedge Accounting

On January 1, 2018, the Company adopted new guidance on hedge accounting. The new guidance allows contractually-specified price components of a commodity purchase or sale to be eligible for hedge accounting. Additionally, the new standard permits qualitative effectiveness assessments for certain hedges after the initial hedge qualification analysis. The Company adopted this guidance using the modified retrospective approach. Upon adoption, the Company reclassified a net charge of $3 for the cumulative ineffectiveness of these contracts from retained earnings to accumulated other comprehensive income as a cumulative-effect adjustment.

Intercompany transfers

On January 1, 2018, the Company adopted new guidance related to intercompany transfers of assets other than inventory. Under previous guidance, income tax expense associated with intercompany profits in an intercompany sale or transfer of assets was deferred until the assets left the consolidated group. Similarly, deferred tax assets were not recognized for any increase in tax bases due to the intercompany sale or transfer. The new guidance allows for the recognition of income tax expense and deferred tax benefits on increases in tax bases when an intercompany sale or transfer occurs. Income tax effects of intercompany inventory transactions continue to be deferred until the assets leave the consolidated group. The guidance did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Standards

In February 2016, the FASB issued new guidance on lease accounting. Under the new guidance, lease classification criteria and income statement recognition are similar to current guidance; however, all leases with a term longer than one year will be recorded on the balance sheet through a right-of-use asset and a corresponding lease liability. The Company is in the process of implementing changes to processes, systems and controls to adopt the standard on a modified retrospective basis on January 1, 2019. The Company plans to elect the package of practical expedients that provides certain relief from reassessing prior lease accounting conclusions and will not apply the recognition requirements to short-term leases. Although the Company continues to evaluate the effect on the Company's Consolidated Balance Sheet, the Company currently anticipates that the impact of adoption will result in an insignificant cumulative effect of adoption and the recognition of material right of use assets and operating lease liabilities. The Company does not expect a material impact on its Consolidated Statement of Operations or Cash Flows.

In June 2016, the FASB issued revised guidance for the accounting for credit losses on financial instruments. The new standard introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables, loans, held-to-maturity debt securities, net investments in leases and off-balance-sheet credit exposures. This guidance is effective for the Company on January 1, 2020. Early adoption is permitted. The Company is currently evaluating the impact of adopting this standard.

B. Acquisition of Signode

On April 3, 2018, the Company completed its acquisition of Signode Industrial Group Holdings (Bermuda) Ltd. ("Signode"), a leading global provider of transit packaging systems and solutions, thereby broadening and diversifying its customer base. The Company paid a purchase price of $3.9 billion. The acquisition was undertaken by a subsidiary of Crown European Holdings S.A. See Note M for further details about the acquisition financing.

In connection with the acquisition, the Company entered into forward contracts to partially mitigate its currency exchange rate risk associated with the purchase price. In March 2018, the Company settled these contracts at a loss of $25.

The following table summarizes the consideration transferred to acquire Signode and the preliminary valuation of identifiable assets acquired and liabilities assumed at the acquisition date.

Fair value of consideration transferred	
Cash consideration	$ 3,912
Recognized amounts of identifiable assets acquired and liabilities assumed	
Receivables, net	374
Inventories	303
Prepaid expenses and other current assets	45
Intangible assets, net	1,935
Property, plant and equipment, net	450
Other non-current assets	50
Short-term debt	(4)
Accounts payable	(222)
Accrued liabilities	(166)
Long-term debt	(3)
Postretirement and pension liabilities	(58)
Other non-current liabilities	(344)
Total identifiable net assets	2,360
Goodwill	$ 1,552

Signode comprises the Company's Transit Packaging segment. The acquired goodwill was assigned to the segment and 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.

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 follow-on 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. Intangible assets acquired and the weighted average remaining useful lives were as follows:

	Preliminary Fair Value	Weighted Average Estimated Useful Life
Customer relationships	$ 1,201	12
Trade names	568	26
Technology	166	7
	$ 1,935	

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.

Signode's results of operations have been included in the Company's financial statements for the period subsequent to the completion of the acquisition on April 3, 2018. Signode contributed sales of $1,800 and $1 of net income as its results included acquisition related amortization and interest as well as pre-tax charges of $40 for the fair value adjustment to inventory acquired and $5 for restructuring and other.

The following unaudited supplemental pro forma data presents consolidated information as if the acquisition had been completed on January 1, 2017. These amounts were calculated after adjusting Signode'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 January 1, 2017 and related transaction costs. These adjustments also include an additional charge of $32 in the year ended December 31, 2017 for the fair value adjustment for inventory acquired. Signode's results include foreign exchange losses related to pre-acquisition intercompany debt arrangements of $15 and $47 for the years ended December 31, 2018 and 2017.

	Unaudited pro forma data for the year-ended December 31,	
	2018	2017
Pro forma net sales	$ 11,739	$ 10,930
Pro forma net income attributable to Crown Holdings	442	234

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.

C. Revenue

The majority of the Company’s revenues from metal packaging products are derived from multi-year requirement contracts with leading manufacturers and marketers of packaged consumer products for can sets, comprising a can and an end. As requirement contracts do not typically include fixed volumes, customers often purchase products pursuant to purchase orders or other communications which are short-term in nature. The can and the end are considered separate performance obligations because they are distinct and separately identifiable. Revenues from the Company's transit packaging segment are generally derived from individual purchase orders which may include multiple goods and services which are separate performance obligations because they are distinct and separately identifiable.

Revenues are recognized when control of the promised products is transferred to customers. The Company manufactures certain products that have no alternative use to the Company once they are printed or manufactured to customer specifications. If the Company has an enforceable right to payment for custom products at all times in the manufacturing process, revenue is recognized over time. In each of the Company’s geographic markets, revenue from beverage cans is primarily recognized over time using the units produced output method as beverage cans are generally printed for a specific customer in a continuous production process and, therefore, the customer obtains value as each unit is produced. The timing of revenue recognition for the Company’s other products, including beverage ends and three-piece products, which includes food cans and ends and aerosol cans and ends, may vary as these products may be printed or customized depending upon customer preferences which can vary by geographic market. Revenue that is recognized over time for the Company’s three-piece products and equipment business is generally recognized using the cost-to-cost input method as these products involve an intermediary step that results in customized work-in-process inventory. For products that follow a point in time model, revenue is generally recognized when title and risk of loss transfer.

Revenue is measured as the amount of consideration the Company expects to receive 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 most likely amount of revenue to which it is expected to be entitled 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. When the Company offers customers options to purchase additional product at discounted prices, judgment is required to determine if the discounted prices represent material rights. If so, the transaction price allocated to the discount is based on its relative standalone price and is recognized upon purchase of the additional product. 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. Shipping and handling fees and costs from product sales are reported as cost of products sold and are accrued when the Company recognizes revenue over time before the shipping and handling activities occur. Costs to obtain a contract are generally immaterial but the Company has elected the practical expedient to expense these costs as incurred if the duration of the contract is one year or less.

For the year ended December 31, 2018, the Company recognized revenue of $5,765 over time and $5,386 at a point in time. See Note X for further disaggregation of the Company's revenue for the year ended December 31, 2018 The Company has applied the practical expedient to exclude disclosure of remaining performance obligations as its binding orders typically have a term of one year or less.

Unbilled Receivables

Unbilled receivables are recorded for revenue recognized over time when the Company has determined that control has passed to the customer but the customer has not yet been invoiced because the Company does not have present right to payment. The Company generally has a present right to payment when title of product transfers. Unbilled receivables are reflected in receivables in the Consolidated Balance Sheet with a corresponding decrease to inventory.

Contract Assets and Contract Liabilities

Contract assets are recorded for revenue recognized over time when the Company has determined that control for a performance obligation has passed to the customer, but the right to invoice the customer is contingent upon the completion of the performance obligations included in the contract. Contract assets are classified as current as they are expected to be invoiced within one year and may not exceed their net realizable value.

Contract liabilities are established if the Company must defer the recognition of a portion of consideration received because it has to satisfy a future obligation. Contract liabilities are classified as current or noncurrent based on when the Company expects to recognize revenue.

Contract assets are typically recognized for work in process related to the Company's three-piece printed products. The Company's equipment business may record contract assets or contract liabilities depending on the timing of satisfaction of performance obligations and receipt of consideration from the customer. These equipment contracts, including payment terms, are typically less than one year in duration.

Contract assets and liabilities are reported in a net position on a contract-by-contract basis. Net contract assets were as follows:

	December 31, 2018	January 1, 2018
Contract assets included in prepaid and other current assets	$ 16	$ 26
Contract liabilities included in accrued liabilities	(3)	(1)
Contract liabilities included in other non-current liabilities	(5)	(7)
Net contract asset	$ 8	$ 18

For the year ended December 31, 2018, the Company satisfied performance obligations related to contract assets recorded by the Company's equipment business at January 1, 2018. Additionally, the Company recognized revenue of less than $1 related to contract liabilities at January 1, 2018 for performance obligations satisfied during the period.

D. Receivables

	2018	2017
Accounts receivable	$ 1,303	$ 894
Less: allowance for doubtful accounts	(65)	(71)
Net trade receivables	1,238	823
Unbilled receivables	181	—
Miscellaneous receivables	183	218
	$ 1,602	$ 1,041

The Company uses receivables securitization and factoring facilities in the normal course of business as part of managing its cash flows. The Company accounts for transfers under its securitization facilities as sales because the Company sells full title and ownership in the underlying receivables and has met the criteria for control of the receivables to be considered transferred.

The Company accounts for its factoring arrangements as either sales or secured borrowing based on whether it has transferred control over the factored receivables. The Company's continuing involvement in factored receivables accounted for as sales is limited to servicing the receivables. The Company receives adequate compensation for servicing the receivables and no servicing asset or liability is recorded.

At December 31, amounts securitized or factored were as follows:

	2018	2017
Accounted for as secured borrowings	$ 9	$ 12
Accounted for as sales	1,097	964

In July 2018, the Company terminated its $200 North American securitization facility, which included a deferred purchase price component, and entered into a new securitization facility to sell, on a revolving basis, certain trade accounts receivable balances up to a maximum of $375. The new facility, which matures in 2020, removed the deferred purchase price component but requires the Company to maintain a deposit in a restricted cash account. The Company received net proceeds of $106 from the termination of the securitization facility and resale of receivables under the new agreement. These proceeds are included in the beneficial interest in securitized receivables line in the Company's Consolidated Statement of Cash Flows.

Prior to July 2018, certain of the Company's securitization facilities included a deferred purchase price component. As consideration for the sale of its receivables, the Company received a cash payment and a new asset, the deferred purchase price receivable from the purchaser, which would be paid to the Company as payments on the receivables were collected from the account debtors. As the criteria for sale accounting had been met, the Company derecognized the entire amount of receivables sold and recognized an asset at fair value for the deferred purchase price receivable as well as the cash received. As the deferred purchase price was not a trade receivable, it was reported in prepaid expenses and other current assets in the Company's Balance Sheet. As receipt of the deferred purchase price coincided with collections of the underlying receivables, the collection period was short in duration. As of December 31, 2017, the amount of deferred purchase price included in prepaid expenses and other current assets was $106.

The Company recorded expenses related to securitization and factoring facilities of $21 in 2018, $15 in 2017, and $13 in 2016 as interest expense.

E. Inventories

	2018	2017
Raw materials and supplies	$ 937	$ 737
Work in process	144	139
Finished goods	609	509
	$ 1,690	$ 1,385

F. Goodwill

Changes in the carrying amount of goodwill by reportable segment for the years ended December 31, 2018 and 2017 was as follows:

	Americas Beverage	European Beverage	European Food	Transit Packaging	Non-reportable segments	Total
Balance at January 1, 2017	$ 820	$ 511	$ 1,190	$ —	$ 270	$ 2,791
Foreign currency translation	24	53	165	—	13	255
Balance at December 31, 2017	844	564	1,355	—	283	3,046
Goodwill acquired	—	—	—	1,552	—	1,552
Foreign currency translation	(2)	(33)	(64)	(46)	(11)	(156)
Balance at December 31, 2018	$ 842	$ 531	$ 1,291	$ 1,506	$ 272	$ 4,442

In 2018, goodwill acquired relates to the Signode acquisition, as discussed in Note B.

The carrying amount of goodwill at December 31, 2018 and 2017 was net of the following accumulated impairments:

	Americas Beverage	European Beverage	European Food	Transit Packaging	Non-reportable Segments	Total
Accumulated impairments	$ 29	$ 73	$ 724	$ —	$ 150	$ 976

G. Intangible Assets

Gross carrying amounts and accumulated amortization of finite-lived intangible assets by major class at December 31 were as follows:

	December 31, 2018			December 31, 2017		
	Gross	Accumulated amortization	Net	Gross	Accumulated amortization	Net
Customer relationships	$ 1,615	$ (206)	1,409	$ 461	$ (108)	$ 353
Trade names	547	(17)	530	—	—	—
Technology	160	(18)	142	—	—	—
Long term supply contracts	143	(37)	106	143	(27)	116
	$ 2,465	$ (278)	$ 2,187	$ 604	$ (135)	$ 469

The table above excludes other intangible assets with net balances of $6 and $3 at December 31, 2018 and 2017.

Amortization expense for the years ended December 31, 2018, 2017, and 2016 was $148, $39 and $41.

Annual amortization expense for each of the five years subsequent to 2018 is estimated to be $182.

H. Property, Plant and Equipment

	2018	2017
Buildings and improvements	$ 1,352	$ 1,214
Machinery and equipment	5,562	5,131
Land and improvements	280	204
Construction in progress	323	369
	7,517	6,918
Less: accumulated depreciation and amortization	(3,772)	(3,679)
	$ 3,745	$ 3,239

I. Other Non-Current Assets

	2018	2017
Deferred taxes	$ 272	$ 399
Pension assets	360	313
Debt issuance costs	15	13
Investments	19	9
Fair value of derivatives	20	4
Other	117	94
	$ 803	$ 832

J. Accrued Liabilities

	2018	2017
Salaries, wages and other employee benefits, including pension and postretirement	$ 210	$ 162
Accrued taxes, other than on income	124	120
Accrued interest	83	54
Fair value of derivatives	52	23
Income taxes	47	23
Asbestos liabilities	25	30
Restructuring	21	17
Other	444	328
	$ 1,006	$ 757

K. Restructuring and Other

The Company recorded restructuring and other charges as follows:

	2018	2017	2016
Asset impairments and sales	$ (5)	$ 12	$ 14
Restructuring	25	18	12
Transaction costs	26	2	—
Other costs	(2)	19	4
	$ 44	$ 51	$ 30

In 2018, the Company recorded asset impairment charges of $13 to write down the carrying value of fixed assets related to the announced closure of two beverage can plants in the Company's Asia Pacific segment. The Company announced plans to close the plants in response to current economic conditions in China. Asset impairment and sales also includes gains on asset sales related to prior restructuring actions.

Restructuring costs in 2018 included $5 for termination benefits related to the closure of two beverage can plants in the Company's Asia Pacific segment discussed above, $12 of termination benefits related to other actions to reduce manufacturing capacity and headcount and other exit costs of $8 related to prior and current year restructuring actions.

In 2017, asset impairments and sales included a charge of $19 to write down the carrying value of fixed assets related to the closure of beverage can plants in China and the U.S., a promotional packaging facility in Europe and a food can facility in Peru. Asset impairments and sales also includes a benefit of $5 due to the expiration of an environmental indemnification related to the sale of certain operations in the Company's European Promotional Packaging business during 2015. Additionally, the Company recorded restructuring charges of $18 for termination benefits related to the plant closures listed above.

Transaction costs in 2018 and 2017 relate to the acquisition of Signode as described in Note B

In 2017, other costs included a charge of $19 due to the settlement of a litigation matter related to Mivisa that arose prior to its acquisition by the Company in 2014. In 2018, the Company recorded a benefit of $6 due to the favorable settlement of this matter.

In 2016, the Company recorded an impairment charge of $9 to write down the carrying value of fixed assets and $3 for termination benefits related to the closure of a beverage can plant in the Company's Asia Pacific segment.

Restructuring charges by segment were as follows:

	2018	2017	2016
Americas Beverage	$ 4	$ 3	$ 1
Europe Beverage	1	—	—
European Food	4	4	4
Asia Pacific	5	3	3
Transit Packaging	3	—	—
Non-reportable segments	5	8	4
Corporate	3	—	—
	$ 25	$ 18	$ 12

Restructuring charges by type were as follows:

	2018	2017	2016
Termination benefits	$ 17	$ 15	$ 9
Other exit costs	8	3	3
	$ 25	$ 18	$ 12

At December 31, 2018, the Company had a restructuring accrual of $21, primarily related to the closure of the beverage can plants in China discussed above, and current and prior year actions to reduce manufacturing capacity and headcount in its European businesses. The Company expects to pay these amounts over the next twelve months. The Company continues to review its supply and demand profile and long-term plans in its businesses, and it is possible that the Company may record additional restructuring charges in the future.

L. Lease Commitments

The Company leases manufacturing, warehouse and office facilities and certain equipment. Certain of the leases contain renewal or purchase options, but the leases do not contain significant contingent rental payments, escalation clauses, rent holidays, rent concessions or leasehold improvement incentives. Under long-term operating leases, minimum annual rentals are $54 in 2019, $42 in 2020, $34 in 2021, $26 in 2022, $21 in 2023 and $117 thereafter. Rental expense (net of sublease rental income) was $50 in both 2018 and 2017 and $53 in 2016.

M. Debt

	2018		2017	
	Principal outstanding	Carrying amount	Principal outstanding	Carrying amount
Short-term debt	$ 89	$ 89	$ 62	$ 62
Long-term debt				
Senior secured borrowings:				
Revolving credit facilities	—	—	122	122
Term loan facilities				
U.S. dollar at LIBOR plus 1.75% due 2022	815	810	741	735
U.S. dollar at LIBOR plus 2.00% due 2025	887	864	—	—
Euro at EURIBOR plus 1.75% due 2022[1]	301	301	324	324
Euro at EURIBOR plus 2.375% due 2025[2]	855	846	—	—
Senior notes and debentures:				
€650 at 4.0% due 2022	745	740	781	774
U. S. dollar at 4.50% due 2023	1,000	993	1,000	992
€335 at 2.25% due 2023	384	380	—	—
€600 at 2.625% due 2024	688	682	720	713
€600 at 3.375% due 2025	688	681	720	711
U.S. dollar at 4.25% due 2026	400	394	400	393
U.S. dollar at 4.75% due 2026	875	863	—	—
U.S. dollar at 7.375% due 2026	350	348	350	347
€500 at 2.875% due 2026	573	566	—	—
U.S. dollar at 7.50% due 2096	40	40	40	40
Other indebtedness in various currencies:				
Fixed rate with rates in 2018 from 4.0% to 7.5% due through 2036	62	62	96	96
Variable rate with average rates in 2018 of 4.3% due through 2022	4	4	5	5
Capital lease obligations	29	29	29	29
Total long-term debt	8,696	8,603	5,328	5,281
Less: current maturities	(86)	(86)	(64)	(64)
Total long-term debt, less current maturities	$ 8,610	$ 8,517	$ 5,264	$ 5,217

(1) €263 and €270 at December 31, 2018 and 2017
(2) €746 at December 31, 2018

The estimated fair value of the Company’s long-term borrowings, using a market approach incorporating level 2 inputs such as quoted market prices for the same or similar issues, was $8,735 at December 31, 2018 and $5,562 at December 31, 2017.

The revolving credit facilities include provisions for letters of credit up to $300 that reduce the amount of borrowing capacity otherwise available. At December 31, 2018, the Company’s available borrowing capacity under the credit facilities was $1,582, equal to the facilities’ aggregate capacity of $1,650 less $68 of outstanding letters of credit. The interest rate on the facilities can vary from LIBOR or EURIBOR, with a floor of zero, plus a margin of up to 2.375%, depending on the facility, based on the Company's leverage ratio. The revolving credit facilities and term loan facilities contain restrictions on the ability of the Company to, among other things, incur additional debt, pay dividends, repurchase capital stock and make certain restricted payments and requires the Company to maintain a leverage ratio of no greater than 6.5 times at December 31, 2018. The Company was in compliance with all covenants as of December 31, 2018.

The weighted average interest rates were as follows:

	2018	2017	2016
Short-term debt	1.4%	1.4%	2.7%
Revolving credit facilities	3.2%	3.3%	3.8%

Aggregate maturities of long-term debt including capital lease obligations and excluding unamortized discounts and debt issuance costs, for the five years subsequent to 2018 are $86, $88, $76, $1,711 and $1,400. Cash payments for interest during 2018, 2017 and 2016 were $334, $225 and $217.

2018 Activity

In January 2018, the Company amended its revolving credit agreements, effective as of April 2018, to, among other things, provide capacity of $1,650 under the revolving credit facilities upon completion of the Signode acquisition, increase total leverage ratios and extend the timetable for compliance with total leverage ratios.

In January 2018, the Company issued $875 principal amount of 4.75% senior unsecured notes due 2026. The notes were issued at par by Crown Americas LLC, a subsidiary of the Company, and are unconditionally guaranteed by the Company and certain of its subsidiaries.

In January 2018, the Company also issued €500 ($573 at December 31, 2018) principal amount of 2.875% senior unsecured notes due 2026 and €335 ($384 at December 31, 2018) principal amount of 2.25% senior unsecured notes due 2023. The notes were issued at par by Crown European Holdings S.A., a subsidiary of the Company, and are unconditionally guaranteed by the Company and certain of its subsidiaries.

In April 2018, the Company borrowed $100 additional Term A loans and $1,150 Term B loans under its U.S. dollar term loan facility and €750 ($859 at December 31, 2018) additional Term B loans under its European term loan facility. The Term B loans mature in April 2025.

N. Derivative and Other Financial Instruments

Fair Value Measurements

Under U.S. GAAP a framework exists for measuring fair value, providing a three-tier hierarchy of pricing inputs used to report assets and liabilities that are adjusted to fair value. Level 1 includes inputs such as quoted prices which are available in active markets for identical assets or liabilities as of the reporting date. Level 2 includes inputs other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date. Level 3 includes unobservable pricing inputs that are not corroborated by market data or other objective sources. The Company has no items valued using Level 3 inputs other than certain pension plan assets.

The Company utilizes market data or assumptions that market participants would use in pricing the asset or liability. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of assets and liabilities measured at fair value and their placement within the fair value hierarchy.

The Company applies a market approach to value its commodity price hedge contracts. Prices from observable markets are used to develop the fair value of these financial instruments and they are reported under Level 2. The Company uses an income approach to value its foreign exchange forward contracts. These contracts are valued using a discounted cash flow model that calculates the present value of future cash flows under the terms of the contracts using market information as of the reporting date, such as foreign exchange spot and forward rates, and are reported under Level 2 of the fair value hierarchy.

Fair value disclosures for financial assets and liabilities that were accounted for at fair value on a recurring basis are provided later in this note. In addition, see Note M for fair value disclosures related to debt.

Derivative Financial Instruments

In the normal course of business the Company is subject to risk from adverse fluctuations in currency exchange rates, interest rates and commodity prices. The Company manages these risks through a program that includes the use of derivative financial instruments, primarily swaps and forwards. Counterparties to these contracts are major financial institutions. The Company is exposed to credit loss in the event of nonperformance by these counterparties. The Company does not use derivative instruments for trading or speculative purposes.

The Company's objective in managing exposure to market risk is to limit the impact on earnings and cash flow. The extent to which the Company uses such instruments is dependent upon its access to these contracts in the financial markets and its success using other methods, such as netting exposures in the same currencies to mitigate foreign exchange risk and using sales agreements that permit the pass-through of commodity price and foreign exchange rate risk to customers.

For derivative financial instruments accounted for in hedging relationships, the Company formally designates and documents, at inception, the financial instrument as a hedge of a specific underlying exposure, the risk management objective and the manner in which effectiveness will be assessed. The Company formally assesses, both at inception and at least quarterly thereafter, whether the hedging relationships are effective in offsetting changes in fair value or cash flows of the related underlying exposures. When a hedge no longer qualifies for hedge accounting, the change in fair value from the date of the last effectiveness test is recognized in earnings. Any gain or loss which has accumulated in other comprehensive income at the date of the last effectiveness test is reclassified into earnings at the same time as the underlying exposure.

Cash Flow Hedges

The Company designates certain derivative financial instruments as cash flow hedges. No components of the hedging instruments are excluded from the assessment of hedge effectiveness. Changes in fair value of outstanding derivatives accounted for as cash flow hedges are recorded in accumulated other comprehensive income until earnings are impacted by the hedged transaction. Classification of the gain or loss in the Consolidated Statements of Operations upon release from accumulated other comprehensive income is the same as that of the underlying exposure. Contracts outstanding at December 31, 2018 mature between one and thirty-nine months.

When the Company discontinues hedge accounting because it is no longer probable that an anticipated transaction will occur in the originally specified period, changes to fair value accumulated in other comprehensive income are recognized immediately in earnings.

