OWENS ILLINOIS INC /DE/
Form 10-K
February 10, 2017
Table of Contents

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

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

Commission file number 1-9576

OWENS-ILLINOIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	22 2781933
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	43551
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (567) 336-5000

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

Title of each class	Name of each exchange on which registered
Common Stock, $.01 par value	New York Stock Exchange

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

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

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

Table of Contents

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S K (§229.405 of this chapter) 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	Accelerated filer	Non accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company

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

The aggregate market value (based on the consolidated tape closing price on June 30, 2016) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $3,717,494,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2017 was 162,354,026.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Thursday, May 11, 2017 ("Proxy Statement") are incorporated by reference into Part III hereof.

TABLE OF GUARANTORS

Exact Name of Registrant As Specified In Its Charter	State/Country of Incorporation or Organization	Primary Standard Industrial Classification Code Number	I.R.S. Employee Identification Number
Owens Illinois Group, Inc.	Delaware	6719	341559348
Owens Brockway Packaging, Inc.	Delaware	6719	341559346

The address, including zip code, and telephone number, of each additional registrant's principal executive office is One Michael Owens Way, Perrysburg, Ohio 43551; (567) 336 5000. These companies are listed as guarantors of the debt securities of the registrant. The consolidating condensed financial statements of the Company depicting separately its guarantor and non guarantor subsidiaries are presented in the notes to the consolidated financial statements. All of the equity securities of each of the guarantors set forth in the table above are owned, either directly or indirectly, by Owens Illinois, Inc.

Table of Contents

TABLE OF CONTENTS

Table of Contents

PART I

ITEM 1. BUSINESS

General Development of Business

Owens Illinois, Inc. (the “Company”), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 79 glass manufacturing plants in 23 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company’s strategy is to provide innovative and competitive packaging solutions for the world’s leading food and beverage companies. The Company’s goal is to enhance shareholder value and enable the future success of its customers and employees. The Company is employing a strategic plan to realize its goals and vision including:

- To be the preferred supplier for glass packaging in the global food and beverage industry by significantly improving the customer experience; aligning its activity with customers’ value; improving quality and flexibility; and improving innovation and speed of commercialization; as well as increasing sales, marketing, end-to-end supply chain capabilities and talent;
- To be the most cost effective global glass packaging producer by ensuring asset stability and total systems cost management; increasing efficiency, leveraging automation, and improving quality; cultivating game changing concepts that create new competitive advantages; and focusing on continuous improvement; and
- To expand its business in attractive, growing markets by growing with strategic customers; expanding into attractive new markets; and evaluating expansion into the value chain.

The Company will achieve these ambitions by working together as One Team, One Enterprise, with One Plan.

Reportable Segments

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company’s acquisition (the “Vitro Acquisition”) of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the “Vitro Business”) on September 1, 2015, the Company has renamed the former South America segment to the Latin America segment. Information as to sales, earnings from continuing operations before interest expense (net), and provision for income taxes and excluding amounts related to certain items that management considers not representative of ongoing operations (“segment operating profit”), and total assets by reportable segment is included in Note 2 to the Consolidated Financial Statements.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser Busch InBev, Carlsberg, Coca-Cola, Constellation, Diageo, Heineken, MillerCoors, Nestle, PepsiCo and Pernod Ricard. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi year supply agreements. Multi year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in Europe, North America, Latin America and Asia Pacific.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 35 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the beer, wine, champagne, spirits, non-alcoholic beverages and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack, Vidrala and BA Vidro.

North America. The Company has 19 glass container manufacturing plants in the U.S. and Canada, and an interest in a joint venture that manufactures glass containers in the U.S. Also, the Company has a distribution facility used to import glass containers from its business in Mexico. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self manufacture glass containers.

Latin America. The Company has 17 glass manufacturing plants in Latin America, located in Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, and Peru. In 2015, the Company's acquisition of the Vitro Business included six plants. In Latin America, the Company maintains a diversified portfolio serving several markets, including beer, non alcoholic beverages, spirits, flavored malt beverages, wine, food and pharmaceuticals. The region also has a large infrastructure for returnable/refillable glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Asia Pacific. The Company has eight glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the beer, wine, food and non alcoholic beverage markets. The Company competes directly with Orora Limited in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc. The Company also competes with manufacturers of non rigid packaging alternatives, including flexible pouches, aseptic cartons and bag in box containers.

Table of Contents

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know how and process technology.

