



Fit for Future Performance

Annual Report 2016

Annual Meeting

We cordially invite you to attend the **Annual Meeting of Shareholders** to be held at **9:00 a.m.** local time on **Thursday, April 27, 2017**, at the Park Hyatt Zurich, located at Beethoven-Strasse 21, 8002 Zürich, Switzerland. A formal notice of this meeting, together with the Proxy Statement and Proxy Card, was mailed to each shareholder of common stock of record as of the close of business on March 7, 2017, and only holders of record on said date will be entitled to vote. The Board of Directors of the Company requests the shareholders of common stock to sign proxies and return them in advance of the meeting or register your vote by telephone or through the Internet. You may also vote in person at the Annual Meeting if you are a shareholder of record.

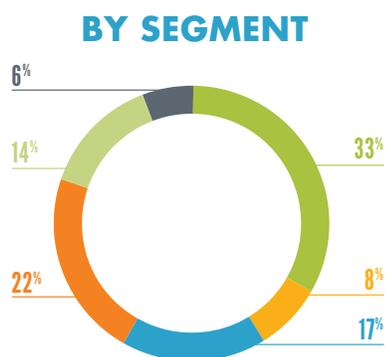
Financial Highlights

(in millions, except share, per share, employee and statistical data)

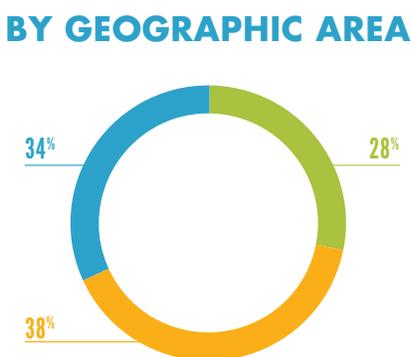
	2016	2015	% Change
NET SALES	\$8,284	\$8,762	(5.5)
INCOME FROM OPERATIONS	1,021	927	10.1
NET INCOME ATTRIBUTABLE TO CROWN HOLDINGS	496	393	26.2
PER AVERAGE COMMON SHARE:			
EARNINGS ATTRIBUTABLE TO CROWN HOLDINGS — DILUTED	\$3.56	\$2.82	26.2
MARKET PRICE (CLOSING)*	52.57	50.70	3.7
TOTAL ASSETS	\$9,599	\$10,050	(4.5)
CASH FLOW FROM OPERATIONS	930	956	(2.7)
CAPITAL EXPENDITURES	473	354	33.6
NUMBER OF EMPLOYEES	23,992	24,258	(1.1)
SHARES OUTSTANDING AT DECEMBER 31	139,840,228	139,441,298	0.3
AVERAGE SHARES OUTSTANDING — DILUTED	139,314,402	139,135,104	0.1

*Source: New York Stock Exchange – Composite Transactions

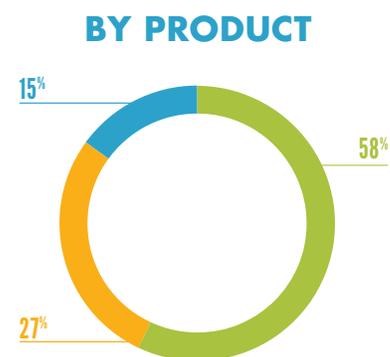
Net Sales 2016



- Americas Beverage
- North America Food
- European Beverage
- European Food
- Asia Pacific
- Other



- United States & Canada
- Developing Markets
- Western Europe



- Beverage Cans
- Food Cans & Closures
- Other

A Letter to Shareholders

Our Company had another strong year in 2016, as profitability increased despite continued currency translation headwinds. Adjusted earnings per share and constant currency segment income both rose 9%, and our free cash flow of \$479 million exceeded our expectations due to excellent working capital performance. These results are built upon the exceptional achievements of the two previous years. Beginning in 2014, we acquired and integrated two world-class packaging companies, Mivisa and Empaque, and we continued to expand our global beverage can platform, allowing us to more than offset the currency challenges faced by many U.S.-based multinationals. Adjusted earnings per share increased to \$3.93 in 2016 from \$2.99 in 2013 despite an adverse translational impact of more than \$0.70 over the three-year period. We generated \$1.7 billion of free cash flow over this period, which allowed the Company to reduce debt and begin the process of returning significant amounts of cash to our shareholders. It is this strong foundation of performance that gives us confidence that our global growth initiatives, outlined below, will continue to enhance the future earnings and cash flow of the Company.

Our global beverage can business, which represented 58% of Crown's revenue in 2016, will continue to be the major strategic focus for the Company's organic growth. For several years, industry demand for beverage cans has been growing globally at a 3% annual rate, and this is expected to continue in the coming years. Expanded use of the beverage can is occurring in virtually every region of the world, as customers and consumers increasingly recognize its operational, distribution, graphics, quick-chilling and sustainability advantages compared to other packaging formats. Beverage cans are infinitely recyclable through a closed loop and often become cans again within 60 days of consumption. 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. This is being propelled by the growth of beverages such as energy drinks, teas, juices, sparkling waters and craft beer. In addition, a prevailing package mix shift toward cans from other forms of packaging, driven by both customer and consumer preference, has helped to boost demand. For example, in 2016 beverage cans gained share in the beer market in the United States for the seventh consecutive year. Another catalyst to market growth has been the introduction of a number of different can sizes, which help to foster brand differentiation and cultivate new market segments.

Crown is strategically positioned to significantly benefit from future beverage can growth opportunities as a result of our strong and diverse customer portfolio, excellent geographic platform and long-standing presence in many of the world's fastest growing markets. For example, we hold leading positions in Cambodia, Colombia, Mexico, Turkey and Vietnam, all of which have been experiencing robust expansion in demand. To support these growing requirements, the Company has prudently invested in various projects, based on multi-year customer contracts, with the objective of increasing profitability and enhancing shareholder value.

In July 2016, we commenced operations at our third Cambodian beverage can plant, located in Phnom Penh. We also added beverage can end production capability to our Sihanoukville, Cambodia beverage can plant. At our Osmaniye, Turkey facility which opened in 2013, we installed a second production line to satisfy that market's increasing preference for cans. Commercial production began there in November 2016. Operations commenced at our new Monterrey, Mexico facility in December 2016. The plant, our fourth beverage can facility in Mexico, will supply multiple sizes of beverage cans to customers in the surrounding area, a region experiencing dynamic economic expansion.

Our beverage can plant in Nichols, New York is the industry's first greenfield site in the United States in over twenty years. It began commercial shipments from the first line in January 2017. Completion of the second line is planned for April 2017. In addition to enhancing the Company's presence in the specialty can segment in the United States, the plant will provide an attractive cost platform, including reduced freight, from which to serve our customers in the northeastern region of the United States and in eastern Canada. In the second quarter, we will also complete the conversion of our Custines, France beverage can facility from steel to aluminum with the start-up of the second high speed line, and expand capacity at our beverage can plant in Colombia.

To build upon our strong leadership position in Southeast Asia, we are constructing a new beverage can facility in Jakarta, Indonesia, our first in that country, which is the fourth most populous in the world. Serving both soft drink and beer customers, the plant is scheduled to begin commercial production in the third quarter. We are adding a second production line to our Danang, Vietnam plant, expected to be commissioned in the third quarter, to accommodate continuing growth in the central part of the country. Also, through a joint venture arrangement with Myanmar's largest consumer products company, we will build a new beverage can plant in Yangon to supply our partner's requirements on a long-term basis. That facility is scheduled for start-up during the first half of 2018.

To meet the increasing requirements of our major beer customer in Mexico, we are building a one-furnace glass bottle operation in Chihuahua. Scheduled to commence production in the first half of 2018, the facility will manufacture primarily non-returnable bottles, which, along with cans, represents a growing segment of the market.

Food cans and closures comprised 27% of Company revenue in 2016. Crown continues to benefit from the 2014 acquisition of Mivisa, a leading food can supplier in Europe. In addition to world-class production facilities, the Mivisa acquisition provided the Company the leading position in the Iberian Peninsula, a major European agricultural market. Mivisa has been successfully integrated into the Company, and the previously targeted synergies have been achieved. Despite flooding and unusually cold weather in parts of northern Europe, food can volume in our European division was essentially flat for the year, with strong performances across Mediterranean operations. In North America, our volume declined due to certain of our customers underperforming in an overall flat market.

Our other operations include the Company's global aerosol, European specialty packaging and equipment manufacturing businesses. With a continued increase in shipments in the United States, the aerosol business performed well in 2016. Following the 2015 divestiture of the industrial specialty packaging operations, we are now focusing on the consumer segment of that business, helping our customers differentiate their brands through creative metal packaging.

A common theme for all of our businesses is our unrelenting focus on safety in addition to customer satisfaction, innovation, operational improvement and cost reduction. As we look to the future, some of our innovation initiatives are highlighted later in this report.

We are excited as we look to 2017 and the years beyond. Our global businesses are strong, and we expect that the initiatives described above will enhance the Company's profitability and cash flow, thereby creating meaningful shareholder value. Our Board of Directors has authorized a \$1 billion aggregate share repurchase program through the end of 2019 and, with the Company closer to our targeted capital structure, we expect to utilize the majority of 2017 free cash flow to repurchase our stock.

On April 1, 2017, Gerard H. Gifford will become Executive Vice President and Chief Operating Officer of the Company. Currently he serves as President CROWN Europe. Also on April 1, 2017, Didier Sourisseau, who is currently Senior Vice President Food Europe, will be promoted to President CROWN Europe. In Jerry's new role, he will continue to report to me and will be responsible for the Americas and European Divisions. He will also assume responsibility for CMB Engineering, which is the Company's can manufacturing equipment business, and corporate project management and engineering. Jerry's extensive operational and global experience and deep knowledge of the Company and the industry make him ideally suited to assume this important role.

On April 30, 2016, Jozef Salaerts retired as President of the Asia Pacific Division, a position he had held since 2007. Under Jozef's guidance, CROWN Asia Pacific experienced significant growth, with revenue more than doubling and segment income more than tripling. I would like to thank Jozef for his many contributions to the Company.

On May 1, 2016, Robert H. Bourque, Jr. assumed leadership of the Asia Pacific Division. Bob was previously Senior Vice President Beverage Packaging China and Hong Kong. I am confident that the Company will continue to benefit from Bob's management skills, knowledge of our business and commitment to our customers while leading this important and growing region.

In April 2017, Thomas A. Ralph will retire as a member of the Board of Directors of the Company. On behalf of the entire Board and the Company, I would like to thank Tom for his many years of counsel and insights in helping Crown navigate through both opportunities and challenges. In July 2016, Crown elected Rose Lee to the Board. Rose, who is currently President of DuPont Protection Solutions, a global segment of E.I. duPont de Nemours and Company, will bring to the Board extensive general management experience and a deep knowledge of engineering, operations and technology.

In closing, in 2017 as Crown celebrates our 125th anniversary, with our deep and rich history, I would like to thank our 24,000 employees in 36 countries. It is their dedication, enthusiasm and creativity that will enable us to move forward and achieve many new milestones in the years ahead.

Sincerely,



Timothy J. Donahue
President and Chief Executive Officer



Story of the Crown Co

Metal packaging has been a trusted format for more than two centuries.

Inspired by a call from Napoleon to prevent the spoilage of food consumed by the French army and navy, Parisian Nicolas Appert developed the idea of preservation through sterilization in 1809. The following year, Englishman Peter Durand was awarded a patent by King George III for conceptualizing the use of airtight tin containers to maintain the freshness of food for extended periods.

This singular invention changed the course of history, and today, more than 1,500 types of food are packaged in metal.

From its inception, metal packaging offered a level of convenience that was unmatched by any other format. Since then, the can has continued to evolve, setting new standards for convenience, production efficiency and sustainability. These developments, many of which were introduced to the market by Crown, have brought metal packaging into the modern era, keeping cans in high demand and relevant with modern consumers.

While metal packaging has come a long way in the last 200+ years, there is still significant opportunity for growth. That is why Crown continues to invest in the future of the can, both in terms of developing new technologies and expanding our facilities and services to best meet the needs of our customers. We are excited about the possibilities on the horizon and continuing to serve as a pioneer in the industry, helping brands push the boundaries of creativity and engage with consumers in new ways.

CORE BENEFITS OF METAL PACKAGING

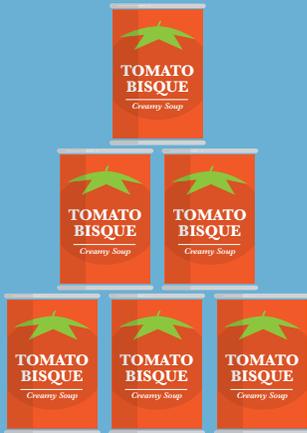
CREATES SHELF DIFFERENTIATION
with wide variety of sizes and shapes



ENHANCES
brand image with
high quality printing
and decoration



PROTECTS
product freshness, flavor and quality better
than other packaging formats by blocking
the ingress of oxygen and light



MAXIMIZES
supply chain efficiencies
thanks to light weight,
stackability and high
filling speeds



PERFORMS WELL
during entire product lifecycle
(e.g., impact resistant, puncture
resistant, capable of withstanding
extreme temperatures and pressure)

OFFERS UNRIVALED SUSTAINABILITY CREDENTIALS
100% recyclable and infinitely recyclable





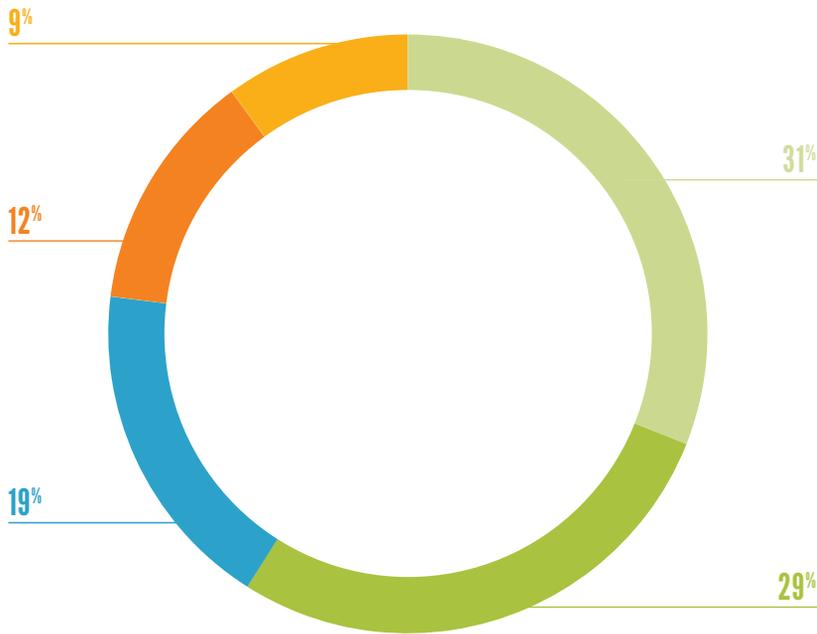
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Shining a Spotlight on Beverage Cans

While metal packaging in general continues to perform well around the world, beverage cans are experiencing the most rapid growth in both emerging and established markets.





330 billion

Estimated size of the global beverage can market in 2016

- Asia Pacific (103 Billion)
- U.S. & Canada (94 Billion)
- Europe (62 Billion)
- Latin America (40 Billion)
- Middle East & Africa (31 Billion)

The market has been growing steadily at an average rate of 3% per year for the last several years.

This growth has been bolstered by demand from market segments such as craft beer, energy drinks, juices, sparkling water, coffee, ready-to-drink teas, spirits and nutritional beverages in economies around the world. It has also been driven by brand owners seeking to offer a greater package mix to spur new drinking occasions and appeal to a variety of consumer demographics.

THE BUILDING BLOCKS OF SUCCESS

There are several key characteristics of beverage cans that have propelled its continued popularity with classic and emerging applications.

DELIVERS A UNIQUE MULTI-SENSORY EXPERIENCE



INNOVATION

Available in a diverse range of sizes, shapes and decoration options, letting brands express their unique personality—and consumers to choose brands they identify with.



PERFORMANCE

Offers a convenient, hassle-free choice for consumers. Portability encourages new drinking occasions.

More than two-thirds of consumers say they prefer cans because they are “grab and go,” and they are more durable than other packages.



SUSTAINABILITY

Easy to recycle, helping consumers feel good about doing something for the environment. It is possible for a beverage can to return to the retail shelf as another beverage can in as little as 60 days.

More than 80% of consumers say that the infinitely recyclable nature of beverage cans matters to them.



Many applications are being packaged in specialty cans, defined as sizes other than the standard can diameters for 12-ounce and 330ml beverages. Specialty cans are in high demand with consumers, who are seeking more choices from their favorite brands. Beverage manufacturers also see value in having different options, including sleek style and slim style cans, which can help refresh a brand's packaging mix and enhance its image to appeal to different consumer demographics.



Bevog

Crown's creativity and experience helped Austrian craft brewer, Bevog, transition three of its ales to beverage cans. Its European Design Studio team collaborated with Bevog to translate its existing labels into 360 degree artwork for use on the more versatile metal packaging format. The high quality graphics were recognized with two International Metal Decorators Association (IMDA) awards.

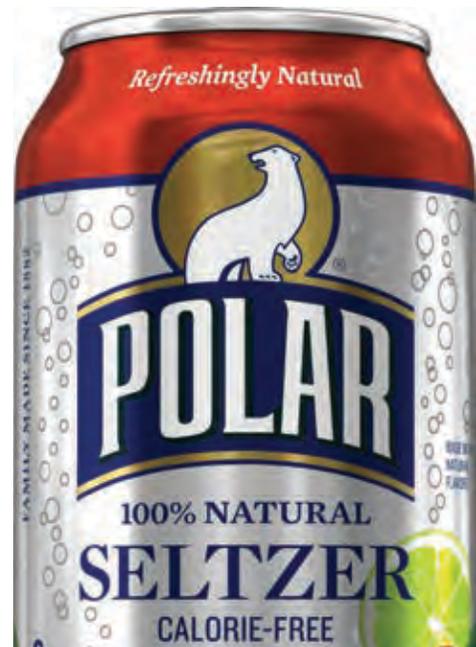
Coca-Cola

Coca-Cola is delivering greater variety to Brazilian consumers with the addition of Crown's 220ml sleek style beverage can to its already expansive packaging portfolio. The functional and sophisticated format will be used to support various Coca-Cola product lines, meeting consumer demands.



Polar Beverages

Polar Beverages, a longtime customer of Crown, relies on metal packaging to block light and air and seal in the fresh taste and crisp flavor that the brand promises.



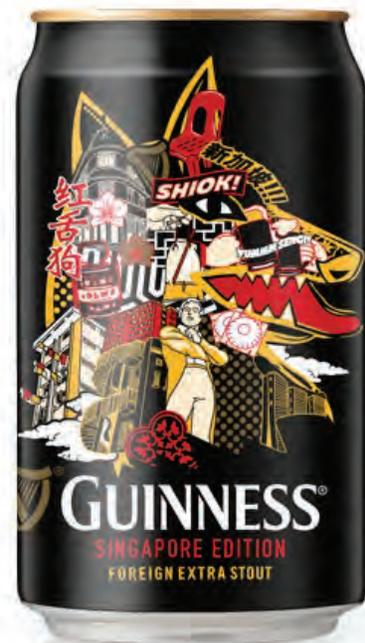
Nauti Seltzer

Wachusett Brewing Company infiltrated new territory with the launch of its Nauti Seltzer line, a healthy, ready-to-drink alternative in the hard soda category. The 12-ounce cans from Crown were designed to communicate the brand's great taste experience and distinct personality. The beverage can's clean, airy graphics and subtle colors accentuate the line's different flavors and health benefits of the premium malt beverage.



Guinness

Crown partnered with Guinness to develop a limited edition package for its Foreign Extra Stout brand to commemorate the company's 150-year presence in the Singapore market. The 330ml beverage can features colorful, high quality graphics that pay homage to local culture and help convey the premium quality of the Guinness brand. Crown's inkjet printing technology enabled Guinness to utilize the underside of the beverage can tab for a special promotional contest, injecting some fun into the drinking experience for consumers.





125

What Sets Us Apart

We are proud to be celebrating our 125th anniversary in 2017. That longevity stems from an unwavering commitment to innovation, quality and sustainability. It is also the direct result of our initiative, our adaptability to new ideas and our willingness to take strategic risk in order to deliver the most value to our customers and shareholders.





During our 125 years in the metal packaging industry, we have accumulated a great deal of knowledge and expertise that cannot be matched.

That experience is bolstered by our diversified product portfolio, which includes beverage, food and aerosol cans and ends, beverage crowns, metal vacuum closures and specialty packaging. This diversity gives us great technical depth and problem-solving capabilities, allowing us to apply learnings and innovation from one product area to another, adding tremendous value for our customers.

Our geographic footprint has changed tremendously in our 125-year history. Today, we operate 146 facilities in 36 countries around the world. We continue to make strategic investments to help ensure we are well positioned to support the market with capacity when and where our customers need it.

In addition to allowing us to grow with our customers, these investments have given us the ability to progress our product portfolio to meet evolving consumer demands. Crown is very well-positioned around the world to offer a wide variety of can sizes and diameters. For example, Crown offers the largest beverage can portfolio of any can manufacturer in Brazil, with ten different sizes available to customers in the region.



La Colombe

Crown worked with the concept and prototype from La Colombe Coffee Roasters to create the InnoValve™ technology. The solution enabled La Colombe to break into the untapped textured beverage segment. Crown leveraged its expertise in aerosol and beverage technologies to develop the unique solution: an aerosol valve adapted for beverage cans. The innovation creates the textured foam that gives La Colombe's Draft Latte its distinctive, artisanal quality that can be enjoyed by consumers on-the-go.



Update on Key Investment Projects

1

Our third beverage can plant in [Cambodia](#), and our second in [Phnom Penh](#), commenced operations in July 2016. The one-line plant produces 330ml cans and will support growing demand from the Cambodian beer, energy drinks and ready-to-drink tea segments.

2

We have added a second production line in our [Osmaniye, Turkey](#) facility to meet growing demand for beverage cans in the region. Operational since December 2016, the additional line more than doubles the plant's annual production capacity to over 1.7 billion cans and will serve customers in Turkey and neighboring markets.

3

Production began in our new [Monterrey, Mexico](#) facility in December 2016. The plant, our fourth in Mexico, produces two-piece aluminum beverage cans in multiple sizes for customers in Monterrey and the surrounding region, an area experiencing dynamic economic expansion.

4

Crown's plant in [Nichols, New York](#), the industry's first new beverage can plant in the U.S. in over 20 years, commenced production in January 2017. In addition to adding specialty can capacity to support customers in the region, the state-of-the-art plant will help us meet our 2020 sustainability goals of reducing energy consumption and Scope 1 and Scope 2 greenhouse gas emissions from 2015 levels.

5

We are building a one-line beverage can plant in [Jakarta, Indonesia](#), with start-up planned during the third quarter of 2017. The facility will serve both soft drink and beer customers in the country, which has the fourth largest population in the world.

6

Our largest beverage can business in [Southeast Asia](#) is in [Vietnam](#), which is characterized by continuing robust growth. To meet our customers' increasing requirements, we are adding a second production line to our [Danang](#) facility. Operations are scheduled to begin during the third quarter of 2017.

7

In Mexico, we have begun construction on a one-furnace glass plant in [Chihuahua](#) to primarily supply non-returnable bottles to the growing domestic beer market. Start-up of the plant is planned for the first half of 2018.

8

We have established a joint venture in [Myanmar](#) with the country's largest consumer products company to supply beverage cans on a long-term basis. The one-line facility in [Yangon](#) is planned for start-up during the first half of 2018.

The Modern Design of SPRA-TAINER

Pays Off in Sales

03



Casting an Eye Toward the Future

Crown has been innovating every day since our founder, William Painter, invented the bottle cap (originally called a “crown cork”) in 1892. That spirit is what drives us to develop technologies that change how consumers view, use and engage with metal packaging.



Here is a snapshot of the revolutionary technologies we have introduced to date and a preview of where metal packaging can take the market tomorrow.

P A S T



THE CROWN CORK

The invention of the bottle cap, or the “crown cork,” put Crown on the map. The technology, which featured a corrugated flange, revolutionized soft drink and beer packaging.



SUPEREND®

SuperEnd® beverage ends utilize a unique countersink wall angle and reinforcing bead to reduce metal use by 10%, improve end performance and enhance consumer convenience.



PEELSEAM™

PeelSeam™ peelable ends make food cans and bowls easy and quick to open for consumers of all ages and help differentiate brands on the shelf.



METAL VACUUM CLOSURES

In 1970, Crown introduced metal vacuum closures featuring a safety button that provides an audible indication of package security.