The Company uses commodity forwards to hedge anticipated purchases of various commodities, including aluminum, fuel oil and natural gas and these exposures are hedged by a central treasury unit.

The Company also designates certain foreign exchange contracts as cash flow hedges of anticipated foreign currency denominated sales or purchases. The Company manages these risks at the operating unit level. Often, foreign currency risk is hedged together with the related commodity price risk.

The following tables set forth financial information about the impact on accumulated other comprehensive income ("AOCI") and earnings from changes in fair value related to derivative instruments designated as cash flow hedges.

	Amount of gain/(loss) recognized in AOCI	
Derivatives designated as cash flow hedges	2018	2017
Foreign exchange	$ (3)	$ 2
Commodities	(32)	39
	$ (35)	$ 41

Derivatives designated as cash flow hedges	Amount of gain/(loss) reclassified from AOCI into income 2018	2017	Affected line item in the Statement of Operations
Foreign exchange	$ (11)	$ (8)	Net sales
Commodities	(5)	—	Net sales
Foreign exchange	6	6	Cost of products sold
Commodities	31	31	Cost of products sold
	21	29	Income before taxes
	(6)	(8)	Provision for income taxes
	$ 15	$ 21	Net Income

In 2017, the Company recognized a loss of $2 ($1, net of tax) related to hedge ineffectiveness caused primarily by volatility in the metal premium component of aluminum prices. Following the adoption of new accounting guidance, there is no ineffectiveness in the current year as the Company's commodity contracts generally hedge the variability in cash flows for contractually specified components of its aluminum purchases.

For the year ended December 31, 2019, a net loss of $27 ($21, net of tax) is expected to be reclassified to earnings. No amounts were reclassified during the years ended December 31, 2018 and 2017 in connection with anticipated transactions that were no longer considered probable.

Fair Value Hedges and Contracts Not Designated as Hedges

The Company designates certain derivative financial instruments as fair value hedges of recognized foreign-denominated assets and liabilities, generally trade accounts receivable and payable and unrecognized firm commitments. The notional values and maturity dates of the derivative instruments coincide with those of the hedged items. Changes in fair value of the derivative financial instruments, excluding time value, are offset by changes in fair value of the related hedged items.

Certain derivative financial instruments, including foreign exchange contracts related to intercompany debt, were not designated or did not qualify for hedge accounting; however, they are effective economic hedges as the changes in their fair value, except for time value, are offset by changes from re-measurement of the related hedged items. The Company’s primary use of these derivative instruments is to offset the earnings impact that fluctuations in foreign exchange rates have on certain monetary assets and liabilities denominated in nonfunctional currencies. Changes in fair value of these derivative instruments are immediately recognized in earnings as foreign exchange adjustments.

The impact on earnings from foreign exchange contracts designated as fair value hedges was a loss of $2 for the year ended December 31, 2018 and a loss of less than $1 for the year ended December 31, 2017. These adjustments were reported within foreign exchange in the Consolidated Statements of Operations and were offset by changes in the fair values of the related hedged items.

The following table sets forth the impact on earnings from derivatives not designated as hedges.

Derivatives not designated as hedges	Pre-tax amount of gain/(loss) recognized in earnings 2018	2017	Affected line item in the Statement of Operations
Foreign exchange	$ 4	$ 1	Net sales
Foreign exchange	(6)	1	Cost of products sold
Foreign exchange	(26)	39	Foreign exchange
	$ (28)	$ 41	

Net Investment Hedges

The Company designates certain debt and derivative instruments as net investment hedges to manage foreign currency risk relating to net investments in subsidiaries denominated in foreign currencies and to reduce the variability in the functional currency equivalent cash flows.

For the year ended December 31, 2018, the Company recorded a gain of $47 ($43, net of tax) in other comprehensive income for certain debt instruments that are designated as hedges of its net investment in a euro-based subsidiary. For the year ended December 31, 2017, the Company recorded a loss of $153 ($134, net of tax) in other comprehensive income for these net investment hedges. As of December 31, 2018, cumulative losses of $59 ($36, net of tax) were recognized in accumulated other comprehensive income related to these net investment hedges and the carrying amount of the hedged net investment was approximately €1,131 ($1,296 at December 31, 2018).

In January 2018, the Company entered into a series of cross-currency swaps with an aggregate notional value of $875 (€718). The swaps were designated as hedges of the Company's net investment in a euro-based subsidiary. Under the cross-currency contracts, the Company received semi-annual fixed U.S. dollar payments at a rate of 4.75% of the U.S. notional value and paid 2.50% on the euro notional value. The Company settled these swaps in November 2018 for a gain of $19. Additionally, the Company received net interest payments of $15 related to these swaps, which was reflected in investing activities in the Consolidated Statements of Cash Flows.

In November 2018, the Company entered into a series of cross-currency swaps with an aggregate notional value of $875 (€768). The swaps are designated as hedges of the Company's net investment in a euro-based subsidiary. Under the cross-currency contracts, the Company will receive semi-annual fixed U.S. dollar payments at a rate of 4.75% of the U.S. notional value and pay 1.84% on the euro notional value.

Gains or losses on net investment hedges remain in accumulated other comprehensive income until disposal of the underlying assets.

The following tables set forth financial information about the impact on other comprehensive income ("OCI") from changes in the fair value of derivative instruments designated as net investment hedges.

	Amount of gain/(loss) recognized in OCI	
Derivatives designated as net investment hedges	2018	2017
Foreign exchange	$ 11	$ —

Gains and losses representing components excluded from the assessment of effectiveness on derivatives designated as net investment hedges are recognized in accumulated other comprehensive income.

<u>Fair Values of Derivative Financial Instruments</u>

The following table sets forth the Company's financial assets and liabilities that were accounted for at fair value on a recurring basis.

	Balance Sheet classification	December 31, 2018	December 31, 2017	Balance Sheet classification	December 31, 2018	December 31, 2017
Derivatives designated as hedging instruments						
Foreign exchange contracts cash flow	Other current assets	$ 6	$ 5	Accrued liabilities	$ 5	$ 6
	Other non-current assets	—	—	Other non-current liabilities	1	—
Foreign exchange contracts fair value	Other current assets	1	1	Accrued liabilities	1	1
	Other non-current assets	3	—	Other non-current liabilities	—	—
Commodities contracts cash flow	Other current assets	16	25	Accrued liabilities	42	—
	Other non-current assets	2	4	Other non-current liabilities	6	—
Net investment hedge	Other non-current assets	15	—	Other non-current liabilities	—	—
		$ 43	$ 35		$ 55	$ 7
Derivatives not designated as hedging instruments						
Foreign exchange contracts	Other current assets	$ 4	$ 6	Accrued liabilities	$ 4	$ 1
Commodities contracts	Other current assets	—	22	Accrued liabilities	—	15
		$ 4	$ 28		$ 4	$ 16
Total derivatives		$ 47	$ 63		$ 59	$ 23

Fair Value Hedge Carrying Amounts

Line item in the Balance Sheet in which the hedged item is included	Carrying amount of the hedged assets/(liabilities) December 31, 2018	December 31, 2017
Cash and cash equivalents	$ 1	$ 1
Receivables, net	15	15
Accrued liabilities	(13)	(12)

Offsetting of Derivative Assets and Liabilities

Certain derivative financial instruments are subject to agreements with counterparties similar to master netting arrangements and are eligible for offset. The Company has made an accounting policy election not to offset the fair values of these instruments. In the table below, the aggregate fair values of the Company's derivative assets and liabilities are presented on both a gross and net basis, where appropriate.

	Gross amounts recognized in the Balance Sheet	Gross amounts not offset in the Balance Sheet	Net amount
Balance at December 31, 2018			
Derivative assets	$ 47	$ 19	$ 28
Derivative liabilities	59	19	40
Balance at December 31, 2017			
Derivative assets	$ 63	$ 17	$ 46
Derivative liabilities	23	17	6

Notional Values of Outstanding Derivative Instruments

The aggregate U.S. dollar-equivalent notional values of outstanding derivative instruments in the Consolidated Balance Sheets were:

	December 31, 2018	December 31, 2017
Derivatives in cash flow hedges:		
Foreign exchange	$ 820	$ 864
Commodities	428	276
Derivatives in fair value hedges:		
Foreign exchange	74	60
Derivatives not designated as hedges:		
Foreign exchange	796	575
Commodities	—	40

O. Asbestos-Related Liabilities

Crown Cork & Seal Company, Inc. (“Crown Cork”) is one of many defendants in a substantial number of lawsuits filed throughout the United States by persons alleging bodily injury as a result of exposure to asbestos. These claims arose from the insulation operations of a U.S. company, the majority of whose stock Crown Cork purchased in 1963. Approximately ninety days after the stock purchase, this U.S. company sold its insulation assets and was later merged into Crown Cork.

Prior to 1998, amounts paid to asbestos claimants were covered by a fund made available to Crown Cork under a 1985 settlement with carriers insuring Crown Cork through 1976, when Crown Cork became self-insured. The fund was depleted in 1998 and the Company has no remaining coverage for asbestos-related costs.

The states of Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Michigan, Mississippi, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, West Virginia, Wisconsin and Wyoming enacted legislation that limits asbestos-related liabilities under state law of companies such as Crown Cork that allegedly incurred these liabilities because they are successors by corporate merger to companies that had been involved with asbestos. The legislation, which applies to future and, with the exception of Arkansas, Georgia, South Carolina, South Dakota, West Virginia and Wyoming, pending claims at the time of enactment, caps asbestos-related liabilities at the fair market value of the predecessor's total gross assets adjusted for inflation. Crown Cork has paid significantly more for asbestos-related claims than the total value of its predecessor's assets adjusted for inflation. Crown Cork has integrated the legislation into its claims defense strategy. The Company cautions, however, that the legislation may be challenged and there can be no assurance regarding the ultimate effect of the legislation on Crown Cork.

In June 2003, the State of Texas enacted legislation that limits the asbestos-related liabilities in Texas courts of companies such as Crown Cork that allegedly incurred these liabilities because they are successors by corporate merger to companies that had been involved with asbestos. The Texas legislation, which applies to future claims and pending claims, caps asbestos-related liabilities at the total gross value of the predecessor’s assets adjusted for inflation. Crown Cork has paid significantly more for asbestos-related claims than the total adjusted value of its predecessor’s assets.

In October 2010, the Texas Supreme Court reversed a lower court decision, Barbara Robinson v. Crown Cork & Seal Company, Inc., No. 14-04-00658-CV, Fourteenth Court of Appeals, Texas, which had upheld the dismissal of an asbestos-related case against Crown Cork. The Texas Supreme Court held that the Texas legislation was unconstitutional under the Texas Constitution when applied to asbestos-related claims pending against Crown Cork when the legislation was enacted in June of 2003. The Company believes that the decision of the Texas Supreme Court is limited to retroactive application of the Texas legislation to asbestos-related cases that were pending against Crown Cork in Texas on June 11, 2003 and therefore, in its accrual, continues to assign no value to claims filed after June 11, 2003.

In December 2001, the Commonwealth of Pennsylvania enacted legislation that limits the asbestos-related liabilities of Pennsylvania corporations that are successors by corporate merger to companies involved with asbestos. The legislation limits the successor's liability for asbestos to the acquired company's asset value adjusted for inflation. Crown Cork has paid significantly more for asbestos-related claims than the acquired company's adjusted asset value. In November 2004, the legislation was amended to address a Pennsylvania Supreme Court decision (Ieropoli v. AC&S Corporation, et. al., No. 117 EM 2002) which held that the statute violated the Pennsylvania Constitution due to retroactive application. The Company cautions that the limitations of the statute, as amended, are subject to litigation and may not be upheld.

The Company further cautions that an adverse ruling in any litigation relating to the constitutionality or applicability to Crown Cork of one or more statutes that limits the asbestos-related liability of alleged defendants like Crown Cork could have a material impact on the Company.

The Company's approximate claims activity for the years ended 2018, 2017 and 2016 were as follows:

	2018	2017	2016
Beginning claims	55,500	55,500	54,500
New claims	2,000	2,500	2,500
Settlements or dismissals	(1,500)	(2,500)	(1,500)
Ending claims	56,000	55,500	55,500

The Company's cash payments during the years ended 2018, 2017, and 2016 were as follows:

	2018	2017	2016
Asbestos-related payments	$ 21	$ 30	$ 30
Settled claims payments (included in asbestos-related payments above)	15	24	23

In the fourth quarter of each year, the Company performs an analysis of outstanding claims and categorizes by year of exposure and state filed. As of December 31, 2018 and December 31, 2017, the Company's outstanding claims were:

	2018	2017
Claimants alleging first exposure after 1964	16,500	16,500
Claimants alleging first exposure before or during 1964 filed in:		
Texas	13,000	13,000
Pennsylvania	1,500	1,500
Other states that have enacted asbestos legislation	6,000	6,000
Other states	19,000	18,500
Total claims outstanding	56,000	55,500

The outstanding claims in each period exclude approximately 19,000 inactive claims. Due to the passage of time, the Company considers it unlikely that the plaintiffs in these cases will pursue further action against the Company. The exclusion of these inactive claims had no effect on the calculation of the Company's accrual as the claims were filed in states, as described above, where the Company's liability is limited by statute.

With respect to claimants alleging first exposure to asbestos before or during 1964, the Company does not include in its accrual any amounts for settlements in states where the Company's liability is limited by statute except for certain pending claims in Texas as described earlier.

With respect to post-1964 claims, regardless of the existence of asbestos legislation, the Company does not include in its accrual any amounts for settlement of these claims because of increased difficulty of establishing identification of relevant insulation products as the cause of injury. Given its settlement experience with post-1964 claims, the Company does not believe that an adverse ruling in the Texas or Pennsylvania asbestos litigation cases, or in any other state that has enacted asbestos legislation, would have a material impact on the Company with respect to such claims.

As of December 31, the percentage of outstanding claims related to claimants alleging serious diseases (primarily mesothelioma and other malignancies) were as follows:

	2018	2017	2016
Total claims	22%	22%	22%
Pre-1964 claims in states without asbestos legislation	41%	41%	41%

Crown Cork has entered into arrangements with plaintiffs' counsel in certain jurisdictions with respect to claims which are not yet filed, or asserted, against it. However, Crown Cork expects claims under these arrangements to be filed or asserted against Crown Cork in the future. The projected value of these claims is included in the Company's estimated liability as of December 31, 2018.

Approximately 81% of the claims outstanding at the end of 2018 were filed by plaintiffs who do not claim a specific amount of damages or claim a minimum amount as established by court rules relating to jurisdiction; approximately 16% were filed by plaintiffs who claim damages of less than $5; approximately 3% were filed by plaintiffs who claim damages from $5 to less than $100 (35% of whom claim damages less than $25) and 13 claims were filed by plaintiffs who claim damages in excess of $100.

As of December 31, 2018, the Company's accrual for pending and future asbestos-related claims and related legal costs was $295, including $251 for unasserted claims. The Company determines its accrual without limitation to a specified time period. It is reasonably possible that the actual loss could be in excess of the Company's accrual. However, the Company is unable to estimate the reasonably possible loss in excess of its accrual due to uncertainty in the following assumptions that underlie the Company's accrual and the possibility of losses in excess of such accrual: the amount of damages sought by the claimant, the Company and claimant's willingness to negotiate a settlement, the terms of settlements of other defendants with asbestos-related liabilities, the bankruptcy filings of other defendants (which may result in additional claims and higher settlements for non-bankrupt defendants), the nature of pending and future claims (including the seriousness of alleged disease, whether claimants allege first exposure to asbestos before or during 1964 and the claimant's ability to demonstrate the alleged link to Crown Cork), the volatility of the litigation environment, the defense strategies available to the Company, the level of future claims, the rate of receipt of claims, the jurisdiction in which claims are filed, and the effect of state asbestos legislation (including the validity and applicability of the Pennsylvania legislation to non-Pennsylvania jurisdictions, where the substantial majority of the Company's asbestos cases are filed).

P. Commitments and Contingent Liabilities

The Company, along with others in most cases, has been identified by the EPA or a comparable state environmental agency as a Potentially Responsible Party ("PRP") at a number of sites and has recorded aggregate accruals of $7 for its share of estimated future remediation costs at these sites. The Company has been identified as having either directly or indirectly disposed of commercial or industrial waste at the sites subject to the accrual, and where appropriate and supported by available information, generally has agreed to be responsible for a percentage of future remediation costs based on an estimated volume of materials disposed in proportion to the total materials disposed at each site. The Company has not had monetary sanctions imposed nor has the Company been notified of any potential monetary sanctions at any of the sites.

The Company has also recorded aggregate accruals of $8 for remediation activities at various worldwide locations that are owned by the Company and for which the Company is not a member of a PRP group. Although the Company believes its accruals are adequate to cover its portion of future remediation costs, there can be no assurance that the ultimate payments will not exceed the amount of the Company's accruals and will not have a material effect on its results of operations, financial position and cash flow. Any possible loss or range of potential loss that may be incurred in excess of the recorded accruals cannot be estimated.

In March 2015, the Bundeskartellamt, or German Federal Cartel Office ("FCO"), conducted unannounced inspections of the premises of several metal packaging manufacturers, including a German subsidiary of the Company. The local court order authorizing the inspection cited FCO suspicions of anti-competitive agreements in the German market for the supply of metal packaging products. The Company conducted an internal investigation into the matter and discovered instances of inappropriate conduct by certain employees of German subsidiaries of the Company. The Company cooperated with the FCO and submitted a leniency application with the FCO which disclosed the findings of its internal investigation to date. In April 2018, the FCO discontinued its national investigation and referred the matter to the European Commission (the "Commission"). Following the referral, Commission officials conducted unannounced inspections of the premises of several metal packaging manufacturers, including Company subsidiaries in Germany, France and the United Kingdom.

The Commission's investigation is ongoing and, to date, the Commission has not officially charged the Company or any of its subsidiaries with violations of competition law. The Company is cooperating with the Commission and submitted a leniency application with the Commission with respect to the findings of the investigation in Germany referenced above. This application may lead to the reduction of possible future penalties. At this stage of the investigation the Company believes that a loss is probable but is unable to predict the ultimate outcome of the Commission's investigation and is unable to estimate the loss or possible range of losses that could be incurred, and has therefore not recorded a charge in connection with the actions by the Commission. If the Commission finds that the Company or any of its subsidiaries violated competition law, fines levied by the Commission could be material to the Company's operating results and cash flows for the periods in which they are resolved or become reasonably estimable.

In March 2017, U.S. Customs and Border Protection ("CBP") at the Port of Milwaukee issued a penalty notification alleging that certain of the Company's subsidiaries intentionally misclassified the importation of certain goods into the U.S. during the period 2004-2009. CBP initially assessed a penalty of $18 and subsequently mitigated to $6. The Company has acknowledged to CBP that the goods were misclassified and has paid all related duties. The Company has asserted that the misclassification was unintentional and disputes the penalty assessment. At the present time, based on the information available, the Company does not believe that a loss for the alleged intentional misclassification is probable. There can be no assurance the Company will be successful in contesting the assessed penalty.

The Company and its subsidiaries are also subject to various other lawsuits and claims with respect to labor, environmental, securities, vendor and other matters arising out of the Company's normal course of business. While the impact on future financial results is not subject to reasonable estimation because considerable uncertainty exists, management believes that the ultimate liabilities resulting from such lawsuits and claims will not materially affect the Company's consolidated earnings, financial position or cash flow. The Company has various commitments to purchase materials, supplies and utilities as part of the ordinary conduct of business.

The Company's basic raw materials for its products are steel and aluminum, both of which are purchased from multiple sources. The Company is subject to fluctuations in the cost of these raw materials and has periodically adjusted its selling prices to reflect these movements. There can be no assurance, however, that the Company will be able to fully recover any increases or fluctuations in raw material costs from its customers. The Company also has commitments for standby letters of credit and for purchases of capital assets.

At December 31, 2018, the Company was party to certain indemnification agreements covering environmental remediation, lease payments and other potential costs associated with properties sold or businesses divested. The Company accrues for costs related to these items when it is probable that a liability has been incurred and the amount can be reasonably estimated.

Q. Other Non-Current Liabilities

	2018	2017
Asbestos liabilities	$ 270	$ 285
Deferred taxes	399	202
Postemployment benefits	22	24
Income taxes payable	26	22
Environmental	12	12
Fair value of derivatives	7	—
Other	127	140
	$ 863	$ 685

Income taxes payable includes unrecognized tax benefits as discussed in Note S.

R. Pension and Other Postretirement Benefits

Pensions. The Company sponsors various pension plans covering certain U.S. and non-U.S. employees, and participates in certain multi-employer pension plans. The benefits under the Company plans are based primarily on years of service and either the employees' remuneration near retirement or a fixed dollar multiple.

A measurement date of December 31 was used for all plans presented below.

The components of pension expense were as follows:

U.S. Plans	2018	2017	2016
Service cost	$ 17	$ 14	$ 14
Interest cost	47	50	50
Expected return on plan assets	(85)	(83)	(91)
Settlements	—	—	14
Amortization of actuarial loss	51	52	50
Amortization of prior service cost	1	1	1
Net periodic cost	$ 31	$ 34	$ 38

Non-U.S. Plans	2018	2017	2016
Service cost	$ 26	$ 22	$ 21
Interest cost	75	75	101
Expected return on plan assets	(159)	(146)	(157)
Settlements	38	—	—
Curtailments	—	(3)	—
Amortization of actuarial loss	45	42	50
Amortization of prior service credit	(11)	(11)	(12)
Net periodic cost / (benefit)	$ 14	$ (21)	$ 3

The settlement charge in 2018 arose from the payment of lump sum buy-outs to settle certain pension obligations using plan assets.

Additional pension expense of $5 was recognized in each of 2018, 2017 and 2016 for multi-employer plans.

The projected benefit obligations, accumulated benefit obligations, plan assets and funded status of the Company's U.S. and non-U.S. plans were as follows:

	U.S. Plans		Non-U.S. Plans	
	2018	2017	2018	2017
Projected Benefit Obligations				
Benefit obligations at January 1	$ 1,499	$ 1,482	$ 3,507	$ 3,283
Service cost	17	14	26	22
Interest cost	47	50	75	75
Plan participants’ contributions	—	—	4	3
Amendments	—	4	—	—
Settlements	—	—	(121)	(7)
Actuarial loss	(83)	51	(199)	39
Acquisitions	—	—	148	—
Benefits paid	(109)	(102)	(150)	(214)
Foreign currency translation	—	—	(188)	306
Benefit obligations at December 31	$ 1,371	$ 1,499	$ 3,102	$ 3,507
Plan Assets				
Fair value of plan assets at January 1	$ 1,220	$ 1,156	$ 3,665	$ 3,152
Actual return on plan assets	(102)	162	(39)	134
Employer contributions	3	4	16	290
Plan participants’ contributions	—	—	4	3
Settlements	—	—	(121)	(7)
Acquisitions	—	—	90	—
Benefits paid	(109)	(102)	(150)	(214)
Foreign currency translation	—	—	(201)	307
Fair value of plan assets at December 31	$ 1,012	$ 1,220	$ 3,264	$ 3,665
Funded status	$ (359)	$ (279)	$ 162	$ 158
Accumulated benefit obligations at December 31	$ 1,327	$ 1,445	$ 3,009	$ 3,418

Information for pension plans with accumulated benefit obligations in excess of plan assets was as follows:

U.S. Plans	2018	2017
Projected benefit obligations	$ 1,371	$ 1,499
Accumulated benefit obligations	1,327	1,445
Fair value of plan assets	1,012	1,220

Non-U.S. Plans	2018	2017
Projected benefit obligations	$ 363	$ 247
Accumulated benefit obligations	329	223
Fair value of plan assets	167	94

The Company’s investment strategy in its U.S. plan is designed to generate returns that are consistent with providing benefits to plan participants within the risk tolerance of the plan. Asset allocation is the primary determinant of return levels and investment risk exposure. The assets of the plan are broadly diversified in terms of securities and security types in order to limit the potential of large losses from any one security.

The strategic ranges for asset allocation in the U.S. plan are as follows:

U.S. equities	38%	to	48%
International equities	12%	to	18%
Fixed income	15%	to	25%
Balanced funds	12%	to	18%
Real estate	5%	to	10%

The Company's investment strategy in its U.K. plan, the largest non-U.S. plan, is designed to achieve a funding level of 100% within the next 8 years by targeting an expected return of 2.0% annually in excess of the expected growth in the liabilities. The Company seeks to achieve this return with a risk level commensurate with a 5% chance of the funding level falling between 4% and 7% in any one year. The strategic ranges for asset allocation in the U.K. plan are as follows:

Investment grade credit	30%	to	90%
Equities	0%	to	30%
Hedge funds	0%	to	10%
Real estate	0%	to	5%
Alternative credit	0%	to	20%
Other	0%	to	15%

Pension assets are classified into three levels. Level 1 asset values are derived from quoted prices which are available in active markets as of the report date. Level 2 asset values are derived from other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the report date. Level 3 asset values are derived from unobservable pricing inputs that are not corroborated by market data or other objective sources.