Seasonality

Sales of many glass container products such as beer, beverages and food are seasonal. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater the last three quarters of the year.

Manufacturing

The Company has 79 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, France, Poland, Colombia and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-20% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In North America, more than 90% of the sales volume is represented by customer contracts that contain provisions that pass the commodity price of natural gas to the customer, effectively reducing the North America segment's exposure to changing natural gas market prices.

In Europe and Asia Pacific, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts have terms that can range from one to three years. In Latin America, the Company primarily enters into fixed price contracts for its energy requirements in most of the countries in which it operates and the remaining energy requirements are subject to changing natural gas market prices and economic impacts. These fixed price contracts typically have terms of one to five years, and generally include annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

Table of Contents

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. Expenditures for these activities were $65 million, $64 million and $63 million for 2016, 2015 and 2014, respectively. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light weighting and further automation of manufacturing activities. The Company's research and development activities are conducted at its corporate facilities in Perrysburg, Ohio. During 2013, the Company completed the construction of a new research and development facility at this location. This facility has enabled the Company to expand its research and development capabilities.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In 2016, 2015 and 2014, the Company earned $13 million, $12 million and $12 million, respectively, in royalties and net technical assistance revenue.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements around guiding customer and end consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2016, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for

Table of Contents

consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. The EUETS has not had a material effect on the Company's results to date. However, should the regulators significantly restrict the number of emissions allowances available, it could have a material effect in the future.

In North America, the U.S. and Canada are engaged in significant legislative and regulatory activity relating to CO_2 emissions, at the federal, state and provincial levels of government. The U.S. Environmental Protection Agency ("EPA") regulates emissions of hazardous air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The structure and scope of the EPA's CO_2 regulations are currently the subject of litigation and are expected to be the subject of federal legislative activity. The EPA regulations, if preserved as proposed, could have a significant long term impact on the Company's U.S. operations. The EPA also implemented the Cross State Air Pollution Rule, which set stringent emissions limits in many states starting in 2012. The state of California in the U.S., and the provinces of Quebec and Ontario in Canada, have adopted cap and trade legislation aimed at reducing greenhouse gas emissions.

In Asia Pacific, the National Greenhouse and Energy Reporting Act 2007 commenced on July 1, 2008 in Australia and established a mandatory reporting system for corporate greenhouse gas emissions and energy production and consumption. In July 2014, the Australian government introduced the Emissions Reduction Fund ("ERF") which comprises an element to credit emissions reductions, a fund to purchase emissions reductions and a safeguard mechanism. The ERF purchases the lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions, while the safeguard mechanism (effective from July 1, 2016) ensures that emissions reductions paid for through the crediting and purchasing elements of the ERF are not offset by significant increases in emissions above business-as-usual levels elsewhere in the economy. An emissions trading scheme has been in effect in New Zealand since 2008.

In Latin America, the Brazilian government passed a law in 2009 requiring companies to reduce the level of greenhouse gas emissions by the year 2025. In the other Latin American countries, national and local governments are considering proposals that would also impose regulations to reduce CO_2 emissions.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions reducing projects. As such, the Company has made significant expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Table of Contents

Employees

The Company's worldwide operations employed approximately 27,000 persons as of December 31, 2016. Approximately 74% of North American employees are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2016, covered approximately 76% of the Company's union affiliated employees in North America, will expire on March 31, 2019. Approximately 86% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o i.com. The Company's annual report on Form 10 K, quarterly reports on Form 10 Q, current reports on Form 8 K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. 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. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Global Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the "Investors" section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above.

Table of Contents

Executive Officers of the Registrant

In the following table the Company sets forth certain information regarding those persons currently serving as executive officers of Owens-Illinois, Inc. as of February 10, 2017.