P R E S E N T



360 END®

Crown’s fully removable 360 End® turns the beverage can into a drinking vessel and eliminates the need for separate glassware.



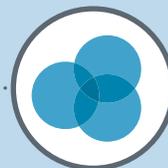
ACCENTS™

Accents™ variable printing technology allows up to 24 different designs to be printed in a single run, making it ideal for promotions, collectibles or personalized packaging.



GLOBAL VENT™

Global Vent™ beverage end technology features a dual aperture opening to facilitate a smoother pour from the beverage can, enhancing the consumer experience.



REVEAL INKS

Reveal temperature sensitive inks engage consumers by unveiling specific imagery and messaging as the cold product inside a beverage can is consumed.



EASYLIFT®

EasyLift® easy-open ends set a new standard in convenience packaging with significantly improved finger access under the tab.

PRESENT



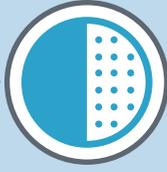
PEELFIT™

Designed for the dry food market, the new Peelfit™ container utilizes revolutionary Direct Heat Sealing Technology to enhance sustainability and optimize product protection.



603 END

A unique variation of Crown's 603 diameter easy-open end helps food service customers easily open 6lb cans of McCall Farms' boiled peanuts and increases hygiene and safety.



BICAN®

Bi-compartmented (BICAN®) aerosol technology incorporates a plastic inner bag to separate product and propellant and offers consumers excellent practicality with its ergonomic design.



SHAPING

Shaping and debossing techniques transform aerosol cans into unique, eye-catching packages with subtle curves or asymmetrical designs.



SPECIALTY FINISHES

Crown's family of specialty print finishes, including sparkle, crackle, soft touch and gloss, build brand differentiation and enhance shelf appeal.



ORBIT® CLOSURE

The revolutionary design of the award-winning Orbit® Closure significantly reduces opening torque and enhances convenience for consumers of all ages.



PET CLOSURES

New vacuum closures for PET containers maintain many of the traditional benefits of metal closures such as superior heat transfer during the heating or cooling processes.



PVC-FREE

Crown's new PVC-free closures are compatible with pasteurized and sterilized products.



SEATED END

Seated end technology gives decorative fins a premium look and feel with its invisible bottom curl.

FUTURE



HEATGENIE®

The HeatGenie® self-heating can allows consumers to heat an 8.5-ounce portion of coffee, hot chocolate or soup to 145° Fahrenheit in two minutes.



CROWNSECURE™

CrownSecure™ assigns every package a unique quick response code, enabling products to be tracked and scanned, helping brand owners support traceability, prove authenticity and enhance consumer engagement.



CROWNSMART™

CrownSmart™ facilitates interaction between brand owners and consumers by delivering content or experiences via a unique code situated beneath the beverage can tab. Every can is truly unique.

Making metal packaging “smart”

Some of our latest work focuses on helping brand owners generate added value from metal packaging via a rich portfolio of digital functionality and applications. These sophisticated technologies deliver multiple benefits, including greater consumer engagement, improved product traceability and protection against counterfeiting.

A key driver behind our success in this area is our partnership with EVRYTHNG, the Internet of Things (IoT) Smart Products Platform pioneer. As part of this groundbreaking collaboration, serialized codes that can be scanned by smartphones will be printed on beverage, food and aerosol cans, specialty packaging tins and metal closures at the point of manufacture. Products that are #BornDigital™ in this way—manufactured with software capabilities in the cloud that can power new applications and analytics—enable brands to optimize their supply chains by improving product traceability and create a new channel for one-to-one consumer engagement.

- ✓ *Consumer Engagement*
- ✓ *Product Traceability*
- ✓ *Protection Against Counterfeiting*



EXAMPLES OF SMART PRODUCT APPLICATIONS

ENABLES SUPPLY CHAIN TRACKING (e.g., captures analytics for inventory management)



INGREDIENTS

MILK, CHEESE, EGGS, PEANUT BUTTER POWDER, SUGAR, VEGETABLE OIL, WHEAT FLOUR, COCONUT FLAKES, MIXED BERRY FLAVORING

SHARES PRODUCT INFORMATION

to increase transparency with consumers (e.g., nutrition information, ingredients, distribution miles traveled)

CROWN REWARDS

JANE DOE



12345678 123 4568

PROVIDES CONSUMERS ACCESS

to loyalty rewards programs

FACILITATES PRODUCT REORDERING



COOKIE RECIPE

1 cup flour
3 eggs
2 cups sugar
1 tsp vanilla

DELIVERS PERSONALIZED CONTENT

and services (e.g., recipes, beauty tips)

TOMATO BISQUE

Creamy Soup

#123456

ENHANCES BRAND PROTECTION

(e.g., item-level digital authentication)

Board of Directors

JENNE K. BRITELL, PH.D. (B)

Chairman of United Rentals

JOHN W. CONWAY (A)

Chairman of the Board

TIMOTHY J. DONAHUE (A)

President and Chief Executive Officer of the Company

ARNOLD W. DONALD (C)

President and Chief Executive Officer of Carnival Corporation

ROSE LEE (B)

President, DuPont Protection Solutions

WILLIAM G. LITTLE (A, C, D)

Former Chairman and Chief Executive Officer of West Pharmaceutical Services

HANS J. LÖLIGER (C, D)

Vice Chairman of Winter Group

JAMES H. MILLER (D)

Former Chairman and Chief Executive Officer of PPL Corporation

JOSEF M. MÜLLER (B)

President of Swiss Association of Branded Consumer Goods 'PROMARCA'

CAESAR F. SWEITZER (B)

Former Senior Advisor and Managing Director of Citigroup Global Markets

JIM L. TURNER (C)

Principal of JLT Beverages, Chairman of Dean Foods

WILLIAM S. URKIEL (B)

Former Senior Vice President and Chief Financial Officer of IKON Office Solutions

COMMITTEES: (A) EXECUTIVE, (B) AUDIT, (C) COMPENSATION, (D) NOMINATING AND CORPORATE GOVERNANCE

Corporate Officers

TIMOTHY J. DONAHUE

President and Chief Executive Officer

GERARD H. GIFFORD

Executive Vice President and Chief Operating Officer

DANIEL A. ABRAMOWICZ

Executive Vice President – Corporate Technology and Regulatory Affairs

WILLIAM T. GALLAGHER

Senior Vice President and General Counsel

THOMAS A. KELLY

Senior Vice President and Chief Financial Officer

DAVID A. BEAVER

Vice President and Corporate Controller

CHRISTOPHER A. BLAINE

Vice President – Corporate Risk Management

KEVIN C. CLOTHIER

Vice President and Treasurer

THOMAS T. FISCHER

Vice President – Investor Relations and Corporate Affairs

TORSTEN J. KREIDER

Vice President – Planning and Development

JOSEPH C. PEARCE

Vice President – Corporate Tax

BRIAN ROGERS

Vice President – Project Management and Engineering

ADAM J. DICKSTEIN

Corporate Secretary and Assistant General Counsel

CHRISTY L. ROBESON

Assistant Corporate Controller

MICHAEL J. ROWLEY

Assistant Corporate Secretary and Assistant General Counsel

ROSEMARY M. HASELROTH

Assistant Corporate Secretary

Division Officers

AMERICAS DIVISION

DJALMA NOVAES | President

WILMAR ARINELLI

President – CROWN Beverage Packaging Brazil

C. ANDERSON BOLTON

President – CROWN Aerosols, Closures and Specialty Packaging North America

MARK KETCHESON

President – CROWN Beverage Packaging North America

ABEL COELLO QUINTANILLA

President – CROWN Mexico and Caribbean

JUAN CARLOS TRUJILLO

President – CROWN Colombiana

JAMES D. WILSON

President – CROWN Food Packaging North America

RICHARD A. FORTI

Senior Vice President – Business Support

EDWARD C. VESEY

Senior Vice President – Sourcing

TIMOTHY P. AUST

Senior Vice President and Chief Financial Officer

ALFRED J. DERMODY

Vice President – Human Resources

EUROPEAN DIVISION

DIDIER SOURISSEAU | President

JOHN BEARDSLEY

Senior Vice President – Finance and Chief Financial Officer

JOHN CLINTON

Senior Vice President – Sourcing

ZIYA OZAY

Senior Vice President – Bevcan

DAVID UNDERWOOD

Senior Vice President – Food

LAURENT WATTEAUX

Senior Vice President – Human Resources,
Mergers and Acquisitions and General Counsel

DAVID HARRISON

Vice President – Aerosols and Specialty Packaging

MARTIN REYNOLDS

Vice President – External and Regulatory Affairs

ASIA PACIFIC DIVISION

ROBERT H. BOURQUE, JR. | President

HOCK HUAT GOH

Senior Vice President – Finance and Human Resources

FRANK KOH

Senior Vice President – CROWN Beverage Packaging Southeast Asia

MARTYN GOODCHILD

Vice President – Manufacturing

CLEMENT CHIN

Director – CROWN Beverage Packaging China and Hong Kong

PATRICK LEE

Director – CROWN Food and Aerosol Thailand

CHEE MENG WAN

Director – Superior Multi-Packaging Limited

PATRICK NG

Director – Sourcing

CROWN PACKAGING TECHNOLOGY

DANIEL A. ABRAMOWICZ | President

KEVIN AMBROSE

Vice President – Metals Development

MICHAEL A. ANTRY

Vice President – Environment, Health and Safety

LISA CARROLL

Vice President – Materials Development

NIGEL WAKELY

Vice President – Engineering Development

COMPANY PROFILE

Crown Holdings, Inc. is a leading manufacturer of packaging products for consumer marketing companies around the world. We make a wide range of metal packaging for food, beverage, household and personal care, and industrial products. As of December 31, 2016, the Company operated 146 plants in 36 countries, employing 23,992 people.

STOCK TRADING INFORMATION

Stock Symbol: CCK (Common)

Stock Exchange Listing: New York Stock Exchange

CORPORATE HEADQUARTERS

One Crown Way, Philadelphia, PA 19154-4599

Main phone: +1 (215) 698-5100

SHAREHOLDER SERVICES

Registered shareholders needing information about stock holdings, transfer requirements, registration changes, account consolidations, lost certificates or address changes should contact the Company's stock transfer agent and registrar:

Mailing Address:

Wells Fargo Shareowner Services
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120

General Telephone Number: 1-800-468-9716

Website: www.shareowneronline.com

Owners of shares in street name (shares held by any bank or broker in the name of the bank or brokerage house) should direct communications or administrative matters to their bank or stockbroker.

FORM 10-K AND OTHER REPORTS

The Company will provide without charge a copy of its Annual Report on Form 10-K, excluding exhibits, as filed with the U.S. Securities and Exchange Commission ("SEC"). To request a copy of the Company's Annual Report, call toll free 888-400-7789. Copies in electronic format of the Company's Annual Report and filings with the SEC are available at the Company's website at www.crowncork.com in the "For Investors" section.

INTERNET

Visit our website at www.crowncork.com for more information about the Company, including news releases and investor information.

CERTIFICATIONS

The Company included as Exhibit 31 to its 2016 Annual Report on Form 10-K, as filed with the U.S. Securities and Exchange Commission, certifications of the Chief Executive Officer and Chief Financial Officer of the Company. The CEO and CFO certify to, among other things, the information contained in the Company's Form 10-K. The Company has also submitted to the New York Stock Exchange a certification from the CEO certifying that he is not aware of any violation by the Company of New York Stock Exchange corporate governance listing standards.

04

Form 10-K

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016

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 (State or other jurisdiction of incorporation or organization)	75-3099507 (I.R.S. Employer Identification No.)
One Crown Way, Philadelphia, PA (Address of principal executive offices)	19154-4599 (Zip Code)
Registrant's telephone number, including area code: 215-698-5100	

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
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 No

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

Indicate by check mark whether the Registrant (1) has filed all reports 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 No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit such files). Yes 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.

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>

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

As of June 30, 2016, 139,669,710 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 \$7,077,064,206 based on the New York Stock Exchange closing price for such shares on that date.

As of February 22, 2017, 139,541,152 shares of the Registrant's Common Stock were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

<u>Document</u>	<u>Parts Into Which Incorporated</u>
Proxy Statement for the Annual Meeting of Shareholders to be held April 27, 2017	Part III to the extent described therein

2016 FORM 10-K ANNUAL REPORT

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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 for consumer goods. The Company’s primary products include steel and aluminum cans for food, beverage, household and other consumer products, glass bottles for beverage products and metal vacuum closures and caps. These products are manufactured in the Company’s plants both within and outside the U.S. and are sold through the Company’s sales organization to the soft drink, food, citrus, brewing, household products, personal care and various other industries. At December 31, 2016, the Company operated 146 plants along with sales and service facilities throughout 36 countries and had approximately 24,000 employees. Consolidated net sales for the Company in 2016 were \$8.3 billion with 77% derived from operations outside the U.S.

DIVISIONS AND OPERATING SEGMENTS

The Company’s business is organized geographically within three divisions, Americas, Europe and Asia Pacific. Within each Division, the Company is generally organized along product lines. The Company’s reportable segments within the Americas Division are Americas Beverage and North America Food. The Company’s reportable segments within the European Division are European Beverage and European Food. The Company’s Asia Pacific Division is a reportable segment which primarily consists of beverage can operations and also includes the Company’s non-beverage can operations, primarily food cans and specialty packaging. The Company’s non-reportable segments include its European aerosol and specialty packaging business, its North American aerosol can business and its tooling and equipment operations in the U.S. and U.K.

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 W](#) 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 and metal vacuum closures and caps. At December 31, 2016, the division operated 49 plants in 7 countries and had approximately 7,000 employees. In 2016, the Americas Division had net sales of \$3.6 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 2016 of \$2.8 billion and segment income (as defined under [Note W](#) to the consolidated financial statements) of \$456 million.

North America Food

The North America Food segment manufactures steel and aluminum food cans and ends and metal vacuum closures in the U.S., Canada, Mexico and the Caribbean. North America Food had net sales in 2016 of \$652 million and segment income (as defined under [Note W](#) to the consolidated financial statements) of \$69 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, specialty packaging and metal vacuum closures and caps. At December 31, 2016, the division operated 63 plants in 23 countries and had approximately 12,000 employees. Net sales in 2016 were \$3.5 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 2016 of \$1.4 billion and segment income (as defined under [Note W](#) to the consolidated financial statements) of \$243 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 2016 of \$1.8 billion and segment income (as defined under [Note W](#) to the consolidated financial statements) of \$244 million.

ASIA PACIFIC DIVISION

The Asia Pacific Division is a reportable segment which primarily consists of beverage can operations in Cambodia, China, Malaysia, Singapore, Thailand and Vietnam and also includes the Company's non-beverage can operations, primarily food cans and specialty packaging in China, Singapore, Thailand and Vietnam. At December 31, 2016, the division operated 31 plants in 6 countries and had approximately 4,000 employees. Net sales in 2016 were \$1.1 billion.

PRODUCTS

Beverage Cans and Glass Bottles

The Company supplies beverage cans, ends and other packaging products to a variety of beverage and beer companies, including Anheuser-Busch InBev, Coca-Cola, Cott Beverages, Dr Pepper Snapple Group, Heineken, Molson Coors and Pepsi-Cola 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 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, shaped beverage cans which include size differentiation, such as slim cans for low calorie products or 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 diverse shapes and sizes, and sells food cans to food marketers such as Abbot Laboratories, Bonduelle, Cecab, 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 Abbot Laboratories, Danone, H. J. Heinz, Kraft, 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.

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.

Specialty Packaging

The Company's specialty packaging business is primarily located in Europe and Asia. The Company produces a wide range of specialty containers with numerous lid and closure variations. The Company's specialty packaging 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 terms 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. 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 in the Northern Hemisphere and sales and earnings have generally been higher in the second and third quarters of the calendar year.

The Company's other businesses primarily include aerosol and specialty packaging and canmaking equipment, which tend not to be as significantly affected by seasonal variations.

COMPETITION

Most of the Company's products 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.

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 33% of its 2016 net sales. In each of the years in the period 2014 through 2016, no one customer accounted for more than ten percent of the Company's net sales. Each operating segment of the Company 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 Products discussion. 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 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 vendor 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 our customers' products in the retail environment (for example, the creation of new packaging shapes or novel decoration methods) 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 our 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 Company spent \$41 million in 2016 and \$39 million in both 2015 and 2014 in its centralized 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 within the Company's RD&E facilities to improve manufacturing efficiencies, reduce unit costs, and develop new and improved value-added packaging systems. These expenditures do not include related product and process developments occurring within the Company's decentralized business units.

MATERIALS AND SUPPLIERS

The Company uses various raw materials, primarily aluminum and steel, in its manufacturing operations. In general, these raw materials are purchased in highly competitive, price-sensitive markets which have historically exhibited price and demand cyclicity. These and other materials used in the manufacturing process have historically been available in adequate supply from multiple sources.

Generally, the Company's principal raw materials are obtained from the major suppliers in the countries in which it operates plants. Some plants in smaller countries, which do not have local mills, obtain raw materials from abroad. 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 2016, consumption of steel and aluminum represented 21% and 41% of consolidated cost of products sold, excluding depreciation and amortization. Due to the significance of these raw materials to 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, provide 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, in agreement with customers in many cases, 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 is 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. The Company continues to monitor this situation and the effect on its operations. 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 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 M](#) 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 Q](#) to the consolidated financial statements.

EMPLOYEES

At December 31, 2016, the Company had approximately 24,000 employees. Collective bargaining agreements with varying terms and expiration dates cover approximately 15,000 employees. The Company does not expect that renegotiation of the agreements expiring in 2017 will have a material adverse effect on its consolidated results of operations, financial position or cash flow.

AVAILABLE INFORMATION

The Company's internet 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. The Company's SEC filings are also available for reading and copying at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference room may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site (<http://www.sec.gov>) containing reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. 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 77% of its consolidated net sales in 2016, 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 77% of its consolidated net sales in the years ended 2016 and 2015 and 76%, of its consolidated net sales in the year ended 2014. In addition, the Company's business strategy includes continued expansion of international activities, including within developing markets and areas, such as the Middle East, South America, and Asia, that may pose greater risk of political or economic instability. Approximately 38%, 37% and 32% of the Company's consolidated net sales in the years ended 2016, 2015 and 2014 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 euros 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 government's 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, such as recent political turmoil in the Middle East;
- 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. For the years ended December 31, 2016 and 2015 the Company derived approximately 77% of its consolidated net sales from its international operations. For the year ended December 31, 2014 the Company derived approximately 76% of its consolidated net sales from its international operations. 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 Disclosures 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, 2016, a 0.10 movement in the average Euro rate would have reduced net income by \$14 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. 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, 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), 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, 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 and processed energy, have historically been subject to volatility. In 2016, consumption of steel and aluminum represented 21% and 41% 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 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, 2016, the Company and its subsidiaries had approximately \$4.9 billion of indebtedness. The Company's ratio of earnings to fixed charges was 3.8 times for the year ended December 31, 2016.

The Company's current sources of liquidity include securitization facilities with program limits that expire as follows: \$200 million in December 2018 and \$160 million in 2019. Additional sources of liquidity include borrowings that mature as follows: its \$1,200 million revolving credit facilities in December 2018; its €650 million (\$684 million at December 31, 2016) 4.0% senior notes in July 2022; its \$1,000 million 4.50% senior notes in January 2023; its €600 million (\$631 million at December 31, 2016) 2.625% senior notes in September 2024; its €600 million (\$631 million at December 31, 2016) 3.375% senior notes in May 2025; its \$400 million 4.25% senior notes in September 2026; its \$350 million 7.375% senior notes in December 2026; its \$45 million 7.5% senior notes in December 2096; and its \$124 million of other indebtedness in various currencies at various dates through 2036. In addition, the Company's term loan and farm credit facilities mature as follows: \$130 million in December 2017, \$592 million in December 2018 and \$344 million in December 2019.

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, 2016, approximately \$1.1 billion of the Company's \$4.9 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 \$243 million, \$270 million and \$253 million for 2016, 2015 and 2014. Based on the amount of variable rate debt outstanding at December 31, 2016, a 1% increase in variable interest rates would increase its annual interest expense by \$11 million. 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 1% increase could be more than \$11 million as the Company's average borrowings on its variable rate debt may be higher during the year than the amount at December 31, 2016. 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 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 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, 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 \$21 million, \$26 million and \$40 million to increase its accrual for asbestos-related liabilities in 2016, 2015 and 2014. As of December 31, 2016, Crown Cork's accrual for pending and future asbestos-related claims and related legal costs was \$342 million, including \$300 million for unasserted claims. 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 L](#) 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, 2016, Crown Cork received approximately 2,500 new claims, settled or dismissed approximately 1,500 claims, and had approximately 55,500 claims outstanding at the end of the period. Of these outstanding claims, approximately 16,000 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, 2,000 were filed in Pennsylvania, 6,000 were filed in other states that have enacted asbestos legislation and 18,500 were filed in other states. The outstanding claims at December 31, 2016 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 \$30 million in each of the years 2016, 2015 and 2014 for asbestos-related claims including settlement payments and legal fees. These payments have reduced 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 2016, 2015 and 2014, the Company contributed \$103 million, \$79 million and \$81 million to its pension plans. Pension expense was \$28 million in 2016 and is expected to be \$19 million in 2017. A 0.25% change in the 2017 expected rate of return assumptions would change 2017 pension expense by approximately \$11 million. A 0.25% change in the discount rates assumptions as of December 31, 2016 would change 2017 pension expense by approximately \$3 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 \$60 million in 2017, \$61 million in 2018, \$61 million in 2019, \$86 million in 2020 and \$99 million in 2021. Future changes to mortality tables or other factors used to determine pension contributions could have a significant impact on the Company's future contributions and its cash flow available for debt reduction, capital expenditures or other purposes. In addition, any increase in required U.S. pension contributions will reduce U.S. taxable income and could negatively impact the Company's ability to use its existing foreign tax credits, resulting in a charge to tax expense to write off credits that would expire prior to being used.

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 U](#) 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 includes 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 continue to decline, 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, 2016 the unfunded accumulated postretirement benefit obligation, as calculated in accordance with U.S. generally accepted accounting principles, for retiree medical benefits was approximately \$152 million, based on assumptions set forth under [Note U](#) 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.

Anti-takeover provisions in the Company's organizational documents and under Pennsylvania law could prevent or delay a change in control of the Company.

Provisions of Pennsylvania law and of the Company's Articles of Incorporation and By-Laws could make it more difficult for a third party to acquire control of the Company or have the effect of discouraging a third party from attempting to acquire control of the Company. The Company's Articles of Incorporation and By-Laws and Pennsylvania law include certain provisions which may be considered to be "anti-takeover" in nature because they may have the effect of discouraging or making more difficult the acquisition of control over the Company by means of a hostile tender offer, exchange offer, proxy contest or similar transaction. For example, the Company's Articles and By-Laws or Pennsylvania law:

- provide that shareholders may not act by written consent in lieu of a shareholder meeting;
- do not permit shareholders to call a special meeting of shareholders;
- limit the ability of shareholders to modify the authority of the Company's Board of Directors or create a committee on the Board of Directors by amending the By-Laws;
- limit the size of the Company's Board of Directors;
- require advance notice for shareholder business and nominations at a shareholder meeting;
- do not provide for cumulative voting by shareholders;
- authorize the issuance of "blank check" preferred shares by the Company's Board of Directors;
- impose certain requirements on business combinations that could delay for five years and impose conditions upon business combinations between an interested shareholder and the Company, unless the transaction is approved by the Company's Board of Directors;
- include a statute regarding disgorgement of profits arising from the sale of Company common stock by certain controlling shareholders following attempts to acquire control; and
- require disinterested shareholder approval of certain business combinations with interested shareholders.

These provisions are intended to protect the Company's shareholders by providing a measure of assurance that the Company's shareholders will be treated fairly in the event of an unsolicited takeover bid and by preventing a successful takeover bidder from exercising its voting control to the detriment of the other shareholders. To the extent that these provisions actually discourage a transaction, holders of the Company's common stock may not have an opportunity to dispose of part or all of their stock at a higher

price than that prevailing in the market. In addition, some of these provisions make it more difficult to remove the Company's incumbent directors and officers, even if their removal would be regarded by some shareholders as desirable.