Level 1 Investments

Equity securities are valued at the latest quoted prices taken from the primary exchange on which the security trades. Mutual funds are valued at the net asset value (NAV) of shares held at year-end.

Level 2 Investments

Fixed income securities, including government issued debt, corporate debt, asset-backed and structured debt securities are valued using the latest bid prices or valuations based on a matrix system (which considers such factors as benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and other reference data including market research publications). Derivatives, which consist mainly of interest rate swaps, are valued using a discounted cash flow pricing model based on observable market data.

Level 3 Investments

Hedge funds and private equity funds are valued at the NAV at year-end. The values assigned to private equity funds are based upon assessments of each underlying investment, incorporating valuations that consider the evaluation of financing and sale transactions with third parties, expected cash flows and market-based information, including comparable transactions, and performance multiples among other factors. Real estate investments are based on third party appraisals.

Investments Measured Using NAV per Share Practical Expedient

The investment funds' portfolio invested in the following: Global Equity, that invests in equity securities of various market sectors including industrial materials, consumer discretionary goods and services, financial infrastructure, technology, and health care; Emerging Markets that invest in equity markets within financial services, consumer goods and services, energy, and technology; and Fixed Income.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair value. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in different fair value measurements at the reporting date.

The Company's assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation of the fair value of assets and their placement within the fair value hierarchy. The levels assigned to the defined benefit plan assets as of December 31, 2018 and 2017 are summarized in the tables below:

	2018		
	U.S. plan assets	Non-U.S. plan assets	Total
Level 1			
Cash and cash equivalents	$ 34	$ 225	$ 259
Global large cap equity	—	27	27
U.S. large cap equity	66	3	69
U.S. mid/small cap equity	182	16	198
Mutual funds – global equity	133	—	133
Mutual funds – U.S. equity	188	—	188
Mutual funds – fixed income	104	—	104
	707	271	978
Level 2			
Government issued debt securities	—	341	341
Corporate debt securities	49	212	261
Asset backed securities	—	2	2
Structured debt	—	699	699
Insurance contracts	—	105	105
Derivatives	—	103	103
Investment funds – fixed income	—	411	411
Investment funds – global equity	—	268	268
	49	2,141	2,190
Level 3			
Investment funds – real estate	94	196	290
Hedge funds	—	113	113
Private equity	9	94	103
Real estate – direct	20	7	27
	123	410	533
Total assets in fair value hierarchy	879	2,822	3,701
Investments measured at NAV Practical Expedient (a)			
Investment funds – fixed income	98	112	210
Investment funds – global equity	14	43	57
Investment funds – emerging markets	20	—	20
Hedge funds	—	282	282
	132	437	569
Total investments at fair value	$ 1,011	$ 3,259	$ 4,270

	2017		
	U.S. plan assets	Non-U.S. plan assets	Total
Level 1			
Cash and cash equivalents	$ 13	$ 304	$ 317
Global large cap equity	—	34	34
U.S. large cap equity	82	32	114
Global mid/small cap equity	—	10	10
U.S. mid/small cap equity	247	32	279
Mutual funds – global equity	175	—	175
Mutual funds – U.S. equity	225	—	225
Mutual funds – fixed income	93	—	93
	835	412	1,247
Level 2			
Government issued debt securities	50	556	606
Corporate debt securities	76	4	80
Asset backed securities	9	—	9
Structured debt	—	904	904
Insurance contracts	—	18	18
Derivatives	—	136	136
Investment funds – fixed income	3	482	485
Investment funds – global equity	—	132	132
	138	2,232	2,370
Level 3			
Investment funds – real estate	94	64	158
Hedge funds	—	189	189
Private equity	15	132	147
Real estate – direct	18	6	24
	127	391	518
Total assets in fair value hierarchy	1,100	3,035	4,135
Investments measured at NAV Practical Expedient (a)			
Investment funds – fixed income	76	123	199
Investment funds – global equity	19	183	202
Investment funds – emerging markets	24	—	24
Hedge funds	—	251	251
Investment funds – real estate	—	68	68
	119	625	744
Total investments at fair value	$ 1,219	$ 3,660	$ 4,879

(a) In accordance with ASU No. 2015-07, certain investments that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy.

Accrued income excluded from the tables above was as follows:

	2018	2017
U.S. plan assets	$ 1	$ 1
Non-U.S. plan assets	5	5

Plan assets include $140 and $189 of the Company’s common stock at December 31, 2018 and 2017.

The following tables reconcile the beginning and ending balances of plan assets measured using significant unobservable inputs (Level 3).

	Hedge funds	Private equity	Real estate	Total
Balance at January 1, 2017	$ 207	$ 215	$ 154	$ 576
Foreign currency translation	20	19	5	44
Asset returns – assets held at reporting date	(38)	(57)	7	(88)
Asset returns – assets sold during the period	32	53	—	85
Purchases, sales and settlements, net	(32)	(83)	16	(99)
Balance at December 31, 2017	189	147	182	518
Foreign currency translation	(11)	(8)	(5)	(24)
Asset returns – assets held at reporting date	(18)	(11)	(9)	(38)
Asset returns – assets sold during the period	20	28	15	63
Purchases, sales and settlements, net	(67)	(53)	70	(50)
Asset transfers during the period	—	—	64	64
Balance at December 31, 2018	$ 113	$ 103	$ 317	$ 533

The following table presents additional information about the pension plan assets valued using net asset value as a practical expedient:

	Fair Value	Redemption Frequency	Redemption Notice Period
Balance at December 31, 2018			
Investment funds – fixed income	$ 210	Semi-monthly	1 day
Investment funds – global equity	57	Monthly	1 - 15 days
Investment funds – emerging markets	20	Daily	30 days
Hedge funds	282	Monthly	1 - 45 days
Balance at December 31, 2017			
Investment funds – fixed income	$ 199	Daily	1 day
Investment funds – global equity	202	Monthly	1 - 30 days
Investment funds – emerging markets	24	Daily	30 days
Hedge funds	251	Monthly	3 - 45 days
Investment funds – real estate	68	Weekly	2 days

The pension plan assets valued using net asset value as a practical expedient do not have any unfunded commitments.

Pension assets and liabilities included in the Consolidated Balance Sheets were:

	2018	2017
Non-current assets	$ 360	$ 313
Current liabilities	14	6
Non-current liabilities	549	434

The Company’s current liability at December 31, 2018, represents the expected required payments to be made for unfunded plans over the next twelve months. Total estimated 2019 employer contributions are $17 for the Company’s pension plans.

Changes in the net loss and prior service credit for the Company's pension plans were:

	2018		2017		2016	
	Net loss	Prior service	Net loss	Prior service	Net loss	Prior service
Balance at January 1	$ 2,057	$ (16)	$ 2,032	$ (32)	$ 2,320	$ (54)
Reclassification to net periodic benefit cost	(134)	10	(95)	14	(114)	11
Current year loss	103	—	21	—	13	—
Amendments	—	—	—	4	—	3
Foreign currency translation	(64)	—	99	(2)	(187)	8
Balance at December 31	$ 1,962	$ (6)	$ 2,057	$ (16)	$ 2,032	$ (32)

The estimated portions of the net losses and net prior service that are expected to be recognized as components of net periodic benefit cost / (credit) in 2019 are $96 and $(9).

Expected future benefit payments as of December 31, 2018 are:

	U.S. plans	Non-U.S. plans
2019	$ 108	$ 159
2020	109	161
2021	99	161
2022	101	165
2023	95	164
2024 - 2028	482	820

The weighted average actuarial assumptions used to calculate the benefit obligations at December 31 were:

U.S. Plans	2018	2017	2016
Discount rate	4.3%	3.7%	4.2%
Compensation increase	4.5%	4.7%	4.6%

Non-U.S. Plans	2018	2017	2016
Discount rate	2.9%	2.5%	2.7%
Compensation increase	3.2%	3.2%	3.3%

The weighted average actuarial assumptions used to calculate pension expense for each year were:

U.S. Plans	2018	2017	2016
Discount rate - service cost	3.9%	4.7%	4.9%
Discount rate - interest cost	3.2%	3.4%	3.5%
Compensation increase	4.7%	4.6%	4.6%
Long-term rate of return	7.25%	7.5%	8.0%

Non-U.S. Plans	2018	2017	2016
Discount rate - service cost	2.6%	2.8%	3.9%
Discount rate - interest cost	2.2%	2.3%	3.2%
Compensation increase	3.2%	3.3%	2.9%
Long-term rate of return	4.4%	4.5%	5.4%

The expected long-term rate of return on plan assets is determined by taking into consideration expected long-term returns associated with each major asset class based on long-term historical ranges, inflation assumptions and the expected net value from active management of the assets based on actual results.

Other Postretirement Benefit Plans. The Company sponsors unfunded plans to provide health care and life insurance benefits to certain pensioners and survivors. Generally, the medical plans pay a stated percentage of medical expenses reduced by deductibles and other coverages. Life insurance benefits are generally provided by insurance contracts. The Company reserves the right, subject to existing agreements, to change, modify or discontinue the plans. A measurement date of December 31 was used for the plans presented below.

The components of net postretirement benefits cost were as follows:

Other Postretirement Benefits	2018	2017	2016
Service cost	$ 4	$ —	$ —
Interest cost	6	6	6
Amortization of prior service credit	(37)	(40)	(41)
Amortization of actuarial loss	4	4	5
Net periodic benefit credit	$ (23)	$ (30)	$ (30)

Changes in the benefit obligations were:

	2018	2017
Benefit obligations at January 1	$ 168	$ 167
Service cost	4	—
Interest cost	6	6
Actuarial (gain) loss	(15)	4
Benefits paid	(13)	(13)
Foreign currency translation	(3)	4
Benefit obligations at December 31	$ 147	$ 168

Changes in the net loss and prior service credit for the Company’s postretirement benefit plans were:

	2018		2017		2016	
	Net loss	Prior service	Net loss	Prior service	Net loss	Prior service
Balance at January 1	$ 49	$ (142)	$ 49	$ (182)	$ 47	$ (225)
Reclassification to net periodic benefit cost	(4)	37	(4)	40	(5)	41
Current year (loss) / gain	(14)	—	4	—	7	—
Foreign currency translation	—	—	—	—	—	2
Balance at December 31	$ 31	$ (105)	$ 49	$ (142)	$ 49	$ (182)

The estimated portions of the net losses and prior service credits that are expected to be recognized as components of net periodic benefit cost/(credit) in 2019 are $3 and $(34).

Expected future benefit payments are as follows:

	Benefit Payments
2019	$ 14
2020	13
2021	13
2022	12
2023	12
2024 - 2028	52

The assumed health care cost trend rates at December 31, 2018 were as follows:

Health care cost trend rate assumed for 2019	5.3%
Rate that the cost trend rate gradually declines to	3.8%
Year that the rate reaches the rate it is assumed to remain	2035

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

	One percentage point	
	Increase	Decrease
Effect on total service and interest cost	$ 1	$ 1
Effect on postretirement benefit obligation	$ 8	$ 7

Weighted average discount rates used to calculate the benefit obligations at the end of each year and the cost for each year are presented below.

	2018	2017	2016
Benefit obligations	4.5%	3.8%	4.0%
Service cost	4.9%	5.0%	4.9%
Interest cost	4.1%	3.5%	3.6%

Employee Savings Plan. The Company sponsors a Savings Investment Plan which covers substantially all U.S. salaried employees who are at least 21 years of age. The Company matches up to 50% of 3% of a participant's compensation and the total Company contributions were $2 in each of the last three years.

Employee Stock Purchase Plan. The Company sponsors an Employee Stock Purchase Plan which covers all U.S. employees with one or more years of service who are non-officers and non-highly compensated as defined by the Internal Revenue Code. Eligible participants contribute 85% of the quarter-ending market price towards the purchase of each common share. The Company's contribution is equivalent to 15% of the quarter-ending market price. Total shares purchased under the plan in 2018 and 2017 were 32,394 and 25,511 and the Company's contributions were less than $1 in both years.

S. Income Taxes

The components of income before income taxes were as follows:

	2018	2017	2016
U.S.	$ 21	$ 10	$ (3)
Foreign	719	819	772
	$ 740	$ 829	$ 769

The provision for income taxes consisted of the following:

	2018	2017	2016
Current tax:			
U.S. federal	$ (2)	$ —	$ (1)
State and foreign	183	154	171
	$ 181	$ 154	$ 170
Deferred tax:			
U.S. federal	$ 31	$ 217	$ 19
State and foreign	4	30	(3)
	35	247	16
Total	$ 216	$ 401	$ 186

The provision for income taxes differs from the amount of income tax determined by applying the U.S. statutory federal income tax rate to pre-tax income as a result of the following items:

	2018	2017	2016
U.S. statutory rate at 21%, 35% and 35%	$ 155	$ 290	$ 269
Tax on foreign income	30	(126)	(119)
U.S. taxes on foreign income, net of credits	24	45	31
Valuation allowance changes	(1)	9	(14)
Tax contingencies	(2)	6	11
Tax law changes	4	174	3
Other items, net	6	3	5
Income tax provision	$ 216	$ 401	$ 186

The Company benefits from certain incentives in Brazil which allow it to pay reduced income taxes. The incentives expire at various dates beginning in January 2020. These incentives increased net income attributable to the Company by $14, $14, and $13 in 2018, 2017 and 2016.

The Company paid taxes of $177, $154 and $158 in 2018, 2017 and 2016.

The Tax Act resulted in significant changes from previous tax law, including reduction of the U.S. corporate tax rate from 35% to 21%, a one-time tax imposed on the unremitted earnings of other non-U.S. subsidiaries (the "transition tax") and a limitation on the tax deduction for interest expense, net of interest income, to 30% of a U.S. corporations adjusted taxable income. As a result of the tax rate reduction, the Company recorded a provisional reduction in net deferred tax assets of $103 as of December 31, 2017 and a corresponding deferred income tax charge. Additionally, as of December 31, 2017, the Company recorded a provisional obligation of $82 for the transition tax, recorded a charge of $25 for the related usage of foreign tax credits and reversed $11 of deferred tax liabilities related to cumulative undistributed foreign earnings. The Company finalized the impact of the Tax Act in 2018 and recorded a net benefit of $2 to adjust its provisional amounts.

In 2018, the Company recorded a charge of $24 related to local taxes on the distributions of foreign earnings, which were previously asserted to be indefinitely reinvested. As of December 31, 2018 the Company has not provided deferred taxes on approximately $1,200 of earnings in certain non-U.S. subsidiaries because such earnings are indefinitely reinvested in its international operations. Upon distribution of such earnings in the form of dividends or otherwise, the Company may be subject to incremental foreign tax. It is not practicable to estimate the amount of foreign tax that might be payable.

The components of deferred taxes at December 31 are:

	2018		2017	
	Assets	Liabilities	Assets	Liabilities
Tax loss and credit carryforwards	$ 531	$ —	$ 503	$ —
Postretirement and postemployment benefits	39	—	43	—
Pensions	193	106	185	105
Property, plant and equipment	20	177	18	151
Intangible assets	—	431	—	128
Deemed repatriation tax	—	—	—	57
Asbestos	71	—	74	—
Accruals and other	88	73	87	44
Valuation allowances	(282)	—	(228)	—
Total	$ 660	$ 787	$ 682	$ 485

Tax loss and credit carryforwards expire as follows:

Year	Amount
2019	$ 21
2020	27
2021	26
2022	116
2023	12
Thereafter	213
Unlimited	116

Tax loss and credit carryforwards expiring in 2022 includes $101 of U.S. federal foreign tax credits. Tax loss and credit carryforwards expiring after 2023 includes $121 of U.S. state tax loss carryforwards and $17 U.S. federal and state tax loss carryforwards and $61 foreign tax loss carryforwards acquired with Signode. The unlimited category includes $63 of French tax loss carryforwards.

Realization of any portion of the Company's deferred tax assets is dependent upon the availability of taxable income in the relevant jurisdictions. The Company considers all sources of taxable income, including (i) taxable income in any available carry back period, (ii) the reversal of taxable temporary differences, (iii) tax-planning strategies, and (iv) taxable income expected to be generated in the future other than from reversing temporary differences. The Company also considers whether there have been cumulative losses in recent years. The Company records a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized.

The Company's valuation allowances at December 31, 2018 include $195 related to the portion of U.S. state tax loss carryforwards that the Company does not believe are more likely than not to be utilized prior to their expiration. The Company's ability to utilize state tax loss carryforwards is impacted by several factors including taxable income, expiration dates, limitations imposed by certain states on the amount of loss carryforwards that can be used in a given year to offset taxable income and whether the state permits the Company to file a combined return.

In 2016, the Company recorded a net benefit of $31 to release the valuation allowance against its net deferred tax assets in Canada. The Company's operations in Canada returned to profitability in part due to benefits from recent restructuring actions and improved cost performance. Based on current projections, the Company believes it is more likely than not that it will realize the deferred tax assets. The Company's loss carryforwards in Canada expire at various dates beginning in 2026. If future changes impact the Company's profitability in Canada, it is possible that the Company may record an additional valuation allowance of up to $12.

Management's estimates of the appropriate valuation allowance in any jurisdiction involve a number of assumptions and judgments, including the amount and timing of future taxable income. Should future results differ from management's estimates, it is possible there could be future adjustments to the valuation allowances that would result in an increase or decrease in tax expense in the period such changes in estimates are made.

A reconciliation of unrecognized tax benefits follows:

	2018	2017	2016
Balance at January 1	$ 29	$ 27	$ 28
Additions related to acquisitions	13	—	—
Additions for prior year tax positions	1	6	13
Reductions to prior period tax positions	—	(2)	—
Lapse of statute of limitations	(3)	—	(2)
Settlements	(2)	(4)	(12)
Foreign currency translation	(1)	2	—
Balance at December 31	$ 37	$ 29	$ 27

The Company's unrecognized tax benefits include potential liabilities related to transfer pricing, foreign withholding taxes, and non-deductibility of expenses and exclude $3 of interest and penalties as of December 31, 2018.

In 2016, the Spanish tax authorities concluded audits of Mivisa's Spanish tax operations for the years 2009 to 2014. In connection with the audits, the Company recognized a charge of $8 to settle certain tax contingencies.

The total interest and penalties recorded in income tax expense was less than $1 in 2018, 2017 and 2016. As of December 31, 2018, unrecognized tax benefits of $37, if recognized, would affect the Company's effective tax rate.

The Company’s unrecognized tax benefits are not expected to increase over the next twelve months and are expected to decrease as open tax years lapse or claims are settled. The Company is unable to estimate a range of reasonably possible changes in its unrecognized tax benefits in the next twelve months as it is unable to predict when, or if, the tax authorities will commence their audits, the time needed for the audits, and the audit findings that will require settlement with the applicable tax authorities, if any.

The tax years that remained subject to examination by major tax jurisdictions as of December 31, 2018 were, 2006 and subsequent years for the U.K.; 2009 and subsequent years for Spain; 2010 and subsequent years for Germany; 2013 and subsequent years for India and Mexico; 2014 and subsequent years for Brazil, Italy and the U.S.; 2015 and subsequent years for Canada; and 2016 and subsequent years for France. In addition, tax authorities in certain jurisdictions, including France and the U.S., may examine earlier years when tax carryforwards that were generated in those years are subsequently utilized.

T. Capital Stock

A summary of common share activity for the years ended December 31 follows (in shares):

	2018	2017	2016
Common shares outstanding at January 1	134,275,609	139,840,228	139,441,298
Shares repurchased	(92,167)	(6,157,010)	(162,563)
Shares issued upon exercise of employee stock options	—	299,050	348,640
Restricted stock issued to employees, net of forfeitures	958,672	269,025	187,209
Shares issued to non-employee directors	31,834	24,316	25,644
Common shares outstanding at December 31	135,173,948	134,275,609	139,840,228

In December 2016, the Company's Board of Directors authorized the repurchase of an aggregate amount of $1 billion of Company common stock through the end of 2019. Share repurchases under the Company's program may be made in the open market or through privately negotiated transactions, and at times and in such amounts as management deems appropriate. The timing and actual number of shares repurchased will depend on a variety of factors including price, corporate and regulatory requirements and other market conditions. As of December 31, 2018, $669 of the Company’s outstanding common stock may be repurchased under the program.

The Company is not obligated to acquire any shares of its common stock and the share repurchase program may be suspended or terminated at any time at the Company's discretion. Share repurchases are subject to the terms of the Company's debt agreements, market conditions and other factors. The repurchased shares, if any, are expected to be used for the Company's stock-based benefit plans, as required, and to offset dilution resulting from the issuance of shares thereunder.

The Board of Directors has the authority to issue, at any time or from time to time, up to 30 million shares of preferred stock and has authority to fix the designations, number and voting rights, preferences, privileges, limitations, restrictions, conversion rights and other special or relative rights, if any, of any class or series of any class of preferred stock that may be desired, provided the shares of any such class or series of preferred stock shall not be entitled to more than one vote per share when voting as a class with holders of the Company's common stock.

The Company’s ability to pay dividends and repurchase its common stock is limited by certain restrictions in its debt agreements. These restrictions are subject to a number of exceptions, however, allowing the Company to make otherwise restricted payments.

U. Accumulated Other Comprehensive Loss Attributable to Crown Holdings

The following table provides information about the changes in each component of accumulated other comprehensive income for the years ended December 31, 2018 and 2017.

	Defined benefit plans	Foreign currency translation	Gains and losses on cash flow hedges	Total
Balance at January 1, 2017	$ (1,524)	$ (1,879)	$ 3	$ (3,400)
Other comprehensive income / (loss) before reclassifications	(92)	198	41	147
Amounts reclassified from accumulated other comprehensive income	33	—	(21)	12
Other comprehensive income / (loss)	(59)	198	20	159
Balance at December 31, 2017	(1,583)	(1,681)	23	(3,241)
Cumulative effect of change in accounting principle			3	3
Other comprehensive loss before reclassifications	(20)	(136)	(35)	(191)
Amounts reclassified from accumulated other comprehensive income	70	—	(15)	55
Other comprehensive income / (loss)	50	(136)	(47)	(133)
Balance at December 31, 2018	$ (1,533)	$ (1,817)	$ (24)	$ (3,374)

See Note N and Note R for further details of amounts reclassified from accumulated other comprehensive income related to cash flow hedges and defined benefit plans.

V. Stock-Based Compensation

The Company’s shareholder-approved stock-based incentive compensation plans provide for the granting of awards in the form of stock options, deferred stock, restricted stock or stock appreciation rights (“SARs”). The awards may be subject to the achievement of certain performance goals as determined by the Compensation Committee designated by the Company’s Board of Directors. There have been no awards of SARs. At December 31, 2018, there were 3.0 million authorized shares available for future awards.

Restricted and Deferred Stock

Annually, the Company awards shares of restricted stock to certain senior executives in the form of time-vested restricted stock and performance-based shares. The time-vested restricted stock vests ratably over three years.

The performance-based share awards are subject to either a market condition or a performance condition. For awards subject to a market condition, the metric is the Company’s Total Shareholder Return (“TSR”), which includes share price appreciation and dividends paid, during the three-year term of the award measured against the TSR of a peer group of companies. For awards subject to a performance condition, the metric is the Company's average return on invested capital over the three-year term.

The performance-based shares cliff vest at the end of three years. The number of performance-based shares that will ultimately vest is based on the level of performance achieved, ranging between 0% and 200% of the shares originally awarded and is settled in shares of common stock. Participants who terminate employment because of retirement, disability or death receive accelerated vesting of their time-vested awards to the date of termination. However, restrictions lapse on performance-based awards, if at all, on the original vesting date.

The Company also issues shares of time-vesting restricted stock to U.S. employees and deferred stock to non-U.S. employees which vest ratably over three to five years.

A summary of restricted and deferred stock activity follows:

	Number of shares
Non-vested shares outstanding at January 1, 2018	1,053,842
Awarded:	
Time-vesting	1,515,700
Performance-based	150,069
Released:	
Time-vesting	(353,555)
Performance-based	—
Forfeitures:	
Time-vesting	(63,575)
Performance-based	(159,738)
Non-vested shares outstanding at December 31, 2018	2,142,743

The average grant-date fair value of restricted stock awarded in 2018, 2017 and 2016 follows:

	2018	2017	2016
Time-vested	$ 44.48	$ 55.55	$ 51.04
Performance-based	57.24	51.90	51.18

The fair values of the performance-based awards that include a market condition were calculated using a Monte Carlo valuation model and the following weighted average assumptions:

	2018	2017	2016
Risk-free interest rate	2.0%	1.4%	1.2%
Expected term (years)	3	3	3
Expected stock price volatility	19.9%	21.1%	19.8%

At December 31, 2018, unrecognized compensation cost related to outstanding restricted and deferred stock was $72. The weighted average period over which the expense is expected to be recognized is 3.4 years. The aggregate market value of the shares released on the vesting dates was $16 in 2018.