Name and Age	Position
Andres A. Lopez (54)	Chief Executive Officer since January 1, 2016; President, Glass Containers and Chief Operating Officer 2015; Vice President and President of O I Americas 2014 2015; Vice President and President of O I South America 2009 2014; Vice President of Global Manufacturing and Engineering 2006 2009.
Miguel Alvarez (52)	President, O-I Latin America since 2014; President, O-I Brazil 2010 – 2014. Previously held leadership positions in Chile, Argentina and Ecuador for Belcorp, a leading global beauty products company 2005 – 2010.
James W. Baehren (66)	Senior Vice President of Corporate Development and Special Advisor to the Chief Executive Office since 2017; Senior Vice President and General Counsel 2003-2016; Senior Vice President Strategic Planning 2006 2012; Chief Administrative Officer 2004 2006; Corporate Secretary 1998 2010; Vice President and Director of Finance 2001 2003.
Jan A. Bertsch (60)	Chief Financial Officer and Senior Vice President since November 23, 2015. Previously Executive Vice President and Chief Financial Officer for Sigma-Aldrich, a life science and technology company, 2012 - 2015. Vice President, Controller and Principal Accounting Officer at BorgWarner 2011 – 2012; Vice President and Treasurer, 2009 - 2011.
Tim Connors (42)	President, O-I Asia Pacific since June 1, 2015; General Manager of O-I Australia 2013 – 2015; Vice President of Finance, Asia Pacific 2011 – 2013; Vice President of Strategic Planning and Business Development, North America 2010 – 2011.
Sergio B. O. Galindo (49)	President, O-I North America since June 1, 2015; Vice President and President of O I Asia Pacific 2012 - 2015; General Manager of O I Colombia 2009 2012.
John A. Haudrich (49)	Senior Vice President and Chief Strategy and Integration Officer since November 20, 2015; Vice President and Acting Chief Financial Officer 2015; Vice President Finance and Corporate Controller 2011 – 2015; Vice President of Investor Relations 2009 – 2011.
Paul A. Jarrell (54)	Senior Vice President since 2011; Chief Administrative Officer since 2013; Chief Human Resources Officer 2011 2012. Previously Executive Vice President and Chief Human Resources Officer for DSM, a life sciences and materials company based in The Netherlands, 2009 2011; Vice President and Director of Human Resources for ITT, a fluid technologies and engineered products company, 2006 2009.
Vitaliano Torno (58)	President, O-I Europe since January 1, 2016; Managing Director, O-I Europe 2015; Vice President, European countries 2013 – 2015; Vice President, Marketing and sales, Europe 2010 - 2013.
MaryBeth Wilkinson (44)	Senior Vice President and General Counsel since 2017; Corporate Secretary since 2016; Associate General Counsel 2013 – 2016; Assistant General Counsel 2010 – 2012. Previously Partner with a global law firm 2007 – 2010.

Financial Information about Foreign and Domestic Operations

Information as to net sales, segment operating profit, and assets of the Company’s reportable segments is included in Note 2 to the Consolidated Financial Statements.

Table of Contents

ITEM 1A. RISK FACTORS

Asbestos Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos containing products and may need to record additional charges in the future for estimated asbestos related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high temperature, calcium silicate based pipe and block insulation material containing asbestos. The Company exited the insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory, and in some cases, punitive damages, in various amounts (herein referred to as "asbestos claims").

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2016, before insurance recoveries, for its asbestos related liability. The Company's ability to estimate its liability has been significantly affected by, among other factors, the volatility of asbestos related litigation in the United States, the significant number of co defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing its annual results of operations. In May 2016, the Company revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the three years ended December 31, 2015. Its revised method uses estimated future claims filings provided by a third party consultant and the Company's legal judgment regarding estimated future indemnity and legal costs to develop a reasonable estimate of its total asbestos-related liabilities. The revised methodology has led the Company to conclude that an asbestos liability of $692 million was required as of December 31, 2016.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future annual comprehensive legal reviews, the Company will review its estimate of its total asbestos-related liability, unless significant changes in trends or new developments warrant an earlier review. Such reviews may result in significant adjustments to the liability accrued at the time of the review.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos containing insulation prior to its exit from that business in 1958;
b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;
c) the incidence of serious asbestos related disease cases and claiming patterns against the Company for such cases do not change materially;
d) the Company is substantially able to defend itself successfully at trial and on appeal;
e) the number and timing of additional co defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and
f) co defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

The ultimate amount of distributions that may be required to fund the Company's asbestos related payments cannot be estimated with certainty. Asbestos related payments continue to be substantial and the continued use of

Table of Contents

significant amounts of cash for asbestos related costs has affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2016, the Company had approximately $5.3 billion of total debt outstanding, a decrease from $5.6 billion at December 31, 2015.