The Company has authorized and unissued approximately 360 million shares of common stock, including treasury shares, and 30 million shares of preferred stock. The shares of preferred stock may be issued at any time or from time to time and the board of directors 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 does not have a policy limiting the issuance of the preferred stock for corporate purposes such as corporate financings or acquisitions. One of the effects of the existence of authorized but unissued shares of the Company's common stock or preferred stock may be to enable the Company's board of directors to render it more difficult or to discourage an attempt to obtain control of the Company and thereby protect the continuity of the Company's management, which may adversely affect the market price of the Company's common stock. If in the due exercise of its fiduciary obligations, for example, the Company's board of directors were to determine that a takeover proposal were not in the Company's best interests, such shares could be issued by the board of directors without stockholder approval in one or more private placements or other transactions that might prevent, render more difficult or make more costly the completion of any attempted takeover transaction by diluting voting or other rights of the proposed acquirer or insurgent stockholder group, by creating a substantial voting bloc in institutional or other hands that might support the position of the incumbent board of directors, by effecting an acquisition that might complicate or preclude the takeover, or otherwise.

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, such as China) 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 Europe food and beverage can markets, in particular, are considered to be mature markets, characterized by slow growth and a sophisticated distribution system. In China, the current industry supply of beverage cans exceeds demand, which has resulted in pricing pressure and negative impacts on the Company's profitability. Competitive pricing pressures, overcapacity, the failure to develop new product designs and technologies for products, as well as other factors, such as consolidation among our 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 world-wide 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 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 growth emerging markets, including the Middle

East, South America, Eastern Europe and Asia. Failure to deliver quality products that meet customer needs ahead of competitors could have a significant adverse effect on the Company's business.

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 2016, 2015 or 2014, 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 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 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 their cash flow to service the Company's debt and the Company cannot assure you that the amount of cash and cash flow reflected on the Company's financial statements will be fully available to the Company.

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 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 the fourth quarter of 2012, the French Parliament passed a law suspending the use of bisphenol-A in food packaging beginning in 2013 for food intended for children under 3 and in 2015 for all other foods. The law also includes certain product labeling requirements. 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 U.S. and abroad, must comply with these laws and regulations. In addition, a number of governmental authorities in the U.S. 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. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Environmental Matters" in this Annual Report.

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, 2016, the carrying value of the Company's goodwill was \$2,791 million. 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 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. The National Labor Relations Board ("NLRB") has adopted new regulations concerning the procedures for conducting employee representation elections that could make it significantly easier for labor organizations to prevail in elections. The regulations became effective on April 14, 2015, although court challenges to those regulations remain pending.

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.

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 FCO's investigation is ongoing. To date, the FCO has not officially charged the Company or any of its subsidiaries with any violations of competition law. The Company has commenced an internal investigation into the matter and has discovered instances of inappropriate conduct by certain employees of German subsidiaries of the Company. The Company is cooperating with the FCO and submitted a leniency application which disclosed the findings of its internal investigation to date and which may lead to the reduction of penalties that the FCO may impose. If the FCO finds that the Company or any of its subsidiaries violated competition law, the FCO has wide discretion to levy fines. At this stage of the investigation the Company believes that a loss is probable. The Company is unable to predict the ultimate outcome of the FCO's investigation and any additional losses

that could be incurred, which 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 Crown.

On June 23, 2016, the U.K. voted to leave the European Union (E.U.) (referred to as Brexit), which could cause disruptions to and create uncertainty surrounding Crown's business, including affecting relationships with existing and future customers, suppliers and employees. The effects of Brexit will depend on any agreements the U.K. makes to retain access to E.U. markets either during a transitional period or more permanently. The measures could potentially disrupt the markets Crown serves and the tax jurisdictions in which Crown operates and adversely change tax benefits or liabilities in these or other jurisdiction. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the U.K. determines which E.U. laws to replace or replicate.

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. The Company's information technology system could also 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.

Potential U.S. tax law changes could increase the Company's U.S. tax expense on its overseas earnings which could have a negative impact on its after-tax income and cash flow.

President Trump and Republicans in the U.S. House of Representatives each include corporate tax reform as part of their respective agendas. President Trump broadly described changes to corporate taxes during his campaign but has not yet provided specific changes. House Republicans released the "Better Way for Tax Reform" or "Blueprint" that outlined several significant corporate tax reforms. Many of President Trump's campaign themes on corporate tax reform are consistent with the Blueprint. Some of the proposed changes, which have not been fully agreed to by President Trump and the House Republicans, include reduction of the corporate tax rate from 35% to 15% or 20%, elimination of the tax deduction for interest expense, proposals to permit repatriation of offshore earnings at a reduced rate, elimination of U.S. tax on foreign earnings, immediate deductions for new investments instead of deductions for depreciation expense over time, and the imposition of income tax on imported goods (so-called "border adjustments"). It is unclear whether these proposed tax revisions will be enacted, or if enacted, what the precise scope of the revisions will be. However, depending on their final form, the proposals, if enacted, could have a material adverse effect on the Company's after-tax income and cash flow. In particular, legislative changes might require the Company to revalue and write-down its deferred tax assets, including foreign tax credit carryovers.

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. 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 officials and government officials have become increasingly concerned about the public health consequences associated with over-consumption of certain types of beverages, such as sugar 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, Mexico recently implemented a tax on certain sugar sweetened beverages and members of the U.S. Congress have raised the possibility of a federal tax on the sale of certain beverages, including non-diet soft drinks, fruit drinks, teas and flavored waters. Some state and local governments are also considering similar taxes, and San Francisco, California and Philadelphia, Pennsylvania have enacted such a tax. If enacted, such taxes could materially adversely affect the Company's business and financial results. Additionally, France has introduced taxes on drinks with added sugar and artificial sweeteners that companies produce or import and the United Kingdom is planning on introducing a similar tax in 2018. France has also imposed taxes on energy drinks using certain amounts of taurine and caffeine. The imposition of such taxes in the future 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 or energy drinks by other jurisdictions could reduce the demand for the Company's products and adversely affect the Company's profitability.

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 expires 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 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, 2016, the Company operated 146 manufacturing facilities of which 26 were leased. The Company has three divisions, defined geographically, within which it manufactures and markets its products. The Americas Division had 49 operating facilities of which 9 are leased. Within the Americas Division, 31 facilities operated in the U.S. of which 7 were leased. The European Division had 63 operating facilities of which 13 were leased and the Asia Pacific Division had 31 operating facilities of which 4 were leased. The Company also has 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, 2016 are listed below and are grouped by product and by division.

Crown Holdings, Inc.

The Company's Americas and Corporate headquarters are in Philadelphia, Pennsylvania, its European headquarters is in Baar, Switzerland and its Asia Pacific headquarters is in Singapore. 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. 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 N](#) 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. Also excluded from the Americas Division was a beverage can manufacturing facility in Nichols, NY which was commissioned and began commercial shipments in January 2017.

Crown Holdings, Inc.

	Americas		Europe		Asia Pacific
Beverage and Closures	Kankakee, IL Lawrence, MA Mankato, MN Batesville, MS 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 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 El Agba, Tunisia Izmit, Turkey Osmaniye, Turkey Dubai, UAE Botcherby, UK Braunstone, UK	Phnom Penh, Cambodia (2) Sihanoukville, Cambodia Beijing, China Huizhou, China Hangzhou, China Heshan, China Putian, China Ziyang, China Bangi, Malaysia Singapore Nong Khae, Thailand Danang, Vietnam Dong Nai, Vietnam Hanoi, Vietnam Ho Chi Minh City, Vietnam
Food and Closures	Winter Garden, FL Crawfordsville, IN Owatonna, MN Omaha, NE Lancaster, OH Massillon, OH Mill Park, OH Connellsville, PA	Hanover, PA Suffolk, VA Seattle, WA Oshkosh, WI Kingston, Jamaica La Villa, Mexico Barbados, West Indies	Carpentras, France Chatillon-sur-Seine, France Concarneau, France Laon, France Nantes, France Outreau, France Perigueux, France Lubeck, Germany Mühlendorf, 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 Pisco, Peru 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, UK	Bangpoo, Thailand Haadyai, Thailand Nakhon Pathom, Thailand Samrong, Thailand Songkhla, Thailand
Aerosol	Alsip, IL Decatur, IL	Faribault, MN Spartanburg, SC	Spilamberto, Italy (2) Mijdrecht, Netherlands	Sutton, UK	
Specialty Packaging	Belcamp, MD		Vourles, France Hoor, Netherlands	Carlisle, UK Mansfield, UK	Huizhou, China Kunshan, China Langfang, China Qingdao Chengyan, China Shanghai, China Tianjin, China Tongxiang, China Zhengzhou, China Singapore Binh Duong, Vietnam
Canmaking Equipment and Other	Norwalk, CT Trevose, PA	Chippewa Falls, WI Acayucan, Mexico	Shipley, UK (2)		

ITEM 3. LEGAL PROCEEDINGS

Crown Cork & Seal Company, Inc., a wholly-owned subsidiary of the Company (“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, 2016, the accrual for pending and future asbestos claims and related legal costs that are probable and estimable was \$342 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” and under [Note L](#) and [Note M](#) 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. On February 23, 2017 there were 3,749 registered shareholders of the Registrant’s common stock, including 1,226 participants in the Company’s Employee Stock Purchase Plan. The market price of the Registrant’s common stock at December 31, 2016 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 O](#) 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.

Quarterly Stock Prices

Quarterly prices for the Company's common stock, as reported on the New York Stock Exchange composite tape, in 2016 and 2015 were:

(in millions)	2016				2015			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
High	\$ 50.48	\$ 55.44	\$ 57.46	\$ 57.49	\$ 54.03	\$ 57.08	\$ 55.16	\$ 54.39
Low	43.30	48.28	49.14	51.57	43.85	52.25	44.76	45.15

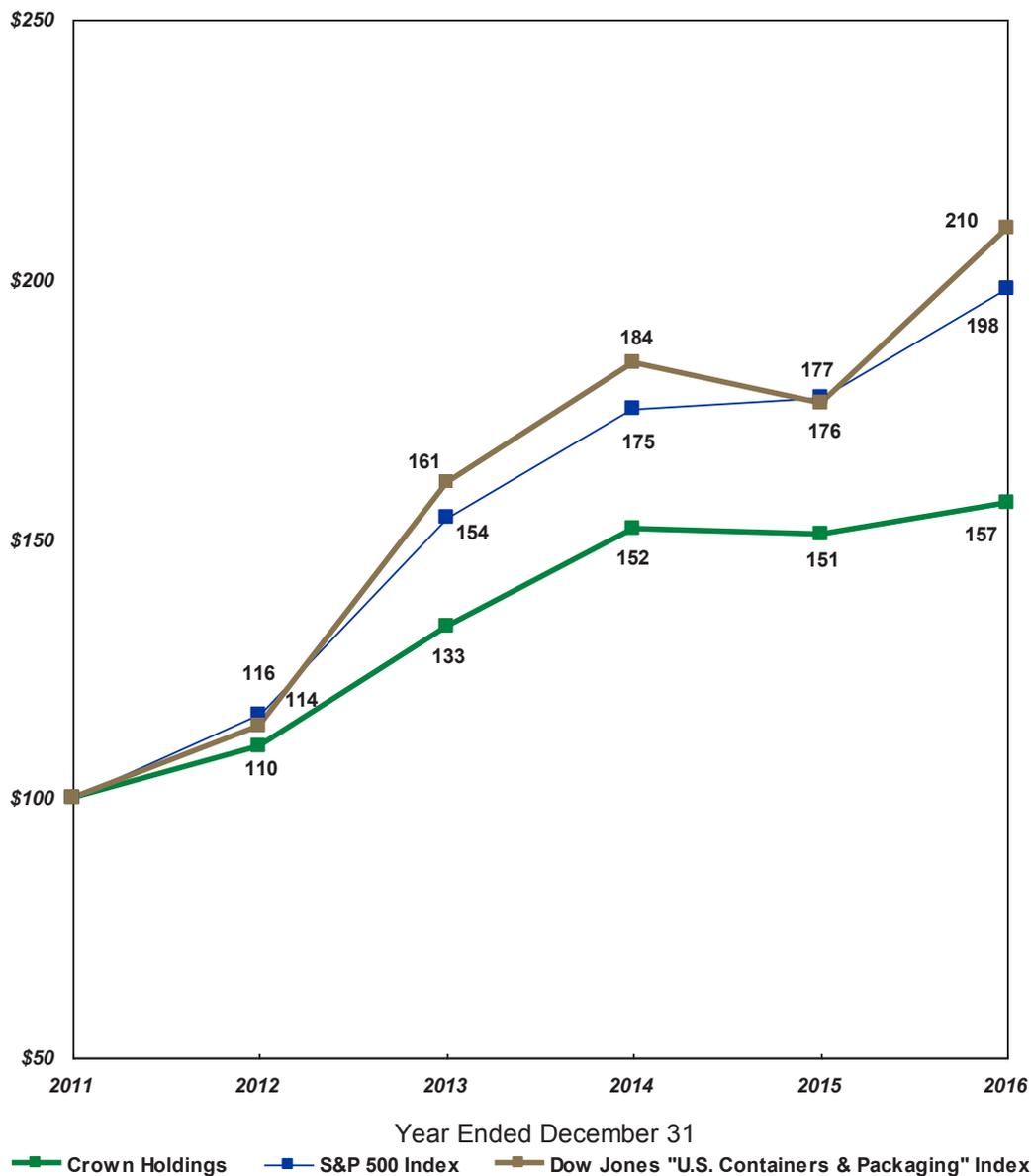
Issuer Purchases of Equity Securities

During 2016, the Company repurchased 162,563 shares in connection with the surrender of taxes upon vesting of restricted stock.

The Company made no purchases of its equity securities as part of publicly announced programs during the year ended December 31, 2016.

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,	2011	2012	2013	2014	2015	2016
Crown Holdings	\$ 100	\$ 110	\$ 133	\$ 152	\$ 151	\$ 157
S&P 500 Index	100	116	154	175	177	198
Dow Jones "U.S. Containers & Packaging" Index	100	114	161	184	176	210

- (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, 2011 and that all dividends were reinvested.
- (c) Industry index is weighted by market capitalization and, as of December 31, 2016, 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)	2016	2015 (a)	2014 (b)	2013 (c)	2012 (c)
Summary of Operations					
Net sales	\$ 8,284	\$ 8,762	\$ 9,097	\$ 8,656	\$ 8,470
Cost of products sold, excluding depreciation and amortization	6,583	7,116	7,525	7,180	7,013
Depreciation and amortization	247	237	190	134	180
Selling and administrative expense	368	390	398	425	382
Provision for asbestos	21	26	40	52	37
Restructuring and other	44	66	129	34	—
Loss from early extinguishments of debt	37	9	34	41	—
Interest expense, net of interest income	231	259	246	231	219
Foreign exchange	(16)	20	14	3	(1)
Income before income taxes and equity earnings	769	639	521	556	640
Provision for/(benefit from) income taxes	186	178	43	141	(18)
Equity earnings	—	—	—	—	5
Net income	583	461	478	415	663
Net income attributable to noncontrolling interests	(87)	(68)	(88)	(104)	(105)
Net income attributable to Crown Holdings	\$ 496	\$ 393	\$ 390	\$ 311	\$ 558
Financial Position at December 31					
Working capital	\$ (55)	\$ 141	\$ 695	\$ 256	\$ 224
Total assets	9,599	10,050	9,673	8,025	7,492
Total cash and cash equivalents	559	717	965	689	350
Total debt	4,911	5,518	5,194	3,805	3,633
Total equity	668	385	337	236	88
Common Share Data (dollars per share)					
Earnings:					
Basic	\$ 3.58	\$ 2.85	\$ 2.84	\$ 2.23	\$ 3.85
Diluted	3.56	2.82	2.82	2.21	3.79
Market price on December 31					
	52.57	50.70	50.90	44.57	36.81
Number of shares outstanding at year-end					
	139.8	139.4	139.0	138.2	143.1
Average shares outstanding					
Basic	138.5	137.9	137.2	139.5	146.1
Diluted	139.3	139.1	138.5	140.7	148.4
Other					
Capital expenditures	\$ 473	\$ 354	\$ 328	\$ 275	\$ 324

(a) Includes the results of the Empaque acquisition from February 18, 2015 through December 31, 2015.

(b) Includes the results of the Mivisa acquisition from April 23, 2014 through December 31, 2014.

(c) The Company revised certain previously reported amounts to correct how it calculates its estimated asbestos liability. The revisions include increases of \$85 and \$65 million to the asbestos liabilities reported within other non-current liabilities, increases of \$32 and \$24 million to deferred tax assets reported within other non-current assets, and decreases of \$53 and \$41 million to total equity in 2013 and 2012. In addition, the provision for asbestos increased \$20 million and \$2 million, the provision for income taxes decreased \$7 million and \$1 million and net income attributable to Crown Holdings decreased \$13 million and \$1 million in 2013 and 2012. Consistent with applicable accounting standards, the Company now calculates its estimated liability without limitation to a specified time period.

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, 2016. 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.

The Company's global beverage can business continues to be the major strategic focus for organic growth. For several years, industry demand for beverage cans has been growing globally 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. This is being propelled by the growth of beverages such as energy drinks, teas, juices, sparkling waters and craft beer and an increased preference for cans over certain other forms of beverage packaging. In addition, the Company's acquisition of Empaque in 2015 significantly increased its strategic position in beverage cans and its presence in the growing Mexican market.

Global food and aerosol can sales unit volumes have been stable to declining in recent years primarily due to lower consumer spending. The Company continues to benefit from the 2014 acquisition of Mivisa which provided the Company the leading position in Spain, a major European agricultural market.

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.

The Company expects to utilize the majority of free cash flow in 2017 to repurchase its common stock. The Company will also continue to identify and evaluate select growth opportunities through capacity additions in existing plants, new plants in markets that it already knows and understands, and potential strategic acquisitions in geographic areas and product lines in which it already operates or that complement its existing businesses.

RESULTS OF OPERATIONS

In assessing performance, the key performance measure used by the Company is segment income, a non-GAAP measure generally defined by the Company as income from operations adjusted to add back provisions for asbestos and restructuring and other, the impact of fair value adjustments related to the sale of inventory acquired in an acquisition and the timing impact of hedge ineffectiveness.

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 Brazilian real, Canadian dollar and Mexican peso in the Company's Americas segments and the Chinese renminbi 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

	2016	2015	2014
Net sales	\$8,284	\$8,762	\$9,097
Beverage cans and ends as a percentage of net sales	58%	57%	53%
Food cans and ends as a percentage of net sales	27%	28%	30%

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to the impact of foreign currency translation and the pass-through of lower material costs. Net sales would have been \$277 higher using exchange rates in effect during 2015.

Year ended December 31, 2015 compared to 2014

Net sales decreased primarily due to the impact of foreign currency translation, partially offset by the acquisitions of Empaque and Mivisa. Net sales would have been \$855 higher using exchange rates in effect during 2014.

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 have experienced stable volumes in recent years. In Mexico, the Company's sales unit volumes have increased primarily due to market growth and the acquisition of Empaque in February 2015. In Brazil and Colombia, 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. The Monterrey plant is capable of producing multiple can sizes. In January 2017, the Company began commercial shipments from the first line at its new beverage can plant in Nichols, NY. In addition to enhancing the Company's presence in specialty beverage can sizes, the plant provides an attractive cost platform, including reduced freight, from which to serve customers in the Northeastern region of the U.S. and Eastern region of Canada. In addition, the Company has announced plans to expand production capacity in Colombia which is expected to be operational in the second quarter of 2017 and to construct a one-furnace glass bottle facility in Chihuahua, Mexico, which is expected to be operational in the first half of 2018.

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

	2016	2015	2014
Net sales	\$ 2,757	\$ 2,771	\$ 2,335
Segment income	456	427	334

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to the impact of foreign currency translation and the pass-through of lower material costs partially offset by a 6% increase in sales unit volumes, which includes the impact of Empaque for an additional six weeks. Net sales would have been \$133 higher using exchange rates in effect during 2015.

Segment income increased primarily due to \$41 from higher sales unit volumes, including the impact of an additional six weeks of Empaque, improved cost performance, and a benefit of \$11 from lower aluminum premium costs in Brazil, partially offset by the impact of foreign currency translation and start-up costs at new facilities in Mexico and New York as described above. Segment income would have been \$19 higher using exchange rates in effect during 2015.

Year ended December 31, 2015 compared to 2014

Net sales increased \$545 due to the acquisition of Empaque and \$27 from increased sales unit volumes, partially offset by the impact of foreign currency translation. Sales unit volumes were higher in the U.S., Canada and Mexico, partially offset by lower unit volume in Brazil.

Segment income increased \$94 due to the acquisition of Empaque, partially offset by the impact of foreign currency translation.

North America Food

The North America Food segment manufactures steel and aluminum food cans and ends and metal vacuum closures and supplies a variety of customers from its operations in the U.S., Canada and Mexico. The North American food can and closures market is a mature market which has experienced stable to slightly declining volumes in recent years. In 2015, the Company announced the closure of two North America food can plants to more appropriately align capacity with customer demand and reduce costs.

Net sales and segment income in the North America Food segment are as follows:

	2016	2015	2014
Net sales	\$ 652	\$ 680	\$ 809
Segment income	69	86	127

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to lower sales unit volumes, the pass-through of lower tinplate costs and the impact of foreign currency translation. Net sales would have been \$14 higher using exchange rates in effect during 2015.

Segment income decreased primarily due to lower sales unit volumes partially offset by improved cost performance.

Year ended December 31, 2015 compared to 2014

Net sales decreased primarily due to an 18% decline in sales unit volumes largely attributable to the loss of a certain customer and \$16 from the impact of foreign currency translation.

Segment income decreased primarily due to lower sales unit volumes and higher costs.

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 European beverage can market has been growing.

In the fourth quarter of 2016, a second line at the Osmaniye, Turkey plant began commercial production in response to growing demand for multiple can sizes. In addition, the Company announced plans to begin installation of a second high-speed aluminum beverage can line at the Custines, France facility. Commercial start-up of the line is expected in the second quarter of 2017 and will complete that plant's conversion from steel to aluminum.

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

	2016	2015	2014
Net sales	\$ 1,420	\$ 1,504	\$ 1,708
Segment income	243	228	265

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to the impact of foreign currency translation and the pass-through of lower aluminum costs. Net sales would have been \$52 higher using exchange rates in effect during 2015.

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Segment income increased primarily due to lower aluminum premium costs partially offset by the impact of foreign currency translation. Segment income would have been \$9 higher using exchange rates in effect during 2015.

Year ended December 31, 2015 compared to 2014

Net sales and segment income decreased primarily due to the impact of foreign currency translation and a 1% decline in sales unit volumes, primarily in the Middle East due to ongoing conflicts in the region. Net sales and segment income would have been \$182 and \$23 higher using exchange rates in effect during 2014.

European Food

The European Food segment manufactures steel and aluminum food cans, 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. In April 2014, the Company completed its acquisition of Mivisa and in June 2014 divested certain Crown and Mivisa operations as required for regulatory approval. In 2015, the Company announced the closure of two European Food facilities in an effort to reduce cost by eliminating excess capacity and consolidating manufacturing processes. The Company expects these actions to result in annual cost savings of approximately \$10 when completed in 2017. However, there can be no assurance that any such pre-tax savings will be realized.

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

	2016	2015	2014
Net sales	\$ 1,855	\$ 1,984	\$ 2,197
Segment income	244	246	221

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to product and geographic mix including a 1% decline in sales unit volumes, \$43 from the pass-through of lower tinplate costs and the impact of foreign currency translation. Net sales would have been \$32 higher using exchange rates in effect during 2015.

Segment income decreased due to a decline in sales unit volumes partially offset by improved cost performance, including the impact of recent restructuring and other actions.

Year ended December 31, 2015 compared to 2014

Net sales decreased primarily due to the impact of foreign currency translation, partially offset by increased sales unit volumes and \$145 for an additional four months of Mivisa. Net sales would have been \$362 higher using exchange rates in effect during 2014.

Segment income increased primarily due to an additional four months of Mivisa and improved cost performance partially offset by the impact of foreign currency translation. Segment income would have been \$45 higher using exchange rates in effect during 2014.

Asia Pacific

The Company's Asia Pacific segment primarily consists of beverage can operations in Cambodia, China, Malaysia, Singapore, Thailand and Vietnam and also includes the Company's non-beverage can operations, primarily food cans and specialty packaging in China, Singapore, Thailand and Vietnam. In recent years, the beverage can market in Asia has been growing. The Company's third beverage can plant in Cambodia began commercial production in the second quarter of 2016. Additionally, the Company announced construction of a new beverage can facility in Jakarta, Indonesia, and a second line at its beverage can plant in Danang, Vietnam, both of which are scheduled to begin commercial production in the third quarter of 2017, and a new beverage can plant in Yangon, Myanmar that is scheduled for start-up in the first half of 2018. In 2016, the Company announced the closure of its Shanghai beverage can facility in an effort to reduce cost by consolidating manufacturing processes in China.