The Company maintains a Stock-Based Compensation Plan for Non-Employee Directors. Under the plan a portion of the non-employee directors' quarterly compensation is provided in the form of restricted stock. During 2018, $1 of stock-based compensation was recognized under this plan.

W. Earnings Per Share

The following table summarizes basic and diluted earnings per share ("EPS"). Basic EPS excludes all potentially dilutive securities and is computed by dividing net income attributable to Crown Holdings by the weighted average number of common shares outstanding during the period. Diluted EPS includes the effect of stock options and restricted stock as calculated under the treasury stock method.

	2018	2017	2016
Net income attributable to Crown Holdings	$ 439	$ 323	$ 496
Weighted average shares outstanding (in millions):			
Basic	133.64	135.29	138.53
Add: dilutive stock options and restricted stock	0.24	0.32	0.78
Diluted	133.88	135.61	139.31
Basic EPS	$ 3.28	$ 2.39	$ 3.58
Diluted EPS	$ 3.28	$ 2.38	$ 3.56
Contingently issuable shares excluded from the computation of diluted earnings per share because the effect would have been anti-dilutive	0.9	—	0.5

X. Segment Information

The Company’s business is generally organized by product line and geography within four divisions: Americas, Europe, Asia Pacific and Transit Packaging. Within the Americas and European divisions, the Company has determined that it has the following reportable segments: Americas Beverage within the Americas, and European Beverage and European Food within Europe. The Company's Asia Pacific and Transit Packaging Divisions are reportable segments.

Non-reportable segments include the Company’s aerosol can businesses in North America and Europe, the Company's food can business in North America, the Company’s promotional packaging business in Europe and the Company’s tooling and equipment operations in the U.S. and United Kingdom.

The Company evaluates performance and allocates resources based on segment income. Segment income, which is not a defined term under GAAP, is defined by the Company as income from operations adjusted to exclude intangibles amortization charges, provisions for asbestos and restructuring and other, the impact of fair value adjustments related to inventory acquired in an acquisition and the timing impact of hedge ineffectiveness. Segment income should not be considered in isolation or as a substitute for net income data prepared in accordance with GAAP and may not be comparable to calculations of similarly titled measures by other companies.

Effective January 1, 2018, the Company made changes to its segment reporting to reflect refinements to its internal reporting. The North America Food segment was classified as a non-reportable segment. Additionally, the Company revised its definition of segment income to also exclude intangibles amortization charges. Prior period segment income amounts have been recast to conform to current year presentation of intangible amortization charges and new guidance related to the presentation of pension and other postretirement benefit costs discussed in Note A.

The tables below present information about operating segments for the three years ended December 31, 2018, 2017 and 2016:

2018	External sales	Inter-segment sales	Segment assets	Depreciation	Capital expenditures	Segment income
Americas Beverage	$ 3,282	$ 53	$ 3,388	$ 84	$ 111	$ 454
European Beverage	1,489	1	1,705	38	121	193
European Food	1,982	69	2,792	39	17	257
Asia Pacific	1,316	—	1,558	48	130	186
Transit Packaging	1,800	5	4,415	43	24	$ 255
Total reportable segments	9,869	128	13,858	252	403	$ 1,345
Non-reportable segments	1,282	142	1,066	18	27	
Corporate and unallocated items	—	—	338	7	32	
Total	$ 11,151	$ 270	$ 15,262	$ 277	$ 462	

2017	External sales	Inter-segment sales	Segment assets	Depreciation	Capital expenditures	Segment income
Americas Beverage	$ 2,928	$ 34	$ 3,253	$ 75	$ 167	$ 470
European Beverage	1,457	2	1,631	35	109	235
European Food	1,935	70	2,964	35	45	264
Asia Pacific	1,177	—	1,355	42	123	168
Total reportable segments	7,497	106	9,203	187	444	$ 1,137
Non-reportable segments	1,201	116	1,039	17	27	
Corporate and unallocated items	—	—	421	4	27	
Total	$ 8,698	$ 222	$ 10,663	$ 208	$ 498	

2016	External sales	Inter-segment sales	Segment assets	Depreciation	Capital expenditures	Segment income
Americas Beverage	$ 2,757	$ 50	$ 2,886	$ 71	$ 220	$ 456
European Beverage	1,420	3	1,381	32	94	240
European Food	1,855	59	2,557	36	42	260
Asia Pacific	1,116	—	1,161	40	80	152
Total reportable segments	7,148	112	7,985	179	436	$ 1,108
Non-reportable segments	1,136	153	1,034	16	23	
Corporate and unallocated items	—	—	580	11	14	
Total	$ 8,284	$ 265	$ 9,599	$ 206	$ 473	

Intersegment sales primarily include sales of ends and components used to manufacture cans, such as printed and coated metal, as well as parts and equipment used in the manufacturing process.

Corporate and unallocated items include corporate and division administrative costs, technology costs, and unallocated items such as the U.S. and U.K. pension plan costs.

A reconciliation of segment income of reportable segments to income before income taxes for the three years ended December 31, 2018, 2017 and 2016 follows:

	2018	2017	2016
Segment income of reportable segments	$ 1,345	$ 1,137	$ 1,108
Segment income of non-reportable segments	122	123	123
Corporate and unallocated items	(139)	(143)	(142)
Provision for asbestos	—	(3)	(21)
Restructuring and other	(44)	(51)	(30)
Amortization of intangibles	(148)	(39)	(41)
Loss from early extinguishments of debt	—	(7)	(37)
Fair value adjustment to inventory	(40)	—	—
Other pension and postretirement	25	53	24
Interest expense	(384)	(252)	(243)
Interest income	21	15	12
Foreign exchange	(18)	(4)	16
Income before income taxes	$ 740	$ 829	$ 769

For the three years ended December 31, 2018, 2017 and 2016, intercompany profit of $7, $8 and $13 was eliminated within segment income of non-reportable segments.

For the three years ended December 31, 2018, 2017 and 2016, no one customer accounted for more than 10% of the Company's consolidated net sales.

Sales by major product were:

	2018	2017	2016
Metal beverage cans and ends	$ 5,551	$ 5,085	$ 4,834
Metal food cans and ends	2,452	2,331	2,213
Transit packaging	1,800	—	—
Other metal packaging	884	887	877
Other products	464	395	360
Consolidated net sales	$ 11,151	$ 8,698	$ 8,284

The following table provides sales and long-lived asset information for the major countries in which the Company operates. Long-lived assets includes property, plant and equipment attributed to the specific countries listed below.

	Net Sales			Long-Lived Assets	
	2018	2017	2016	2018	2017
United States	$ 3,018	$ 1,931	$ 1,918	$ 694	$ 516
Mexico	763	699	688	434	388
Brazil	732	652	523	350	335
United Kingdom	685	600	559	139	150
Spain	666	649	645	346	323
Other	5,287	4,167	3,951	1,782	1,527
Consolidated total	$ 11,151	$ 8,698	$ 8,284	$ 3,745	$ 3,239

Y. Condensed Combining Financial Information

Crown Cork & Seal Company, Inc. (Issuer), a wholly owned subsidiary, has $350 principal amount of 7.375% senior notes due 2026 and $40 principal amount of 7.5% senior notes due 2096 outstanding that are fully and unconditionally guaranteed by Crown Holdings, Inc. (Parent). No other subsidiary guarantees the debt. The following condensed combining financial statements:

- Statements of Comprehensive Income and Cash Flows for the years ended December 31, 2018, 2017, 2016, and
- Balance Sheets as of December 31, 2018 and December 31, 2017

are presented on the following pages to comply with the Company's requirements under Rule 3-10 of Regulation S-X.

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2018
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net sales			$ 11,151		$ 11,151
Cost of products sold, excluding depreciation and amortization			9,028		9,028
Depreciation and amortization			425		425
Selling and administrative expense		$ 3	555		558
Restructuring and other	$ 9		35		44
Income from operations	(9)	(3)	1,108	—	1,096
Other pension and postretirement		7	(32)		(25)
Net interest expense		74	289		363
Foreign exchange			18		18
Income/(loss) before income taxes	(9)	(84)	833	—	740
Provision for / (benefit from) income taxes	(2)	7	211		216
Equity in net earnings of affiliates	446	456	4	$ (902)	4
Net income	439	365	626	(902)	528
Net income attributable to noncontrolling interests			(89)		(89)
Net income attributable to Crown Holdings	$ 439	$ 365	$ 537	$ (902)	$ 439
Total comprehensive income	$ 303	$ 259	$ 487	$ (660)	$ 389
Comprehensive income attributable to noncontrolling interests			(86)		(86)
Comprehensive income attributable to Crown Holdings	$ 303	$ 259	$ 401	$ (660)	$ 303

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2017
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net sales			$ 8,698		$ 8,698
Cost of products sold, excluding depreciation and amortization			7,006		7,006
Depreciation and amortization			247		247
Selling and administrative expense		$ 2	365		367
Provision for asbestos		3			3
Restructuring and other		(1)	52		51
Income from operations	—	(4)	1,028	—	1,024
Loss from early extinguishments of debt			7		7
Other pension and postretirement		7	(60)		(53)
Net interest expense		91	146		237
Foreign exchange			4		4
Income/(loss) before income taxes	—	(102)	931	—	829
Provision for / (benefit from) income taxes		194	207		401
Equity in net earnings of affiliates	$ 323	531		$ (854)	—
Net income	323	235	724	(854)	428
Net income attributable to noncontrolling interests			(105)		(105)
Net income attributable to Crown Holdings	$ 323	$ 235	$ 619	$ (854)	$ 323
Total comprehensive income	$ 482	$ 275	$ 886	$ (1,053)	$ 590
Comprehensive income attributable to noncontrolling interests			(108)		(108)
Comprehensive income attributable to Crown Holdings	$ 482	$ 275	$ 778	$ (1,053)	$ 482

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2016
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net sales			$ 8,284		$ 8,284
Cost of products sold, excluding depreciation and amortization			6,623		6,623
Depreciation and amortization			247		247
Selling and administrative expense		$ 1	365		366
Provision for asbestos		21			21
Restructuring and other		(1)	31		30
Income from operations	—	(21)	1,018	—	997
Loss from early extinguishments of debt			37		37
Other pension and postretirement		20	(44)		(24)
Net interest expense		106	125		231
Foreign exchange			(16)		(16)
Income/(loss) before income taxes	—	(147)	916	—	769
Provision for / (benefit from) income taxes		(12)	198		186
Equity in net earnings of affiliates	$ 496	529		$ (1,025)	—
Net income	496	394	718	(1,025)	583
Net income attributable to noncontrolling interests			(87)		(87)
Net income attributable to Crown Holdings	$ 496	$ 394	$ 631	$ (1,025)	$ 496
Total comprehensive income	$ 250	$ 348	$ 472	$ (733)	337
Comprehensive income attributable to noncontrolling interests			(87)		(87)
Comprehensive income attributable to Crown Holdings	$ 250	$ 348	$ 385	$ (733)	$ 250

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2018
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Assets					
Current assets					
Cash and cash equivalents			$ 607		$ 607
Receivables, net		9	1,593		1,602
Inventories			1,690		1,690
Prepaid expenses and other current assets	$ 1	$ 1	178		180
Total current assets	1	10	4,068	—	4,079
Intercompany debt receivables			3,561	$ (3,561)	—
Investments	3,458	3,764		(7,222)	—
Goodwill			4,442		4,442
Intangible assets			2,193		2,193
Property, plant and equipment, net			3,745		3,745
Other non-current assets		156	647		803
Total	$ 3,459	$ 3,930	$ 18,656	$ (10,783)	$ 15,262
Liabilities and equity					
Current liabilities					
Short-term debt			$ 89		$ 89
Current maturities of long-term debt			86		86
Accounts payable			2,732		2,732
Accrued liabilities	$ 14	$ 30	962		1,006
Total current liabilities	14	30	3,869	—	3,913
Long-term debt, excluding current maturities		388	8,129		8,517
Long-term intercompany debt	2,508	1,053		$ (3,561)	—
Postretirement and pension liabilities			683		683
Other non-current liabilities		325	538		863
Commitments and contingent liabilities					
Noncontrolling interests			349		349
Crown Holdings shareholders’ equity	937	2,134	5,088	(7,222)	937
Total equity	937	2,134	5,437	(7,222)	1,286
Total	$ 3,459	$ 3,930	$ 18,656	$ (10,783)	$ 15,262

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2017
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Assets					
Current assets					
Cash and cash equivalents			$ 424		$ 424
Receivables, net		$ 9	1,032		1,041
Inventories			1,385		1,385
Prepaid expenses and other current assets			224		224
Total current assets	—	9	3,065	—	3,074
Intercompany debt receivables			3,604	$ (3,604)	—
Investments	$ 3,120	3,448		(6,568)	—
Goodwill			3,046		3,046
Intangible assets			472		472
Property, plant and equipment, net			3,239		3,239
Other non-current assets		283	549		832
Total	$ 3,120	$ 3,740	$ 13,975	$ (10,172)	$ 10,663
Liabilities and equity					
Current liabilities					
Short-term debt			$ 62		$ 62
Current maturities of long-term debt			64		64
Accounts payable			2,367		2,367
Accrued liabilities	$ 22	$ 41	694		757
Total current liabilities	22	41	3,187	—	3,250
Long-term debt, excluding current maturities		387	4,830		5,217
Long-term intercompany debt	2,497	1,107		$ (3,604)	—
Postretirement and pension liabilities			588		588
Other non-current liabilities		336	349		685
Commitments and contingent liabilities					
Noncontrolling interests			322		322
Crown Holdings shareholders' equity	601	1,869	4,699	(6,568)	601
Total equity	601	1,869	5,021	(6,568)	923
Total	$ 3,120	$ 3,740	$ 13,975	$ (10,172)	$ 10,663

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2018
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net cash provided by/(used for) operating activities	$ (8)	$ (74)	$ 692	$ (39)	$ 571
Cash flows from investing activities					
Capital expenditures			(462)		(462)
Beneficial interest in transferred receivables			490		490
Acquisition of businesses, net of cash acquired			(3,912)		(3,912)
Foreign exchange derivatives related to acquisitions			(25)		(25)
Net investment hedges			34		34
Proceeds from sale of property, plant and equipment			36		36
Other			(4)		(4)
Net cash provided by/(used for) investing activities	—	—	(3,843)	—	(3,843)
Cash flows from financing activities					
Proceeds from long-term debt			4,082		4,082
Payments of long-term debt			(333)		(333)
Net change in revolving credit facility and short-term debt			(69)		(69)
Net change in long-term intercompany balances	11	74	(85)		—
Debt issuance costs			(70)		(70)
Common stock issued	1				1
Common stock repurchased	(4)				(4)
Dividends paid			(39)	39	—
Dividend paid to noncontrolling interests			(60)		(60)
Foreign exchange derivatives related to debt			(14)		(14)
Net cash provided by/(used for) financing activities	8	74	3,412	39	3,533
Effect of exchange rate changes on cash, cash equivalents, and restricted cash			(37)		(37)
Net change in cash, cash equivalents, and restricted cash	—	—	224	—	224
Cash, cash equivalents, and restricted cash at January 1			435		435
Cash, cash equivalents, and restricted cash at December 31	$ —	$ —	$ 659	$ —	$ 659

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2017
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net cash provided by/(used for) operating activities	$ 7	$ (58)	$ (162)	$ (38)	$ (251)
Cash flows from investing activities					
Capital expenditures			(498)		(498)
Beneficial interest in transferred receivables			1,010		1,010
Proceeds from sale of property, plant and equipment			8		8
Intercompany investing activities	235			(235)	—
Other			(24)		(24)
Net cash provided by/(used for) investing activities	235	—	496	(235)	496
Cash flows from financing activities					
Proceeds from long-term debt			1,054		1,054
Payments of long-term debt		(5)	(1,132)		(1,137)
Net change in revolving credit facility and short-term debt			95		95
Net change in long-term intercompany balances	88	63	(151)		—
Debt issuance costs			(16)		(16)
Common stock issued	9				9
Common stock repurchased	(339)				(339)
Dividends paid			(273)	273	—
Dividend paid to noncontrolling interests			(93)		(93)
Foreign exchange derivatives related to debt			27		27
Net cash provided by/(used for) financing activities	(242)	58	(489)	273	(400)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash			14		14
Net change in cash, cash equivalents, and restricted cash	—	—	(141)	—	(141)
Cash, cash equivalents, and restricted cash at January 1			576		576
Cash, cash equivalents, and restricted cash at December 31	$ —	$ —	$ 435	$ —	$ 435

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2016
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net cash provided by/(used for) operating activities	$ 63	$ (92)	$ (3)	$ (102)	$ (134)
Cash flows from investing activities					
Capital expenditures			(473)		(473)
Beneficial interest in transferred receivables			1,086		1,086
Proceeds from sale of property, plant and equipment		(1)	11		10
Intercompany investing activities	235			(235)	—
Other			10		10
Net cash provided by/(used for) investing activities	235	(1)	634	(235)	633
Cash flows from financing activities					
Proceeds from long-term debt			1,380		1,380
Payments of long-term debt			(1,914)		(1,914)
Net change in revolving credit facility and short-term debt			(32)		(32)
Net change in long-term intercompany balances	(300)	93	207		—
Premiums paid to retire debt			(22)		(22)
Debt issuance costs			(18)		(18)
Common stock issued	10				10
Common stock repurchased	(8)				(8)
Dividends paid			(337)	337	—
Dividend paid to noncontrolling interests			(80)		(80)
Contribution from noncontrolling interests			4		4
Foreign exchange derivatives related to debt			42		42
Net cash provided by/(used for) financing activities	(298)	93	(770)	337	(638)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash			(30)		(30)
Net change in cash, cash equivalents, and restricted cash	—	—	(169)	—	(169)
Cash, cash equivalents, and restricted cash at January 1			745		745
Cash, cash equivalents, and restricted cash at December 31	$ —	$ —	$ 576	$ —	$ 576

Crown Americas, LLC, Crown Americas Capital Corp. II, Crown Americas Capital Corp. III and Crown Americas Capital Corp. V (collectively, the Issuers), wholly owned subsidiaries of the Company, have outstanding $1,000 principal amount of 4.5% senior notes due 2023 and $400 principal amount of 4.25% senior notes due 2026 which are fully and unconditionally guaranteed by Crown Holdings, Inc. (Parent) and substantially all subsidiaries in the United States. The guarantors are wholly owned by the Company and the guarantees are made on a joint and several basis. The following condensed combining financial statements:

- Statements of Comprehensive Income and Cash Flows for the years ended December 31, 2018, 2017, 2016, and
- Balance Sheets as of December 31, 2018 and December 31, 2017

are presented on the following pages to comply with the Company's requirements under Rule 3-10 of Regulation S-X.

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2018
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			$ 3,426	$ 8,212	$ (487)	$ 11,151
Cost of products sold, excluding depreciation and amortization			2,932	6,583	(487)	9,028
Depreciation and amortization			117	308		425
Selling and administrative expense		$ 11	216	331		558
Restructuring and other	$ 9		11	24		44
Income from operations	(9)	(11)	150	966		1,096
Other pension and postretirement			(14)	(11)		(25)
Net interest expense		91	113	159		363
Technology royalty			(45)	45		—
Foreign exchange		(16)		19	15	18
Income/(loss) before income taxes	(9)	(86)	96	754	(15)	740
Provision for / (benefit from) income taxes	(2)	(20)	53	188	(3)	216
Equity in net earnings of affiliates	446	191	311	1	(945)	4
Net income	439	125	354	567	(957)	528
Net income attributable to noncontrolling interests				(89)		(89)
Net income attributable to Crown Holdings	$ 439	$ 125	$ 354	$ 478	$ (957)	$ 439
Total comprehensive income	$ 303	$ 62	$ 248	$ 479	$ (703)	$ 389
Comprehensive income attributable to noncontrolling interests				(86)		(86)
Comprehensive income attributable to Crown Holdings	$ 303	$ 62	$ 248	$ 393	$ (703)	$ 303

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2017
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			$ 2,286	$ 6,797	$ (385)	$ 8,698
Cost of products sold, excluding depreciation and amortization			1,960	5,431	(385)	7,006
Depreciation and amortization			40	207		247
Selling and administrative expense		$ 10	134	223		367
Provision for asbestos			3			3
Restructuring and other		2	11	38		51
Income from operations		(12)	138	898		1,024
Loss from early extinguishments of debt		6		1		7
Other pension and postretirement			(13)	(40)		(53)
Net interest expense		65	95	77		237
Technology royalty			(42)	42		—
Foreign exchange		90	(2)	6	(90)	4
Income/(loss) before income taxes		(173)	100	812	90	829
Provision for / (benefit from) income taxes		(66)	271	164	32	401
Equity in net earnings of affiliates	$ 323	194	406		(923)	—
Net income	323	87	235	648	(865)	428
Net income attributable to noncontrolling interests				(105)		(105)
Net income attributable to Crown Holdings	$ 323	$ 87	$ 235	$ 543	$ (865)	$ 323
Total comprehensive income	$ 482	$ 115	$ 275	$ 854	$ (1,136)	$ 590
Comprehensive income attributable to noncontrolling interests				(108)		(108)
Comprehensive income attributable to Crown Holdings	$ 482	$ 115	$ 275	$ 746	$ (1,136)	$ 482

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2016
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			$ 2,270	$ 6,415	$ (401)	$ 8,284
Cost of products sold, excluding depreciation and amortization			1,923	5,101	(401)	6,623
Depreciation and amortization			33	214		247
Selling and administrative expense		$ 10	135	221		366
Provision for asbestos			21			21
Restructuring and other		(5)	11	24		30
Income from operations		(5)	147	855		997
Loss from early extinguishments of debt		32		5		37
Other pension and postretirement			(7)	(17)		(24)
Net interest expense		66	86	79		231
Technology royalty			(38)	38		—
Foreign exchange		(21)	1	(17)	21	(16)
Income/(loss) before income taxes		(82)	105	767	(21)	769
Provision for / (benefit from) income taxes		(31)	81	143	(7)	186
Equity in net earnings of affiliates	$ 496	207	370		(1,073)	—
Net income	496	156	394	624	(1,087)	583
Net income attributable to noncontrolling interests				(87)		(87)
Net income attributable to Crown Holdings	$ 496	$ 156	$ 394	$ 537	$ (1,087)	$ 496
Total comprehensive income	$ 250	$ 119	$ 348	$ 394	$ (774)	$ 337
Comprehensive income attributable to noncontrolling interests				(87)		(87)
Comprehensive income attributable to Crown Holdings	$ 250	$ 119	$ 348	$ 307	$ (774)	$ 250

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2018
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Assets						
Current assets						
Cash and cash equivalents		$ 117	$ 19	$ 471		$ 607
Receivables, net		4	182	1,416		1,602
Intercompany receivables			33	13	$ (46)	—
Inventories			485	1,205		1,690
Prepaid expenses and other current assets	$ 1	1	17	161		180
Total current assets	1	122	736	3,266	(46)	4,079
Intercompany debt receivables		2,577	3,449	12	(6,038)	—
Investments	3,458	2,657	1,248		(7,363)	—
Goodwill			1,178	3,264		4,442
Intangible assets			901	1,292		2,193
Property, plant and equipment, net		1	693	3,051		3,745
Other non-current assets		29	192	582		803
Total	$ 3,459	$ 5,386	$ 8,397	$ 11,467	$ (13,447)	$ 15,262
Liabilities and equity						
Current liabilities						
Short-term debt				$ 89		$ 89
Current maturities of long-term debt		$ 37	$ 3	46		86
Accounts payable			725	2,007		2,732
Accrued liabilities	$ 14	49	141	802		1,006
Intercompany payables			13	33	$ (46)	—
Total current liabilities	14	86	882	2,977	(46)	3,913
Long-term debt, excluding current maturities		2,999	1,285	4,233		8,517
Long-term intercompany debt	2,508	746	2,700	84	(6,038)	—
Postretirement and pension liabilities			432	251		683
Other non-current liabilities			321	542		863
Commitments and contingent liabilities						
Noncontrolling interests				349		349
Crown Holdings shareholders’ equity	937	1,555	2,777	3,031	(7,363)	937
Total equity	937	1,555	2,777	3,380	(7,363)	1,286
Total	$ 3,459	$ 5,386	$ 8,397	$ 11,467	$ (13,447)	$ 15,262