The Company's indebtedness could result in the following consequences:

· Increased vulnerability to general adverse economic and industry conditions;
· Increased vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
· Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, share repurchases, development efforts and other general corporate purposes;
· Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
· Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
· Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on and to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short term variable interest rates. At December 31, 2016, the Company's debt subject to variable interest rates represented approximately 34% of total debt.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

· Reduce or delay capital expenditures planned for replacements, improvements and expansions;
· Sell assets;
· Restructure debt; and/or
· Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso, Mexican peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non U.S. operations totaled approximately $4.6 billion, representing approximately 69% of the Company's net sales for the year ended December 31, 2016. As a result of its non U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;
- Fluctuations in currency exchange rates and other impacts resulting from the United Kingdom's referendum on withdrawal from the European Union;
-

Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;

Table of Contents

- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, affecting foreign tax credits or tax deductions relating to our non U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer term reductions in consumer spending on glass packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

High Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts for 10% to 20% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Table of Contents

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and
- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it has acquired or will acquire in the future.

The Company's ability to realize the anticipated benefits of the Vitro Acquisition will depend, to a large extent, on its ability to integrate the two businesses. The combination of two independent businesses is a complex, costly and time consuming process and there can be no assurance that the Company will be able to successfully integrate the Vitro Business into its business, or if such integration is successfully accomplished, that such integration will not be more costly or take longer than presently contemplated. Integration of the Vitro Acquisition may include various risks and uncertainties, including the factors discussed in the paragraph below. If the Company cannot successfully integrate and manage the Vitro Business within a reasonable time following the Vitro Acquisition, the Company may not be able to realize the potential and anticipated benefits of the Vitro Acquisition, which could have a material adverse effect on the Company's share price, business, cash flows, results of operations and financial position.

The Company may also consider other strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which are located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day to day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;
- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;
- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and

Table of Contents

· The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

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 products 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 have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for 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, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater in the last three quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability and cost of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by raw material transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

In addition, the Company purchases its soda ash raw materials in U.S. dollars in the Latin America and Asia Pacific regions. Given fluctuations in foreign currency exchange rates, this may cause these regions to experience inflationary or deflationary impacts to their raw material costs.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company’s operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company’s

Table of Contents

operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or 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 the Company's costs, which may have a material adverse effect on operations.

Taxes—Potential tax law and U.S. trade policy changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, potential tax law changes in the U.S. regarding the treatment of the Company's unrepatriated non U.S. earnings, the deductibility of interest expense or the cost of materials imported from other countries could have a material adverse effect on net income and cash flow. 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 these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

In addition, existing free trade laws and regulations, such as the North American Free Trade Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where the Company manufactures products, such as Mexico, could have a material adverse effect on its business and financial results. Also, a government's adoption of "buy national" policies or retaliation by another government against such policies may affect the prices of and demand for the Company's products and could have a negative impact on the Company's results of operations.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2016, covered approximately 74% of the Company's employees in North America. The principal collective bargaining agreement, which at December 31, 2016 covered approximately 76% of the Company's union affiliated employees in North America, will expire on March 31, 2019. Approximately 86% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the

Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. In addition, if the Company's employees were to engage in a strike or other work stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Europe, North America, Asia Pacific segments and in retained corporate costs and other. If 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, which could have a material adverse effect on the Company's financial condition and results of operations.

Cybersecurity and Information Technology—Security threats and the failure or disruption of the integrity of the Company's information technology, or those of third parties with which it does business, could have a material adverse effect on its business and the results of operations.

The Company relies on information technology to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. As with all large systems, the Company's information technology systems could fail on their own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, telecommunications failures, cybersecurity vulnerabilities, threats and more sophisticated and targeted cyber-related attacks. The Company's disaster recovery programs and other preventative measures may be unable to prevent the failure or disruption of the Company's information technology systems, which could result in transaction errors, loss of customers, business disruptions, or loss of or damage to intellectual property and could have a material adverse effect on operations.

As cyberattacks on various organizations have increased, the Company's information technology systems may be subject to increased security threats. The Company's measures in place to prevent and detect global security threats may be unable to prevent certain security breaches. This may result in the loss of customers and business opportunities, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs. 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.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all

15

Table of Contents

estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. The Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2016 totaled $2.5 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $38 million, $17 million and $28 million to its defined benefit pension plans in 2016, 2015 and 2014, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

Table of Contents

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2016 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