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

	2016	2015	2014
Net sales	\$ 1,116	\$ 1,202	\$ 1,226
Segment income	152	145	142

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to \$79 from lower selling prices, including the pass-through of lower raw material costs, and from the impact of foreign currency translation, partially offset by a 2% increase in sales unit volumes. Net sales would have been \$26 higher using exchange rates in effect during 2015.

Segment income increased primarily due to higher sales unit volumes in Southeast Asia.

Year ended December 31, 2015 compared to 2014

Net sales decreased \$49 from lower selling prices primarily due to the pass-through of lower raw material costs, the impact of competitive price compression and \$38 from the impact of foreign currency translation, partially offset by an 8% increase in beverage can sales unit volumes in Southeast Asia.

Segment income increased primarily due to increased beverage cans sales unit volumes.

Non-reportable Segments

The Company's non-reportable segments include its European aerosol can and specialty packaging business, its North American aerosol can business and its tooling and equipment operations in the U.S. and U.K. In recent years, the Company's aerosol can and specialty packaging businesses have experienced slightly declining volumes. In 2015, the Company completed the sale of four of its European industrial specialty packaging plants.

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

	2016	2015	2014
Net sales	\$ 484	\$ 621	\$ 822
Segment income	70	83	92

Year ended December 31, 2016 compared to 2015

Net sales decreased primarily due to \$46 from lower equipment sales, \$45 from the divestiture of certain operations within the Company's European aerosol and specialty packaging businesses in 2015, \$20 from lower selling prices in the Company's aerosol and specialty packaging businesses, including the pass-through of lower tinplate prices, and the impact of foreign currency translation. Net sales would have been \$20 higher using exchange rates in effect during 2015.

Segment income decreased primarily due to \$7 from lower sales in the Company's North America aerosol business and the impact of foreign currency translation. Segment income would have been \$6 higher using exchange rates in effect during 2015.

Year ended December 31, 2015 compared to 2014

Net sales decreased primarily due to \$148 from the sale of four industrial specialty packaging plants and the transfer of production from a European specialty packaging plant to the European food business and \$51 from the impact of foreign currency translation. Higher sales from the Company's can-making equipment operations were offset by lower sales in its global aerosol and specialty packaging businesses.

Segment income decreased primarily due to \$11 from the sale of four industrial specialty packaging plants and the transfer of production from a European specialty packaging plant to the European food business, \$7 from lower sales in the Company's global aerosol and specialty packaging businesses and \$3 from the impact of foreign currency translation, partially offset by \$9 from higher equipment sales.

Corporate and unallocated

	2016	2015	2014
Corporate and unallocated	\$ (148)	\$ (196)	\$ (197)

Corporate and unallocated items in 2016 included an \$8 benefit related to the timing impact of hedge ineffectiveness as compared to a charge of \$1 in 2015. Additionally, corporate and unallocated expenses decreased due to \$20 of lower pension costs, \$7 of lower stock-based compensation expense and a 2015 charge of \$6 related to fair value adjustments for the sale of inventory acquired in the acquisition of Empaque.

Corporate and unallocated items in 2015 included charges of \$6 for fair value adjustments for the sale of inventory acquired in the acquisition of Empaque compared to a charge of \$19 in 2014 related to the acquisition of Mivisa, \$5 for the write-off of non-productive inventory related to plant closures and higher general corporate costs compared to 2014.

COST OF PRODUCTS SOLD (EXCLUDING DEPRECIATION AND AMORTIZATION)

Cost of products sold (excluding depreciation and amortization) decreased from \$7,116 in 2015 to \$6,583 in 2016 primarily due to the impact of foreign currency translation and lower raw material costs partially offset by the impact of the Empaque acquisition. Cost of products sold would have been \$214 higher using exchange rates in effect during 2015.

Cost of products sold (excluding depreciation and amortization) decreased from \$7,525 in 2014 to \$7,116 in 2015 primarily due to the impact of foreign currency translation, partially offset by the impact of the acquisitions of Mivisa and Empaque. Cost of products sold would have been \$700 higher using exchange rates in effect during 2014.

Cost of products sold (excluding depreciation and amortization) as a percentage of net sales was 79% in 2016, 81% in 2015 and 83% in 2014.

DEPRECIATION AND AMORTIZATION

Depreciation and amortization increased to \$247 in 2016 from \$237 in 2015 and \$190 in 2014 primarily due to the impact of recent capacity expansion and depreciation and amortization of fixed assets and intangible assets recorded in connection with the Company's acquisitions of Empaque in 2015 and Mivisa in 2014.

SELLING AND ADMINISTRATIVE EXPENSE

Selling and administrative expense decreased from \$390 in 2015 to \$368 in 2016 primarily due to \$12 from the impact of foreign currency translation and \$7 from lower stock-compensation expense.

Selling and administrative expense decreased from \$398 in 2014 to \$390 in 2015, primarily due to the impact of foreign currency translation, partially offset by higher general corporate costs.

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 2016, 2015 and 2014 the Company recorded charges of \$21, \$26 and \$40 to increase its accrual for asbestos-related costs and made asbestos-related payments of \$30 in each year. The Company currently expects 2017 payments to be approximately \$30. See [Note L](#) 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, 2016 compared to 2015, interest expense decreased from \$270 to \$243 primarily due to lower average debt outstanding.

For the year ended December 31, 2015 compared to 2014, interest expense increased from \$253 to \$270 primarily due to higher average debt outstanding from the acquisitions of Mivisa and Empaque, partially offset by lower borrowing rates and the impact of foreign currency translation.

TAXES ON INCOME

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

	2016	2015	2014
Income before income taxes	\$ 769	\$ 639	\$ 521
Provision for income taxes	186	178	43
Effective income tax rate	24.1%	27.9%	8.3%

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

The low effective tax rate in 2014 was primarily due to benefits of \$86 to fully release the valuation allowance against the Company's net deferred tax assets in France and \$16 related to a tax law change in Spain.

For additional information regarding income taxes, see [Note V](#) 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 interests increased from \$68 in 2015 to \$87 in 2016 primarily due to higher earnings in the Company's beverage can operations in Brazil and decreased from \$88 in 2014 to \$68 in 2015 primarily due to lower earnings in Brazil.

LIQUIDITY AND CAPITAL RESOURCES

OPERATING ACTIVITIES

Cash provided by operating activities decreased from \$956 in 2015 to \$930 in 2016 primarily due increased pension contributions, premiums paid to retire debt and lower contributions from working capital changes partially offset by higher operating income.

Receivables decreased from \$912 in 2015 to \$865 in 2016 primarily due to increased securitization and factoring and the impact of foreign currency translation. Days sales outstanding for trade receivables decreased from 33 in 2015 to 32 in 2016, including a five day decrease related to the derecognition of receivables under the Company's securitization and factoring programs.

Inventories increased from \$1,213 in 2015 to \$1,245 in 2016 primarily due to higher year-end inventory build. Inventory turnover was 63 days at December 31, 2015 compared to 66 days at December 31, 2016.

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 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 and accrued liabilities increased from \$2,645 in 2015 to \$2,702 in 2016 primarily due to longer payment terms with suppliers offset by lower accrued pension and restructuring costs and the impact of foreign currency translation. Days outstanding for trade payables increased from 92 days at December 31, 2015 to 102 days at December 31, 2016 primarily due to longer payment terms with suppliers.

INVESTING ACTIVITIES

Cash used for investing activities decreased from \$1,548 in 2015 to \$442 in 2016 primarily due to funds paid for the acquisition of Empaque in 2015 partially offset by an increase in capital expenditures. The Company currently expects capital expenditures in 2017 of approximately \$450.

At December 31, 2016, the Company had \$167 of capital commitments, primarily related to its Americas Beverage segment. The Company expects to fund these commitments primarily through cash generated from operations.

FINANCING ACTIVITIES

Financing activities provided cash of \$406 in 2015 and used cash of \$616 in 2016 primarily due to higher net borrowings in 2015 to fund the acquisition of Empaque, partially offset by a cash inflow from the settlement of foreign currency derivatives used to hedge intercompany debt obligations in 2016 compared to an outflow in 2015, and higher dividends paid to noncontrolling interest in 2016.

LIQUIDITY

As of December 31, 2016, \$462 of the Company's \$559 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 in the U.S., dividends from certain foreign subsidiaries, borrowings under its revolving credit facility and the acceleration of cash receipts under its receivable securitization and factoring facilities. The Company records current or deferred U.S. taxes for the earnings of these foreign subsidiaries. For certain other foreign subsidiaries, the Company considers earnings indefinitely reinvested and has not recorded any U.S. taxes. Of the cash and cash equivalents located outside the U.S., \$343 was held by subsidiaries for which earnings are considered indefinitely reinvested. While based on current operating plans the Company does not foresee a need to repatriate these funds, if such earnings were repatriated the Company may be required to record incremental U.S. taxes on the repatriated funds.

The Company funds its worldwide cash needs 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 facilities. As of December 31, 2016, the Company had available capacity of \$76 under its various securitization facilities and \$1,158 under its revolving credit facilities. The Company could have borrowed this amount at December 31, 2016 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 86.7% and 92.6% at December 31, 2016 and 2015. 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 amount of restricted payments permitted to be made, including dividends and repurchases of the Company's common stock, may be limited to the cumulative excess of \$200 plus 50% of adjusted net income plus proceeds from the exercise of employee stock options over the aggregate of restricted payments made since July 2004. Adjustments to net income may include, but are not limited to, items such as asset impairments, gains and losses from asset sales and early extinguishments of debt.

The Company's revolving credit facility and term loans also contain various financial covenants. The interest coverage ratio is calculated as Adjusted EBITDA divided by interest expense. Adjusted EBITDA is calculated as the sum of net income attributable to Crown Holdings, net income attributable to noncontrolling interests, income taxes, interest expense, depreciation and amortization, and certain non-cash charges. The Company's interest coverage ratio of 5.30 to 1.0 at December 31, 2016 was in compliance with the covenant requiring a ratio of at least 2.85 to 1.0. The total net leverage ratio is calculated as total net debt divided by Adjusted EBITDA, as defined above. Total net debt is defined in the credit agreement as total debt less cash and cash equivalents. The Company's total net leverage ratio of 3.26 to 1.0 at December 31, 2016 was in compliance with the covenant requiring a ratio no greater than 4.50 to 1.0. The ratios are calculated at the end of each quarter using debt and cash balances as of the end of the quarter and Adjusted EBITDA and interest expense for the most recent twelve months. Failure to meet the financial covenants could result in the acceleration of any outstanding amounts due under the revolving credit facilities, term loan facilities and farm credit facility.

The Company's current sources of liquidity include securitization facilities with program limits that expire as follows: \$200 in December 2018 and \$160 in December 2019. Additional sources of liquidity include borrowings that mature as follows: its \$1,200 revolving credit facilities in December 2018; its €650 (\$684 at December 31, 2016) 4.0% senior notes in July 2022; its \$1,000 4.50% senior notes in January 2023; its €600 (\$631 at December 31, 2016) 2.625% senior notes in September 2024; its €600 (\$631 at December 31, 2016) 3.375% senior notes in May 2025; its \$400 4.25% senior notes in September 2026; its \$350 7.375% senior notes in December 2026; its \$45 7.5% senior notes in December 2096; and its \$124 of other indebtedness in various currencies at various dates through 2036. In addition, the Company's term loan and farm credit facilities mature as follows: \$130 in December 2017, \$592 in December 2018 and \$344 in December 2019.

CONTRACTUAL OBLIGATIONS

Contractual obligations as of December 31, 2016 are summarized in the table below.

	Payments Due by Period							Total
	2017	2018	2019	2020	2021	2022 & after		
Long-term debt	\$ 162	\$ 623	\$ 364	\$ 17	\$ 18	\$ 3,747	\$ 4,931	
Interest on long-term debt	191	186	170	159	158	157	1,021	
Operating leases	48	32	22	16	11	63	192	
Projected pension contributions	60	61	61	86	99	—	367	
Postretirement obligations	16	15	14	14	13	58	130	
Purchase obligations	2,651	1,154	284	98	59	—	4,246	
Total contractual cash obligations	\$ 3,128	\$ 2,071	\$ 915	\$ 390	\$ 358	\$ 4,025	\$ 10,887	

All amounts due in foreign currencies are translated at exchange rates as of December 31, 2016.

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 for the five years subsequent to 2016 exclude unamortized discounts and debt issuance costs.

Interest on long-term debt is presented through 2022 only and represents the interest that will accrue by year based on debt outstanding and interest rates in effect as of December 31, 2016.

Projected pension contributions represent the Company's expected funding contributions for the next five years. Future changes to mortality tables or other factors used to determine pension contributions could have a significant impact on the Company's future contributions and its cash flow available for debt reduction, capital expenditures or other purposes. In addition, any increase in required U.S. pension contributions will reduce U.S. taxable income and could negatively impact the Company's ability to use its existing foreign tax credits, resulting in a charge to tax expense to write off credits that would expire prior to being used.

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, 2016. 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 \$27 of liabilities for unrecognized tax benefits because the Company is unable to estimate when these amounts may be paid, if at all. See [Note V](#) 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.

Crown Holdings, Inc.

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, 2016 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
U.S. dollars/Euro	\$ 32	\$ 2	1.14
Sterling/Euro	98	2	0.87
Euro/Sterling	342	(4)	1.16
Euro/U.S. dollars	231	(2)	0.94
U.S. dollars/Sterling	18	1	1.27
Sterling/U.S. dollars	10	(2)	0.75
Singapore dollars/U.S. dollars	58	(3)	1.38
Polish Zloty/Euro	76	—	4.48
U.S. dollars/Turkish Lira	61	8	0.31
Turkish Lira/U.S. dollars	93	(13)	3.16
Euro/Singapore dollars	84	—	0.66
Euro/Polish Zloty	133	(1)	0.22
	<u>\$ 1,236</u>	<u>\$ (12)</u>	

At December 31, 2016, the Company had additional contracts with an aggregate notional value of \$99 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 gain of \$2.

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 debt obligations as of December 31, 2016. Interest rates represent the rates in effect as of December 31, 2016.

Debt	Year of Maturity					
	2017	2018	2019	2020	2021	Thereafter
Fixed rate	\$ 32	\$ 29	\$ 20	\$ 17	\$ 18	\$ 3,747
Average interest rate	5.6%	5.7%	6.0%	5.7%	7.0%	4.2%
Variable rate	\$ 130	\$ 594	\$ 344	—	—	—
Average interest rate	2.5%	2.5%	2.8%	—	—	—

Total future payments at December 31, 2016 include \$2,942 of U.S. dollar-denominated debt, \$2,016 of euro-denominated debt and \$6 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 2016, consumption of steel and aluminum represented 21% and 41% 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, 2016, the Company had forward commodity contracts to hedge aluminum price fluctuations with a notional value of \$229 and a net gain of \$13. 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 R](#) 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 M](#) 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 R](#) 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 M](#) 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 recent years the referenced index has been negative, requiring the Company to reduce its selling prices while its actual costs 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 L](#) 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 projected to never 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 2016, the Company recorded a charge of \$21 to increase its asbestos liability compared to charges of \$26 in 2015 and \$40 in 2014. The charge in 2016 was primarily to increase the accrual due to an increase in projected claims and higher average settlement costs per claim. The five year average settlement cost per claim increased to \$13,800 in 2016 from \$13,000 in 2015 and \$13,400 in 2014. Crown Cork's experience continues to be settling a higher percentage of claims alleging serious disease (primarily mesothelioma) 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 2016, 2015 and 2014, 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 recent trend of settling a higher percentage of claims alleging serious disease (primarily mesothelioma) which are settled for higher 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 will 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, 2016 by \$34. A 10% increase in these two factors at the same time would increase the estimated liability at December 31, 2016 by \$72. A 10% decrease in these two factors at the same time would decrease the estimated liability at December 31, 2016 by \$65.

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 the average of the estimated fair values calculated using market values for comparable businesses and discounted cash flow projections. The Company uses an average of the two methods in estimating fair value because it believes they provide an equal probability of yielding an appropriate fair value for the reporting unit. 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 first method of calculating estimated fair value, the Company obtains available information regarding multiples used in recent transactions, if any, involving transfers of controlling interests in the packaging industry. The Company also reviews publicly available trading multiples based on the enterprise value of companies in the packaging industry whose shares are publicly traded. The appropriate multiple is applied to the forecasted 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) of the reporting unit to obtain an estimated fair value. Under the second method, 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 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 packaging industry, which information is available through various sources.

The terminal value at the end of five years is the product of forecasted Adjusted EBITDA at the end of the five year period and the trading multiple. The Company used an EBITDA multiple of 8.0 times in 2016 which was consistent with 2015. The Company used a discount rate of 7.5% in 2016 which was consistent with 2015 and is supported by the weighted average cost of capital of companies in the packaging industry.

The Company completed its annual review for 2016 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. Based upon the Company's qualitative and quantitative assessment including consideration of the sensitivity of the assumptions made and methods used to determine fair value, industry trends and other relevant factors, the Company did not have any reporting unit whose fair value did not materially exceed its carrying value except for the European Aerosols and Specialty Packaging and the North America Food reporting units discussed below.

As of October 1, 2016, the estimated fair value of the European Aerosols and Specialty Packaging reporting unit, using the methods and assumptions described above, was 25% higher than its carrying value, and the reporting unit had \$91 of goodwill. 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 \$10. 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 \$9; a change of 0.5 in the assumed EBITDA multiple changes the excess of estimated fair value over carrying value by \$5; and an increase in the discount rate from 7.5% to 8.5% changes the excess of estimated fair value over carrying value by \$9. Under each of these scenarios, the reporting unit's fair value exceeded its carrying value. If Adjusted EBITDA decreased by 15% the fair value of the reporting unit would approximate carrying value.

As of October 1, 2016, the estimated fair value of the North America Food reporting unit, using the methods and assumptions described above, was 26% higher than its carrying value, and the reporting unit had \$115 of goodwill. 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 \$45. 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 \$12; a change of 0.5 in the assumed EBITDA multiple changes the excess of estimated fair value over carrying value by \$9; and an increase in the discount rate from 7.5% to 8.5% changes the excess of estimated fair value over carrying value by \$29. Under each of these scenarios, the reporting unit's fair value exceeded its carrying value. If Adjusted EBITDA decreased by 13% 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 values to fall below carrying values, it is possible that an impairment charge of up to \$91 for European Aerosols and Specialty Packaging and \$115 for North America Food could be recorded.

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 V](#) 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 \$28 in 2016 and currently projects its 2017 pension expense to be \$19, using foreign currency exchange rates in effect at December 31, 2016. In addition, the Company recorded \$14 of pension settlement charges in restructuring and other in the Consolidated Statement of Operations. In 2016, the company changed the method used to estimate the service and interest cost components of net periodic pension and postretirement benefits cost. The new method uses the spot yield curve approach to estimate the service and interest cost by applying the specific spot rates along the yield curve used to determine the benefit plan obligations to relevant projected cash outflows. Previously, the service and interest cost components were determined using a single weighted average discount rate. The change does not affect the measurement of the total benefit plan obligations. The spot yield curve approach provides a more precise measure of service and interest cost by improving the correlation between the projected benefit cash flows and the discrete spot yield curve rates. The company accounted for this change as a change in estimate prospectively beginning in 2016. The rate of return assumptions are reviewed at each measurement date based on the pension plans' investment policies, current asset allocations and an analysis of the historical returns of the capital markets.

The U.S. plan's assumed rate of return was 8.0 % in 2016 and is 7.5% in 2017. The U.K. plan's assumed rate of return was 5.25% in 2016 and is 4.25% in 2017. The assumed rates of return for 2017 were calculated on a similar basis to 2016 as described in [Note U](#) to the consolidated financial statements. A 0.25% change in the expected rates of return would change 2017 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, 2016 would change 2017 pension expense by approximately \$3 and postretirement expense by less than \$1. A 0.25% change in the discount rates from those used at December 31, 2016 would have changed the pension benefit obligation by approximately \$154 and the postretirement benefit obligation approximately \$4 as of December 31, 2016. [See Note U](#) to the consolidated financial statements for additional information on pension and postretirement benefit obligations and assumptions.

As of December 31, 2016, the Company had pre-tax unrecognized net losses in other comprehensive income of \$2,032 related to its pension plans and \$49 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 \$438 primarily due to lower discount rates at the end of 2016 compared to 2015, partially offset by a gain of \$425 due to actual asset returns higher than expected returns. 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, 2016 included charges of \$114 for the amortization of unrecognized net losses, and the Company estimates charges of \$93 in 2017. 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 - 20 years. An increase of 10% in the number of years used to amortize unrecognized losses in each plan would decrease estimated charges for 2017 by \$9. A decrease of 10% in the number of years would increase the estimated 2017 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, 2016 included a loss of \$5 for the amortization of unrecognized net losses, and the Company estimates losses of \$5 in 2017.

RECENT ACCOUNTING GUIDANCE

In May 2014, the FASB issued new guidance which outlines a single comprehensive model to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. Under the new guidance, revenue will either be recognized at a point in time or over time. Certain products that the Company manufactures for customers may have no alternative use and follow an over-time revenue recognition model. As a result, timing of revenue recognition for certain products, under the new guidance, may be accelerated compared to current guidance. The guidance is effective for the Company on January 1, 2018. The Company continues to make progress towards implementation of the new guidance and to evaluate the adoption impact on its financial position and results of operations.

In February 2016, the FASB issued new guidance on lease accounting. Under the new guidance lease classification criteria and income statement recognition is similar to current guidance; however, all leases with a lease term longer than one year will be recorded on the balance sheet through a right-of-use asset and a corresponding lease liability. The guidance will be effective for the Company on January 1, 2019. The Company is currently evaluating the impact of adopting this guidance on its financial position and results of operations.

In March 2016, the FASB issued new guidance on share-based payments. The new guidance includes provisions to simplify various aspects of how share-based payments are accounted for and presented in the financial statements. Under the current guidance, upon settlement tax benefits in excess of compensation costs ("windfalls") are recorded in equity and tax deficiencies ("shortfalls") are recorded in equity to the extent of previous windfalls. Under the new guidance all of the tax effects related to share-based payments at settlement will be recorded through the income statement. The guidance will be effective for the Company on January 1, 2017. Upon adoption of this standard, the Company expects to recognize a deferred tax asset of approximately \$60 related to excess tax benefits that were not previously recognized as they had not reduced current taxes payable in previous years. The Company does not currently expect this guidance to have a material impact on its results of operations or statement of cash flows.

In August 2016, the FASB issued new guidance related to the classification of certain cash receipts and payments on the statement of cash flows. Under the new guidance, cash payments resulting from debt prepayment or extinguishment will be classified as cash outflows from financing activities. In addition, beneficial interests obtained in a securitization of financial assets should be disclosed as a noncash activity and cash receipts from the beneficial interests should be classified as cash inflows from investing activities. Under existing guidance, the Company classifies cash receipts from beneficial interests in securitized receivables and cash payments resulting from debt prepayment or extinguishment as cash flows from operating activities. The guidance will be effective for the Company on January 1, 2018. The Company is currently evaluating the impact of adopting this guidance, which may have a material impact on its cash flows from operating activities.

In January 2017, the FASB issued guidance to simplify the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The guidance is effective for the Company on January 1, 2020 but early adoption is permitted.

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 L](#) and other contingencies under [Note M](#) 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 "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 Empaque will be accretive to the Company's earnings; whether sales and profits of Empaque will continue to grow; whether the combination of the Company and Empaque will provide benefits to customers and shareholders; whether the operations of Empaque 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 the recent European Sovereign debt crisis; 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 and 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 health care reform in the U.S.; 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; 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; 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 Securities and Exchange Commission ("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

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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, 2016. 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, 2016, the Company's internal control over financial reporting was effective based on those criteria.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2016 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.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Crown Holdings, Inc. and its subsidiaries at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, 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 these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. 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.