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2017
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Assets						
Current assets						
Cash and cash equivalents		$ 36	$ 3	$ 385		$ 424
Receivables, net			29	1,012		1,041
Intercompany receivables			32	13	$ (45)	—
Inventories			347	1,038		1,385
Prepaid expenses and other current assets		2	17	205		224
Total current assets	—	38	428	2,653	(45)	3,074
Intercompany debt receivables		2,523	3,325	732	(6,580)	—
Investments	$ 3,120	2,479	1,032		(6,631)	—
Goodwill			453	2,593		3,046
Intangible assets			13	459		472
Property, plant and equipment, net		1	515	2,723		3,239
Other non-current assets		11	311	510		832
Total	$ 3,120	$ 5,052	$ 6,077	$ 9,670	$ (13,256)	$ 10,663
Liabilities and equity						
Current liabilities						
Short-term debt				$ 62		$ 62
Current maturities of long-term debt		$ 23	$ 3	38		64
Accounts payable			547	1,820		2,367
Accrued liabilities	$ 22	31	72	632		757
Intercompany payables			13	32	$ (45)	—
Total current liabilities	22	54	635	2,584	(45)	3,250
Long-term debt, excluding current maturities		2,094	408	2,715		5,217
Long-term intercompany debt	2,497	1,411	2,454	218	(6,580)	—
Postretirement and pension liabilities			373	215		588
Other non-current liabilities			338	347		685
Commitments and contingent liabilities						
Noncontrolling interests				322		322
Crown Holdings shareholders’ equity	601	1,493	1,869	3,269	(6,631)	601
Total equity	601	1,493	1,869	3,591	(6,631)	923
Total	$ 3,120	$ 5,052	$ 6,077	$ 9,670	$ (13,256)	$ 10,663

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2018
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net provided by/(used for) operating activities	$ (8)	$ (44)	$ 180	$ 532	$ (89)	$ 571
Cash flows from investing activities						
Capital expenditures			(60)	(402)		(462)
Beneficial interest in transferred receivables				490		490
Acquisition of businesses, net of cash acquired				(3,912)		(3,912)
Foreign exchange derivatives related to acquisition				(25)		(25)
Net investment hedges		34				34
Proceeds from sale of property, plant and equipment			9	27		36
Intercompany investing activities		(100)			100	—
Other				(4)		(4)
Net cash provided by/(used for) investing activities	—	(66)	(51)	(3,826)	100	(3,843)
Cash flows from financing activities						
Proceeds from long-term debt		975	1,150	1,957		4,082
Payments of long-term debt		(25)	(265)	(43)		(333)
Net change in revolving credit facility and short-term debt				(69)		(69)
Net change in long-term intercompany balances	11	(719)	(998)	1,706		—
Debt issuance costs		(40)		(30)		(70)
Common stock issued	1					1
Common stock repurchased	(4)					(4)
Capital Contribution				100	(100)	—
Dividends paid				(89)	89	—
Dividends paid to noncontrolling interests				(60)		(60)
Foreign exchange derivatives related to debt				(14)		(14)
Net cash provided by/(used for) financing activities	8	191	(113)	3,458	(11)	3,533
Effect of exchange rate changes on cash, cash equivalents, and restricted cash				(37)		(37)
Net change in cash, cash equivalents, and restricted cash	—	81	16	127	—	224
Cash, cash equivalents, and restricted cash at January 1		36	3	396		435
Cash, cash equivalents, and restricted cash at December 31	$ —	$ 117	$ 19	$ 523	$ —	$ 659

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2017
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net provided by/(used for) operating activities	$ 7	$ (30)	$ 83	$ (211)	$ (100)	$ (251)
Cash flows from investing activities						
Capital expenditures			(102)	(396)		(498)
Beneficial interest in transferred receivables				1,010		1,010
Proceeds from sale of property, plant and equipment			1	7		8
Intercompany investing activities	235		300		(535)	—
Other			(20)	(4)		(24)
Net cash provided by/(used for) investing activities	235	—	179	617	(535)	496
Cash flows from financing activities						
Proceeds from long-term debt		750	9	295		1,054
Payments of long-term debt		(1,015)	(7)	(115)		(1,137)
Net change in revolving credit facility and short-term debt				95		95
Net change in long-term intercompany balances	88	263	(261)	(90)		—
Debt issuance costs		(15)		(1)		(16)
Common stock issued	9					9
Common stock repurchased	(339)					(339)
Dividends paid				(635)	635	—
Dividends paid to noncontrolling interests				(93)		(93)
Foreign exchange derivatives related to debt				27		27
Net cash provided by/(used for) financing activities	(242)	(17)	(259)	(517)	635	(400)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash				14		14
Net change in cash, cash equivalents, and restricted cash	—	(47)	3	(97)	—	(141)
Cash, cash equivalents, and restricted cash at January 1		83		493		576
Cash, cash equivalents, and restricted cash at December 31	$ —	$ 36	$ 3	$ 396	$ —	$ 435

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2016
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net provided by/(used for) operating activities	$ 63	$ 23	$ 143	$ (211)	$ (152)	$ (134)
Cash flows from investing activities						
Capital expenditures			(127)	(346)		(473)
Beneficial interest in transferred receivables				1,086		1,086
Proceeds from sale of property, plant and equipment			4	6		10
Intercompany investing activities	235		150		(385)	—
Net investment hedge settlements						—
Other			10			10
Net cash provided by/(used for) investing activities	235	—	37	746	(385)	633
Cash flows from financing activities						
Proceeds from long-term debt		700		680		1,380
Payments of long-term debt		(1,181)		(733)		(1,914)
Net change in revolving credit facility and short-term debt				(32)		(32)
Net change in long-term intercompany balances	(300)	468	(180)	12		—
Premiums paid to retire debt		(22)				(22)
Debt issuance costs		(9)		(9)		(18)
Common stock issued	10					10
Common stock repurchased	(8)					(8)
Dividends paid				(537)	537	—
Dividends paid to noncontrolling interests				(80)		(80)
Contribution from noncontrolling interests				4		4
Foreign exchange derivatives related to debt				42		42
Net cash provided by/(used for) financing activities	(298)	(44)	(180)	(653)	537	(638)
Effect of exchange rate changes on cash, cash equivalents, and restricted cash				(30)		(30)
Net change in cash, cash equivalents, and restricted cash	—	(21)	—	(148)	—	(169)
Cash, cash equivalents, and restricted cash at January 1		104		641		745
Cash, cash equivalents, and restricted cash at December 31	$ —	$ 83	$ —	$ 493	$ —	$ 576

Quarterly Data (unaudited)

(in millions)	2018				2017			
	First (1)	Second (2)	Third (3)	Fourth (4)	First (5)	Second (6)	Third (7)	Fourth (8)
Net sales	$ 2,197	$ 3,046	$ 3,174	$ 2,734	$ 1,901	$ 2,161	$ 2,468	$ 2,168
Gross profit *	324	467	517	390	311	368	433	333
Net income (loss) attributable to Crown Holdings	90	132	164	53	107	128	177	(89)
Earnings per average common share:								
Basic	$ 0.67	$ 0.99	$ 1.23	$ 0.40	$ 0.77	$ 0.95	$ 1.32	$ (0.67)
Diluted	0.67	0.99	1.23	0.40	0.77	0.94	1.32	(0.67)
Average common shares outstanding:								
Basic	133.5	133.6	133.7	133.7	138.5	135.3	134.0	133.4
Diluted	133.8	133.8	133.8	134.1	139.0	135.7	134.4	133.8

* The Company defines gross profit as net sales less cost of products sold and depreciation and amortization.
** Source: New York Stock Exchange - Composite Transactions

Notes:
(1) Includes pre-tax charges of $13 for restructuring and other and $24 for acquisition costs.
(2) Includes pre-tax charges of $40 for fair value adjustment to inventory and $16 for restructuring and other.
(3) Includes a pre-tax benefit of $1 for restructuring and other.
(4) Includes pre-tax charges of $16 for restructuring and other and $42 for pension and postretirement.
(5) Includes pre-tax benefits of $4 for restructuring and other and $5 for hedge ineffectiveness.
(6) Includes pre-tax charges of $18 for restructuring and other, $7 for loss from early extinguishment of debt and $8 for hedge ineffectiveness.
(7) Includes a pre-tax charge of $16 for restructuring and other and pre-tax benefits of $4 for pension and postretirement of $1 for hedge ineffectiveness.
(8) Includes pre-tax charges of $3 for asbestos claims and $21 for restructuring and other, a pre-tax benefit of $2 for hedge ineffectiveness, a $1 charge for pension and postretirement, and an income tax charge of $177 to recognize the provisional impact of US tax reform.

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
(In millions)

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E	COLUMN F
		Additions				
Description	Balance at beginning of period	Charged to costs and expense	Charged to other accounts	Acquisitions	Deductions – write-offs	Balance at end of period
For the year ended December 31, 2018						
Allowances deducted from assets to which they apply:						
Trade accounts receivable	$ 71	$ (6)	$ (4)	7	$ (3)	$ 65
Deferred tax assets	228	(1)	(7)	76	(14)	282
For the year ended December 31, 2017						
Allowances deducted from assets to which they apply:						
Trade accounts receivable	76	—	6	—	(11)	71
Deferred tax assets	225	9	—	—	(6)	228
For the year ended December 31, 2016						
Allowances deducted from assets to which they apply:						
Trade accounts receivable	83	9	(1)	—	(15)	76
Deferred tax assets	241	(14)	2	—	(4)	225

Amounts charged to other accounts primarily relates to foreign currency translation.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

As of the end of the period covered by this Annual Report on Form 10-K, management, including the Company’s Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the design and operation of its disclosure controls and procedures. Based upon that evaluation and as of the end of the period for which this report is made, the Company’s Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective to ensure that information to be disclosed in reports that the Company files and submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and terms of the Securities and Exchange Commission, and to ensure that information required to be disclosed in the reports that the Company files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

The Company's report on internal control over financial reporting is included in Part II, Item 8 of this Annual Report on Form 10-K.

There has been no change in internal control over financial reporting that occurred during the quarter ended December 31, 2018 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item is set forth in the Company's Proxy Statement within the sections entitled "Election of Directors," "Section 16(a) Beneficial Ownership Reporting Compliance" and "Corporate Governance" and is incorporated herein by reference.

The following table sets forth certain information concerning the principal executive officers of the Company, including their ages and positions.

Name	Age	Title	Year Assumed Present Title
Timothy J. Donahue	56	President and Chief Executive Officer	2016
Gerard H. Gifford	63	Executive Vice President and Chief Operating Officer	2017
Djalma Novaes, Jr.	58	President – Americas Division	2015
Didier Sourisseau	53	President – European Division	2017
Hok Huat Goh	64	President – Asia Pacific Division	2018
Robert H. Bourque, Jr.	48	President – Transit Packaging Division	2018
Thomas A. Kelly	59	Senior Vice President and Chief Financial Officer	2013
David A. Beaver	43	Vice President and Corporate Controller	2015

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is set forth in the Company's Proxy Statement within the sections entitled "Executive Compensation," "Compensation Discussion and Analysis" and "Corporate Governance" and is incorporated herein by reference.

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

Certain information required by this Item is set forth in the Company's Proxy Statement within the sections entitled "Proxy Statement – Meeting, April 25, 2019" and "Common Stock Ownership of Certain Beneficial Owners, Directors and Executive Officers" and is incorporated herein by reference.

The following table provides information as of December 31, 2018 with respect to shares of the Company's Common Stock that may be issued under its equity compensation plans:

	Equity Compensation Plan Information		
Plan category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available For Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected In Column (a)) (c)
Equity compensation plans approved by security holders	768,192	$38.00	4,601,918
Equity compensation plans not approved by security holders			
Total	768,192	$38	4,601,918

(1) Includes the 2006 and 2013 Stock-Based Incentive Compensation Plans.

(2) Includes 698,192 shares of deferred stock awarded from the 2013 Stock-Based Incentive Compensation Plan during each year from 2013 through 2018. The shares are time-vesting and will be issued up to four years from their grant date. The weighted-average exercise price in the table does not include these shares.

(3) Includes 3,726,949, 771,983 and 102,986 shares available for issuance at December 31, 2018 under the 2013 Stock Based Incentive Compensation Plan, the Company's Employee Stock Purchase Plan and the Stock Compensation Plan for Non-Employee Directors.

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

The information required by this Item is set forth in the Company's Proxy Statement within the sections entitled "Election of Directors," "Corporate Governance" and "Executive Compensation" and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is set forth in the Company's Proxy Statement within the sections entitled "Principal Accounting Fees and Services" and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

a) The following documents are filed as part of this report:

(1) All Financial Statements (see Part II, Item 8)

Management's Report on Internal Control Over Financial Reporting

Report of Independent Registered Public Accounting Firm

Consolidated Statements of Operations for the years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Comprehensive Income for the years ended December 31, 2018, 2017 and 2016

Consolidated Balance Sheets as of December 31, 2018 and 2017

Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017 and 2016

Consolidated Statements of Shareholders' Equity for the years ended December 31, 2018, 2017 and 2016

Notes to Consolidated Financial Statements

Supplementary Information

(2) Financial Statement Schedules:

Schedule II – Valuation and Qualifying Accounts and Reserves for the years ended December 31, 2018, 2017 and 2016

All other schedules have been omitted because they are not applicable or the required information is included in the Consolidated Financial Statements.

(3) Exhibits

3.a Articles of Incorporation of Crown Holdings, Inc., as amended (incorporated by reference to Exhibit 3.a of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2004 (File No. 000-50189)).

3.b Amended and Restated By-Laws of Crown Holdings, Inc. (incorporated by reference to Exhibit 3.ii of the Registrant's Current Report on Form 8-K dated January 29, 2016 (File No. 000-50189)).

4.a Specimen certificate of Registrant's Common Stock (incorporated by reference to Exhibit 4.a of the Registrant's Annual Report on Form 10-K for the year ended December 31, 1995 (File No. 1-2227)).

4.b Indenture, dated December 17, 1996, among Crown Cork & Seal Company, Inc., Crown Cork & Seal Finance PLC, Crown Cork & Seal Finance S.A. and the Bank of New York, as trustee (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated December 17, 1996 (File No. 1-2227)).

4.c Form of the Registrant's 7-3/8% Debentures Due 2026 (incorporated by reference to Exhibit 99.1 of the Registrant's Current Report on Form 8-K dated December 17, 1996 (File No. 1-2227)).

4.d Officers' Certificate for 7-3/8% Debentures Due 2026 (incorporated by reference to Exhibit 99.6 of the Registrant's Current Report on Form 8-K dated December 17, 1996 (File No. 1-2227)).

4.e Form of the Registrant's 7-1/2% Debentures Due 2096 (incorporated by reference to Exhibit 99.2 of the Registrant's Current Report on Form 8-K dated December 17, 1996 (File No. 1-2227)).

4.f Officers' Certificate for 7-1/2% Debentures Due 2096 (incorporated by reference to Exhibit 99.7 of the Registrant's Current Report on From 8-K dated December 17, 1996 (File No. 1-2227)).

4.g Terms Agreement, dated December 12, 1996 (incorporated by reference to Exhibit 1.1 of the Registrant's Current Report on Form 8-K dated December 17, 1996 (File No. 1-2227)).

4.h Form of Bearer Security Depositary Agreement (incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-3, dated November 26, 1996, amended December 5 and 10, 1996 (File No. 333-16869)).

4.i Supplemental Indenture to Indenture dated December 17, 1996, dated as of February 25, 2003, between Crown Cork & Seal Company, Inc., as Issuer and Guarantor, Crown Cork & Seal Finance PLC, as Issuer, Crown Cork & Seal Finance S.A., as Issuer, Crown Holdings, Inc., as Additional Guarantor and Bank One Trust Company, N.A., as Trustee (incorporated by reference to Exhibit 4.5 of the Registrant's Current Report on Form 8-K dated February 26, 2003 (File No. 000-50189)).

4.j Indenture, dated as of January 9, 2013, by and among Crown Americas LLC and Crown Americas Capital Corp. IV, as Issuers, the Guarantors named therein and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to the 4 1/2% Senior Notes due 2023 (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K dated January 9, 2013 (File No. 000-50189)).

4.k Form of 4 ½% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K Dated January 15, 2013 (File No. 000-50189)).

4.l Credit Agreement, dated as of December 19, 2013, among Crown Americas LLC, as U.S. Borrower, Crown European Holdings SA, as European Borrower, CROWN Metal Packaging Canada LP, as Canadian Borrower, the Subsidiary Borrowers named therein, the Company, Crown International Holdings, Inc. and Crown Cork & Seal Company, Inc., as Parent Guarantors, Deutsche Bank AG New York Branch, as Administrative Agent, Deutsche Bank AG London Branch, a U.K. Administrative Agent, Deutsche Bank AG Canada Branch, as Canadian Administrative Agent, and various Lending Institutions (incorporated by reference to Exhibit 4 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2014 (File No. 000-50189)).

4.m First Amendment to Credit Agreement, among Crown Americas LLC, as U.S. Borrower, Crown European Holdings SA, as European Borrower, CROWN Metal Packaging Canada LP, as Canadian Borrower, the Subsidiary Borrowers named therein, Crown Holdings, Inc., Crown International Holdings, Inc. and Crown Cork & Seal Company, Inc., as Parent Guarantors, Deutsche Bank AG New York Branch, as Administrative Agent, Deutsche Bank AG London Branch, a U.K. Administrative Agent, Deutsche Bank AG Canada Branch, as Canadian Administrative Agent, and various Lending Institutions referred to therein (incorporated by reference to Exhibit 4.1 of the Registrants Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 (File No. 000-50189)).

4.n Indenture, dated as of July 8, 2014, by and among Crown European Holdings S.A., as Issuer, the Guarantors named therein, U.S. Bank National Association, as Trustee, and the other parties thereto, relating to the €650 million 4% Senior Notes due 2022 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated July 11, 2014 (File No. 000-50189)).

4.o Form of 4% Senior Notes due 2022 (included in Exhibit 4.p).

4.p Incremental Amendment No. 1, among Crown Americas LLC, as U.S. Borrower, Deutsche Bank AG New York Branch, as administrative agent for the Term A Lenders, TD Bank, N.A., The Bank of Nova Scotia and The Bank of Tokyo-Mitsubishi UFJ, Ltd., to that certain Credit Agreement, dated as of December 19, 2013, as amended (incorporated by reference to Exhibit 4.u of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 000-50189)).

4.q Incremental Amendment No. 2, among Crown Americas LLC, as U.S. Borrower, Deutsche Bank AG New York Branch, as administrative agent for certain Term Lenders, and the Term Loan B Lenders party thereto, to that certain Credit Agreement, dated as of December 19, 2013, as amended (incorporated by reference to Exhibit 4.v of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 000-50189)).

4.r Incremental Amendment No. 3, among Crown Americas LLC, as U.S. Borrower, Deutsche Bank AG New York Branch, as administrative agent for certain Term Lenders, and the Term Loan A Lenders party thereto, to that certain Credit Agreement, dated as of December 19, 2013, as amended ((incorporated by reference to Exhibit 4.v of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2015 (File No. 000-50189)).

4.s Indenture, dated as of September 15, 2016, by and among Crown European Holdings, S.A., as Issuer, the Guarantors named therein, U.S.. Bank National Association, as Trustee, and the other parties thereto, relating to the €600 million 2.625% Senior Notes due 2024 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated September 19, 2016 (File No. 000-50189)).

4.t Indenture, dated as of September 15, 2016, by and among Crown Americas LLC and Crown Americas Capital Corp. V, as Issuers, the Guarantors named therein and U.S. Bank National Association, as Trustee, relating to the $400 million 4.250% Senior Notes due 2026 (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K dated September 19, 2016 (File No. 000-50189)).

4.u Second Amendment, dated September 19, 2016, to Credit Agreement, among Crown Americas LLC, as U.S. Borrower, Crown European Holdings SA, as European Borrower, CROWN Metal Packaging Canada LP, as Canadian Borrower, the Subsidiary Borrowers named therein, the Company, Crown International Holdings, Inc. and Crown Cork & Seal Company, Inc., as Parent Guarantors, Deutsche Bank AG New York Branch, as Administrative Agent, Deutsche Bank AG London Branch, as U.K. Administrative Agent, Deutsche Bank AG Canada Branch, as Canadian Administrative Agent, and various Lending Institutions referred to therein (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated September 23, 2016 (File No. 000-50189)).

4.v Indenture, dated as of May 5, 2015, among Crown European Holdings S.A., the Guarantors (as defined therein), U.S. Bank National Association, as trustee, Elavon Financial Services Limited, UK Branch, as paying agent, and Elavon Financial Services Limited, as registrar and transfer agent (incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q dated July 30, 2015 (File No. 000-50189)).

4.w Amended & Restated Credit Agreement, dated April 7, 2017, by and among Crown Americas LLC, Crown European Holdings S.A., Crown Metal Packaging Canada LP, each of the Subsidiary Borrowers from time to time party thereto, Crown Holdings, Inc., Crown Cork & Seal Company, Inc., Crown International Holdings, Inc., each other Credit Party from time to time party thereto, Deutsche Bank AG Canada Branch, Deutsche Bank AG London Branch, Deutsche Bank AG New York Branch, and various Lenders referred to therein (incorporated by reference to Exhibit 4 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (File No. 000-50189)).

4.x First Amendment to Amended and Restated Credit Agreement, dated as of December 28, 2017, among Crown Americas LLC, Crown European Holdings S.A., Crown Metal Packaging Canada LP, each of the Subsidiary Borrowers party thereto, Crown Holdings, Inc., Crown Cork & Seal Company, Inc. and Crown International Holdings, Inc., each other Credit Party from time to time party thereto, Deutsche Bank AG New York Branch, Deutsche Bank AG, London Branch, Deutsche Bank AG, Canada Branch, and various Lenders referred to therein (incorporated by reference to Exhibit 4 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 000-50189)).

4.y Incremental Amendment No. 1, dated as of January 29, 2018, among Crown Americas LLC, Crown European Holdings S.A., Crown Metal Packaging Canada LP, each of the Subsidiary Borrowers party thereto, Crown Holdings, Inc., Crown Cork & Seal Company, Inc. and Crown International Holdings, Inc., each other Credit Party from time to time party thereto, Deutsche Bank AG New York Branch, Deutsche Bank AG, London Branch, Deutsche Bank AG, Canada Branch, and various Lenders referred to therein (incorporated by reference to Exhibit 4.1 of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2017).

4.z Indenture, dated as of January 26, 2018, by and among Crown European Holdings S.A., as Issuer, the Guarantors named therein, U.S. Bank National Association, as Trustee, and the other parties thereto, relating to the €335 million 2.250% Senior Notes due 2023 and the €500 million 2.875% Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated February 1, 2018 (File No. 000-50189)).

4.aa Indenture, dated as of January 26, 2018, by and among Crown Americas LLC and Crown Americas Capital Corp. VI, as Issuers, the Guarantors named therein and U.S. Bank National Association, as Trustee, relating to the $875 million 4.750% Senior Notes due 2026 (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K dated February 1, 2018 (File No. 000-50189)).

4.bb Registration Rights Agreement, dated as of January 26, 2018, by and among Crown Holdings, Inc., Crown Americas LLC and Crown Americas Capital Corp. VI, Citigroup Global Markets Inc., as representative of the initial purchasers, and the Guarantors (as defined therein), relating to the $875 million 4.750% Senior Notes due 2026 (incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K dated February 1, 2018 (File No. 000-50189)).

4.cc Second Amendment to Amended and Restated Credit Agreement, First Amendment to the U.S. Guarantee Agreement and First Amendment to U.S. Indemnity, Subrogation and Contribution Agreement, dated as of March 23, 2018, among Crown Americas LLC, Crown European Holdings S.A., Crown Metal Packaging Canada LP, each of the Subsidiary Borrowers from time to time party thereto, Crown Holdings, Inc., Crown Cork & Seal Company, Inc. and Crown International Holdings, Inc., each other Credit Party from time to time party thereto, Deutsche Bank AG New York Branch, Deutsche Bank AG, London Branch, Deutsche Bank AG, Canada Branch, and various Lenders referred to therein.

Other long-term agreements of the Registrant are not filed pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K, and the Registrant agrees to furnish copies of such agreements to the Securities and Exchange Commission upon its requests.

10.a Employment Contracts:

(1) Employment Agreement, dated December 30, 2015, between Crown Holdings, Inc. and Timothy J. Donahue (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K dated January 5, 2016 (File No. 000-50189)).

(2) First amendment to the employment contract, effective June 1, 2012, between Crown Holdings, Inc. and Gerard Gifford, dated as of July 24, 2013 (incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No 000-50189)).

(3) Executive Employment Agreement, effective June 1, 2012, between Crown Holdings, Inc. and Gerard Gifford (incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (File No 000-50189)).

(4) Employment contract between Crown Holdings, Inc. and Thomas A. Kelly, dated July 24, 2013 (incorporated by reference to Exhibit 10 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No. 000-50189)).

(5) Employment contract between Crown Holdings, Inc. and Djalma Novaes Jr., dated February 26, 2015 (incorporated by reference to Exhibit 10.c(11) of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 000-50189)).

(6) Executive Employment Agreement, effective May 1, 2016, between Crown Holdings, Inc. and Robert Bourque, Jr. (incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 000-50189)).