North American Operations	
United States	
Atlanta, GA	Portland, OR
Auburn, NY	Streator, IL
Brockway, PA	Toano, VA
Crenshaw, PA	Tracy, CA
Danville, VA	Waco, TX
Kalama, WA	Windsor, CO
Lapel, IN	Winston Salem, NC
Los Angeles, CA	Zanesville, OH
Muskogee, OK	
Canada	
Brampton, Ontario	Montreal, Quebec
Asia Pacific Operations	
Australia	
Adelaide	Melbourne
Brisbane	Sydney
China	
Tianjin	Zhaoqing
Indonesia	
Jakarta	
New Zealand	
Auckland	
European Operations	
Czech Republic	
Dubi	Nove Sedlo
Estonia	
Jarvakandi	
France	
Beziers	Vayres
Gironcourt	Veauche
Labegude	Vergeze
Puy Guillaume	Wingles
Reims	

17

Table of Contents

Germany	
Bernsdorf	Rinteln
Holzminden	
Hungary	
Oroshaza	
Italy	
Asti	Origgio
Aprilia	Ottaviano
Bari	San Gemini
Marsala	San Polo
Mezzocorona	Villotta
The Netherlands	
Leerdam	Schiedam
Maastricht	
Poland	
Jaroslaw	Poznan
Spain	
Barcelona	Sevilla
United Kingdom	
Alloa	Harlow
Latin American Operations	
Argentina	
Rosario	
Bolivia	
Cochabamba	
Brazil	
Recife	Sao Paulo
Rio de Janeiro (glass container and tableware)	
Colombia	
Buga (tableware)	Soacha
Envigado	Zipaquira
Ecuador	
Guayaquil	
Mexico	
Guadalajara	Queretaro
Los Reyes	Toluca

Monterrey

18

Table of Contents

Peru	
Callao	Lurin(1)
Other Operations	
Engineering Support Centers	
Brockway, Pennsylvania	Lurin, Peru
Cali, Colombia	Perrysburg, Ohio
Hawthorn, Australia(1)	Villeurbanne, France
Jaroslaw, Poland	`
Shared Service Centers	
Medellin, Colombia	Perrysburg, Ohio
Monterrey, Mexico	Poznan, Poland(1)
Distribution Center	
Laredo, TX(1)	
Corporate Facilities	
Hawthorn, Australia(1)	Perrysburg, Ohio(1)
Miami, Florida(1)	Vufflens la Ville, Switzerland(1)

(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For further information on legal proceedings, see Note 12 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Table of Contents

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The price range for the Company's common stock on the New York Stock Exchange, as reported by the Financial Industry Regulatory Authority, Inc., was as follows:

	2016		2015	
	High	Low	High	Low
First Quarter	$ 17.06	$ 12.06	$ 26.99	$ 22.85
Second Quarter	20.18	15.46	25.98	22.94
Third Quarter	19.12	16.81	22.93	19.42
Fourth Quarter	19.46	17.00	23.83	16.94

The number of share owners of record on December 31, 2016 was 1,118. Approximately 100% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE, which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 29,228 unidentified beneficial owners. No dividends have been declared or paid since the Company's initial public offering in December 1991 and the Company does not anticipate paying any dividends in the near future. For restrictions on payment of dividends on the Company's common stock, see Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Current and Long Term Debt and Note 11 to the Consolidated Financial Statements.

Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company did not purchase any shares of its common stock for the twelve months ended December 31, 2016. The Company has $380 million remaining for repurchases as of December 31, 2016 pursuant to authorization by its Board of Directors in October 2014 to purchase up to $500 million of the Company's common stock until December 31, 2017.

Table of Contents

	Years Ending December 31,					
	2011	2012	2013	2014	2015	2016
Owens-Illinois, Inc.	$ 100.00	$ 109.75	$ 184.62	$ 139.27	$ 89.89	$ 89.93
S&P 500	100.00	116.00	153.57	174.60	177.01	198.18
Packaging Group	100.00	109.20	151.22	169.03	169.26	179.43

The above graph compares the performance of the Company’s Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co.

The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2011 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the four years in the period ended December 31, 2016, which was derived from the audited consolidated financial statements of the Company. The selected consolidated financial data for the year ended December 31, 2012 has been omitted from this table because it was not practicable for the Company to present this financial information without undue effort. This was due to the Company's May 2016 restatement of its consolidated financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company's method for estimating its future asbestos-related liabilities.