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 24, 2017

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

For the Years Ended December 31	2016	2015	2014
Net sales	\$ 8,284	\$ 8,762	\$ 9,097
Cost of products sold, excluding depreciation and amortization	6,583	7,116	7,525
Depreciation and amortization	247	237	190
Selling and administrative expense	368	390	398
Provision for asbestos	21	26	40
Restructuring and other	44	66	129
Income from operations	1,021	927	815
Loss from early extinguishments of debt	37	9	34
Interest expense	243	270	253
Interest income	(12)	(11)	(7)
Foreign exchange	(16)	20	14
Income before income taxes	769	639	521
Provision for income taxes	186	178	43
Net income	583	461	478
Net income attributable to noncontrolling interests	(87)	(68)	(88)
Net income attributable to Crown Holdings	\$ 496	\$ 393	\$ 390
Earnings per common share attributable to Crown Holdings:			
Basic	\$ 3.58	\$ 2.85	\$ 2.84
Diluted	\$ 3.56	\$ 2.82	\$ 2.82

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	2016	2015	2014
Net income	\$ 583	\$ 461	\$ 478
Other comprehensive income / (loss), net of tax			
Foreign currency translation adjustments	(435)	(469)	(323)
Pension and other postretirement benefits	166	91	47
Derivatives qualifying as hedges	23	(15)	25
Total other comprehensive loss	(246)	(393)	(251)
Total comprehensive income	337	68	227
Net income attributable to noncontrolling interests	(87)	(68)	(88)
Translation adjustments attributable to noncontrolling interests	2	3	1
Derivatives qualifying as hedges attributable to noncontrolling interests	(2)	1	(2)
Comprehensive income attributable to Crown Holdings	\$ 250	\$ 4	\$ 138

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

CONSOLIDATED BALANCE SHEETS
(in millions, except share data)

December 31	2016	2015
Assets		
Current assets		
Cash and cash equivalents	\$ 559	\$ 717
Receivables, net	865	912
Inventories	1,245	1,213
Prepaid expenses and other current assets	172	207
Total current assets	2,841	3,049
Goodwill and intangible assets	3,263	3,580
Property, plant and equipment, net	2,820	2,699
Other non-current assets	675	722
Total	\$ 9,599	\$ 10,050
Liabilities and equity		
Current liabilities		
Short-term debt	\$ 33	\$ 54
Current maturities of long-term debt	161	209
Accounts payable and accrued liabilities	2,702	2,645
Total current liabilities	2,896	2,908
Long-term debt, excluding current maturities	4,717	5,255
Postretirement and pension liabilities	620	767
Other non-current liabilities	698	735
Commitments and contingent liabilities (Note M)		
Equity		
Noncontrolling interests	302	291
Preferred stock, authorized: 30,000,000; none issued (Note O)	—	—
Common stock, par value: \$5.00; authorized: 500,000,000 shares; issued: 185,744,072 shares (Note O)	929	929
Additional paid-in capital	446	426
Accumulated earnings	2,621	2,125
Accumulated other comprehensive loss	(3,400)	(3,154)
Treasury stock at par value (2016 - 45,903,844 shares; 2015 - 46,302,744 shares)	(230)	(232)
Crown Holdings shareholders' equity	366	94
Total equity	668	385
Total	\$ 9,599	\$ 10,050

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	2016	2015	2014
Cash flows from operating activities			
Net income	\$ 583	\$ 461	\$ 478
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	247	237	190
Restructuring and other	44	66	129
Pension expense	28	48	56
Pension contributions	(103)	(79)	(81)
Stock-based compensation	20	27	22
Deferred income taxes	16	25	(81)
Changes in assets and liabilities:			
Receivables	29	34	45
Inventories	(85)	60	(62)
Accounts payable and accrued liabilities	163	59	214
Other, net	(12)	18	2
Net cash provided by operating activities	930	956	912
Cash flows from investing activities			
Capital expenditures	(473)	(354)	(328)
Acquisition of businesses, net of cash acquired	—	(1,207)	(733)
Proceeds from sale of businesses, net of cash sold	—	33	22
Proceeds from sale of property, plant and equipment	10	7	16
Net investment hedge settlements	—	(11)	—
Other	21	(16)	2
Net cash used for investing activities	(442)	(1,548)	(1,021)
Cash flows from financing activities			
Proceeds from long-term debt	1,380	1,435	2,742
Payments of long-term debt	(1,914)	(900)	(1,752)
Net change in revolving credit facility and short-term debt	(32)	(7)	(319)
Debt issuance costs	(18)	(18)	(41)
Common stock issued	10	6	14
Common stock repurchased	(8)	(9)	(2)
Dividends paid to noncontrolling interests	(80)	(48)	(77)
Purchase of noncontrolling interests	—	—	(93)
Contribution from noncontrolling interests	4	5	—
Foreign exchange derivatives related to debt	42	(58)	(27)
Net cash provided by/(used for) financing activities	(616)	406	445
Effect of exchange rate changes on cash and cash equivalents	(30)	(62)	(60)
Net change in cash and cash equivalents	(158)	(248)	276
Cash and cash equivalents at January 1	717	965	689
Cash and cash equivalents at December 31	\$ 559	\$ 717	\$ 965

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

Crown Holdings, Inc.

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

	Crown Holdings, Inc. Shareholders' Equity							Total Crown Equity	Noncontrolling Interests	Total
	Common Stock	Paid-in Capital	Accumulated Earnings	Accumulated Other Comprehensive Loss	Treasury Stock					
Balance at January 1, 2014	\$ 929	\$ 431	\$ 1,342	\$ (2,513)	\$ (238)	\$ (49)	\$ 88	\$ 285	\$ 236	
Net income			390				390	88	478	
Other comprehensive income / (loss)				(252)			(252)	1	(251)	
Dividends paid to noncontrolling interests							—	(62)	(62)	
Stock-based compensation		22					22		22	
Common stock issued		10				4	14		14	
Common stock repurchased		(2)				(2)			(2)	
Purchase of noncontrolling interests		(54)				(54)		(44)	(98)	
Balance at December 31, 2014	<u>\$ 929</u>	<u>\$ 407</u>	<u>\$ 1,732</u>	<u>\$ (2,765)</u>	<u>\$ (234)</u>	<u>\$ 69</u>	<u>\$ 69</u>	<u>\$ 268</u>	<u>\$ 337</u>	
Net income			393				393	68	461	
Other comprehensive income / (loss)				(389)			(389)	(4)	(393)	
Dividends paid to noncontrolling interests							—	(48)	(48)	
Contribution from noncontrolling interests							—	4	4	
Restricted stock awarded		(2)				2	—		—	
Stock-based compensation		27					27		27	
Common stock issued		5				1	6		6	
Common stock repurchased		(8)				(1)	(9)		(9)	
Purchase of noncontrolling interests		(3)				(3)		3	—	
Balance at December 31, 2015	<u>\$ 929</u>	<u>\$ 426</u>	<u>\$ 2,125</u>	<u>\$ (3,154)</u>	<u>\$ (232)</u>	<u>\$ 94</u>	<u>\$ 94</u>	<u>\$ 291</u>	<u>\$ 385</u>	
Net income			496				496	87	583	
Other comprehensive income / (loss)				(246)			(246)	(80)	(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	<u>\$ 929</u>	<u>\$ 446</u>	<u>\$ 2,621</u>	<u>\$ (3,400)</u>	<u>\$ (230)</u>	<u>\$ 366</u>	<u>\$ 366</u>	<u>\$ 302</u>	<u>\$ 668</u>	

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 manufactures and sells metal and glass packaging containers, metal closures, and canmaking equipment. These products are manufactured in the Company’s plants both within and outside the U.S. and are sold through the Company’s sales organization to the soft drink, food, citrus, brewing, household products, personal care and various other 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. 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. Revenue is recognized from product sales when the goods are shipped and the title and risk of loss pass to the customer. Provisions for discounts and rebates to customers, returns, and other adjustments are estimated and provided for in the period that the related sales are recorded. 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.

Stock-Based Compensation. 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. 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 and Cash Equivalents. 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.

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 for U.S. inventories principally determined under the first-in, first-out (“FIFO”) method and for non-U.S. inventories under the 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 and amortization are 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. Goodwill is carried at cost and reviewed for impairment annually or when facts and circumstances indicate goodwill may be impaired. In 2016, the Company changed its annual impairment testing from December 31 to October 1. The Company made the change to better align the timing of the goodwill impairment test with the timing of the Company's annual planning and budgeting processes and to provide the Company with adequate time to evaluate goodwill for impairment. This change did not result in the delay, acceleration or avoidance of an impairment charge. The Company completed its annual impairment testing in the fourth quarter of 2016 and determined that no adjustments to the carrying value of goodwill were necessary.

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. If the Company determines that an impairment is more likely than not, it will perform the two-step quantitative impairment test using a combination of market values for comparable businesses and discounted cash flow projections compared to the reporting unit's carrying value including goodwill. 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's goodwill to its implied fair value.

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. 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.

The with-and-without approach is used to account for utilization of windfall tax benefits arising from the Company's stock-based compensation plans and only the direct impact of awards is considered when calculating the amount of windfalls or shortfalls. 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. Any amounts excluded from the assessment of hedge effectiveness, and any ineffective portion of designated hedges, are reported currently in earnings. 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 \$41 in 2016 and \$39 in 2015 and 2014 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.

Revisions. In 2016, the Company corrected the calculation of its estimated asbestos liability under Accounting Standards Codification (ASC) 450, *Contingencies*. The Company now calculates its estimated liability without limitation to a specified time period. The Company assessed the materiality of this correction to prior periods' financial statements in accordance with Securities and Exchange Commission Staff Accounting Bulletin No. (SAB) 99, *Materiality*, and SAB 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements*, codified in ASC 250, *Presentation of Financial Statements*. The Company concluded that the correction was not material to prior periods and therefore, amendments of previously filed reports are not required.

The effects of the revision on the Company's Consolidated Balance Sheets were as follows:

	December 31, 2015		
	As Reported	Adjustment	As Revised
Other non-current assets	692	30	722
Total assets	10,020	30	10,050
Other non-current liabilities	655	80	735
Accumulated earnings	2,175	(50)	2,125
Crown Holdings shareholders' equity	144	(50)	94
Total equity	435	(50)	385
Total liabilities and equity	10,020	30	10,050

The effects of the revision on the Company's Consolidated Statements of Operations were as follows:

	December 31, 2014		
	As Reported	Adjustment	As Revised
Provision for asbestos	45	(5)	40
Income from operations	810	5	815
Income before income taxes	516	5	521
Provision for income taxes	41	2	43
Net income	475	3	478
Net income attributable to Crown Holdings	387	3	390
Earnings per share attributable to Crown Holdings			
Basic	\$ 2.82	\$ 0.02	\$ 2.84
Diluted	\$ 2.79	\$ 0.03	\$ 2.82

The impact of the correction on the Company's Consolidated Statement of Operations for the year ended December 31, 2015 was less than \$1.

As this correction originated in periods prior to those presented, Accumulated Earnings and Total Crown Equity as of January 1, 2014 has been reduced by \$53 from \$4 to (\$49). In addition, Accumulated Earnings and Total Crown Equity as of December 31, 2014 have been reduced from \$1,782 and \$119 to \$1,732 and \$69.

The revision did not impact cash flows from operating activities in the Company's Consolidated Statement of Cash Flows.

In addition, the Company revised certain previously reported amounts in [Note X](#) Condensed Combining Financial Information to correct for the impact of the above adjustments.

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

In May 2015, the FASB issued guidance to remove the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. The guidance impacts disclosure of certain pension plan assets and does not have an impact on the Company's consolidated financial statements. The Company adopted this guidance effective January 1, 2016 on a retrospective basis.

Recently Issued Accounting Standards

In May 2014, the FASB issued new guidance which outlines a single comprehensive model to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. Under the new guidance, revenue will either be recognized at a point in time or over time. Certain products that the Company manufactures for customers may have no alternative use and follow an over-time revenue recognition model. As a result, timing of revenue recognition for certain products, under the new guidance, may be accelerated compared to current guidance. The guidance is effective for the Company on January 1, 2018. The Company continues to make progress towards implementation of the new guidance and to evaluate the adoption impact on its financial position and results of operations.

In July 2015, the FASB issued new guidance related to the subsequent measurement of inventory. Under existing guidance, inventory was measured at the lower of cost or market, where market was defined as replacement cost, with a ceiling of net realizable value and floor of net realizable value less a normal profit margin. The new guidance requires an entity to subsequently measure inventory at the lower of cost or net realizable value, which is defined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The guidance will be effective for the Company on January 1, 2017 and is not expected to have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued new guidance on lease accounting. Under the new guidance lease classification criteria and income statement recognition is 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 guidance will be effective for the Company on January 1, 2019. The Company is currently evaluating the impact of adopting this guidance on its financial position and results of operations.

In March 2016, the FASB issued new guidance on share-based payments. The new guidance includes provisions to simplify various aspects of how share-based payments are accounted for and presented in the financial statements. Under current guidance, upon settlement, tax benefits in excess of compensation costs ("windfalls") are recorded in equity and tax deficiencies ("shortfalls") are recorded in equity to the extent of previous windfalls. Under the new guidance, all of the tax effects related to share-based payments at settlement will be recorded through the income statement which may increase volatility in the Company's results of operations. The guidance will be effective for the Company on January 1, 2017. Upon adoption, the Company expects to recognize a deferred tax asset of approximately \$60 related to excess tax benefits that were not previously recognized as they had not reduced current taxes payable in previous years.

In August 2016, the FASB issued new guidance related to the classification of certain cash receipts and payments on the statement of cash flows. Under the new guidance, cash payments resulting from debt prepayment or extinguishment will be classified as cash outflows from financing activities. In addition, beneficial interests obtained in a securitization of financial assets should be disclosed as a noncash activity and cash receipts from the beneficial interests should be classified as cash inflows from investing activities. Under existing guidance, the Company classifies cash receipts from beneficial interests in securitized receivables and cash payments resulting from debt prepayment or extinguishment as cash flows from operating activities. The guidance will be effective for the Company on January 1, 2018. The Company is currently evaluating the impact of adopting this guidance, which may have a material impact on its cash flows from operating activities.

In January 2017, the FASB issued guidance to simplify the accounting for goodwill impairment by removing Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. The amount of goodwill impaired will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The guidance is effective for the Company on January 1, 2020 but early adoption is permitted.

B. Acquisitions

Empaque

On February 18, 2015, the Company completed its acquisition of Empaque, a leading manufacturer of beverage packaging in Mexico, from Heineken N.V., for \$1.2 billion. The addition of Empaque significantly increases the Company's presence in the growing Mexican market and substantially enhances the Company's strategic position in beverage cans and its presence in the growing Mexican market. In conjunction with the acquisition the Company acquired intangible assets which included \$254 of customer relationships that will be amortized over 18 years and \$189 for long-term supply contracts that will be amortized over 15 years, and assigned goodwill of \$618 to the Americas Beverage segment.

Mivisa

On April 23, 2014, the Company completed its acquisition of Mivisa Envases, S.A.U. ("Mivisa") for \$733, net of \$28 in cash acquired, plus \$977 of debt assumed. Mivisa, based in Murcia, Spain, primarily serves the vegetable, fruit, fish and meat markets and is the largest food can producer in both the Iberian Peninsula and Morocco. In conjunction with the acquisition the Company acquired intangible assets which included \$14 of acquired trademarks that were fully amortized in 2014 and \$281 of customer relationships that will be amortized over 13 years, and assigned goodwill of \$938 to the European Food segment.

Pro-forma data

The following unaudited supplemental pro-forma data presents consolidated information as if the Empaque and Mivisa acquisitions had been completed on January 1, 2014. These amounts were calculated after conversion to U.S. GAAP, applying the Company's accounting policies and adjusting Empaque's and Mivisa's results to reflect the additional depreciation and amortization that would have been charged assuming the fair value of property, plant and equipment, inventory and intangible assets had been applied from the assumed completion dates. These adjustments also reflect interest expense incurred on the debt to finance the acquisition and related transaction costs.

Crown Holdings, Inc.

	Pro-forma data for the year ended December 31,	
	2015	2014
Net sales	\$ 8,837	\$ 9,955
Net income attributable to Crown Holdings	415	426

Pro-forma results exclude the potential realization of cost savings relating to integration of the companies and the impact of divestitures required to obtain regulatory approval for the Mivisa acquisition. Further, 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. 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, 2016 and 2015.

	Defined benefit plans	Foreign currency translation	Gains and losses on cash flow hedges	Total
Balance at January 1, 2015	\$ (1,781)	\$ (980)	\$ (4)	\$ (2,765)
Other comprehensive income (loss) before reclassifications	46	(466)	(33)	(453)
Amounts reclassified from accumulated other comprehensive income	45	—	19	64
Other comprehensive income (loss)	91	(466)	(14)	(389)
Balance at December 31, 2015	(1,690)	(1,446)	(18)	(3,154)
Other comprehensive income (loss) before reclassifications	118	(433)	18	(297)
Amounts reclassified from accumulated other comprehensive income	48	—	3	51
Other comprehensive income (loss)	166	(433)	21	(246)
Balance at December 31, 2016	\$ (1,524)	\$ (1,879)	\$ 3	\$ (3,400)

Crown Holdings, Inc.

The following table provides information about the amounts reclassified out of accumulated other comprehensive income in 2016 and 2015.

Details about Accumulated Other Comprehensive Income Components	Amount reclassified from Accumulated Other Comprehensive Income		Affected line item in the Statement of Operations
	2016	2015	
(Gains) losses on cash flow hedges			
Commodities	\$ 8	\$ 23	Cost of products sold
	8	23	Total before tax
	(2)	(5)	Provision for income taxes
	6	18	Net of tax
Foreign exchange			
	10	2	Net sales
	(14)	(1)	Cost of products sold
	(4)	1	Total before tax
	1	—	Provision for income taxes
	(3)	1	Net of tax
Total losses on cash flow hedges	\$ 3	\$ 19	
Amortization of defined benefit plan items			
Actuarial losses	\$ 119	\$ 109	(a)
Prior service credit	(52)	(50)	(a)
	67	59	Total before tax
	(19)	(14)	Provision for income taxes
Total amortization of defined benefit plan items	\$ 48	\$ 45	Net of tax
Total reclassifications	\$ 51	\$ 64	Net of tax

(a) These accumulated other comprehensive income components are included in the computation of net period pension and postretirement cost. See [Note U](#) for further details.

D. Receivables

	2016	2015
Accounts receivable	\$ 769	\$ 827
Less: allowance for doubtful accounts	(76)	(83)
Net trade receivables	693	744
Miscellaneous receivables	172	168
	\$ 865	\$ 912

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.

Crown Holdings, Inc.

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

	2016	2015
Accounted for as secured borrowings	\$ 9	\$ 10
Accounted for as sales	816	716

Certain of the Company's securitization facilities include a deferred purchase price component. As consideration for the sale of its receivables, the Company receives a cash payment and a new asset, the deferred purchase price receivable from the purchaser, which will be paid to the Company as payments on the receivables are collected from the account debtors. As the criteria for sale accounting have been met, the Company derecognizes the entire amount of receivables sold from its balance sheet and recognizes an asset at fair value for the deferred purchase price receivable as well as the cash received. As the deferred purchase price is not a trade receivable, it is reported in prepaid expenses and other current assets in the Company's balance sheet. As receipt of the deferred purchase price coincides with collections of the underlying receivables, the collection period is short in duration. As of December 31, 2016 and 2015, the amount of deferred purchase price included in prepaid expenses and other current assets was \$83 and \$105. The net change in the deferred purchase price receivable is reflected in the receivables line item in the Company's Consolidated Statement of Cash Flows. This activity is reflected as an operating cash flow because the related customer receivables are the result of an operating activity with an insignificant, short-term interest rate risk.

The Company recorded expenses related to securitization and factoring facilities of \$13 in 2016 and \$12 in 2015 and 2014 and as interest expense.

E. Inventories

	2016	2015
Raw materials and supplies	\$ 658	\$ 599
Work in process	116	129
Finished goods	471	485
	<u>\$ 1,245</u>	<u>\$ 1,213</u>

F. Goodwill and Intangible Assets

Changes in the carrying amount of goodwill by reportable segment for the years ended December 31, 2016 and 2015 were as follows:

	Americas Beverage	North America Food	European Beverage	European Food	Non- reportable segments	Total
Balance at January 1, 2015	\$ 420	\$ 152	\$ 623	\$ 1,347	\$ 129	\$ 2,671
Foreign currency translation	(94)	(11)	(51)	(133)	(4)	(293)
Goodwill acquired	618	—	—	7	—	625
Disposals	—	—	—	20	(20)	—
Balance at December 31, 2015	944	141	572	1,241	105	3,003
Foreign currency translation	(88)	2	(61)	(56)	(14)	(217)
Transfers and other adjustments	(36)	36	—	5	—	5
Balance at December 31, 2016	<u>\$ 820</u>	<u>\$ 179</u>	<u>\$ 511</u>	<u>\$ 1,190</u>	<u>\$ 91</u>	<u>\$ 2,791</u>

In 2015, goodwill acquired relates to the acquisition of Empaque.

The carrying amount of goodwill at December 31, 2016 and 2015 is net of the following accumulated impairments:

	Americas Beverage	North America Food	European Beverage	European Food	Non- reportable Segments	Total
Accumulated impairments	\$ 29	\$ —	\$ 73	\$ 724	\$ 150	\$ 976

Crown Holdings, Inc.

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

	2016			2015		
	Gross	Accumulated amortization	Net	Gross	Accumulated amortization	Net
Customer relationships	\$ 375	\$ (71)	\$ 304	\$ 410	\$ (46)	\$ 364
Long term supply contacts	184	(18)	166	221	(10)	\$ 211
	<u>\$ 559</u>	<u>\$ (89)</u>	<u>\$ 470</u>	<u>\$ 631</u>	<u>\$ (56)</u>	<u>\$ 575</u>

The table above excludes other intangible assets with net balances of \$3 and \$2 at December 31, 2016 and 2015.

Amortization expense for the years ended December 31, 2016, 2015, and 2014 was \$41, \$40 and \$31.

Annual amortization expense for each of the five years subsequent to 2016 is estimated to be \$41.

G. Property, Plant and Equipment

	2016	2015
Buildings and improvements	\$ 1,001	\$ 1,009
Machinery and equipment	4,628	4,667
Land and improvements	168	180
Construction in progress	406	229
	<u>6,203</u>	<u>6,085</u>
Less: accumulated depreciation and amortization	(3,383)	(3,386)
	<u>\$ 2,820</u>	<u>\$ 2,699</u>

H. Other Non-Current Assets

	2016	2015
Deferred taxes	\$ 593	\$ 626
Debt issuance costs	6	11
Investments	4	5
Other	72	80
	<u>\$ 675</u>	<u>\$ 722</u>

I. Accounts Payable and Accrued Liabilities

	2016	2015
Trade accounts payable	\$ 1,951	\$ 1,838
Salaries, wages and other employee benefits, including pension and postretirement	162	190
Accrued taxes, other than on income	107	109
Accrued interest	54	62
Fair value of derivatives	36	47
Income taxes payable	34	40
Asbestos liabilities	30	30
Restructuring	19	32
Other	309	297
	<u>\$ 2,702</u>	<u>\$ 2,645</u>

J. Other Non-Current Liabilities

	2016	2015
Asbestos liabilities	\$ 312	\$ 321
Deferred taxes	203	223
Postemployment benefits	29	31
Income taxes payable	20	21
Environmental	12	13
Other	122	126
	<u>\$ 698</u>	<u>\$ 735</u>

Income taxes payable includes unrecognized tax benefits as discussed in [Note V](#).

K. 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 \$48 in 2017, \$32 in 2018, \$22 in 2019, \$16 in 2020, \$11 in 2021 and \$63 thereafter. Such rental commitments have been reduced by minimum sublease rentals of \$4 due under non-cancelable subleases. Rental expense (net of sublease rental income) was \$53 in 2016 and 2015 and \$60 in 2014. The Company did not have any significant capital leases at December 31, 2016.

L. 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.

In recent years, the states of Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, 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-

Crown Holdings, Inc.

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 2016, 2015 and 2014 were as follows:

	2016	2015	2014
Beginning claims	54,500	54,000	53,000
New claims	2,500	2,500	3,000
Settlements or dismissals	(1,500)	(2,000)	(2,000)
Ending claims	55,500	54,500	54,000

The Company's cash payments during the years ended 2016, 2015, and 2014 were as follows:

	2016	2015	2014
Asbestos-related payments	\$ 30	\$ 30	\$ 30
Settled claims payments (included in asbestos-related payments above)	23	22	21

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, 2016 and December 31, 2015, the Company's outstanding claims are:

	2016	2015
Claimants alleging first exposure after 1964	16,000	16,000
Claimants alleging first exposure before or during 1964 filed in:		
Texas	13,000	13,000
Pennsylvania	2,000	2,000
Other states that have enacted asbestos legislation	6,000	6,000
Other states	18,500	17,500
Total claims outstanding	55,500	54,500

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) are as follows:

	2016	2015	2014
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, 2016.

Approximately 82% of the claims outstanding at the end of 2016 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 15% 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 (40% of whom claim damages less than \$25) and 5 were filed by plaintiffs who claim damages in excess of \$100.

As of December 31, 2016, the Company's accrual for pending and future asbestos-related claims and related legal costs was \$342, including \$300 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).