(7) Employment contract between Crown Holdings, Inc. and Didier Sourisseau, effective April 1, 2017 (incorporated by reference to Exhibit 10.a of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017) (File No. 000-50189)).31, 2008 (File No. 000-50189)).

10.b Crown Holdings, Inc. Economic Profit Incentive Plan, effective as of January 1, 2018.

10.c Crown Holdings, Inc. Senior Executive Retirement Plan, as amended and restated as of January 1, 2008 (incorporated by reference to Exhibit 10.l of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 000-50189)).

10.d Senior Executive Retirement Agreements:

(1) Senior Executive Retirement Agreement between Crown Holdings, Inc. and Timothy J. Donahue, dated May 3, 2007 (incorporated by reference to Exhibit 10.4(e) of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (File No. 000-50189)).

(2) Senior Executive Retirement Agreement, effective June 1, 2012, between Crown Holdings, Inc. and Gerard Gifford (incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (File No 000-50189)).

(3) Amendment No. 1 to the Senior Executive Retirement Agreement, effective June 1, 2012, between Crown Holdings, Inc. and Gerard Gifford dated December 28, 2012 (incorporated by reference to Exhibit 10.m(7) of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2012 (File No. 000-50189)).

(4) Senior Executive Retirement Agreement, effective July 24, 2013, between Crown Holdings, Inc. and Thomas A. Kelly (incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No 000-50189)).

(5) Senior Executive Retirement Agreement between Crown Holdings, Inc. and Djalma Novaes Jr., dated February 26, 2015 (incorporated by reference to Exhibit 10.f(9) of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 (File No. 000-50189)).

(6) Senior Executive Retirement Agreement, effective May 1, 2016, between Crown Holdings, Inc. and Robert Bourque, Jr. (incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 000-50189)).

(7) Amendment No. 2 to the Senior Executive Retirement Agreement, effective as of May 17, 2016, between Crown Holdings, Inc. and Gerard Gifford (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K dated May 18, 2016 (File No. 000-50189)).

(8) Senior Executive Retirement Agreement between Crown Holdings, Inc. and Didier Sourisseau, effective April 1, 2017 (incorporated by reference to Exhibit 10.b of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017) (File No. 000-50189)).

(9) Amended and Restated Senior Executive Retirement Agreement, effective as of June 1, 2017, between Crown Holdings, Inc. and Gerard Gifford (incorporated by reference to Exhibit 10.c of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017) (File No. 000-50189)).

10.e Form of Agreement for Restricted Stock Awards under Crown Holdings, Inc. 2006 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.dd of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 000-50189)).

10.f Crown Holdings, Inc. 2004 Stock-Based Incentive Compensation Plan, dated as of April 22, 2004 (incorporated by reference to the Registrant's Definitive Proxy Statement on Schedule 14A, filed with the Securities and Exchange Commission on March 19, 2004 (File No. 000-50189)).

10.g Amendment No. 1, effective December 14, 2006, to the Crown Holdings, Inc. 2004 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.ff of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 000-50189)).

10.h Form of Agreement for Non-Qualified Stock Option Awards under Crown Holdings, Inc. 2004 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004 (File No. 000-51089)).

10.i Crown Holdings, Inc. Deferred Compensation Plan for Directors, as Amended and Restated, effective January 1, 2008 (incorporated by reference to Exhibit 10.w of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 000-50189)).

10.j Crown Holdings, Inc. Stock Compensation Plan for Non-Employee Directors, dated as of April 22, 2004 (incorporated by reference to the Registrant's Definitive Proxy Statement on Schedule 14A, filed with the Securities and Exchange Commission on March 19, 2004 (File No. 000-50189)).

10.k Amendment No. 1, effective April 1, 2005, to the Crown Holdings, Inc. Stock Compensation Plan for Non-Employee Directors, dated as of April 22, 2004 (incorporated by reference to Exhibit 10 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005 (File No. 000-50189)).

10.l Crown Holdings, Inc. 2006 Stock-Based Incentive Compensation Plan (incorporated by reference to the Registrant's Definitive Proxy Statement on Schedule 14A, filed with the Securities and Exchange Commission on March 24, 2006 (File No. 000-50189)).

10.m Amendment No. 1, effective December 14, 2006, to the Crown Holdings, Inc. 2006 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.pp of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 000-50189)).

10.n Amendment No. 2, effective July 28, 2010, to the Crown Holdings, Inc. 2006 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 (File No. 000-50189)).

10.o Form of Agreement for Non-Qualified Stock Option Awards under Crown Holdings, Inc. 2006 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (File No. 000-50189)).

10.p Crown Holdings, Inc. 2013 Stock-Based Incentive Compensation Plan (incorporated by reference to the Registrant's Definitive Proxy Statement on Schedule 14A, filed with the Securities and Exchange Commission on March 18, 2013 (File No. 000-50189)).

10.q Form of Agreement for Restricted Stock Awards under Crown Holdings, Inc. 2013 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013 (File No. 000-50189)).

10.r Form of Agreement for Deferred Stock Awards under Crown Holdings, Inc. 2013 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013 (File No. 000-50189)).

10.s Crown Cork & Seal Company, Inc. Restoration Plan, dated July 28, 2010 (incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (File No. 000-50189)).

10.t Amendment No. 1, effective July 1, 2011, to the Crown Cork & Seal Company, Inc. Restoration Plan (incorporated by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012 (File No. 000-50189)).

Exhibits 10.c through 10.t are management contracts or compensatory plans or arrangements required to be filed as exhibits pursuant to Item 14(c) of this Report.

21 Subsidiaries of Registrant.

23 Consent of Independent Registered Public Accounting Firm.

31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

32 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by Timothy J. Donahue, President and Chief Executive Officer of Crown Holdings, Inc. and Thomas A. Kelly, Senior Vice President and Chief Financial Officer of Crown Holdings, Inc.

101 The following financial information from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2018 formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the twelve months ended December 31, 2018, 2017 and 2016, (ii) Consolidated Statements of

Comprehensive Income for the twelve months ended December 31, 2018, 2017 and 2016; (iii) Consolidated Balance Sheets as of December 31, 2018 and December 31, 2017, (iv) Consolidated Statements of Cash Flows for the twelve months ended December 31, 2018, 2017 and 2016, (v) Consolidated Statements of Changes in Shareholders' Equity for the twelve months ended December 31, 2018, 2017 and 2016 and (vi) Notes to Consolidated Financial Statements.

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 registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Crown Holdings, Inc.
Registrant

By: /s/ David A. Beaver
David A. Beaver
Vice President and Corporate Controller

Date: February 28, 2019

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Timothy J. Donahue, Thomas A. Kelly and William T. Gallagher, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities to sign any and all amendments to the Annual Report on Form 10-K for the Company's 2018 fiscal year, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their respective substitutes, may lawfully do or cause to be done by virtue hereof.

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 registrant and in the capacities and on the date indicated above.

SIGNATURE	TITLE
/s/ Timothy J. Donahue Timothy J. Donahue	Director, President and Chief Executive Officer
/s/ Thomas A. Kelly Thomas A. Kelly	Senior Vice President and Chief Financial Officer
/s/ David A. Beaver David A. Beaver	Vice President and Corporate Controller

DIRECTORS

/s/ John W. Conway John W. Conway, Chairman of the Board	James H. Miller
Arnold W. Donald	/s/ Josef M. Müller Josef M. Müller
/s/ Andrea J. Funk Andrea J. Funk	/s/ Caesar F. Sweitzer Caesar F. Sweitzer
/s/ Rose Lee Rose Lee	/s/ Jim L. Turner Jim L. Turner
/s/ William G. Little William G. Little	/s/ William S. Urkiel William S. Urkiel
/s/ Hans J. Löliger Hans J. Löliger	

EXHIBIT 4

SECOND AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT,

FIRST AMENDMENT TO THE U.S. GUARANTEE AGREEMENT AND

FIRST AMENDMENT TO U.S. INDEMNITY, SUBROGATION AND CONTRIBUTION AGREEMENT

This SECOND AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT, FIRST AMENDMENT TO THE U.S. GUARANTEE AGREEMENT and FIRST AMENDMENT TO U.S. INDEMNITY, SUBROGATION AND CONTRIBUTION AGREEMENT, dated as of March 23, 2018, (this "Amendment"), is entered into among CROWN AMERICAS LLC, a Pennsylvania limited liability company ("Crown Americas"), CROWN EUROPEAN HOLDINGS S.A., a corporation organized under the laws of France ("European Borrower"), each of the Subsidiary Borrowers party hereto, CROWN METAL PACKAGING CANADA LP, a limited partnership organized under the laws of the Province of Ontario, Canada ("Canadian Borrower", and together with Crown Americas, European Borrower and the Subsidiary Borrowers, "Borrowers"), CROWN CORK & SEAL COMPANY, INC., a Pennsylvania corporation ("CCSC"), CROWN HOLDINGS, INC. a Pennsylvania corporation ("Crown Holdings") and CROWN INTERNATIONAL HOLDINGS, INC., a Delaware corporation ("Crown International", and together with CCSC and Crown Holdings, "Parent Guarantors"), DEUTSCHE BANK AG CANADA BRANCH, as Canadian administrative agent, ("Canadian Administrative Agent") for the Canadian Revolving Lenders, DEUTSCHE BANK AG LONDON BRANCH, as U.K. Administrative Agent ("U.K. Administrative Agent") for the Multicurrency Revolving Lenders, DEUTSCHE BANK AG NEW YORK BRANCH, as administrative agent ("Administrative Agent") for the Dollar Revolving Lenders and the Term A Lenders, the Required Lenders and the other parties hereto. All capitalized terms used and not otherwise defined herein shall have the same meanings as set forth in the Credit Agreement.

RECITALS:

WHEREAS, each of the Borrowers, Parent Guarantors, the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent and the lenders from time to time party thereto and each of the other parties thereto have entered into that certain Amended and Restated Credit Agreement, dated as of April 7, 2017 (as amended by that certain First Amendment to Amended and Restated Credit Agreement, dated as of December 28, 2017, as amended by that certain Incremental Amendment No. 1 to Amended and Restated Credit Agreement, dated as of January 29, 2018, as amended by this Amendment and as may be further amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), pursuant to which the Lenders made available term loans and revolving credit facilities to Borrowers in accordance with the terms and conditions thereof;

WHEREAS, each of Crown Americas, the Administrative Agent and the Guarantors (as defined therein) party thereto have entered into that certain U.S. Guarantee Agreement dated as of December 19, 2013 (as supplemented prior to the date hereof, as amended by this Amendment and as may be further amended, restated, supplemented or otherwise modified from time to time, the "U.S. Guarantee Agreement");

WHEREAS, each of Crown Americas, the Guarantors party thereto and the Administrative Agent have entered into that certain U.S. Indemnity, Subrogation and Contribution Agreement dated as of December 19, 2013 (as amended by this Amendment and as may be further amended, restated, supplemented or otherwise modified from time to time, the "U.S. Indemnity, Subrogation and Contribution Agreement");

WHEREAS, pursuant to Section 12.1 of the Credit Agreement, the Borrowers have requested that the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent and the Lenders amend certain provisions of the Credit Agreement;

WHEREAS, pursuant to Section 12 of the U.S. Guarantee, the Guarantors have requested that the Administrative Agent and the Lenders amend certain provisions of the U.S. Guarantee Agreement; and

WHEREAS, pursuant to Section 6 of the U.S. Indemnity, Subrogation and Contribution Agreement, the Borrowers and the Guarantors have requested that the Administrative Agent amend certain provisions of the U.S. Indemnity, Subrogation and Contribution Agreement;

NOW, THEREFORE, in consideration of the foregoing and the agreements, promises and covenants set forth below, and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Credit Agreement Amendments. Subject to the satisfaction of the terms and conditions set forth in Section 5 of this Amendment, the Credit Agreement is amended as follows (the "Credit Agreement Amendments"):

(a) Section 1.1 of the Credit Agreement is amended by amending and restating the following definitions in their entirety as follows:

"Guarantors" means (i) the Credit Parties (other than the Borrowers) and (ii) for purposes of Section 10.1(j) and Article XIV only, the Parent Guarantors, the U.S. Borrower, Crown Finance and the European Borrower.

"U.S. Borrower" means collectively and individually, as the context may require, each of Crown Americas LLC and any additional U.S. Subsidiary that (A) executes a U.S. Borrower Joinder Agreement substantially in the form of Exhibit 13 and (B) delivers to the Administrative Agent, to the extent not previously delivered, (1) the Additional Security Documents required pursuant to Section 7.14, (2) an opinion of counsel which covers matters reasonably satisfactory to Administrative Agent and (3) to the extent not previously delivered, all documentation and other information required under Section 5.1(f)(ii). Any additional U.S. Subsidiary (other than Crown Americas LLC) may be removed as a U.S. Borrower upon (i) execution and delivery by Crown Americas LLC of a written request providing for such removal and (ii) if not previously delivered, satisfaction of the conditions of Section 7.14 of the Credit Agreement, if applicable. For purposes of the definition of "Existing Non-U.S. Facilities", the definition of "Parent Guarantor", the definition of "Senior Notes 2023", the definition of "Senior Notes 2026", Section 2.1(a)(i), Article V, Section 6.8, Section 7.1 and Section 8.1(a)(iii), "U.S. Borrower" shall be defined to include only Crown Americas LLC and no other entity. Each reference to the "U.S. Borrower" in the Loan Documents shall be deemed to refer to this definition.

(b) Article II of the Credit Agreement is hereby amended by adding the following as a new Section 2.16:

"2.16 U.S. Borrower Representative. Each U.S. Borrower hereby appoints Crown Americas LLC as the borrowing agent for such U.S. Borrower, which appointment shall remain in full force and effect unless and until the Administrative Agent shall have received prior written notice signed by each U.S. Borrower that such appointment has been revoked or that another U.S. Borrower or Affiliate of a U.S. Borrower has been appointed in such capacity. Each U.S. Borrower hereby appoints and authorizes Crown Americas LLC (or its successor) (i) to provide to the Agents and the Lenders and receive from the Agents and the Lenders all notices with respect to Loans obtained for the benefit of any U.S. Borrower and all other notices and instructions under this Agreement and (ii) to take such action as Crown Americas LLC deems appropriate on behalf of each U.S. Borrower and to exercise such other powers as are reasonably incidental thereto to carry out the purposes of this Agreement. Any reference to any action or notice required or permitted to be taken or given hereunder and under the Loan Documents by "the U.S. Borrower" or "each U.S. Borrower" shall be effective if such action is taken, or such notice is delivered, by Crown Americas LLC (or its successor) or, as applicable, a Responsible Officer thereof."

(c) Section 7.14(a) of the Credit Agreement is hereby amended by adding the following at the end of the first parenthetical:

“and other than a U.S. Subsidiary that executes a U.S. Borrower Joinder Agreement”

(d) Article XII of the Credit Agreement is hereby amended by adding the following as a new Section 12.23:

“12.23 Joint and Several Liability. (a) The obligations of any U.S. Borrower hereunder and under the other Loan Documents to which each U.S. Borrower is a party shall be joint and several and, as such, each U.S. Borrower shall be liable for all of such obligations of each other U.S. Borrower under this Agreement and the other Loan Documents to which any U.S. Borrower is a party. To the fullest extent permitted by law, the liability of each U.S. Borrower for the obligations under this Agreement and the other Loan Documents of the other applicable U.S. Borrowers with whom it has joint and several liability shall be absolute, unconditional and irrevocable, without regard to (i) the validity or enforceability of this Agreement or any other Loan Document, any of the obligations hereunder or thereunder or any other collateral security therefor or guarantee or right of offset with respect thereto at any time or from time to time held by any applicable Secured Creditor, (ii) any defense, set-off or counterclaim which may at any time be available to or be asserted by such other applicable U.S. Borrower or any other Person against any Secured Creditor or (iii) any other circumstance whatsoever (with or without notice to or knowledge of such other applicable U.S. Borrower or such U.S. Borrower) which constitutes, or might be construed to constitute, an equitable or legal discharge of such other applicable U.S. Borrower for the obligations hereunder or under any other Loan Document, or of such U.S. Borrower under this Section 12.23, in bankruptcy or in any other instance, in each case of the foregoing clauses (i) through (iii), other than a defense of payment or performance hereunder; provided that no U.S. Borrower hereby waives any suit for breach of a contractual provision of any of the Loan Documents.

(b) Each U.S. Borrower agrees that it will not exercise any rights which it may acquire by way of rights of subrogation under this Agreement, by any payments made hereunder or otherwise, until the prior payment in full in cash of all of the obligations hereunder and under any other Loan Document, the termination or expiration of all Letters of Credit and the permanent termination of all Commitments. Any amount paid to any U.S. Borrower on account of any such subrogation rights prior to the payment in full in cash of all of the obligations hereunder and under any other Loan Document, the termination or expiration of all Letters of Credit and the permanent termination of all Commitments shall be held in trust for the benefit of the applicable Lenders and shall immediately be paid to the Administrative Agent for the benefit of the applicable Lenders and credited and applied against the obligations of the applicable U.S. Borrower pursuant to Section 2.2(c). In furtherance of the foregoing, for so long as any obligations of the U.S. Borrowers hereunder, any Letters of Credit or any Commitments remain outstanding, each U.S. Borrower shall refrain from taking any action or commencing any proceeding against any other U.S. Borrower (or any of its successors or assigns, whether in connection with a bankruptcy proceeding or otherwise) to recover any amounts in respect of payments made in respect of the obligations hereunder or under any other Loan Document of such other U.S. Borrower to any Secured Creditor.”

(e) Article XIV of the Credit Agreement is hereby amended by adding the following as a new Section 14.16:

“14.16 Guarantee of Each U.S. Borrower

. In order to induce Administrative Agent, the Facing Agents and the Lenders to execute and deliver this Agreement and to make or maintain the Loans and to issue Letters of Credit hereunder, and in consideration thereof, each U.S. Borrower hereby, jointly and severally, unconditionally and irrevocably guarantees, as primary obligor and not merely as surety, to the Agents, for the ratable benefit of the Facing Agents and the Lenders, the prompt and complete payment and performance by each Borrower when due (whether at stated maturity, by acceleration or otherwise) of the Obligations and all Bank Related Debt (but not any Excluded Swap Obligations), and each U.S. Borrower further agrees to pay any and all reasonable expenses (including, without limitation, all reasonable fees, charges and disbursements of counsel) which may be paid or incurred by the Agents, the Facing Agents or any Lender in enforcing any of their rights under the guarantee contained in this Article XIV. The guarantee contained in this Article XIV, subject to Section 14.6, shall remain in full force and effect until all Letters of Credit have terminated, the Obligations are paid in full and the Commitments are terminated.

Each U.S. Borrower agrees that whenever, at any time, or from time to time, it shall make any payment to any Agent, any Facing Agent or any Lender on account of its liability under this Article XIV, it will notify such Agent, the applicable Facing Agent and such Lender in writing that such payment is made under the guarantee contained in this Article XIV for such purpose. No payment or payments made by any Borrower or any other Person or received or collected by any Agent, any Facing Agent or any Lender from any Borrower or any other Person by virtue of any action or proceeding or any setoff or appropriation or application, at any time or from time to time, in reduction of or in payment of the Obligations shall be deemed to modify, reduce, release or otherwise affect the liability of each U.S. Borrower under this Article XIV, which, notwithstanding any such payment or payments, shall remain liable for the unpaid and outstanding Obligations until, subject to Section 14.6, the Obligations are paid in full and the Commitments are terminated."

(f) The Exhibits to the Credit Agreement are hereby amended by including as new Exhibit 13 the "U.S. Borrower Joinder Agreement" set forth as Annex I to this Amendment.

2. U.S. Guarantee Agreement Amendments. Subject to the satisfaction of the terms and conditions set forth in Section 5 of this Amendment, the U.S. Guarantee Agreement is amended as follows (the "U.S. Guarantee Amendments"):

(a) The third paragraph of the preamble to the U.S. Guarantee Agreement is hereby amended by replacing the reference to "U.S. Borrower" therein with "Crown Holdings."

(b) Section 20 of the U.S. Guarantee Agreement is hereby amended by (i) replacing the phrase "U.S. Borrower that was not in existence on the date of the Credit Agreement" in such section with "Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement)" and (ii) deleting the phrase "upon becoming a wholly-owned U.S. Subsidiary".

(c) Annex I to the U.S. Guarantee Agreement is hereby amended by amending and restating paragraph C of the recitals thereto as follows:

"C. The Guarantors have entered into the U.S. Guarantee Agreement in order to induce the Lenders to make Loans and the Facing Agents to issue Letters of Credit. Pursuant to Section 7.14 of the Credit Agreement, each wholly-owned U.S. Subsidiary of Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement) is required to enter into the U.S. Guarantee Agreement as a Guarantor. Section 20 of the U.S. Guarantee Agreement provides that additional wholly-owned U.S. Subsidiaries of Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement) may become Guarantors under the U.S. Guarantee Agreement by execution and delivery of an instrument in the form of this Supplement. The undersigned wholly-owned U.S. Subsidiary of the Crown Holdings (the "New Guarantor") is executing this Supplement in accordance with the requirements of the Credit Agreement to become a Guarantor under the U.S. Guarantee Agreement in order to induce the Lenders to make additional Loans and the Facing Agents to issue additional Letters of Credit and as consideration for Loans previously made and Letters of Credit previously issued."

3. U.S. Indemnity, Subrogation and Contribution Agreement Amendments. Subject to the satisfaction of the terms and conditions set forth in Section 5 of this Amendment, the U.S. Indemnity, Subrogation and Contribution Agreement is amended as follows (the "U.S. Indemnity Amendments" and together with the Credit Agreement Amendments and the U.S. Guarantee Amendments, the "Amendments"):

(a) Section 12 of the U.S. Indemnity, Subrogation and Contribution Agreement is hereby amended by (i) replacing the phrase "U.S. Borrower that was not in existence or not such a wholly-owned U.S. Subsidiary on the date of the Credit Agreement" in such section with "Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement)" and (ii) deleting the phrase "upon becoming such a wholly-owned U.S. Subsidiary".

(b) Annex I to the U.S. Indemnity, Subrogation and Contribution Agreement is hereby amended by amending and restating paragraph C of the recitals thereto as follows:

"C.U.S. Borrower and the Guarantors have entered into the Indemnity, Subrogation and Contribution Agreement in order to induce the Lenders to make Loans and the Facing Agents to issue Letters of Credit. Pursuant to Section 7.14 of the Credit Agreement, each wholly-owned U.S. Subsidiary of Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement) is required to enter into the Indemnity, Subrogation and Contribution Agreement as a Guarantor. Section 12 of the Indemnity, Subrogation and Contribution Agreement provides that additional wholly-owned U.S. Subsidiaries of Crown Holdings (subject to the exceptions set forth in Section 7.14 of the Credit Agreement) may become Guarantors under the Indemnity, Subrogation and Contribution Agreement by execution and delivery of an instrument in the form of this Supplement. The undersigned wholly-owned U.S. Subsidiary (the "New Guarantor") is executing this Supplement in accordance with the requirements of the Credit Agreement to become a Guarantor under the Indemnity, Subrogation and Contribution Agreement in order to induce the Lenders to make additional Loans and the Facing Agents to issue additional Letters of Credit and as consideration for Loans previously made and Letters of Credit previously issued."

4. Representations and Warranties. To induce the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent and the Lenders to enter into this Amendment, the Borrowers and Parent Guarantors represent and warrant that, as of the Second Amendment Effective Date:

(a) Representations and Warranties. Both immediately before and immediately after giving effect to this Amendment, the representations and warranties of the Borrowers and Parent Guarantors set forth in the Credit Agreement and the other Loan Documents are true and correct in all material respects (except that any representation and warranty that is qualified as to "materiality" or "Material Adverse Effect" is true and correct in all respects) as of the date hereof, except to the extent such representations and warranties refer to an earlier date, in which case such representations and warranties are true and correct in all material respects (except that any representation and warranty that is qualified as to "materiality" or "Material Adverse Effect" is true and correct in all respects) as of such earlier date.

(b) No Unmatured Event of Default or Event of Default. Immediately after giving effect to this Amendment, no Unmatured Event of Default or Event of Default has occurred and is continuing.

(c) Corporate Authority. (i) Each Borrower and Parent Guarantor has the right and power and is duly authorized to execute this Amendment and to perform and observe the provisions of this Amendment, (ii) this Amendment has been duly executed and delivered by each Borrower and Parent Guarantor and is the legal, valid and binding obligation of each Borrower and Parent Guarantor, enforceable against such Borrower or Parent Guarantor, as applicable, in accordance with its terms, subject to applicable bankruptcy, insolvency and similar laws affecting the enforceability of creditors' rights generally and to general principles of equity, and (iii) the execution, delivery and performance by each Borrower and Parent Guarantor of this Amendment, does not and will not (A) contravene the terms of any of such Person's Organic Documents; (B) conflict with or result in any breach or contravention of, or constitute a default under, or result in the creation or imposition of (or the obligation to create or impose) any Lien (other than Liens permitted under Section 8.2 of the Credit Agreement) pursuant to, (1) any Contractual Obligation to which such Person is a party or affecting such Person or the properties of such Person or any of its Subsidiaries or (2) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which such Person or its property is subject; or (C) violate any law, except in each case referred to in clause (B)(1), (B)(2) or (C), to the extent that such contravention or violation could not reasonably be expected to have a Material Adverse Effect.