	Years ended December 31,			
	2016	2015	2014	2013
	(Dollars in millions)			
Consolidated operating results(a):				
Net sales	$ 6,702	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,490)	(5,046)	(5,531)	(5,636)
Gross profit	1,212	1,110	1,253	1,331
Selling and administrative, research, development and engineering	(568)	(540)	(586)	(568)
Other expense, net	(16)	(51)	(130)	(66)
Earnings before interest expense and items below	628	519	537	697
Interest expense, net	(272)	(251)	(230)	(229)
Earnings from continuing operations before income taxes	356	268	307	468
Provision for income taxes	(119)	(106)	(92)	(120)
Earnings from continuing operations	237	162	215	348
Loss from discontinued operations	(7)	(4)	(23)	(18)
Net earnings	230	158	192	330
Net (earnings) attributable to noncontrolling interests	(21)	(23)	(28)	(13)
Net earnings attributable to the Company	$ 209	$ 135	$ 164	$ 317

	Years ended December 31,			
	2016	2015	2014	2013
Basic earnings per share of common stock:				
Earnings from continuing operations	$ 1.33	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.29	$ 0.83	$ 1.00	$ 1.92
Weighted average shares outstanding (in thousands)	161,857	161,169	164,720	164,425
Diluted earnings per share of common stock:				
Earnings from continuing operations	$ 1.32	$ 0.85	$ 1.13	$ 2.02
Loss from discontinued operations	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.28	$ 0.82	$ 0.99	$ 1.91
Diluted average shares (in thousands)	162,825	162,135	166,047	165,828

Table of Contents

	Years ended December 31, 2016	2015	2014	2013
	(Dollars in millions)			
Other data:				
The following are included in earnings from continuing operations:				
Depreciation	$ 375	$ 323	$ 335	$ 350
Amortization of intangibles	103	86	83	47
Amortization of deferred finance fees (included in interest expense)	13	15	30	32
Balance sheet data (at end of period):				
Working capital (current assets less current liabilities)	$ 194	$ 212	$ 43	$ 296
Total assets	9,135	9,421	7,843	8,393
Total debt	5,328	5,573	3,445	3,541
Total share owners' equity	$ 363	$ 279	$ 771	1,010

(a) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31, 2016	2015	2014	2013
	(Dollars in millions)			
Cost of goods sold				
Pension settlement charges	$ 98	$ —	$ 50	$ —
Acquisition-related fair value inventory adjustments		22		
Restructuring, asset impairment and related charges			8	
Selling and administrative, research, development and engineering				
Pension settlement charges			15	
Other expense, net				
Restructuring, asset impairment and other charges	129	75	78	119
Gain related to cash received from the Chinese government as compensation for land in China that the Company was required to return to the government	(71)			
Charge for asbestos-related costs		16	46	12
Strategic transaction costs		23		
Non-income tax charge			69	
Acquisition-related fair value intangible adjustments		10		
Equity earnings related charges		5	5	
Interest expense, net				
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	9	42	20	11
Provision for income taxes				
Net tax (benefit) expense for income tax on items above	1	(15)	(34)	(14)
Tax expense (benefit) recorded for certain tax adjustments	(8)	8	(8)	
Net earnings attributable to noncontrolling interest				
Net impact of noncontrolling interests on items above	2			(13)

	$ 160	$ 186	$ 249	$ 115

(b)
(c)

23

Table of Contents

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

The Company’s measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled “reportable segment totals”, however, is a non GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company’s management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

Financial information regarding the Company’s reportable segments is as follows (dollars in millions):

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794
North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Retained corporate costs and other	(98)	(70)	(100)
Restructuring, asset impairment and other related charges	(129)	(80)	(91)
Pension settlement charges	(98)		(65)
Charge for asbestos-related costs		(16)	(46)
Gain on China land sale	71		
Strategic transaction costs		(23)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Interest expense, net	(272)	(251)	(230)
Earnings from continuing operations before income taxes	356	268	307
Provision for income taxes	(119)	(106)	(92)
Earnings from continuing operations	237	162	215

Loss from discontinued operations	(7)	(4)	(23)
Net earnings	230	158	192
Net earnings attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 209	$ 135	$ 164
Net earnings from continuing operations attributable to the Company	$ 216	$ 139	$ 187

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Table of Contents

Executive Overview—Comparison of 2016 with 2015

2016 Highlights

- The September 1, 2015 Vitro Acquisition increased net sales by $608 million and segment operating profit by $122 million in 2016 compared to 2015
- Net sales in 2016 were $6.7 billion, up 9% from the prior year, primarily due to incremental net sales from the Vitro Acquisition. Excluding the acquisition, shipments were comparable in both periods
- Driven by the Vitro Acquisition and progress on strategic initiatives, segment operating profit was higher in all regions, except for Asia Pacific, in 2016 compared to the prior year
- Issued €500 million of senior notes due 2024 and repaid higher-cost floating-rate debt

Net sales increased by $546 million compared to the prior year primarily due to approximately $608 million of incremental net sales from the Vitro Acquisition and slightly higher pricing, partially offset by the unfavorable effect of changes in foreign currency exchange rates and an unfavorable sales mix.