M. 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 \$7 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 market for the supply of metal packaging products. The FCO's investigation is ongoing. To date, the FCO has not officially charged the Company or any of its subsidiaries with any violations of competition law. The Company has commenced an internal investigation into the matter and has discovered instances of inappropriate conduct by certain employees of German subsidiaries of the Company. The Company is cooperating with the FCO and submitted a leniency application which disclosed the findings of its internal investigation to date and which may lead to the reduction of penalties that the FCO may impose. If the FCO finds that the Company or any of its subsidiaries violated competition law, the FCO has wide discretion to levy fines. At this stage of the investigation the Company believes that a loss is probable. However, the Company is unable to predict the ultimate outcome of the FCO's investigation and is unable to

estimate the loss or possible range of any additional losses that could be incurred, which 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 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, 2016, the Company was party to certain indemnification agreements covering environmental remediation, lease payments and other potential costs associated with properties sold or businesses divested. For agreements with defined liability limits the maximum potential amount of future liability was \$6. 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. At December 31, 2016, the Company also had guarantees of \$20 related to the residual values of leased assets.

N. Restructuring and Other

The Company recorded restructuring and other charges as follows:

	2016	2015	2014
Asset impairments and sales	\$ 14	\$ 22	\$ 70
Restructuring	12	23	21
Transaction costs	—	15	17
Other costs	18	6	21
	<u>\$ 44</u>	<u>\$ 66</u>	<u>\$ 129</u>

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 announced closure of a beverage can plant in the Company's Asia Pacific segment. The Company announced plans to close the plant in an effort to reduce cost by consolidating manufacturing processes in China. The Company had \$9 of additional restructuring actions across various segments as summarized in the table below. Other costs primarily related to pension settlement charges.

In 2015, asset impairments and sales and restructuring primarily related to the closure of two plants in the Company's North America Food segment and two plants in its European Food segment. Transaction costs related to the acquisition of Empaque.

In 2014, asset impairments and sales included charges of \$44 related to the divestment of certain operations in connection with the Company's acquisition of Mivisa and \$24 related to the divestment of certain operations in the Company's European Specialty Packaging business. Transaction costs were incurred in connection with the acquisitions of Mivisa and Empaque. Other costs primarily included incremental costs associated with the temporary relocation of production due to a labor dispute in the Company's Americas Beverage segment.

Restructuring charges by segment were as follows:

	2016	2015	2014
Americas Beverage	\$ 1	\$ —	\$ —
North America Food	4	2	10
European Food	4	19	8
Asia Pacific	3	—	—
Non-reportable segments	—	—	3
Corporate	—	2	—
	<u>\$ 12</u>	<u>\$ 23</u>	<u>\$ 21</u>

Restructuring charges by type were as follows:

	2016	2015	2014
Termination benefits	\$ 9	\$ 20	\$ 8
Other exit costs	3	3	13
	<u>\$ 12</u>	<u>\$ 23</u>	<u>\$ 21</u>

2015 European Division Actions

Through December 31, 2016, the Company incurred costs of \$19 related to the closure of two facilities in the Company's European Food segment. The closures are expected to reduce costs by eliminating excess capacity and consolidating manufacturing processes. This action is expected to result in the reduction of approximately 280 employees when completed in 2017. The Company does not expect to incur any additional charges related to this action.

The table below summarizes the termination benefits accrual balances and utilization by cost type for this action. There were no other exit costs.

	Termination benefits	Other exit costs	Total
Balance at December 31, 2015	\$ 17	\$ —	\$ 17
Provisions	—	3	\$ 3
Payments	(6)	(3)	\$ (9)
Foreign currency translation	(2)	—	\$ (2)
Releases	(1)	—	\$ (1)
Balance at December 31, 2016	<u>\$ 8</u>	<u>\$ —</u>	<u>\$ 8</u>

Other Actions

At December 31, 2016, the Company had an additional restructuring accrual of \$11, primarily related to current year actions in the European Food business and prior year actions to reduce manufacturing capacity and headcount in its European Aerosol and Specialty Packaging businesses. The Company expects to pay the European Aerosol and Specialty Packaging liability through 2024 as certain employees have elected to receive payment as a fixed monthly sum over future years. 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.

O. Capital Stock

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

	2016	2015	2014
Common shares outstanding at January 1	139,441,298	139,000,471	138,207,889
Shares repurchased	(162,563)	(165,138)	(36,702)
Shares issued upon exercise of employee stock options	348,640	207,890	744,431
Restricted stock issued to employees, net of forfeitures	187,209	375,575	60,933
Shares issued to non-employee directors	25,644	22,500	23,920
Common shares outstanding at December 31	<u>139,840,228</u>	<u>139,441,298</u>	<u>139,000,471</u>

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.

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. The amount of restricted payments permitted to be made, including dividends and repurchases of the Company's common stock, may be limited to the cumulative excess of \$200 plus 50% of adjusted net income plus proceeds from the exercise of employee stock options over the aggregate of restricted payments made since July 2004. Adjustments to net income may include, but are not limited to, items such as asset impairments, gains and losses from asset sales and early extinguishments of debt.

P. 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, generally based on market conditions, as determined by the Plan Committee designated by the Company's Board of Directors. There have been no awards of SARs. At December 31, 2016, there were 4.4 million authorized shares available for future awards.

Stock Options

At December 31, 2016 and 2015 there were 369,050 and 721,690 options outstanding with weighted average exercise prices of \$26.74 and \$25.32. There were no stock options granted in 2016, 2015 or 2014. The aggregate intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$8, \$5 and \$12.

At December 31, 2016 options outstanding had an aggregate intrinsic value of \$10, a weighted-average remaining contractual term of 0.4 years. and less than \$1 of unrecognized compensation expense.

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 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 will be settled in shares of common stock. The market performance criteria 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. 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 will 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 up to four years commencing one year after the grant date.

A summary of restricted and deferred stock activity follows:

	Number of shares
Non-vested shares outstanding at January 1, 2016	1,778,275
Awarded:	
Time-vesting	127,167
Performance-based	137,374
Released:	
Time-vesting	(414,389)
Performance-based	(90,003)
Forfeitures:	
Time-vesting	(55,717)
Performance-based	(161,415)
Non-vested shares outstanding at December 31, 2016	<u>1,321,292</u>

The average grant-date fair value of restricted stock awarded in 2016, 2015 and 2014 follows:

	2016	2015	2014
Time-vested	\$ 51.04	\$ 53.65	\$ 46.69
Performance-based	51.18	49.50	48.31

The fair values of the performance-based shares awarded were calculated using a Monte Carlo valuation model and the following weighted average assumptions:

	2016	2015	2014
Risk-free interest rate	1.2%	1.1%	0.8%
Expected term (years)	3	3	3
Expected stock price volatility	19.8%	17.4%	21.5%

At December 31, 2016, unrecognized compensation cost related to outstanding restricted and deferred stock was \$30. The weighted average period over which the expense is expected to be recognized is 1.8 years. The aggregate market value of the shares released on the vesting dates was \$26 in 2016.

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 2016, \$1 of stock-based compensation was recognized under this plan.

Q. Debt

	2016		2015	
	Principal outstanding	Carrying amount	Principal outstanding	Carrying amount
Short-term debt	\$ 33	\$ 33	\$ 54	\$ 54
Long-term debt				
Senior secured borrowings:				
Revolving credit facilities				
Term loan facilities				
U.S. dollar at LIBOR plus 1.75% due 2018	654	649	831	821
Euro at EURIBOR plus 1.75% due 2018 ¹	61	61	723	714
Farm credit facility at LIBOR plus 2.00% due 2019	351	347	355	350
Senior notes and debentures:				
U.S. dollar at 6.25% due 2021	—	—	700	694
€650 at 4.0% due 2022	684	676	706	697
U. S. dollar at 4.50% due 2023	1,000	991	1,000	989
€600 at 2.625% due 2024	631	623	—	—
€600 at 3.375% due 2025	631	622	652	642
U.S. dollar at 4.25% due 2026	400	393	—	—
U.S. dollar at 7.375% due 2026	350	347	350	346
U.S. dollar at 7.50% due 2096	45	45	45	45
Other indebtedness in various currencies				
Fixed rate with rates in 2016 from 3.94% to 8.5% due through 2036	122	122	146	146
Variable rate with average rates in 2016 of 2.15% due through 2018	2	2	20	20
Total long-term debt	4,931	4,878	5,528	5,464
Less: current maturities	(162)	(161)	(211)	(209)
Total long-term debt, less current maturities	\$ 4,769	\$ 4,717	\$ 5,317	\$ 5,255

(1) €58 and €665 at December 31, 2016 and 2015.

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 \$5,043 at December 31, 2016 and \$5,540 at December 31, 2015.

The revolving credit facilities include provisions for letters of credit up to \$210 that reduce the amount of borrowing capacity otherwise available. At December 31, 2016, the Company's available borrowing capacity under the credit facilities was \$1,158, equal to the facilities' aggregate capacity of \$1,200 less \$42 of outstanding letters of credit. The interest rate on the facilities can vary from LIBOR or EURIBOR plus a margin of 1.50% up to 2.00% based on the Company's total net leverage ratio. The revolving credit facilities and term loans contain financial covenants including an interest coverage ratio and a total net leverage ratio.

The weighted average interest rates were as follows:

	2016	2015	2014
Short-term debt	2.7%	3.0%	2.7%
Revolving credit facilities	3.8%	4.4%	4.4%

Aggregate maturities of long-term debt for the five years subsequent to 2016, excluding unamortized discounts and debt issuance costs, are \$162, \$623, \$364, \$17 and \$18. Cash payments for interest during 2016, 2015 and 2014 were \$217, \$249 and \$231.

2016 Activity

In February 2016, the Company amended its credit agreement to provide for an additional \$300 of term loan borrowings, the proceeds of which, along with borrowings under the revolving credit facilities and cash on hand were used to redeem the Company's

\$700 6.25% senior notes due 2021. In connection with the redemption, the Company recorded a loss from early extinguishment of debt of \$27 for premiums paid and the write-off of deferred financing fees.

In September 2016, the Company issued €600 (\$631 at December 31, 2016) principal amount of 2.625% senior unsecured notes due 2024. 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. The Company used the proceeds to repay a portion of the Euro term loan facility. In connection with the repayment, the Company recorded a loss from early extinguishment of debt of \$7 for the write-off of deferred financing fees.

In September 2016, the Company also issued \$400 principal amount of 4.25% 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. The Company used the proceeds to repay a portion of the U.S dollar term loan facility. In connection with the repayment, the Company recorded a loss from early extinguishment of debt of \$3 for the write-off of deferred financing fees.

2015 Activity

In February 2015, to fund the acquisition of Empaque as described in [Note B](#), the Company borrowed an additional \$75 under its U.S. dollar term loan facility due in December 2018 and \$675 under a U.S. dollar term loan facility.

In May 2015, the Company issued €600 (\$652 at December 31, 2015) principal amount of 3.375% senior unsecured notes due 2025. 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. The Company used these proceeds to repay the U.S. dollar term loan facility due in February 2022. In connection with the repayment of the term loan facility, the Company recorded a loss from early extinguishment of debt of \$9 for the write off of deferred financing fees.

R. 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 report 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 Q](#) 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 of 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, except any ineffective portion, are recorded in 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 comprehensive income is the same as that of the underlying exposure. Contracts outstanding at December 31, 2016 mature between one and thirty-four 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.

The following table sets forth financial information about the impact on Accumulated Other Comprehensive Income ("AOCI") and earnings from changes in fair value related to derivative instruments.

Derivatives in cash flow hedges	Amount of gain/(loss) recognized in AOCI (effective portion)		Amount of gain/(loss) reclassified from AOCI into earnings	
	2016	2015	2016	2015
Foreign exchange	\$ (2)	\$ (1)	\$ 3	\$ (1)
Commodities	20	(32)	(6)	(18)
Total	\$ 18	\$ (33)	\$ (3)	\$ (19)

(1) In 2016, a loss of \$10 (\$8, net of tax) was recognized in net sales and a gain of \$14 (\$11, net of tax) was recognized in cost of products sold. In 2015, a loss of \$2 (\$2, net of tax) was recognized in net sale and a gain of \$1 (\$1, net of tax) was recognized in cost of products sold.

(2) In 2016, a loss of \$8, including a gain of \$1 (\$1 net of tax) related to hedge ineffectiveness caused primarily by volatility in the metal premium component of aluminum prices, was recognized in cost of products sold and a tax benefit of \$2 was recognized in income tax expense. In 2015, a loss of \$23, including a loss of \$2 (\$1 net of tax) related to hedge ineffectiveness caused primarily by volatility in the metal premium component of aluminum prices, was recognized in cost of products sold and a tax benefit of \$5 was recognized in income tax expense.

For the twelve-month period ending December 31, 2017, a net gain of \$4 (\$3, net of tax) is expected to be reclassified to earnings. No amounts were reclassified during the twelve months ended December 31, 2016 and 2015 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.

Other than for firm commitments, amounts related to time value are excluded from the assessment and measurement of hedge effectiveness and are reported in earnings. Less than \$1 was reported in earnings for the twelve months ended December 31, 2016.

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 \$8 for the twelve months ended December 31, 2016 and a loss of \$1 for the twelve months ended December 31, 2015. The impact on earnings from foreign exchange contracts not designated as hedges was a gain of \$11 for the twelve months ended December 31, 2016 and a loss of \$29 for the same period in 2015. These adjustments were reported within translation and foreign exchange in the Consolidated Statements of Operations and were offset by changes in the fair values of the related hedged item.

During the twelve months ended December 31, 2016 and 2015, certain commodity hedges did not meet the criteria for hedge accounting and therefore the change in their fair value during the quarter was recognized in earnings. For the twelve months ended December 31, 2016 and 2015, the Company recognized a gain of \$7 (\$5, net of tax) and a loss of \$2 (\$1, net of tax) related to these ineffective hedges.

Net Investment Hedges

During the twelve months ended December 31, 2016 and 2015, the Company recorded gains of \$35 (\$23, net of tax) and \$13 (\$10, net of tax) in accumulated other comprehensive income for certain debt instruments that are designated as hedges of the Company's net investment in a euro-based subsidiary.

Fair Values of Derivative Financial Instruments and Valuation Hierarchy

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

Crown Holdings, Inc.

Derivative assets	Balance Sheet classification	Fair Value hierarchy	December 31, 2016	December 31, 2015
Derivatives designated as hedges:				
Foreign exchange	Other current assets	2	\$ 24	\$ 32
Commodities	Other current assets	2	13	5
Commodities	Other non-current assets	2	3	2
Derivatives not designated as hedges:				
Commodities	Other current assets	2	5	3
Total			\$ 45	\$ 42

Derivative liabilities

Derivatives designated as hedges:				
Foreign exchange	Accounts payable and accrued liabilities	2	\$ 28	\$ 14
Commodities	Accounts payable and accrued liabilities	2	3	26
Foreign exchange	Other non-current liabilities	2	1	5
Derivatives not designated as hedges:				
Foreign exchange	Accounts payable and accrued liabilities	2	5	2
Commodities	Accounts payable and accrued liabilities	2	—	5
Total			\$ 37	\$ 52

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 within the statement of financial position. In the table below, the aggregate fair values of the 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
<u>Balance at December 31, 2016</u>			
Derivative assets	\$ 45	\$ 6	\$ 39
Derivative liabilities	37	6	31
<u>Balance at December 31, 2015</u>			
Derivative assets	\$ 42	\$ 9	\$ 33
Derivative liabilities	52	9	43

Notional Values of Outstanding Derivative Instruments

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

	December 31, 2016	December 31, 2015
Derivatives in cash flow hedges:		
Foreign exchange	\$ 644	\$ 922
Commodities	180	324
Derivatives in fair value hedges:		
Foreign exchange	73	125
Derivatives not designated as hedges:		
Foreign exchange	618	674
Commodities	72	57

S. Noncontrolling interests

Changes in noncontrolling interests that do not result in a change of control, and where there is a difference between fair value and carrying value, are required to be accounted for as equity transactions. The effect on net income attributable to the Company had the purchases of noncontrolling interests been recorded through net income follows:

	2016	2015	2014
Net income attributable to Crown Holdings	\$ 496	\$ 393	\$ 390
Transfers to noncontrolling interests – decrease in paid-in-capital for purchase of noncontrolling interests	—	(3)	(54)
Net income attributable to Crown Holdings after transfers to noncontrolling interests	<u>\$ 496</u>	<u>\$ 390</u>	<u>\$ 336</u>

In 2014, the Company paid an aggregate of \$93 to purchase the ownership interests of its partner in certain non-wholly owned subsidiaries in the Middle East.

T. 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.

	2016	2015	2014
Net income attributable to Crown Holdings	\$ 496	\$ 393	\$ 390
Weighted average shares outstanding:			
Basic	138.53	137.94	137.23
Add: dilutive stock options and restricted stock	0.78	1.20	1.31
Diluted	<u>139.31</u>	<u>139.14</u>	<u>138.54</u>
Basic EPS	<u>\$ 3.58</u>	<u>\$ 2.85</u>	<u>\$ 2.84</u>
Diluted EPS	<u>\$ 3.56</u>	<u>\$ 2.82</u>	<u>\$ 2.82</u>
Contingently issuable shares excluded from the computation of diluted earnings per share because the effect would have been anti-dilutive	0.5	0.1	0.1

For purposes of calculating assumed proceeds under the treasury stock method when determining the diluted weighted average shares outstanding, the Company excludes the impact of windfall tax benefits unless the deduction reduces cash taxes payable.

U. Pension and Other Postretirement Benefits

In 2016, the Company changed the method used to estimate the service and interest cost components of net periodic pension and postretirement benefits cost. The new method uses the spot yield curve approach to estimate the service and interest cost by applying the specific spot rates along the yield curve used to determine the benefit plan obligations to relevant projected cash outflows. Previously, the service and interest cost components were determined using a single weighted-average discount rate. The change does not affect the measurement of the total benefit plan obligation. The spot yield curve approach provides a more precise measure of service and interest cost by improving the correlation between the projected benefit cash flows and the discrete spot yield curve rates. The company accounted for this change as a change in estimate prospectively beginning in 2016.

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.

Crown Holdings, Inc.

The components of pension expense were as follows:

<u>U.S. Plans</u>	2016	2015	2014
Service cost	\$ 14	\$ 14	\$ 13
Interest cost	50	63	66
Expected return on plan assets	(91)	(100)	(104)
Amortization of actuarial loss	50	50	41
Amortization of prior service cost	1	—	—
Net periodic cost	<u>\$ 24</u>	<u>\$ 27</u>	<u>\$ 16</u>
<u>Non-U.S. Plans</u>	2016	2015	2014
Service cost	\$ 21	\$ 24	\$ 23
Interest cost	101	127	154
Expected return on plan assets	(157)	(172)	(194)
Amortization of actuarial loss	50	55	73
Amortization of prior service credit	(12)	(13)	(16)
Net periodic cost	<u>\$ 3</u>	<u>\$ 21</u>	<u>\$ 40</u>

Additional pension expense of \$5 was recognized in each of 2016, 2015 and 2014 for multi-employer plans. Also, in 2016, the Company recorded pension settlement charges of \$14, which were included in restructuring and other in the Consolidated Statement of Operations.

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

	<u>U.S. Plans</u>		<u>Non-U.S. Plans</u>	
	2016	2015	2016	2015
<u>Projected Benefit Obligations</u>				
Benefit obligations at January 1	\$ 1,501	\$ 1,601	\$ 3,493	\$ 3,750
Service cost	14	14	21	24
Interest cost	50	63	101	127
Plan participants' contributions	—	—	3	3
Amendments	3	—	—	—
Settlements	(39)	(5)	—	—
Actuarial (gain) / loss	54	(69)	382	(62)
Acquisitions	—	—	—	82
Benefits paid	(101)	(103)	(172)	(190)
Foreign currency translation	—	—	(545)	(241)
Benefit obligations at December 31	<u>\$ 1,482</u>	<u>\$ 1,501</u>	<u>\$ 3,283</u>	<u>\$ 3,493</u>
<u>Plan Assets</u>				
Fair value of plan assets at January 1	\$ 1,190	\$ 1,300	\$ 3,169	\$ 3,410
Actual return on plan assets	65	(9)	611	48
Employer contributions	41	7	62	72
Plan participants' contributions	—	—	3	3
Settlements	(39)	(5)	—	—
Acquisitions	—	—	—	40
Benefits paid	(101)	(103)	(172)	(190)
Foreign currency translation	—	—	(521)	(214)
Fair value of plan assets at December 31	<u>\$ 1,156</u>	<u>\$ 1,190</u>	<u>\$ 3,152</u>	<u>\$ 3,169</u>
Funded Status	<u>\$ (326)</u>	<u>\$ (311)</u>	<u>\$ (131)</u>	<u>\$ (324)</u>
Accumulated benefit obligations at December 31	<u>\$ 1,446</u>	<u>\$ 1,463</u>	<u>\$ 3,191</u>	<u>\$ 3,387</u>

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

U.S. Plans	2016	2015
Projected benefit obligations	\$ 1,482	\$ 1,501
Accumulated benefit obligations	1,446	1,463
Fair value of plan assets	1,156	1,190

Non-U.S. Plans	2016	2015
Projected benefit obligations	\$ 224	\$ 3,346
Accumulated benefit obligations	200	3,241
Fair value of plan assets	85	3,015

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	30%	to	40%
International equities	10%	to	15%
Fixed income	15%	to	25%
Balanced funds	10%	to	20%
Real estate	5%	to	10%
Private equity	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 11 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 8% in any one year. The strategic ranges for asset allocation in the U.K. plan are as follows:

Investment grade credit	40%	to	80%
Equities	0%	to	30%
Hedge funds	0%	to	10%
Real estate	0%	to	5%
Private equity	0%	to	15%
Emerging market wealth	0%	to	15%
Alternative credit	0%	to	15%
Other	0%	to	5%

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.

Crown Holdings, Inc.

The levels assigned to the defined benefit plan assets as of December 31, 2016 and 2015 are summarized in the tables below:

	2016		
	U.S. plan assets	Non-U.S. plan assets	Total
Level 1			
Cash and cash equivalents	\$ 15	\$ 83	\$ 98
Global large cap equity	—	14	14
U.S. large cap equity	60	6	66
Global mid/small cap equity	—	5	5
U.S. mid/small cap equity	238	24	262
Mutual funds – global equity	149	2	151
Mutual funds – U.S. equity	214	—	214
Mutual funds – fixed income	92	—	92
	<u>768</u>	<u>134</u>	<u>902</u>
Level 2			
Government issued debt securities	49	514	563
Corporate debt securities	75	61	136
Asset backed securities	11	2	13
Structured debt	—	695	695
Insurance contracts	—	16	16
Derivatives	—	98	98
Investment funds – fixed income	2	496	498
Investment funds – global equity	—	82	82
Investment funds – emerging markets	—	—	—
	<u>137</u>	<u>1,964</u>	<u>2,101</u>
Level 3			
Investment funds – real estate	85	47	132
Hedge funds	—	207	207
Private equity	22	193	215
Real estate – direct	17	5	22
	<u>124</u>	<u>452</u>	<u>576</u>
Total assets in fair value hierarchy	<u>1,029</u>	<u>2,550</u>	<u>3,579</u>
Investments measured at NAV Practical Expedient (a)			
Investment funds – fixed income	77	110	187
Investment funds – global equity	26	243	269
Investment funds – emerging markets	23	—	23
Hedge funds	—	186	186
Investment funds – real estate	—	57	57
	<u>126</u>	<u>596</u>	<u>722</u>
Total investments at fair value	<u>\$ 1,155</u>	<u>\$ 3,146</u>	<u>\$ 4,301</u>

Crown Holdings, Inc.

	2015		
	U.S. plan assets	Non-U.S. plan assets	Total
Level 1			
Cash and cash equivalents	\$ 40	\$ 132	\$ 172
U.S. large cap equity	62	7	69
U.S. mid/small cap equity	231	18	249
Mutual funds – global equity	164	2	166
Mutual funds – U.S. equity	194	—	194
Mutual funds – fixed income	134	—	134
	<u>825</u>	<u>159</u>	<u>984</u>
Level 2			
Government issued debt securities	43	381	424
Corporate debt securities	71	86	157
Asset backed securities	15	4	19
Structured debt	—	697	697
Insurance contracts	—	17	17
Derivatives	—	84	84
Investment funds – fixed income	2	470	472
Investment funds – global equity	—	70	70
Investment funds – emerging markets	—	46	46
	<u>131</u>	<u>1,855</u>	<u>1,986</u>
Level 3			
Investment funds – real estate	74	42	116
Hedge funds	2	223	225
Private equity	26	255	281
Real estate – direct	16	4	20
	<u>118</u>	<u>524</u>	<u>642</u>
Total assets in fair value hierarchy	<u>1,074</u>	<u>2,538</u>	<u>3,612</u>
Investments measured at NAV Practical Expedient (a)			
Investment funds – fixed income	69	115	184
Investment funds – global equity	25	266	291
Investment funds – emerging markets	21	—	21
Hedge funds	—	189	189
Investment funds – real estate	—	54	54
	<u>115</u>	<u>624</u>	<u>739</u>
Total investments at fair value	<u>\$ 1,189</u>	<u>\$ 3,162</u>	<u>\$ 4,351</u>

(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 is as follows:

	2016	2015
U.S. plan assets	\$ 1	\$ 1
Non-U.S. plan assets	6	7

Plan assets include \$177 and \$171 of the Company's common stock at December 31, 2016 and 2015.