(d) No Approvals, etc. Except to the extent the failure to obtain or make the same would not reasonably be expected to have a Material Adverse Effect, no order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except for (x) those that have otherwise been obtained or made on or prior to the Second Amendment Effective Date and which remain in full force and effect on the Second Amendment Effective Date and (y) filings which are necessary to perfect the security interests created under the Security Documents), or exemption by, any governmental or public body or authority, or any subdivision thereof, is required to be obtained or made by, or on behalf of, any Credit Party to authorize, or is required to be obtained or made by, or on behalf of, any Credit Party in connection with, the execution, delivery and performance of this Amendment.

5. Effectiveness of Amendments. The effectiveness of the Amendments are subject to the satisfaction of the following conditions precedent (the date upon which the Amendments become effective, the "Second Amendment Effective Date"):

(a) the execution and delivery of this Amendment by the Borrowers, the Parent Guarantors, the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent and the Required Lenders;

(b) the Administrative Agent shall have received all fees and other amounts due and payable on or prior to the Second Amendment Effective Date, including, all out-of-pocket expenses (including the legal fees and expenses of Cahill Gordon & Reindel llp, counsel to the Administrative Agent) required to be reimbursed or paid by the Borrowers on or prior to the Second Amendment Effective Date hereunder or under any other Loan Document, in each case to the extent invoiced at least three (3) Business Days prior to the Second Amendment Effective Date;

(c) No Unmatured Event of Default or Event of Default has occurred and is continuing; and

(d) The representations and warranties of the Borrowers and Parent Guarantors set forth in Section 3 hereof shall be true and correct in all material respects (except that any representation and warranty that is qualified as to "materiality" or "Material Adverse Effect" is true and correct in all respects) on and as of the Second Amendment Effective Date, except to the extent such representations and warranties refer to an earlier date, in which case such representations and warranties are true and correct in all material respects (except that any representation and warranty that is qualified as to "materiality" or "Material Adverse Effect" is true and correct in all respects) as of such earlier date.

6. Reference to and Effect on Loan Documents.

(a) Ratification. The Borrowers and Parent Guarantors acknowledge and agree that, except as expressly set forth herein, (i) all of the terms and conditions of and their obligations under the Credit Agreement and the other Loan Documents and (ii) all guarantees, collateral, security interests, liens heretofore or hereafter granted to the Canadian Administrative Agent, the U.K. Administrative Agent or the Administrative Agent, for the benefit of the Lenders, under the Credit Agreement and all other Loan Documents are hereby ratified and confirmed and continue unchanged and in full force and effect.

(b) No Waiver. Neither the execution, delivery and effectiveness of this Amendment, nor the making of future Loans under the Credit Agreement shall, directly or indirectly, operate as a waiver of any right, power or remedy of the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent or the Lenders under the Credit Agreement or any of the other Loan Documents or a waiver of any Unmatured Event of Default or Event of Default, or constitute a course of dealing or other basis for altering any Obligation of any Borrower, Parent Guarantor or any other Person or any right, privilege or remedy of the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent or the Lenders under the Credit Agreement or any other Loan Document.

(c) References. Upon the effectiveness of this Amendment on the Second Amendment Effective Date, each reference to the Credit Agreement in any Loan Document shall mean and be a reference to the Credit Agreement as amended hereby.

(d) Loan Document. On and after the Second Amendment Effective Date, this Amendment shall constitute a "Loan Document" as defined under the Credit Agreement.

7. Miscellaneous.

(a) Successors and Assigns. This Amendment shall be binding on and shall inure to the benefit of each Borrower, Parent Guarantor, the Canadian Administrative Agent, the U.K. Administrative Agent, the Administrative Agent and the Lenders and their respective successors and assigns as set forth in the Loan Documents.

(b) Entire Agreement. This Amendment and the Loan Documents, as amended hereby, constitute the entire agreement of the parties hereto with respect to the subject matter hereof and supersede all other understandings, oral or written, with respect to the subject matter hereof.

(c) Fees and Expenses. Borrowers agree to pay all reasonable out-of-pocket costs and expenses of the Administrative Agent (including the reasonable fees, charges and disbursements of outside counsel to the Administrative Agent) in connection with the preparation, execution and delivery of this Amendment.

(d) Headings. Section headings in this Amendment are included herein for convenience of reference only and shall not constitute a part of this Amendment for any other purpose.

(e) Severability. Wherever possible, each provision of this Amendment shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Amendment shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Amendment.

(f) Counterparts. This Amendment may be executed in any number of separate original counterparts (or telecopied counterparts with original execution copy to follow) and by the different parties on separate counterparts, each of which shall be deemed to be an original, but all of such counterparts shall together constitute one agreement. Delivery of an executed counterpart of a signature page to this Amendment by telecopy or PDF shall be effective as delivery of a manually executed counterpart of this Amendment.

(g) Incorporation of Credit Agreement Provisions. The provisions contained in Section 12.9 (CONSENT TO JURISDICTION; MUTUAL WAIVER OF JURY TRIAL; SERVICE OF PROCESS) of the Credit Agreement are incorporated herein by reference, *mutatis mutandis*, to the same extent as if reproduced herein in their entirety.

[remainder of page intentionally left blank; signature pages follow]

IN WITNESS WHEREOF, the parties hereto have duly executed this Second Amendment to Credit Agreement as of the date first above written.

CROWN AMERICAS LLC

By: /s/ Kevin Clothier
Name: Kevin Clothier
Title: Vice President & Treasurer

CROWN EUROPEAN HOLDINGS S.A.

By: /s/ Laurent Watteaux
Name: Laurent Watteaux
Title: Administrateur & Président Directeur Général

CROWN HOLDINGS, INC.

By: /s/ Thomas A. Kelly
Name: Thomas A. Kelly
Title: Senior Vice President & Chief Financial Officer

CROWN INTERNATIONAL HOLDINGS, INC.

By: /s/ Kevin Clothier
Name: Kevin Clothier
Title: Vice President & Treasurer

CROWN CORK & SEAL COMPANY, INC.

By: /s/ Kevin Clothier
Name: Kevin Clothier
Title: Vice President & Treasurer

CROWN METAL PACKAGING CANADA LP
by its general partner, CROWN METAL PACKAGING CANADA INC.

By: /s/ Kevin Clothier

Name: Kevin Clothier
Title: Vice President & Treasurer

Signature Page to Second Amendment to Credit Agreement

CROWN UK HOLDINGS LIMITED

By: /s/ John Beardsley

Name: John Beardsley

Title: Director

CROWN CORK & SEAL DEUTSCHLAND HOLDINGS GMBH

By: /s/ Rolf Wilke

Name: Rolf Wilke

Title: Managing Director

By: /s/ Martin Kleiner

Name: Martin Kleiner

Title: Prokurist

CROWN VERPAKKING NEDERLAND BV

By: /s/ John Beardsley

Name: John Beardsley

Title: President

CROWN BEVERAGE PACKAGING, LLC.
CROWN CORK SEAL USA, INC.

By: /s/ Kevin Clothier
Name: Kevin Clothier
Title: Assistant Treasurer

CROWN CONSULTANTS, INC.
CROWN CORK & SEAL COMPANY (DE), LLC
CROWN PACKAGING TECHNOLOGY, INC.
CROWN BEVERAGE PACKAGING PUERTO RICO, INC.
CROWN FINANCIAL CORPORATION
FOREIGN MANUFACTURERS FINANCE CORPORATION
CR USA, INC.
CROWN AMERICAS CAPITAL CORP.
CROWN AMERICAS CAPITAL CORP. II
CROWN AMERICAS CAPITAL CORP. III
CROWN AMERICAS CAPITAL CORP. IV
CROWN AMERICAS CAPITAL CORP. V

By: /s/ Kevin Clothier
Name: Kevin Clothier
Title: Vice President and Treasurer

DEUTSCH BANK AG NEW YORK BRANCH, in its individual capacity and as Administrative Agent, U.S. Collateral Agent and Euro Collateral Agent

By: /s/ Alicia Schug
Name: Alicia Schug
Title: Vice President

By: /s/ Maria Guinchard
Name: Maria Guinchard
Title: Vice President

DEUTSCH BANK AG LONDON BRANCH, as
U.K. Administrative Agent

By: /s/ Auca Trifan
Name: Auca Trifan
Title: Managing Director

By: /s/ Marcus Tarkington
Name: Marcus Tarkington
Title: Director

Signature Page to Second Amendment to Credit Agreement

DEUTSCH BANK AG CANADA BRANCH, as
Canadian Administrative Agent

By: /s/ Dan Sooley
Name: Dan Sooley
Title: Chief Country Officer

By: /s/ David Gynn
Name: David Gynn
Title: Chief Financial Officer

Signature Page to Second Amendment to Credit Agreement

HSBC BANK USA, NATIONAL ASSOCIATION
as a Lender

By: /s/ Patricia Delgrande
Name: Patricia Delgrande
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

INDUSTRIAL & COMMERICAL BANK OF CHINA, as a Lender

By: /s/ Brian Foley
Name: Brian Foley
Title: Director

By: /s/ Christopher McKay
Name: Christopher McKay
Title: Director

Signature Page to Second Amendment to Credit Agreement

INTESA SANPAOLOS S.P.A., NEW YORK BRANCH, as a Lender

By: /s/ Franco Di Mario
Name: Franco Di Mario
Title: FVP and Head of Credit

By: /s/ Manuela Insana
Name: Manuela Insana
Title: VP

Signature Page to Second Amendment to Credit Agreement

LENDERS:		**MIZUHO BANK LTD**
	By:	/s/ Donna DeMagistris
		Name: Donna DeMagistris
		Title: Authorized Signatory

Signature Page to Second Amendment to Credit Agreement

THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.,
as a Lender

By: /s/ Liwei Liu
Name: Liwei Liu
Title: Vice President

Signature Page to Second Amendment to Credit Agreement

THE NORTHERN TRUST COMPANY, as a Lender

By: /s/ Andrew Holtz
Name: Andrew Holtz
Title: Senior Vice President

If a second signature line is required:

By: ____________________
Name:
Title:

Signature Page to Second Amendment to Credit Agreement

LENDERS: **PNC BANK, NATIONAL ASSOCIATION,**
as Lender

By: /s/ Denise DiSimone
Name: Denise DiSimone
Title: Senior Vice President

Signature Page to Second Amendment to Credit Agreement

PEOPLE'S UNITED BANK, as a Lender

By: /s/ Jennie D. McElhone

Name: Jennie D. McElhone

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

COÖPERATIEVE RABOBANK U.A., NEW YORK BRANCH, as a Lender

By: /s/ Claire Laury
Name: Claire Laury
Title: Executive Director

By: /s/ David Vernon
Name David Vernon
Title: Vice President

Signature Page to Second Amendment to Credit Agreement

CANADIAN IMPERIAL BANK OF COMMERCE<
NEW YORK BRANCH, as a Lender

By: /s/ Robert Robin
Name: Robert Robin
Title: Authorized Signatory

By: /s/ Andrew Campbell
Name: Andrew Campbell
Title: Authorized Signatory

Signature Page to Second Amendment to Credit Agreement

AGCHOICE FARM CREDIT, ACA ON BEHALF OF ITSELF AND ITS WHOLLY-OWNED SUBSIDIARIES, AGCHOICE FARM CREDIT, FLCA, AND AGCHOICE FARM CREDIT, PCA, as a Voting Participant

By: /s/ Joshua L. Larock
Name: Joshua L. Larock
Title: Vice President

If a second line is required:

By: ________________
Name:
Title:

THE BANK OF NOVA SCOTIA, as a Lender

By: /s/ Michael Grad

Name: Michael Grad

Title: Director

Signature Page to Second Amendment to Credit Agreement

SCOTIABANK (IRELAND) DESIGNATED ACTIVITY COMPANY, as a Lender

By: /s/ Sue Foster
Name: Sue Foster
Title: CEO

By: /s/ David White
Name: David White
Title: Director

Signature Page to Second Amendment to Credit Agreement

BANK OF AMERICA, N.A., as a Lender

By: /s/ Mike Delaney

Name: Mike Delaney

Title: Director

If a second signature line is required:

By:

Name:

Title:

Signature Page to Second Amendment to Credit Agreement

BARCLAYS BANK PLC, as a Lender

By: /s/ Nicholas Guzzardo

Name: Nicholas Guzzardo

Title: Assistant Vice President

Signature Page to Second Amendment to Credit Agreement

BMO HARRIS BANK N.A., as a Lender

By: /s/ Matthew Gerber

Name: Matthew Gerber

Title: Director

Signature Page to Second Amendment to Credit Agreement

LENDERS:		**CAPITAL ONE, NATIONAL ASSOCIATION**
	By:	/s/ Patrick McCarthy
		Name: Patrick McCarthy
		Title: Senior Vice President

Signature Page to Second Amendment to Credit Agreement

LENDERS: **CITIBANK, N.A.**, as a Lender

By: /s/ Scott Slavik

Name: Scott Slavik

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

CITIZENS BANK OF PENNSLVANIA, as a Lender

By: /s/ William J. O'Meara

Name: William J. O'Meara

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

COBANK, ACB, as a Lender

By: /s/ Natalya Rivkin

Name: Natalya Rivkin

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

COMMERZBANK AG, NEW YORK BRANCH, as a Lender

By: /s/ Pedro Bell

Name: Pedro Bell

Title: Director

By: /s/ Veli-Matti Ahonen

Name: Veli-Matti Ahonen

Title: Assistant Vice President

Signature Page to Second Amendment to Credit Agreement

COMPEER FINANCIAL, FLCA, as a Voting Participant

By: /s/ Corey J. Waldinger

Name: Corey J. Waldinger

Title: Director, Capital Markets

Signature Page to Second Amendment to Credit Agreement

LENDERS: **COMPEER FINANCIAL, PCA**, as a Lender

By: /s/ Corey J. Waldinger

Name: Corey J. Waldinger

Title: Director, Capital Markets

Signature Page to Second Amendment to Credit Agreement

CREDIT INDUSTRIEL ET COMMERCIAL, as a Lender

By: /s/ Clifford Abramsky

Name: Clifford Abramsky

Title: Managing Director

By: /s/ Marcus Edward

Name: Marcus Edward

Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

CRÉDIT INDUSTRIEL ET COMMERCIAL, NEW YORK BRANCH, as a Lender

By: /s/ Clifford Abramsky

Name: Clifford Abramsky

Title: Managing Director

By: /s/ Marcus Edward

Name: Marcus Edward

Title: Managing Director

HSBC BANK PLC, as a Lender

By: /s/ Renato Santos

Name: Renato Santos

Title: Associate Director

Signature Page to Second Amendment to Credit Agreement

COMPASS BANK, as a Lender
(Name of Institution)

By: /s/ Daniel Feldman
Name: Daniel Feldman
Title: Vice President

Signature Page to Second Amendment to Credit Agreement

BANCO SANTANDER, S.A., as a Lender

By: /s/ Palaua Garcia
Name: Palaua Garcia
Title: VP

By: /s/ Ignacio Martin-Aragon
Name: Ignacio Martin-Aragon
Title: VP

Signature Page to Second Amendment to Credit Agreement

KBC BANK N.V., NEW YORK BRANCH, as a Lender

By: /s/ Nicholas Philippides
Name: Nicholas Philippides
Title: Vice President

By: /s/ Susan M. Silver
Name: Susan M. Silver
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

STANDARD CHARTERED BANK, as a Lender

By: /s/ Daniel Mattern
Name: Daniel Mattern
Title: Associate Director

Signature Page to Second Amendment to Credit Agreement

TD BANK, N.A., as a Lender

By: /s/ Michelle Dragonetti
Name: Michelle Dragonetti
Title: Senior Vice President

Signature Page to Second Amendment to Credit Agreement

LENDER:		**ING (IRELAND) DAC**
	By:	/s/ Barry Fehily
		Name: Barry Fehily
		Title: Country Manager
	By:	/s/ Shaun Hawley
		Name: Shaun Hawley
		Title: Director

Signature Page to Second Amendment to Credit Agreement

LENDER: **CITY NATIONAL BANK**

By: /s/ Diane Morgan

Name: Diane Morgan

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

BNP PARIBAS, as a Lender

By: /s/ Richard Pace
Name: Richard Pace
Title: Managing Director

By: /s/ Nanette Baudon
Name: Nanette Baudon
Title: Director

Signature Page to Second Amendment to Credit Agreement

THE HUNTINGTON NATIONAL BANK, as a Lender

By: /s/ Michael Kiss

Name: Michael Kiss

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, as a Lender

By: /s/ Gordon Yip
Name: Gordon Yip
Title: Director

By: /s/ Mark Koneval
Name: Mark Koneval
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

LENDER:		**DNB CAPITAL**, as a Lender
	By:	/s/ Philip F. Kurpiewski
		Name: Philip F. Kurpiewski
		Title: Senior Vice President
	By:	/s/ Kristie Li
		Name: Kristie Li
		Title: Senior Vice President

Signature Page to Second Amendment to Credit Agreement

FCS COMMERCIAL FINANCE GROUP, FOR AGCOUNTRY FARM CREDIT SERVICES, FLCA (SUCCESSOR BY MERGER TO UNITED FCS, FLCA, D/B/A FCS COMMERCIAL FINANCE GROUP), as a Voting Participant

By: /s/ Erik Knight

Name: Erik Knight

Title: Assistant Vice President

FARM CREDIT BANK OF TEXAS, as a Voting Participant

By: /s/ Ria Estrada

Name: Ria Estrada

Title: Vice President

FARM CREDIT MID-AMERICA, FLCA, as a Voting Participant

By: /s/ Tim J. Fraley

Name: Tim J. Fraley

Title: Senior Credit Officer

Signature Page to Second Amendment to Credit Agreement

FIFTH THIRD BANK, as a Lender

By: /s/ Jonathan James
Name: Jonathan James
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

GOLDMAN SACHS BANK USA, as a Lender

By: /s/ Chris Lam
Name: Chris Lam
Title: Authorized Signature

If a second signature line is required:

By: ______________________
Name:
Title:

Signature Page to Second Amendment to Credit Agreement

GREENSTONE FARM CREDIT SERVICES,
FLCA, as a Voting Participant

By: /s/ Jeff Pavlik
Name: Jeff Pavlik
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

HSBC FRANCE, as a Lender

By: /s/ Christine Debu

Name: Christine Debu

Title: Responsible des Grands Clients internationaux, Global Banking Markets

If a second signature line is required:

By: /s/ Xiaoping Guo

Name: Xiaoping Guo

Title: Associate Director, Multi-National

Signature Page to Second Amendment to Credit Agreement

INDUSTRIAL AND COMMERCIAL BANK OF CHINA (USA), NA, as a Lender
(Name of Institution)

By: /s/ Jeff Liu
Name: Jeff Liu
Title: SVP

If a second signature line is required:

By: __________
Name:
Title:

Signature Page to Second Amendment to Credit Agreement

SUMITOMO MITSUI BANKING CORPORATION,
as a Lender

By: /s/ Katsuyuki Kubo
Name: Katsuyuki Kubo
Title: Managing Director

Signature Page to Second Amendment to Credit Agreement

LENDERS: **TRISTATE CAPITAL BANK**

By: /s/ Ellen Frank

Name: Ellen Frank

Title: Senior Vice President

Signature Page to Second Amendment to Credit Agreement

LENDERS: **UNICREDIT BANK AG**

By: /s/ Ricarda Soltanmoradi

Name: Ricarda Soltanmoradi

Title: Managing Director

UNICREDIT BANK AG

By: /s/ Ken Hamilton

Name: Ken Hamilton

Title: Managing Director, Attorney in Fact

Signature Page to Second Amendment to Credit Agreement

LENDERS:

WELLS FARGO BANK, NATIONAL ASSOCIATION, as a Lender

By: /s/ Andrew G. Payne

Name: Andrew G. Payne

Title: Director

Signature Page to Second Amendment to Credit Agreement

BANK OF AMERICA MERRILL LYNCH INTERNATIONAL LIMITED, as a Lender

By: /s/ Fiona Malitsky

Name: Fiona Malitsky

Title: Vice President

Signature Page to Second Amendment to Credit Agreement

CROWN

Brand-Building Packaging™

2018

Economic Profit

Incentive

Plan

-- EP Plan --

Crown Holdings, Inc.
770 Township Line Road
Yardley, PA 19067-4232

CROWN

Brand-Building Packaging™

2018 Economic Profit Incentive Plan
EP Plan Index

Subject	***Page***
Plan Objective	3
Plan Year	3
Eligibility for Participation	3
Norm Levels of Participation	3
Norm Level Adjustments	3
Elements of the Plan	3-4
How EP Awards Are Determined	4-5
Timing and Distribution of Awards	6
Recoupment of Awards	6
Termination of Employment	6
Plan Administration	6

Addenda

Addendum I	8
Addendum II	9
Addendum III	10

Crown Holdings, Inc.
2018 Economic Profit Incentive Plan (EP Plan)

Plan Objective

The primary objective of the Economic Profit Incentive Plan (the “Plan” or “EP Plan”) is to provide financial motivation for selected key executives and employees of Crown Holdings, Inc., and its subsidiaries (the “Company”) to achieve or exceed established Company goals, and to reward them for outstanding performance on the Company’s behalf.

Plan Year

The Plan Year is January 1 to December 31.

Eligibility for Participation

The Plan is limited to key executives and employees selected by the Company who are able to influence decisions relating to improving Economic Profit. Each employee who is selected for participation (a “Participant”) will receive an individual award letter outlining the details of their participation in the Plan. All Plan Participants are required to sign a Business Protection Agreement.

Norm Levels of Participation

As a Plan Participant, you have been assigned a “Norm” **-** or a target level of participation in the Plan. Your Norm level, in combination with your salary, is a vital component of your EP Plan calculation. Individual Participant awards are based on the Participant’s incentive Norm as a percentage of the Participant’s salary.

Norm Level Adjustments

The Norm levels may be adjusted at the discretion of the Company. You will be advised of your Norm level in your award letter.

Elements of the Plan

The Plan has an Economic Profit (EP) element and a Modified Operating Cash Flow (MOCF) element. The performance for each element is measured against targets set at the Total Company, Division and Business Unit level as applicable to each participant’s situation.

EP Element
This element of the Plan is based on Economic Profit as calculated in Hyperion account #91880, subject to adjustment for currency exchange rates and acquisitions/divestitures, as appropriate. The actual EP for the Total Company, Division or Business Unit will be compared to the respective EP target in calculating the percentage of the goal achieved. No award will be paid for performance that falls to 80%.

The EP target is the average of the two prior year’s actual results for the particular Business Unit, Division or the Total Company. Subject to management discretion, the EP target for a particular reporting unit may be adjusted to account for current business conditions.

MOCF Element

This element of the Plan is based on MOCF, adjusted for Average Working Capital Variances. The actual MOCF for the Total Company, Division or Business Unit will be compared to the target MOCF in calculating the percentage of the goal achieved. No award will be paid for performance that falls to 80%.

The MOCF target is based on the 2018 budgeted amounts in the Hyperion accounts noted below.

The following Hyperion accounts, subject to adjustments for changes in currency exchange rates and acquisitions/divestitures, will be used to measure performance:

	T9340	EBITDA
+/-	T8558	Pension & Related Costs
=		Adjusted EBITDA
0	T9410	Capital Spending
+/-	T9350	Trade Working Capital Change
=		Unadjusted Modified Operating Cash Flow
+/-		Average Working Capital Variance
=		Modified Operating Cash Flow (MOCF)

EBITDA is Earnings Before Interest, Taxes, Depreciation and Amortization.

Average Working Capital (AWC) is calculated in Hyperion Account 29003.

Average Working Capital Variance is calculated as the difference between the actual and targeted AWC. The Hyperion accounts included in AWC (account 29003) are:

T1300	Total Inventory
T1120	Net trade receivables
T1299	Net contract receivables
T1190	Misc. receivables
22610	Trade payables
T2320	Accrued liabilities

Account T1120 (net trade receivables) will be adjusted for significant or unusual bad debt adjustments if appropriate.

The portion of the incentive payment generated as a result of the improvement in the Average Working Capital Variance will be capped at 2% of the Budgeted Unadjusted Modified Operating Cash Flow.