Crown Holdings, Inc.

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, 2015	\$ 252	\$ 333	\$ 110	\$ 695
Foreign currency translation	(11)	(16)	(4)	(31)
Asset returns – assets held at reporting date	(7)	(17)	11	(13)
Asset returns – assets sold during the period	17	54	—	71
Purchases, sales and settlements, net	(26)	(73)	19	(80)
Balance at December 31, 2015	225	281	136	642
Foreign currency translation	(37)	(42)	(4)	(83)
Asset returns – assets held at reporting date	24	2	10	36
Asset returns – assets sold during the period	1	36	—	37
Purchases, sales and settlements, net	(6)	(62)	12	(56)
Balance at December 31, 2016	\$ 207	\$ 215	\$ 154	\$ 576

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
<u>Balance at December 31, 2016</u>			
Investment funds – fixed income	\$ 187	Daily	1 - 15 days
Investment funds – global equity	269	Monthly	1 - 30 days
Investment funds – emerging markets	23	Daily	30 days
Hedge funds	186	Monthly	5 - 45 days
Investment funds – real estate	57	Weekly	2 days
<u>Balance at December 31, 2015</u>			
Investment funds – fixed income	\$ 184	Daily	1 - 15 days
Investment funds – global equity	291	Monthly	1 - 30 days
Investment funds – emerging markets	21	Daily	30 days
Hedge funds	189	Monthly	5 - 45 days
Investment funds – real estate	54	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 are:

	2016	2015
Non-current assets	\$ 14	\$ 8
Current liabilities	8	39
Non-current liabilities	469	609

The Company's current liability at December 31, 2016, represents the expected required payments to be made for unfunded plans over the next twelve months. Total estimated 2017 employer contributions are \$60 for the Company's pension plans.

Crown Holdings, Inc.

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

	2016		2015		2014	
	Net loss	Prior service	Net loss	Prior service	Net loss	Prior service
Balance at January 1	\$ 2,320	\$ (54)	\$ 2,423	\$ (71)	\$ 2,466	\$ (94)
Reclassification to net periodic benefit cost	(114)	11	(105)	13	(120)	16
Current year loss/(gain)	13	—	95	—	174	—
Amendments	—	3	—	—	—	3
Foreign currency translation	(187)	8	(93)	4	(97)	4
Balance at December 31	\$ 2,032	\$ (32)	\$ 2,320	\$ (54)	\$ 2,423	\$ (71)

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 2017 are \$93 and \$(11).

Expected future benefit payments as of December 31, 2016 are:

	U.S. plans	Non-U.S. plans
2017	\$ 117	\$ 146
2018	114	150
2019	117	153
2020	115	156
2021	108	156
2022 - 2026	526	813

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

U.S. Plans	2016	2015	2014
Discount rate	4.2%	4.4%	4.0%
Compensation increase	4.6%	4.6%	4.6%
<u>Non-U.S. Plans</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Discount rate	2.7%	3.7%	3.4%
Compensation increase	3.3%	2.9%	2.7%

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

U.S. Plans	2016	2015	2014
Discount rate - service cost	4.9%	4.0%	4.8%
Discount rate - interest cost	3.5%	4.0%	4.8%
Compensation increase	4.6%	4.6%	3.0%
Long-term rate of return	8.0%	8.0%	8.0%
<u>Non-U.S. Plans</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Discount rate - service cost	3.9%	3.4%	4.4%
Discount rate - interest cost	3.2%	3.4%	4.4%
Compensation increase	2.9%	2.7%	3.2%
Long-term rate of return	5.4%	5.2%	6.4%

The expected long-term rates of return are determined at each measurement date based on a review of the actual plan assets, the target allocation, and the historical returns of the capital markets.

The U.S. plan's 2016 assumed asset rate of return was based on a calculation using underlying assumed rates of return of 9.8% for equity securities and alternative investments, 4.4% for debt securities and 5.0% for real estate. The rate of return used for equity securities and alternative investments was based on the total return of the S&P 500 for the 25 year period ended December 31, 2015. The Company believes that the equity securities included in the S&P 500 are representative of the equity securities and alternative investments held by its U.S. plan, and that this period provides a sufficient time horizon as a basis for estimating future returns. The rate of return used for debt securities is consistent with the U.S. plan discount rate and the return on AA corporate bonds with duration equal to the plan's liabilities. The underlying debt securities in the plan are primarily invested in various corporate and government agency securities and are benchmarked against returns on AA corporate bonds.

The U.K. plan's 2016 assumed asset rate of return was based on a calculation using underlying assumed rates of return of 9.0% for equity securities and alternative investments, 3.7% for debt securities and 5.0% for real estate. The assumed rate of return for equity securities and alternative investments represents the weighted average 25 year return of equity securities in the related markets. The Company believes that the equity securities included in the related market indexes are representative of the equity securities and alternative investments held by its U.K. plan, and that this period provides a sufficient time horizon as a basis for estimating future returns.

Other Postretirement Benefit Plans. The Company sponsors unfunded plans to provide health care and life insurance benefits to 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 are as follows:

<u>Other Postretirement Benefits</u>	2016	2015	2014
Service cost	\$ —	\$ 1	\$ 2
Interest cost	6	7	12
Amortization of prior service credit	(41)	(37)	(34)
Amortization of actuarial loss	5	4	6
Net periodic benefit credit	<u>\$ (30)</u>	<u>\$ (25)</u>	<u>\$ (14)</u>

Changes in the benefit obligations were:

	2016	2015
Benefit obligations at January 1	\$ 171	\$ 241
Service cost	—	1
Interest cost	6	7
Amendments	—	(52)
Actuarial loss / (gain)	7	(19)
Acquisitions	—	20
Curtailement	—	(3)
Benefits paid	(15)	(17)
Foreign currency translation	(2)	(7)
Benefit obligations at December 31	<u>\$ 167</u>	<u>\$ 171</u>

Crown Holdings, Inc.

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

	2016		2015		2014	
	Net loss	Prior service	Net loss	Prior service	Net loss	Prior service
Balance at January 1	\$ 47	\$ (225)	\$ 69	\$ (211)	\$ 97	\$ (246)
Reclassification to net periodic benefit cost	(5)	41	(4)	37	(6)	34
Current year loss	7	—	(18)	—	(24)	—
Amendments	—	—	—	(51)	—	—
Foreign currency translation	—	2	—	—	2	1
Balance at December 31	\$ 49	\$ (182)	\$ 47	\$ (225)	\$ 69	\$ (211)

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 2017 are \$5 and \$(41).

In 2015, the U.S. plan was amended to eliminate or reduce certain health and life insurance coverage benefits.

Expected future benefit payments, as of December 31, 2016, net of expected Medicare Part D subsidies of \$4 in the aggregate are:

	Benefit Payments
2017	\$ 16
2018	15
2019	14
2020	14
2021	13
2022 - 2026	58

The assumed health care cost trend rates at December 31, 2016 are as follows:

Health care cost trend rate assumed for 2017	4.0%
Rate that the cost trend rate gradually declines to	3.1%
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.

	2016	2015	2014
Benefit obligations	4.0%	3.9%	4.0%
Service cost	4.9%	4.0%	4.8%
Interest cost	3.6%	4.0%	4.8%

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 2016 and 2015 were 26,299 and 25,917 and the Company's contributions were less than \$1 in both years.

V. Income Taxes

The components of income before income taxes were as follows:

	2016	2015	2014
U.S.	\$ (3)	\$ 18	\$ 83
Foreign	772	621	438
	<u>\$ 769</u>	<u>\$ 639</u>	<u>\$ 521</u>

The provision for income taxes consisted of the following:

	2016	2015	2014
Current tax:			
U.S. federal	\$ (1)	\$ 6	\$ 11
State and foreign	171	147	113
	<u>\$ 170</u>	<u>\$ 153</u>	<u>\$ 124</u>
Deferred tax:			
U.S. federal	\$ 19	\$ 12	\$ 30
State and foreign	(3)	13	(111)
	<u>16</u>	<u>25</u>	<u>(81)</u>
Total	<u>\$ 186</u>	<u>\$ 178</u>	<u>\$ 43</u>

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:

	2016	2015	2014
U.S. statutory rate at 35%	\$ 269	\$ 224	\$ 182
Tax on foreign income	(88)	(74)	(67)
Valuation allowance	(14)	21	(70)
Tax contingencies	11	13	(1)
Non-deductible impairment charges	—	—	18
Tax law changes	3	4	(17)
Other items, net	5	(10)	(2)
Income tax provision	<u>\$ 186</u>	<u>\$ 178</u>	<u>\$ 43</u>

The Company benefits from certain incentives in Brazil which allow it pay reduced income taxes. The incentives expire at various dates beginning in 2018. These incentives increased net income attributable to the Company by \$13, \$8 and \$12 in 2016, 2015 and 2014.

The Company paid taxes of \$158, \$137 and \$109 in 2016, 2015 and 2014.

The components of deferred taxes at December 31 are:

	2016		2015	
	Assets	Liabilities	Assets	Liabilities
Tax loss and credit carryforwards	\$ 480	\$ —	\$ 535	\$ —
Postretirement and postemployment benefits	63	—	65	—
Pensions	220	62	223	38
Property, plant and equipment	17	150	19	167
Intangible assets	—	128	—	158
Asbestos	128	—	132	—
Accruals and other	125	78	131	98
Valuation allowances	(225)	—	(241)	—
Total	<u>\$ 808</u>	<u>\$ 418</u>	<u>\$ 864</u>	<u>\$ 461</u>

Tax loss and credit carryforwards expire as follows:

<u>Year</u>	<u>Amount</u>
2017	\$ 5
2018	21
2019	30
2020	44
2021	48
Thereafter	253
Unlimited	79

Tax loss and credit carryforwards expiring after 2021 include \$135 of U.S. state tax loss carryforwards and \$92 of U.S. federal foreign tax credits. The unlimited category includes \$59 of French tax loss carryforwards. The carryforwards presented above exclude \$60 of windfall tax benefits that have not been realized.

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, 2016 include \$204 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 recently 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 in the future.

In 2014, the Company recognized an income tax benefit of \$86 to fully release the valuation allowance against its net deferred tax assets in France. In recent years, the Company's operating profits in France were offset by interest expense. In the third quarter of 2014, the Company refinanced bonds issued by a French subsidiary resulting in significant interest savings. The impact of the refinancing and current low interest rate environment has significantly lowered the Company's interest expense in France. As the Company is currently generating taxable income in France and is projecting future taxable income in France, the Company fully released its valuation allowance. Due to the Company's high level of debt in France, a significant increase in interest rates could cause the Company to incur losses which may result in recording additional valuation allowance in the future. The Company's loss carryforwards in France do not expire.

Management's estimates of the appropriate valuation allowance in any jurisdictions 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.

The Company has not provided deferred taxes on approximately \$1,000 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 would be subject to incremental tax. It is not practicable to estimate the amount of tax that might be payable.

A reconciliation of unrecognized tax benefits follows:

	2016	2015	2014
Balance at January 1	\$ 28	\$ 26	\$ 31
Additions for prior year tax positions	13	13	—
Lapse of statute of limitations	(2)	—	(1)
Settlements	(12)	(9)	—
Foreign currency translation	—	(2)	(4)
Balance at December 31	<u>\$ 27</u>	<u>\$ 28</u>	<u>\$ 26</u>

The Company's unrecognized tax benefits include potential liabilities related to transfer pricing, foreign withholding taxes, and non-deductibility of expenses and exclude \$1 of interest and penalties as of December 31, 2016.

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. In 2015, the increase for prior year positions related to an unfavorable tax court ruling in Spain.

The total interest and penalties recorded in income tax expense was less than \$1 in 2016, \$3 in 2015 and less than \$1 in 2014. As of December 31, 2016, unrecognized tax benefits of \$27, 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, 2016 were, 2006 and subsequent years for the U.K.; 2009 and subsequent years for Spain; 2010 and subsequent years for Germany; 2011 and subsequent years for Mexico; 2012 and subsequent years for Italy and Brazil; 2013 and subsequent years for Canada; and 2014 and subsequent years for France and the U.S.. 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.

W. Segment Information

The Company's business is organized geographically within three divisions, Americas, Europe and Asia Pacific. Within the Americas and European divisions, the Company has determined that it has the following reportable segments organized along a combination of product lines and geographic areas: Americas Beverage and North America Food within the Americas, and European Beverage and European Food within Europe. The Company's Asia Pacific division is a reportable segment.

Non-reportable segments include the Company's aerosol can businesses in North America and Europe, the Company's specialty 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 add back provisions for asbestos and restructuring and other, the impact of fair value adjustments related to the sale of 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. The tables below present information about operating segments for the three years ended December 31, 2016, 2015 and 2014:

Crown Holdings, Inc.

<u>2016</u>	External sales	Inter-segment sales	Segment assets	Depreciation and amortization	Capital expenditures	Segment income
Americas Beverage	\$ 2,757	\$ 50	\$ 2,886	\$ 92	\$ 220	\$ 456
North America Food	652	24	666	11	9	69
European Beverage	1,420	3	1,381	32	94	243
European Food	1,855	59	2,557	53	42	244
Asia Pacific	1,116	—	1,161	40	80	152
Total reportable segments	7,800	136	8,651	228	445	<u>\$ 1,164</u>
Non-reportable segments	484	129	368	7	14	
Corporate and unallocated items	—	—	580	12	14	
Total	\$ 8,284	\$ 265	\$ 9,599	\$ 247	\$ 473	

<u>2015</u>	External sales	Inter-segment sales	Segment assets	Depreciation and amortization	Capital expenditures	Segment income
Americas Beverage	\$ 2,771	\$ 71	\$ 2,977	\$ 93	\$ 119	\$ 427
North America Food	680	4	527	10	14	86
European Beverage	1,504	1	1,461	27	97	228
European Food	1,984	93	2,723	53	35	246
Asia Pacific	1,202	2	1,133	40	68	145
Total reportable segments	8,141	171	8,821	223	333	<u>\$ 1,132</u>
Non-reportable segments	621	96	457	8	15	
Corporate and unallocated items	—	—	772	6	6	
Total	\$ 8,762	\$ 267	\$ 10,050	\$ 237	\$ 354	

<u>2014</u>	External sales	Inter-segment sales	Segment assets	Depreciation and amortization	Capital expenditures	Segment income
Americas Beverage	\$ 2,335	\$ 82	\$ 1,752	\$ 40	\$ 114	\$ 334
North America Food	809	7	456	9	12	127
European Beverage	1,708	2	1,520	27	98	265
European Food	2,197	81	3,213	59	43	221
Asia Pacific	1,226	—	1,335	39	45	142
Total reportable segments	8,275	172	8,276	174	312	<u>\$ 1,089</u>
Non-reportable segments	822	108	533	9	13	
Corporate and unallocated items	—	—	884	7	3	
Total	\$ 9,097	\$ 280	\$ 9,693	\$ 190	\$ 328	

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.

Crown Holdings, Inc.

A reconciliation of segment income of reportable segments to income before income taxes and equity earnings for the three years ended December 31, 2016, 2015 and 2014 follows:

	2016	2015	2014
Segment income of reportable segments	\$ 1,164	\$ 1,132	\$ 1,089
Segment income of non-reportable segments	70	83	92
Corporate and unallocated items	(148)	(196)	(197)
Provision for asbestos	(21)	(26)	(40)
Restructuring and other	(44)	(66)	(129)
Loss from early extinguishments of debt	(37)	(9)	(34)
Interest expense	(243)	(270)	(253)
Interest income	12	11	7
Foreign exchange	16	(20)	(14)
Income before income taxes and equity earnings	\$ 769	\$ 639	\$ 521

For the three years ended December 31, 2016, 2015 and 2014, intercompany profit of \$13, \$2 and \$4 was eliminated within segment income of non-reportable segments.

For the three years ended December 31, 2016, 2015 and 2014, no one customer accounted for more than 10% of the Company's consolidated net sales.

Sales by major product were:

	2016	2015	2014
Metal beverage cans and ends	\$ 4,834	\$ 4,957	\$ 4,863
Metal food cans and ends	2,213	2,410	2,735
Other metal packaging	877	977	1,173
Other products	360	418	326
Consolidated net sales	\$ 8,284	\$ 8,762	\$ 9,097

Sales and long-lived assets for the major countries in which the Company operates follows:

	Net Sales			Long-Lived Assets	
	2016	2015	2014	2016	2015
United States	\$ 1,918	\$ 2,013	\$ 2,163	\$ 497	\$ 391
Mexico	688	693	119	304	284
Spain	645	669	728	203	224
United Kingdom	559	712	783	136	144
Other	4,474	4,675	5,304	1,680	1,656
Consolidated total	\$ 8,284	\$ 8,762	\$ 9,097	\$ 2,820	\$ 2,699

X. 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 \$45 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, 2016, 2015, 2014, and
- balance sheets as of December 31, 2016 and December 31, 2015

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, 2016
(in millions)

	Parent	Issuer	Non- Guarantors	Eliminations	Total Company
Net sales			\$ 8,284		\$ 8,284
Cost of products sold, excluding depreciation and amortization			6,583		6,583
Depreciation and amortization			247		247
Selling and administrative expense		\$ 7	361		368
Provision for asbestos		21			21
Restructuring and other		13	31		44
Income from operations	—	(41)	1,062	—	1,021
Loss from early extinguishments of debt			37		37
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 earnings in 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 STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2015
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net sales			\$ 8,762		\$ 8,762
Cost of products sold, excluding depreciation and amortization			7,116		7,116
Depreciation and amortization			237		237
Selling and administrative expense		\$ 10	380		390
Provision for asbestos		26			26
Restructuring and other		(1)	67		66
Income from operations	—	(35)	962	—	927
Loss from early extinguishments of debt			9		9
Net interest expense		100	159		259
Foreign exchange			20		20
Income/(loss) before income taxes	—	(135)	774	—	639
Provision for / (benefit from) income taxes		(35)	213		178
Equity earnings in affiliates	\$ 393	385		\$ (778)	—
Net income	393	285	561	(778)	461
Net income attributable to noncontrolling interests			(68)		(68)
Net income attributable to Crown Holdings	\$ 393	\$ 285	\$ 493	\$ (778)	\$ 393
Total comprehensive income	\$ 4	\$ 3	\$ 168	\$ (107)	\$ 68
Comprehensive income attributable to noncontrolling interests			(64)		(64)
Comprehensive income attributable to Crown Holdings	\$ 4	\$ 3	\$ 104	\$ (107)	\$ 4

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2014
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net sales			\$ 9,097		\$ 9,097
Cost of products sold, excluding depreciation and amortization			7,525		7,525
Depreciation and amortization			190		190
Selling and administrative expense		\$ 10	388		398
Provision for asbestos		40			40
Restructuring and other		14	115		129
Income from operations	—	(64)	879	—	815
Loss from early extinguishments of debt			34		34
Net interest expense		93	153		246
Foreign exchange			14		14
Income/(loss) before income taxes	—	(157)	678	—	521
Provision for / (benefit from) income taxes		(24)	67		43
Equity earnings in affiliates	\$ 390	500		\$ (890)	—
Net income	390	367	611	(890)	478
Net income attributable to noncontrolling interests			(88)		(88)
Net income attributable to Crown Holdings	\$ 390	\$ 367	\$ 523	\$ (890)	\$ 390
Total comprehensive income	\$ 138	\$ 115	\$ 360	\$ (386)	\$ 227
Comprehensive income attributable to noncontrolling interests			(89)		(89)
Comprehensive income attributable to Crown Holdings	\$ 138	\$ 115	\$ 271	\$ (386)	\$ 138

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2016
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Assets					
Current assets					
Cash and cash equivalents			\$ 559		\$ 559
Receivables, net			865		865
Inventories			1,245		1,245
Prepaid expenses and other current assets	\$ 1		171		172
Total current assets	1	—	2,840	—	2,841
Intercompany debt receivables			3,447	\$ (3,447)	—
Investments	2,857	\$ 2,915		(5,772)	—
Goodwill and intangible assets			3,263		3,263
Property, plant and equipment, net			2,820		2,820
Other non-current assets		447	228		675
Total	\$ 2,858	\$ 3,362	\$ 12,598	\$ (9,219)	\$ 9,599
Liabilities and equity					
Current liabilities					
Short-term debt			\$ 33		\$ 33
Current maturities of long-term debt			161		161
Accounts payable and accrued liabilities	\$ 23	\$ 40	2,639		2,702
Total current liabilities	23	40	2,833	—	2,896
Long-term debt, excluding current maturities		392	4,325		4,717
Long-term intercompany debt	2,469	978		\$ (3,447)	—
Postretirement and pension liabilities			620		620
Other non-current liabilities		358	340		698
Commitments and contingent liabilities					
Noncontrolling interests			302		302
Crown Holdings shareholders' equity	366	1,594	4,178	(5,772)	366
Total equity	366	1,594	4,480	(5,772)	668
Total	\$ 2,858	\$ 3,362	\$ 12,598	\$ (9,219)	\$ 9,599

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2015
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Assets					
Current assets					
Cash and cash equivalents			\$ 717		\$ 717
Receivables, net			912		912
Inventories			1,213		1,213
Prepaid expenses and other current assets		\$ 2	205		207
Total current assets	—	2	3,047		3,049
Intercompany debt receivables			3,654	\$ (3,654)	—
Investments	\$ 2,887	2,490		(5,377)	—
Goodwill and intangible assets			3,580		3,580
Property, plant and equipment, net			2,699		2,699
Other non-current assets		460	262		722
Total	\$ 2,887	\$ 2,952	\$ 13,242	\$ (9,031)	\$ 10,050
Liabilities and equity					
Current liabilities					
Short-term debt			\$ 54		\$ 54
Current maturities of long-term debt			209		209
Accounts payable and accrued liabilities	\$ 24	\$ 41	2,580		2,645
Total current liabilities	24	41	2,843		2,908
Long-term debt, excluding current maturities		391	4,864		5,255
Long-term intercompany debt	2,769	885		\$ (3,654)	—
Postretirement and pension liabilities			767		767
Other non-current liabilities		389	346		735
Commitments and contingent liabilities					
Noncontrolling interests			291		291
Crown Holdings shareholders' equity	94	1,246	4,131	(5,377)	94
Total equity	94	1,246	4,422	(5,377)	385
Total	\$ 2,887	\$ 2,952	\$ 13,242	\$ (9,031)	\$ 10,050

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)	\$ 1,061	(102)	\$ 930
Cash flows from investing activities					
Capital expenditures			(473)		(473)
Proceeds from sale of property, plant and equipment		(1)	11		10
Intercompany investing activities	235			\$ (235)	—
Other			21		21
Net cash provided by/(used for) investing activities	235	(1)	(441)	(235)	(442)
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		—
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	(748)	337	(616)
Effect of exchange rate changes on cash and cash equivalents			(30)		(30)
Net change in cash and cash equivalents	—	—	(158)	—	(158)
Cash and cash equivalents at January 1			717		717
Cash and cash equivalents at December 31	\$ —	\$ —	\$ 559	\$ —	\$ 559

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2015
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net cash provided by/(used for) operating activities	\$ 33	\$ (65)	\$ 988		\$ 956
Cash flows from investing activities					
Capital expenditures			(354)		(354)
Acquisition of businesses, net of cash acquired			(1,207)		(1,207)
Proceeds from sale of businesses, net of cash sold			33		33
Proceeds from sale of property, plant and equipment			7		7
Intercompany investing activities	(738)	21	738	\$ (21)	—
Net investment hedge settlements			(11)		(11)
Other			(16)		(16)
Net cash provided by/(used for) investing activities	(738)	21	(810)	(21)	(1,548)
Cash flows from financing activities					
Proceeds from long-term debt			1,435		1,435
Payments of long-term debt		(17)	(883)		(900)
Net change in revolving credit facility and short-term debt			(7)		(7)
Net change in long-term intercompany balances	708	61	(769)		—
Debt issuance costs			(18)		(18)
Common stock issued	6				6
Common stock repurchased	(9)				(9)
Dividends paid			(21)	21	—
Dividend paid to noncontrolling interests			(48)		(48)
Contribution from noncontrolling interests			5		5
Foreign exchange derivatives related to debt			(58)		(58)
Net cash provided by/(used for) financing activities	705	44	(364)	21	406
Effect of exchange rate changes on cash and cash equivalents			(62)		(62)
Net change in cash and cash equivalents	—	—	(248)	—	(248)
Cash and cash equivalents at January 1			965		965
Cash and cash equivalents at December 31	\$ —	\$ —	\$ 717	\$ —	\$ 717

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2014
(in millions)

	Parent	Issuer	Non-Guarantors	Eliminations	Total Company
Net cash provided by/(used for) operating activities	\$ 25	\$ (130)	\$ 1,017		\$ 912
Cash flows from investing activities					
Capital expenditures			(328)		(328)
Acquisition of businesses, net of cash acquired			(733)		(733)
Proceeds from sale of business, net of cash sold			22		22
Proceeds from sale of property, plant and equipment			16		16
Intercompany investing activities	(941)	56	941	\$ (56)	—
Other			2		2
Net cash provided by/(used for) investing activities	(941)	56	(80)	(56)	(1,021)
Cash flows from financing activities					
Proceeds from long-term debt			2,742		2,742
Payments of long-term debt			(1,752)		(1,752)
Net change in revolving credit facility and short-term debt			(319)		(319)
Net change in long-term intercompany balances	904	74	(978)		—
Debt issuance costs			(41)		(41)
Common stock issued	14				14
Common stock repurchased	(2)				(2)
Dividends paid			(56)	56	—
Purchase of noncontrolling interests			(93)		(93)
Dividend paid to noncontrolling interests			(77)		(77)
Foreign exchange derivatives related to debt			(27)		(27)
Net cash provided by/(used for) financing activities	916	74	(601)	56	445
Effect of exchange rate changes on cash and cash equivalents			(60)		(60)
Net change in cash and cash equivalents	—	—	276	—	276
Cash and cash equivalents at January 1			689		689
Cash and cash equivalents at December 31	\$ —	\$ —	\$ 965	\$ —	\$ 965

Crown Holdings, Inc.

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, 2016, 2015, 2014, and
- balance sheets as of December 31, 2016 and December 31, 2015

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, 2016

(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			\$ 1,918	\$ 6,366		\$ 8,284
Cost of products sold, excluding depreciation and amortization			1,550	5,033		6,583
Depreciation and amortization			33	214		247
Selling and administrative expense		\$ 10	135	223		368
Provision for asbestos			21			21
Restructuring and other		(5)	25	24		44
Income from operations		(5)	154	872		1,021
Loss from early extinguishments of debt		32		5		37
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 earnings in 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 STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2015

(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			\$ 2,013	\$ 6,749		\$ 8,762
Cost of products sold, excluding depreciation and amortization			1,611	5,505		7,116
Depreciation and amortization			32	205		237
Selling and administrative expense		\$ 9	153	228		390
Provision for asbestos			26			26
Restructuring and other			7	59		66
Income from operations		(9)	184	752		927
Loss from early extinguishments of debt		9				9
Net interest expense		91	90	78		259
Technology royalty			(42)	42		—
Foreign exchange		(8)	3	17	\$ 8	20
Income/(loss) before income taxes		(101)	133	615	(8)	639
Provision for / (benefit from) income taxes		(38)	79	140	(3)	178
Equity earnings in affiliates	\$ 393	183	231		(807)	—
Net income	393	120	285	475	(812)	461
Net income attributable to noncontrolling interests				(68)		(68)
Net income attributable to Crown Holdings	\$ 393	\$ 120	\$ 285	\$ 407	\$ (812)	\$ 393
Total comprehensive income	\$ 4	\$ 146	\$ 64	\$ 46	\$ (192)	\$ 68
Comprehensive income attributable to noncontrolling interests				(64)		(64)
Comprehensive income attributable to Crown Holdings	\$ 4	\$ 146	\$ 64	\$ (18)	\$ (192)	\$ 4

CONDENSED COMBINING STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31, 2014

(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net sales			\$ 2,154	\$ 6,943		\$ 9,097
Cost of products sold, excluding depreciation and amortization			1,725	5,800		7,525
Depreciation and amortization			31	159		190
Selling and administrative expense		\$ 9	144	245		398
Provision for asbestos			40			40
Restructuring and other		5	44	80		129
Income from operations		(14)	170	659		815
Loss from early extinguishments of debt				34		34
Net interest expense		58	90	98		246
Technology royalty			(48)	48		—
Foreign exchange				14		14
Income/(loss) before income taxes		(72)	128	465		521
Provision for / (benefit from) income taxes		(27)	88	(18)		43
Equity earnings in affiliates	\$ 390	222	327		\$ (939)	—
Net income	390	177	367	483	(939)	478
Net income attributable to noncontrolling interests				(88)		(88)
Net income attributable to Crown Holdings	<u>\$ 390</u>	<u>\$ 177</u>	<u>\$ 367</u>	<u>\$ 395</u>	<u>\$ (939)</u>	<u>\$ 390</u>
Total comprehensive income	\$ 138	\$ 67	\$ 115	\$ 340	\$ (433)	\$ 227
Comprehensive income attributable to noncontrolling interests				(89)		(89)
Comprehensive income attributable to Crown Holdings	<u>\$ 138</u>	<u>\$ 67</u>	<u>\$ 115</u>	<u>\$ 251</u>	<u>\$ (433)</u>	<u>\$ 138</u>

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2016
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Assets						
Current assets						
Cash and cash equivalents		\$ 83		\$ 476		\$ 559
Receivables, net		3	\$ 20	842		865
Intercompany receivables			33	6	\$ (39)	—
Inventories			313	932		1,245
Prepaid expenses and other current assets	\$ 1	2	13	156		172
Total current assets	1	88	379	2,412	(39)	2,841
Intercompany debt receivables		2,703	3,234	690	(6,627)	—
Investments	\$ 2,857	2,319	954		(6,130)	—
Goodwill and intangible assets			469	2,794		3,263
Property, plant and equipment, net		1	496	2,323		2,820
Other non-current assets		3	464	208		675
Total	\$ 2,858	\$ 5,114	\$ 5,996	\$ 8,427	\$ (12,796)	\$ 9,599
Liabilities and equity						
Current liabilities						
Short-term debt				\$ 33		\$ 33
Current maturities of long-term debt		\$ 118		43		161
Accounts payable and accrued liabilities	\$ 23	32	\$ 577	2,070		2,702
Intercompany payables			6	33	\$ (39)	—
Total current liabilities	23	150	583	2,179	(39)	2,896
Long-term debt, excluding current maturities		2,258	392	2,067		4,717
Long-term intercompany debt	2,469	1,328	2,624	206	(6,627)	—
Postretirement and pension liabilities			422	198		620
Other non-current liabilities			381	317		698
Commitments and contingent liabilities						
Noncontrolling interests				302		302
Crown Holdings shareholders' equity	366	1,378	1,594	3,158	(6,130)	366
Total equity	366	1,378	1,594	3,460	(6,130)	668
Total	\$ 2,858	\$ 5,114	\$ 5,996	\$ 8,427	\$ (12,796)	\$ 9,599

CONDENSED COMBINING BALANCE SHEET

As of December 31, 2015
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Assets						
Current assets						
Cash and cash equivalents		\$ 104		\$ 613		\$ 717
Receivables, net			\$ 23	889		912
Intercompany receivables			30	2	\$ (32)	—
Inventories			291	922		1,213
Prepaid expenses and other current assets		2	7	198		207
Total current assets	—	106	351	2,624	(32)	3,049
Intercompany debt receivables		3,111	3,471	681	(7,263)	—
Investments	\$ 2,887	2,199	804		(5,890)	—
Goodwill and intangible assets			471	3,109		3,580
Property, plant and equipment, net		1	390	2,308		2,699
Other non-current assets		6	487	229		722
Total	\$ 2,887	\$ 5,423	\$ 5,974	\$ 8,951	\$ (13,185)	\$ 10,050
Liabilities and equity						
Current liabilities						
Short-term debt				\$ 54		\$ 54
Current maturities of long-term debt		\$ 90		119		209
Accounts payable and accrued liabilities	\$ 24	47	\$ 526	2,048		2,645
Intercompany payables			2	30	\$ (32)	—
Total current liabilities	24	137	528	2,251	(32)	2,908
Long-term debt, excluding current maturities		2,759	391	2,105		5,255
Long-term intercompany debt	2,769	1,268	3,041	185	(7,263)	—
Postretirement and pension liabilities			377	390		767
Other non-current liabilities			391	344		735
Commitments and contingent liabilities						
Noncontrolling interests				291		291
Crown Holdings shareholders' equity	94	1,259	1,246	3,385	(5,890)	94
Total equity	94	1,259	1,246	3,676	(5,890)	385
Total	\$ 2,887	\$ 5,423	\$ 5,974	\$ 8,951	\$ (13,185)	\$ 10,050

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	\$ 1	\$ 143	\$ 875	\$ (152)	\$ 930
Cash flows from investing activities						
Capital expenditures			(127)	(346)		(473)
Proceeds from sale of property, plant and equipment			4	6		10
Intercompany investing activities	235		150		(385)	—
Other			10	11		21
Net cash provided by/(used for) investing activities	235	—	37	(329)	(385)	(442)
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		—
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)	(22)	(180)	(653)	537	(616)
Effect of exchange rate changes on cash and cash equivalents				(30)		(30)
Net change in cash and cash equivalents	—	(21)	—	(137)	—	(158)
Cash and cash equivalents at January 1		104		613		717
Cash and cash equivalents at December 31	\$ —	\$ 83	\$ —	\$ 476	\$ —	\$ 559

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2015

(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net provided by/(used for) operating activities	\$ 33	\$ (34)	\$ 6	\$ 951		\$ 956
Cash flows from investing activities						
Capital expenditures			(80)	(274)		(354)
Acquisition of businesses, net of cash acquired				(1,207)		(1,207)
Proceeds from sale of businesses, net of cash sold				33		33
Proceeds from sale of property, plant and equipment			2	5		7
Intercompany investing activities	(738)	15	71	738	(86)	—
Net investment hedge settlements		(11)				(11)
Other			(10)	(6)		(16)
Net cash provided by/(used for) investing activities	(738)	4	(17)	(711)	(86)	(1,548)
Cash flows from financing activities						
Proceeds from long-term debt		750		685		1,435
Payments of long-term debt		(722)		(178)		(900)
Net change in revolving credit facility and short-term debt				(7)		(7)
Net change in long-term intercompany balances	708	(12)	11	(707)		—
Debt issuance costs		(10)		(8)		(18)
Common stock issued	6					6
Common stock repurchased	(9)					(9)
Dividends paid				(86)	86	—
Dividends paid to noncontrolling interests				(48)		(48)
Contribution from noncontrolling interests				5		5
Foreign exchange derivatives related to debt				(58)		(58)
Net cash provided by/(used for) financing activities	705	6	11	(402)	86	406
Effect of exchange rate changes on cash and cash equivalents				(62)		(62)
Net change in cash and cash equivalents	—	(24)	—	(224)	—	(248)
Cash and cash equivalents at January 1		128		837		965
Cash and cash equivalents at December 31	\$ —	\$ 104	\$ —	\$ 613	\$ —	\$ 717

CONDENSED COMBINING STATEMENT OF CASH FLOWS

For the year ended December 31, 2014
(in millions)

	Parent	Issuer	Guarantors	Non-Guarantors	Eliminations	Total Company
Net provided by/(used for) operating activities	\$ 25	\$ (38)	\$ 52	\$ 873		\$ 912
Cash flows from investing activities						
Capital expenditures			(42)	(286)		(328)
Acquisition of businesses, net of cash acquired				(733)		(733)
Proceeds from sale of businesses, net of cash sold				22		22
Proceeds from sale of property, plant and equipment			6	10		16
Intercompany investing activities	(941)	24	44	954	(81)	—
Other				2		2
Net cash provided by/(used for) investing activities	(941)	24	8	(31)	(81)	(1,021)
Cash flows from financing activities						
Proceeds from long-term debt		942		1,800		2,742
Payments of long-term debt		(4)		(1,748)		(1,752)
Net change in revolving credit facility and short-term debt				(319)		(319)
Net change in long-term intercompany balances	904	(949)	14	31		—
Debt issuance costs		(24)		(17)		(41)
Common stock issued	14					14
Common stock repurchased	(2)					(2)
Dividends paid				(81)	81	—
Purchase of noncontrolling interests			(76)	(17)		(93)
Dividends paid to noncontrolling interests				(77)		(77)
Foreign exchange derivatives related to debt				(27)		(27)
Net cash provided by/(used for) financing activities	916	(35)	(62)	(455)	81	445
Effect of exchange rate changes on cash and cash equivalents				(60)		(60)
Net change in cash and cash equivalents	—	(49)	(2)	327	—	276
Cash and cash equivalents at January 1		177	2	510		689
Cash and cash equivalents at December 31	\$ —	\$ 128	\$ —	\$ 837	\$ —	\$ 965

Quarterly Data (unaudited)

(in millions)	2016				2015			
	First ⁽¹⁾	Second ⁽²⁾	Third ⁽³⁾	Fourth ⁽⁴⁾	First ⁽⁵⁾	Second ⁽⁶⁾	Third ⁽⁷⁾	Fourth ⁽⁸⁾
Net sales	\$ 1,893	\$ 2,142	\$ 2,326	\$ 1,923	\$ 1,997	\$ 2,278	\$ 2,460	\$ 2,027
Gross profit *	312	386	425	331	286	373	415	335
Net income attributable to Crown Holdings	79	169	183	65	44	142	141	66
Earnings per average common share:								
Basic	\$ 0.57	\$ 1.22	\$ 1.32	\$ 0.47	\$ 0.32	\$ 1.03	\$ 1.02	\$ 0.48
Diluted	0.57	1.21	1.31	0.47	0.32	1.02	1.01	0.47
Average common shares outstanding:								
Basic	138.1	138.5	138.7	138.8	137.7	137.9	138.1	138.1
Diluted	139.0	139.3	139.5	139.5	139.0	139.3	139.1	139.3
Common stock price range: **								
High	\$ 50.48	\$ 55.44	\$ 57.46	\$ 57.49	\$ 54.03	\$ 57.08	\$ 55.16	\$ 54.39
Low	43.30	48.28	49.14	51.57	43.85	52.25	44.76	45.15
Close	49.59	50.67	57.09	52.57	54.02	52.91	45.75	50.70

* 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 \$2 for restructuring and other and \$27 for loss from early extinguishment of debt.
- (2) Includes pre-tax benefits of \$3 for restructuring and other and \$4 for hedge ineffectiveness.
- (3) Includes a pre-tax charge of \$20 restructuring and other, \$10 for loss from early extinguishment of debt, a pre-tax benefit of \$2 for hedge ineffectiveness and an income tax benefit of \$31 for a valuation allowance release partially offset by an income tax charge of \$13 for tax contingencies and the impact of a corporate restructuring.
- (4) Includes pre-tax charges of \$21 for asbestos claims and \$25 for restructuring and other, a pre-tax benefit of \$2 for hedge ineffectiveness and an income tax charge of \$2 for a tax law change.
- (5) Includes pre-tax charges of \$20 for restructuring and other and \$6 for fair value adjustments in inventory, a pre-tax benefit of \$2 for hedge ineffectiveness and an income tax charge of \$7 for a potential liability arising from an unfavorable tax court ruling.
- (6) Includes a pre-tax charge of \$9 for loss from early extinguishment of debt and pre-tax benefits of \$3 for restructuring and other and \$2 for hedge ineffectiveness.
- (7) Includes pre-tax charges of \$40 for restructuring and other and \$7 for hedge ineffectiveness.
- (8) Includes pre-tax charges of \$26 for asbestos claims and \$9 for restructuring and other, a pre-tax benefit of \$2 for hedge ineffectiveness and an income tax charge of \$4 for a tax law change.

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

COLUMN A Description	COLUMN B Balance at beginning of period	COLUMN C Additions		COLUMN D Deductions – write-offs	COLUMN E Balance at end of period
		Charged to costs and expense	Charged to other accounts		

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

For the year ended December 31, 2015

Allowances deducted from assets to which they apply:

Trade accounts receivable	88	4	(9)	—	83
Deferred tax assets	245	21	(9)	(16)	241

For the year ended December 31, 2014

Allowances deducted from assets to which they apply:

Trade accounts receivable	78	—	10	—	88
Deferred tax assets	343	(70)	(11)	(17)	245

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, 2016 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.

<u>Name</u>	<u>Age</u>	<u>Title</u>	<u>Year Assumed Present Title</u>
Timothy J. Donahue	54	President and Chief Executive Officer	2016
Djalma Novaes, Jr.	56	President – Americas Division	2015
Gerard H. Gifford	61	President – European Division	2012
Robert H. Bourque, Jr.	47	President – Asia Pacific Division	2016
Thomas A. Kelly	57	Senior Vice President and Chief Financial Officer	2013
David A. Beaver	41	Vice President and Corporate Controller	2015

On February 6, 2017, the Company announced that Gerard H. Gifford, 61, has been appointed Executive Vice President and Chief Operating Officer effective April 1, 2017. Didier Sourisseau, 51, who is currently Senior Vice President Food Europe, will be promoted to President - European Division effective April 1, 2017.

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 27, 2017” 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, 2016 with respect to shares of the Company’s Common Stock that may be issued under its equity compensation plans:

Plan category	Equity Compensation Plan Information		
	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	669,350 ^{(1) (2)}	\$26.74 ⁽²⁾	5,436,674 ⁽³⁾
Equity compensation plans not approved by security holders		N/A	
Total	669,350	\$26.74	5,436,674

- (1) Includes the 2006 and 2013 Stock-Based Incentive Compensation Plans.
- (2) Includes 369,050 shares of deferred stock awarded from the 2013 Stock-Based Incentive Compensation Plan during each year from 2013 through 2016. 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 4,447,650, 829,888 and 159,136 shares available for issuance at December 31, 2016 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, 2016, 2015 and 2014

Consolidated Statements of Comprehensive Income for the years ended December 31, 2016, 2015 and 2014

Consolidated Balance Sheets as of December 31, 2016 and 2015

Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014

Consolidated Statements of Shareholders' Equity for the years ended December 31, 2016, 2015 and 2014

Notes to Consolidated Financial Statements

Supplementary Information

(2) Financial Statement Schedules:

Schedule II – Valuation and Qualifying Accounts and Reserves

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 Form 8-K dated December 17, 1996 (File No. 1-2227)).

Crown Holdings, Inc.

- 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 Registration Rights Agreement, dated as of January 9, 2013, by and among the Company, Crown Americas LLC and Crown Americas Capital Corp. IV, Deutsche Bank Securities Inc., as Representative of the several Initial Purchasers named therein and the Guarantors (as defined therein), relating to the \$800 million 4 1/2% Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K dated January 9, 2013 (File No. 000-50189)).
- 4.k 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.l Form of 4 1/2% Senior Notes due 2023 (included in Exhibit 4.m).
- 4.m Registration Rights Agreement, dated as of January 15, 2013, by and among the Company, Crown Americas LLC and Crown Americas Capital Corp. IV, Deutsche Bank Securities Inc., as the Initial Purchaser, and the Guarantors (as defined therein), relating to the \$200 million 4 1/2% 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.n 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.o 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.p 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.q Form of 4% Senior Notes due 2022 (included in Exhibit 4.r).
- 4.r 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)).

Crown Holdings, Inc.

- 4.s 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.t 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.u 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.v 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.w Registration Rights Agreement, dated as of September 15, 2016, by and among the Company, Crown Americas LLC and Crown Americas Capital Corp. V, Citigroup Capital Markets Inc., as representative of the initial purchasers, and the Guarantors (as defined therein), relating to the \$400 million 4.250% Senior Notes due 2026 (incorporated by reference to Exhibit 4.3 of the Registrant's Current Report on Form 8-K dated September 19, 2016 (File No. 000-50189)).
- 4.x 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.y 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)).

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)).

Crown Holdings, Inc.

- (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 Jozef Salaerts, dated November 5, 2012 (incorporated by reference to Exhibit 10 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 (File No 000-50189)).
 - (6) 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)).
 - (7) First Amendment to Executive Employment Agreement, dated November 5, 2012, between Crown Holdings, Inc. and Jozef Salaerts, effective as of April 30, 2016 (incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 000-50189)).
 - (8) 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)).
- 10.b Crown Holdings, Inc. Economic Profit Incentive Plan, effective as of January 1, 2007 (incorporated by reference to Exhibit 10.i of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 000-50189)).
- 10.c Crown Holdings, Inc. Senior Executive Retirement Plan, as amended and restated as of January 1, 2008 (incorporated by reference to Exhibit 10.1 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 between Crown Holdings, Inc. and Jozef Salaerts, effective January 1, 2008 (incorporated by reference to Exhibit 10.m(8) of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2007 (File No. 000-50189)).
 - (3) 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)).
 - (4) 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)).
 - (5) 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)).
 - (6) 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)).

Crown Holdings, Inc.

- (7) 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)).
- (8) 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)).

- 10.e Form of Agreement for Restricted Stock Awards under Crown Holdings, Inc. 2004 Stock-Based Incentive Compensation Plan (incorporated by reference to Exhibit 10.x of the Registrant's Annual Report on Form 10-K for the year ended December 31, 2004 (File No. 000-50189)).
- 10.f 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.g 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.h 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.i 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.j 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.k 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.l Crown Cork & Seal Company, Inc. Pension Plan for Outside Directors, dated as of October 27, 1994 (incorporated by reference to Exhibit 10.c of the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 1995 (File No. 1-2227)).
- 10.m 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.n 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.o 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.p 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)).

Crown Holdings, Inc.

- 10.q 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.r 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.s 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.t 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.u 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.v 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.v are management contracts or compensatory plans or arrangements required to be filed as exhibits pursuant to Item 14(c) of this Report.

- 12 Computation of ratio of earnings to fixed charges.
- 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, 2016 formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the twelve months ended December 31, 2016, 2015 and 2014, (ii) Consolidated Statements of Comprehensive Income for the twelve months ended December 31, 2016, 2015 and 2014; (iii) Consolidated Balance Sheets as of December 31, 2016 and December 31, 2015, (iv) Consolidated Statements of Cash Flows for the twelve months ended December 31, 2016, 2015 and 2014, (v) Consolidated Statements of Changes in Shareholders' Equity for the twelve months ended December 31, 2016, 2015 and 2014 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 24, 2017

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 true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his 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 2016 fiscal year, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them, or their or his substitutes, may lawfully do or cause to be done by virtue thereof.

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

/s/ James H. Miller
James H. Miller

/s/ Jenne K. Britell
Jenne K. Britell

/s/ Josef M. Müller
Josef M. Müller

/s/ Arnold W. Donald
Arnold W. Donald

/s/ Thomas A. Ralph
Thomas A. Ralph

/s/ Rose Lee
Rose Lee

/s/ Caesar F. Sweitzer
Caesar F. Sweitzer

/s/ William G. Little
William G. Little

/s/ Jim L. Turner
Jim L. Turner

/s/ Hans J. Löliger
Hans J. Löliger

/s/ William S. Urkiel
William S. Urkiel

the \mathbb{R}^n is a linear space over \mathbb{R} with the usual addition and scalar multiplication. The inner product is defined by

$$\langle x, y \rangle = x_1 y_1 + x_2 y_2 + \dots + x_n y_n \quad (1)$$

and the norm is defined by

$$\|x\| = \sqrt{x_1^2 + x_2^2 + \dots + x_n^2} \quad (2)$$

The inner product and the norm are related by the following theorem:

$$\|x\|^2 = \langle x, x \rangle \quad (3)$$

The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \|x\| \|y\| \cos \theta \quad (4)$$

where θ is the angle between x and y . The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \frac{1}{2} (\|x+y\|^2 - \|x\|^2 - \|y\|^2) \quad (5)$$

The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \frac{1}{2} (\|x+y\|^2 - \|x-y\|^2) \quad (6)$$

The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \frac{1}{2} (\|x+y\|^2 - \|x-y\|^2) \quad (7)$$

The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \frac{1}{2} (\|x+y\|^2 - \|x-y\|^2) \quad (8)$$

The inner product and the norm are also related by the following theorem:

$$\langle x, y \rangle = \frac{1}{2} (\|x+y\|^2 - \|x-y\|^2) \quad (9)$$

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CORPORATE/AMERICAS DIVISION HEADQUARTERS

Crown Holdings, Inc.
CROWN Americas LLC
One Crown Way
Philadelphia, PA 19154-4599 USA
Main Tel: +1 (215) 698-5100

EUROPEAN DIVISION HEADQUARTERS

CROWN Packaging Europe Division GmbH
Baarermatte
CH-6340 Baar
Switzerland
Main Tel: +41 41 759 10 00

ASIA PACIFIC DIVISION HEADQUARTERS

CROWN Asia Pacific Holdings Pte. Ltd.
10 Hoe Chiang Road #19-01
Keppel Towers
Singapore 089315
Main Tel: +65 6423 9798