How EP Awards are Determined

Each Participant is assigned a Norm level percentage which represents a payment expressed as a percentage of base salary. The base bonus is comprised of the two elements described above in the following proportions:

EP	50% of Base Bonus
MOCF	50% of Base Bonus

The Base Bonus for EP and MOCF noted above can be exceeded for exceptional performance as noted below:

EP	up to 125% of Base Bonus
MOCF	up to 125% of Base Bonus

The total payout is capped at 200% of Base bonus. A description of how each element is calculated follows:

EP element for executives working within a business (measured against 2018 target)
- up to 12.5% of base bonus (5% at achievement of target with the possibility of a further 7.5% for over-target achievement can be awarded for the Crown Total Co. EP performance);
- up to 12.5% of base bonus (5% at achievement of target with the possibility of a further 7.5% for over-target achievement can be awarded for the Crown Americas EP performance).
- Up to 100% of base bonus (40% at achievement of target with the possibility of a further 60% for over-target achievement can be awarded for the Crown Business Unit EP performance).

EP element for executives working in the Americas Division (measured against 2018 target)
- up to 25% of base bonus (10% at achievement of target with the possibility of a further 15% for over-target achievement can be awarded for the Crown Total Co. EP performance);
- up to 100% of base bonus (40% at achievement of target with the possibility of a further 60% for over-target achievement can be awarded for the Crown Americas EP performance).

EP element for executives working in Corporate (Crown Holdings) (measured against 2018 target)
- up to 125% of base bonus (50% at achievement of target with the possibility of a further 75% for over-target achievement can be awarded for the Crown Total Co. EP performance);

MOCF element for executives working within a business (measured against 2018 target)
- up to 12.5% of base bonus (5% at achievement of target with the possibility of a further 7.5% for over-target achievement can be awarded for the Crown Total Co. MOCF performance);
- up to 12.5% of base bonus (5% at achievement of target with the possibility of a further 7.5% for over-target achievement can be awarded for the Crown Americas MOCF performance).
- Up to 100% of base bonus (40% at achievement of target with the possibility of a further 60% for over-target achievement can be awarded for the Crown Business Unit MOCF performance).

MOCF element for executives working in the Americas Division (measured against 2018 target)
- up to 25% of base bonus (10.00% at achievement of target with the possibility of a further 15% for over-target achievement can be awarded for the Crown Total Co. MOCF performance);
- up to 100% of base bonus (40% at achievement of target with the possibility of a further 60% for over-target achievement can be awarded for the Crown Americas MOCF performance).

MOCF element for executives working in Corporate (Crown Holdings) (measured against 2018 target)
- up to 125% of base bonus (50% at achievement of target with the possibility of a further 75% for over-target achievement can be awarded for the Crown Total Co. MOCF performance);

Timing and Distribution of Awards

EP Plan awards will be paid as soon as practicable after the end of the Company's Fiscal Year:

- Following receipt and certification of the Company's audited financial statements; and
- After approval of the awards by the Company.

Due to the significant potential awards, the results are subject to review and reduction at the sole discretion of the Company, including without limitation, the reduction or elimination of any award to any Participant or to all Participants that would otherwise be payable upon the attainment of the applicable targets. In addition, awards will not be paid for EP arising from accounting changes and similar non-cash items.

Recoupment of Awards

With respect to any Participant's EP Plan award (or portion thereof) that is based on the financial results achieved by the Company, if the Company is subsequently required to restate its financial statements resulting in the Company's financial results being reduced such that the award (or any portion thereof) would not have been paid (or would have been smaller in amount), the Company may reduce such award if it determines, in its sole discretion, that the Participant engaged in intentional misconduct or fraud that resulted in such restatement. In such event, the Participant's award may be reduced to the amount, if any, that would have been earned on the basis of the revised financial statements, as determined by the Company in its sole discretion and the Company shall be entitled to seek recoupment from the Participant for the amount of any overpayment, as it deems appropriate under the circumstances. As a condition to participation in the EP Plan, each Participant agrees that his or her award may be reduced pursuant to this provision.

Termination of Employment

In the event of a Participant's resignation or discharge prior to the time an award is paid with respect to the Plan Year, his or her participation in the Plan will end on the employee's termination date and no award will be earned for that Plan Year. The Company, however, reserves the right to override this Plan provision.

In the event of the Participant's disability, death or retirement - as defined within the provisions of the applicable retirement plan or personnel policies - the Participant or his or her beneficiary may be paid a pro-rata amount based on the Participant's active employment with the Company during the Plan Year. This payment will be determined at the sole discretion of the Company.

Plan Administration

The Plan is administered by the Company.

Economic Profit Incentive Plan

Addenda

Addendum I
EP Plan - Award Schedule for Participants at Business Unit Level

The following Award Schedule represents the incentive payouts once the 80% performance threshold has been reached for the EP or MOCF elements of the incentive award for participants at the Business Unit Level.

Business Unit			Division			Total Company		
Target Performance	Award Increment	Incentive Payout	Target Performance	Award Increment	Incentive Payout	Target Performance	Award Increment	Incentive Payout
80%	Threshold	0.00%	80%	Threshold	0.00%	80%	Threshold	0.00%
81%	2.00%	2.00%	81%	0.25%	0.25%	81%	0.25%	0.25%
82%	2.00%	4.00%	82%	0.25%	0.50%	82%	0.25%	0.50%
83%	2.00%	6.00%	83%	0.25%	0.75%	83%	0.25%	0.75%
84%	2.00%	8.00%	84%	0.25%	1.00%	84%	0.25%	1.00%
85%	2.00%	10.00%	85%	0.25%	1.25%	85%	0.25%	1.25%
86%	2.00%	12.00%	86%	0.25%	1.50%	86%	0.25%	1.50%
87%	2.00%	14.00%	87%	0.25%	1.75%	87%	0.25%	1.75%
88%	2.00%	16.00%	88%	0.25%	2.00%	88%	0.25%	2.00%
89%	2.00%	18.00%	89%	0.25%	2.25%	89%	0.25%	2.25%
90%	2.00%	20.00%	90%	0.25%	2.50%	90%	0.25%	2.50%
91%	2.00%	22.00%	91%	0.25%	2.75%	91%	0.25%	2.75%
92%	2.00%	24.00%	92%	0.25%	3.00%	92%	0.25%	3.00%
93%	2.00%	26.00%	93%	0.25%	3.25%	93%	0.25%	3.25%
94%	2.00%	28.00%	94%	0.25%	3.50%	94%	0.25%	3.50%
95%	2.00%	30.00%	95%	0.25%	3.75%	95%	0.25%	3.75%
96%	2.00%	32.00%	96%	0.25%	4.00%	96%	0.25%	4.00%
97%	2.00%	34.00%	97%	0.25%	4.25%	97%	0.25%	4.25%
98%	2.00%	36.00%	98%	0.25%	4.50%	98%	0.25%	4.50%
99%	2.00%	38.00%	99%	0.25%	4.75%	99%	0.25%	4.75%
100%		40.00%	100%		5.00%	100%		5.00%
101%	6.00%	46.00%	101%	0.75%	5.75%	101%	0.750%	5.75%
102%	6.00%	52.00%	102%	0.75%	6.50%	102%	0.750%	6.50%
103%	6.00%	58.00%	103%	0.75%	7.25%	103%	0.750%	7.25%
104%	6.00%	64.00%	104%	0.75%	8.00%	104%	0.750%	8.00%
105%	6.00%	70.00%	105%	0.75%	8.75%	105%	0.750%	8.75%
106%	6.00%	76.00%	106%	0.75%	9.50%	106%	0.750%	9.50%
107%	6.00%	82.00%	107%	0.75%	10.25%	107%	0.750%	10.25%
108%	6.00%	88.00%	108%	0.75%	11.00%	108%	0.750%	11.00%
109%	6.00%	94.00%	109%	0.75%	11.75%	109%	0.750%	11.75%
110%	6.00%	100.00%	110%	0.75%	12.50%	110%	0.750%	12.50%

Addendum II

EP Plan - Award Schedule for Participants at the Division Level

The following Award Schedule represents the incentive payouts once the 80% performance threshold has been reached for the EP or MOCF elements of the incentive award for participants at the Americas Division Level.

Division		
Target Performance	Award Increment	Incentive Payout
80%	Threshold	0.00%
81%	2.00%	2.00%
82%	2.00%	4.00%
83%	2.00%	6.00%
84%	2.00%	8.00%
85%	2.00%	10.00%
86%	2.00%	12.00%
87%	2.00%	14.00%
88%	2.00%	16.00%
89%	2.00%	18.00%
90%	2.00%	20.00%
91%	2.00%	22.00%
92%	2.00%	24.00%
93%	2.00%	26.00%
94%	2.00%	28.00%
95%	2.00%	30.00%
96%	2.00%	32.00%
97%	2.00%	34.00%
98%	2.00%	36.00%
99%	2.00%	38.00%
100%		40.00%
101%	6.00%	46.00%
102%	6.00%	52.00%
103%	6.00%	58.00%
104%	6.00%	64.00%
105%	6.00%	70.00%
106%	6.00%	76.00%
107%	6.00%	82.00%
108%	6.00%	88.00%
109%	6.00%	94.00%
110%	6.00%	100.00%

Total Company		
Target Performance	Award Increment	Incentive Payout
80%	Threshold	0.00%
81%	0.50%	0.50%
82%	0.50%	1.00%
83%	0.50%	1.50%
84%	0.50%	2.00%
85%	0.50%	2.50%
86%	0.50%	3.00%
87%	0.50%	3.50%
88%	0.50%	4.00%
89%	0.50%	4.50%
90%	0.50%	5.00%
91%	0.50%	5.50%
92%	0.50%	6.00%
93%	0.50%	6.50%
94%	0.50%	7.00%
95%	0.50%	7.50%
96%	0.50%	8.00%
97%	0.50%	8.50%
98%	0.50%	9.00%
99%	0.50%	9.50%
100%		10.00%
101%	1.50%	11.50%
102%	1.50%	13.00%
103%	1.50%	14.50%
104%	1.50%	16.00%
105%	1.50%	17.50%
106%	1.50%	19.00%
107%	1.50%	20.50%
108%	1.50%	22.00%
109%	1.50%	23.50%
110%	1.50%	25.00%

Addendum III

EP Plan - Award Schedule for Participants at the Division Level

The following Award Schedule represents the incentive payouts once the 80% performance threshold has been reached for the EP or MOCF elements of the incentive award for participants at the Total Company Level.

	Total Company	
Target Performance	Award Increment	Incentive Payout
80%	Threshold	0.0%
81%	2.5%	2.5%
82%	2.5%	5.0%
83%	2.5%	7.5%
84%	2.5%	10.0%
85%	2.5%	12.5%
86%	2.5%	15.0%
87%	2.5%	17.5%
88%	2.5%	20.0%
89%	2.5%	22.5%
90%	2.5%	25.0%
91%	2.5%	27.5%
92%	2.5%	30.0%
93%	2.5%	32.5%
94%	2.5%	35.0%
95%	2.5%	37.5%
96%	2.5%	40.0%
97%	2.5%	42.5%
98%	2.5%	45.0%
99%	2.5%	47.5%
100%		50.0%
101%	7.5%	57.5%
102%	7.5%	65.0%
103%	7.5%	72.5%
104%	7.5%	80.0%
105%	7.5%	87.5%
106%	7.5%	95.0%
107%	7.5%	102.5%
108%	7.5%	110.0%
109%	7.5%	117.5%
110%	7.5%	125.0%

Crown Holdings, Inc.
Exhibit 21 - Subsidiaries of Registrant

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
Crown Cork & Seal Company, Inc.	Pennsylvania
CROWN Americas LLC	Pennsylvania
Crown Consultants, Inc.	Pennsylvania
Crown Americas Capital Corp.	Delaware
Crown Americas Capital Corp. II	Delaware
Crown Americas Capital Corp. III	Delaware
Crown Americas Capital Corp. IV	Delaware
Crown Americas Capital Corp. V	Delaware
Crown Americas Capital Corp. VI	Delaware
CROWN Beverage Packaging, LLC	Delaware
CROWN Beverage Packaging Puerto Rico, Inc.	Delaware
Crown Cork & Seal Company (DE), LLC	Delaware
Crown Cork & Seal Receivables (DE) Corporation	Delaware
Crown Cork and Seal Receivables II LLC	Delaware
CROWN Cork & Seal USA, Inc.	Delaware
Crown International Holdings, Inc.	Delaware
CROWN Packaging Holdings LLC	Delaware
CROWN Packaging Technology, Inc.	Delaware
Crown Receivables III LLC	Delaware
Signode Industrial Group Holdings US Inc	Delaware
Signode Industrial Group LLC	Delaware
Signode Industrial Group US Inc	Delaware
Signode International Holdings LLC	Delaware
Signode International Investment LLC	Delaware
Signode International IP Holdings LLC	Delaware
Signode Pickling Holding LLC	Delaware
Signode US IP Holdings LLC	Delaware
Package Design and Manufacturing, Inc.	Michigan
Kiwiplan Inc.	Ohio
Crownway Insurance Company	Vermont
Signode Packaging Group Australia Pty Ltd	Australia
Strapex Austria GmbH	Austria
CROWN Packaging (Barbados) Limited	Barbados
CROWN Commercial Belgium BVBA	Belgium
CROWN Verpakking België NV	Belgium
Mima Films Sprl	Belgium
Shippers Europe S.p.r.l.	Belgium
Signode BVBA	Belgium

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
Crown Brasil Holdings Ltda.	Brazil
CROWN Embalagens Métalicas da Amazonia S.A.	Brazil
Signode Brasileira Ltda.	Brazil
CROWN Asia Pacific Investments (T) Limited	British Virgin Islands
Haloila Bulgaria EOOD	Bulgaria
CROWN Beverage Cans (Cambodia) Limited	Cambodia
CROWN Beverage Cans Sihanoukville Limited	Cambodia
CROWN Khmer Beverage Cans Limited	Cambodia
Celcor Limited	Canada
CROWN Metal Packaging Canada Inc.	Canada
CROWN Metal Packaging Canada LP	Canada
Signode Packaging Group Canada ULC	Canada
CMB Machinery and Technology (Shanghai) Co Ltd	China
CROWN Beverage Cans Beijing Limited	China
CROWN Beverage Cans Changchun Limited	China
CROWN Beverage Cans Hangzhou Limited	China
CROWN Beverage Cans Heshan Limited	China
CROWN Beverage Cans Huizhou Limited	China
CROWN Beverage Cans Putian Limited	China
CROWN Beverage Cans Shanghai Limited	China
CROWN Beverage Cans Ziyang Limited	China
Foshan Continental Can Co. Limited	China
Foshan Crown Easy-Opening End Co. Limited	China
Signode Packaging (Qingdao) Co., Ltd.	China
Signode Packaging (Shanghai) Co., Ltd.	China
Crown Colombiana, S.A.	Colombia
Signode Industrial Group Colombia S.A.S.	Colombia
Bates Cargo-Pak ApS	Denmark
Bates Cargo-Pak ApS	Denmark
Lachenmeier ApS	Denmark
SPG Denmark ApS	Denmark
Strapex ApS	Denmark
Liljendals Bruk AB	Finland
Oy M. Haloila AB	Finland
Butimove	France
CROWN Bevcan France SAS	France
CROWN Commercial France SAS	France
Crown Developpement SAS	France
CROWN Emballage France SAS	France
Crown European Holdings	France
Crown Packaging European Division Services SAS	France

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
Gunther S.A.S.	France
Litec France S.A.S.	France
Mima Packaging Systems S.A.S.	France
Nordic S.A.S.	France
Scybele S.A.S.	France
Société Civile Immobilière des Baquets	France
Societe Civile Immobiliere Rousseau-Ivry	France
Société de Participations CarnaudMetalbox	France
SPG France Holdings SAS	France
Strapex S.A.S.	France
CROWN Commercial Germany GmbH & Co. KG	Germany
CROWN Commercial Vermögensverwaltung GmbH	Germany
Crown Cork & Seal Deutschland Holdings GmbH	Germany
CROWN Foodcan Germany GmbH	Germany
CROWN Foodcan GmbH	Germany
Kiwiplan GmbH	Germany
Mezger Heftsysteme GmbH	Germany
Quandel Verpackungs- und Foerdertechnik GmbH	Germany
Signode System GmbH	Germany
Signode System Packaging GmbH & Co. KG	Germany
SMB Schwede Maschinenbau GmbH	Germany
SMP Schwede Maschinenbau Weischlitz GmbH	Germany
SPG Germany Service Management GmbH	Germany
SPG Packaging Systems GmbH	Germany
Strapex GmbH (German Entity)	Germany
CROWN Cans Ghana Limited	Ghana
Crown Hellas Can Packaging SA	Greece
CROWN Beverage Cans Hong Kong Limited	Hong Kong
CROWN China Holdings (Hong Kong) Limited	Hong Kong
CROWN Packaging Investment (H.K.) Limited	Hong Kong
Signode Hong Kong Limited	Hong Kong
CROWN Commercial Hungary Kft	Hungary
CROWN Magyarorszag Csomagoloipari KFT	Hungary
Signode India Limited	India
Stopak India Pvt. Ltd	India
PT CROWN Beverage Cans Indonesia	Indonesia
CROWN Packaging Ireland Ltd	Ireland
SPG Packaging Ireland Limited	Ireland
Crown Commercial Italy Srl	Italy
Crown Holdings Italia Srl	Italy
CROWN Imballaggi Italia Srl	Italy

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
CROWN Italy Finance srl	Italy
Strapex Srl	Italy
CROWN SIEM	Ivory Coast
CROWN Packaging Jamaica Limited	Jamaica
Signode Kabushiki Kaisha	Japan
CROWN Middle East Can Co. Ltd.	Jordan
Signode Packaging Systems Limited	Kenya
Crown Luxembourg Holdings	Luxembourg
Crown Packaging Lux I S.à.r.l.	Luxembourg
Crown Packaging Lux II S.à.r.l.	Luxembourg
Crown Packaging Lux III S.à.r.l.	Luxembourg
Mima Films S.a.r.l.	Luxembourg
Signode Industrial Group Holdings Lux S.a.r.l.	Luxembourg
Signode Industrial Group Lux S.A.	Luxembourg
SPG Industrial Packaging S.a.r.l	Luxembourg
CROWN Société Malgache d'Emballages Métalliques	Madagascar
CROWN Beverage Cans Malaysia Sdn Bhd	Malaysia
Signode Packaging Group (Malaysia) Sdn. Bhd.	Malaysia
Cierres Hermeticos, S.A. DE C.V.	Mexico
CROWN Envases Mexico, S.A. de C.V.	Mexico
CROWN Famosa, S.A. de C.V.	Mexico
Crown Mexican Holdings, S. de R.L. de C.V.	Mexico
Fabricas Monterrey, S.A. de C.V.	Mexico
Glass & Silice, S.A. DE C.V.	Mexico
Prolatamex, S.A. DE C.V.	Mexico
Signode Industrial Group Mexico, R.L. de C.V.	Mexico
Silice Del Istmo, S.A. DE C.V.	Mexico
Silices De Veracruz, S.A. DE C. V.	Mexico
Vichisa, S.A. de C.V.	Mexico
Crown Packaging Maroc	Morocco
CROWN Aerosols & Promotional Nederland B.V.	Netherlands
CROWN Commercial Netherlands B.V.	Netherlands
Crown International Holdings B.V.	Netherlands
Crown Overseas Investments B.V.	Netherlands
CROWN Verpakking Nederland B.V.	Netherlands
Dacro B.V.	Netherlands
Interstrap B.V.	Netherlands
Signode Netherlands B.V.	Netherlands
SPG Netherlands B.V.	Netherlands
V.A.C. B.V.	Netherlands

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
Signode NZ Limited	New Zealand
Signode Packaging Group NZ	New Zealand
Norsk Signode AS	Norway
Crown Canadian Holdings ULC	Nova Scotia
Crown Commercial Polska Sp. z.o.o.	Poland
CROWN Packaging Polska Sp.z.o.o.	Poland
Signode Polska sp. Z.o.o.	Poland
Crown Cork & Seal de Portugal Embalagens S.A.	Portugal
Strapex Embalagem L.d.a.	Portugal
Crown Cork Kuban	Russia
CROWN Arabia Can Company Ltd	Saudi Arabia
CROWN Senegal	Senegal
CROWN Asia Pacific Holdings Pte. Ltd.	Singapore
CROWN Beverage Cans Singapore Pte. Ltd.	Singapore
CROWN Speciality Packaging Investment Pte. Ltd.	Singapore
Signode Singapore Pte. Ltd.	Singapore
Superior Investments Holdings Pte. Ltd.	Singapore
Superior Multi-Packaging Limited	Singapore
CROWN Bevcan Slovakia s.r.o.	Slovakia
Globoplastt s.r.o.	Slovakia
Signode Korea Inc.	South Korea
Adularia Inversiones 2010 S.L.	Spain
CROWN Bevcan Espana S.L.	Spain
Crown Closures Spain, S.L.	Spain
Crown Comercial de Envases, S.L.	Spain
Crown Food España, S.A.U.	Spain
Crown Holdings Spain, S.L.	Spain
Signode Packaging Espana, S.L.	Spain
Warehouse Automation Iberia, S.L.	Spain
Angleboard Sweden AB	Sweden
Josef Kihlberg AB	Sweden
Signode Industrial Group AB	Sweden
Signode Industrial Group Sweden AB	Sweden
Signode Sweden Holdings AB	Sweden
Crown Packaging European Division GmbH	Switzerland
Signode Industrial Group GmbH	Switzerland
Strapex Holding GmbH	Switzerland
Caretex Asia Ltd.	Thailand
CROWN AP (Thailand) Company Limited	Thailand
CROWN Bevcan and Closures (Thailand) Company Limited	Thailand
CROWN Foodcan (Hat Yai) Company Limited	Thailand
CROWN Foodcan (Nakhon Pathom) Company Limited	Thailand

NAME	STATE OR COUNTRY OF INCORPORATION OR ORGANIZATION
CROWN Food Packaging (Thailand) Public Company Limited	Thailand
Signode Systems (Thailand) Ltd.	Thailand
CROWN Packaging Trinidad Limited	Trinidad
CROWN Maghreb Can	Tunisia
CROWN Bevcan Türkiye Ambalaj Sanayi Ve Ticaret Limited Sirketi	Turkey
Crown Foodcan Turkey Ambalaj Sanayi Ve Ticaret Limited Sirketi	Turkey
Form Koruyucu Ambalaj Sanayi Ve Ticaret Limited Sirketi	Turkey
CROWN Emirates Company Limited	United Arab Emirates
CarnaudMetalbox Engineering Ltd	United Kingdom
CarnaudMetalbox Group UK Limited	United Kingdom
CarnaudMetalbox Overseas Limited	United Kingdom
CROWN Aerosols UK Limited	United Kingdom
Crown Packaging Commercial UK Limited	United Kingdom
Crown Packaging Distribution UK Limited	United Kingdom
Crown Packaging Manufacturing UK Limited	United Kingdom
CROWN Packaging UK Limited	United Kingdom
CROWN Promotional Packaging UK Ltd	United Kingdom
Crown UK Holdings Limited	United Kingdom
SPG Packaging UK Ltd	United Kingdom
Strapex Holdings Limited	United Kingdom
CROWN Beverage Cans Danang Limited	Vietnam
CROWN Beverage Cans (Dong Nai) Limited	Vietnam
CROWN Beverage Cans Hanoi Limited	Vietnam
CROWN Beverage Cans Saigon Limited	Vietnam

(1) The list includes only consolidated subsidiaries which are directly owned or indirectly owned by the Registrant.
(2) In accordance with Regulation S-K, Item 601(b)(ii), the names of certain subsidiaries have been omitted from the foregoing list. The unnamed subsidiaries, considered in the aggregate as a single subsidiary, would not constitute a significant subsidiary, as defined in Regulation S-X, Rule 1-02(w).

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-188568, 333-166764, 333-140992 and 333-140991) of Crown Holdings, Inc. of our report dated February 28, 2019 relating to the financial statements, financial statement schedule, and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania

February 28, 2019

EXHIBIT 31.1

CERTIFICATION

I, Timothy J. Donahue, certify that:

1. I have reviewed this annual report on Form 10-K of Crown Holdings, Inc. (“the registrant”);
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(s) 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(s) 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: February 28, 2019

/s/ Timothy J. Donahue
Timothy J. Donahue
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Thomas A. Kelly, certify that:

1. I have reviewed this annual report on Form 10-K of Crown Holdings, Inc. (“the registrant”);
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(s) 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(s) 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: February 28, 2019

/s/ Thomas A. Kelly

Thomas A. Kelly

Chief Financial Officer

EXHIBIT 32

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906 OF
THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Crown Holdings, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2018 (the “Report”), each of the undersigned officers certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(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 position and results of operations of the Company.

Date:	February 28, 2019	/s/ Timothy J. Donahue
		Timothy J. Donahue
		Chief Executive Officer
Date:	February 28, 2019	/s/ Thomas A. Kelly
		Thomas A. Kelly
		Chief Financial Officer

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

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to this Annual Report on Form 10-K and shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section nor shall it be deemed to be incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.