Segment operating profit for reportable segments increased by $142 million compared to the prior year. The increase was largely attributable to approximately $122 million of incremental segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates and higher operating costs due to cost inflation.

Net interest expense in 2016 increased $21 million compared to 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $160 million, or $0.99 per share, in 2016 and $186 million, or $1.15 per share, in 2015.

Results of Operations—Comparison of 2016 with 2015

Net Sales

The Company’s net sales in 2016 were $6,702 million compared with $6,156 million in 2015, an increase of $546 million, or 9%. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 9% in 2016 compared to 2015. The Vitro Acquisition resulted in approximately $608 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2016 were comparable to 2015. On a global basis, sales volumes of beer, wine, spirits, food and non-alcoholic beverages all grew year-on-year. However, an unfavorable sales mix resulted in $41 million of lower net sales in 2016. Net sales also benefited from $79 million in higher selling prices in 2016. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Mexican peso, Colombian peso, Canadian dollar and British pound in relation to the U.S. dollar, impacted sales by $108 million in 2016 compared to 2015.

Table of Contents

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2015		$ 6,098
Price	$ 79	
Sales volume (excluding acquisitions)	(41)	
Effects of changing foreign currency rates	(108)	
Vitro Acquisition	608	
Total effect on net sales		538
Net sales— 2016		$ 6,636

Europe: Net sales in Europe in 2016 were $2,300 million compared with $2,324 million in 2015, a decrease of $24 million, or 1%. The primary reason for the decline in net sales in 2016 was a $28 million impact due to foreign currency exchange rates, as the British pound weakened in relation to the U.S. dollar. Glass container shipments in 2016, primarily to beer and wine customers, increased approximately 2% compared to the prior year and this increased net sales by $30 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $26 million decrease in net sales in 2016. This trend in lower prices is expected to continue into the first quarter of 2017.

North America: Net sales in North America in 2016 were $2,220 million compared with $2,039 million in 2015, an increase of $181 million, or 9%. Net sales from the acquired Vitro food and beverage business in the United States increased the region’s net sales by $196 million in 2016. Total glass container shipments were up nearly 7% in 2016 compared to 2015, primarily due to the acquired business and higher shipments in all major end uses except beer, which was on par with prior year. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up nearly 1% in 2016, however, an unfavorable sales mix resulted in $36 million of lower sales. This impact to sales mix was due to several customers converting a portion of their glass shipments from carton packaging to bulk shipments. Higher selling prices as a result of contractual pass throughs increased net sales by $25 million in 2016. Unfavorable foreign currency exchange rate changes decreased net sales by $4 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2016 were $1,432 million compared with $1,064 million in 2015, an increase of $368 million, or 35%. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region’s net sales by approximately $412 million in 2016. Total glass container shipments were up approximately 41% in 2016. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down approximately 3% in 2016. This decline impacted net sales by approximately $40 million and was primarily due to a general economic slowdown in Brazil and Ecuador, which is expected to continue into 2017, partially offset by growth in Colombia and Peru. The unfavorable effects of foreign currency exchange rate changes decreased net sales $75 million in 2016 compared to 2015, principally due to a decline in the Brazilian real, Colombian peso, and the Mexican peso in relation to the U.S. dollar. Improved pricing in the current year benefited net sales by $71 million.

Asia Pacific: Net sales in Asia Pacific in 2016 were $684 million compared with $671 million for 2015, an increase of $13 million, or 2%. Glass container shipments were down approximately 3% compared to the prior year, however, a slightly more favorable sales mix increased net sales by $5 million in 2016. Sales volumes in mature markets in the region were higher than prior year, but production volumes in those countries were lower due to planned engineering activity. These lower production volumes in the mature markets were supported by importing from emerging markets in the region, which in turn, led to lower domestic sales in those markets. Higher prices increased net sales by $9 million in the current year. The unfavorable effects of foreign currency exchange rate changes decreased net sales $1 million in 2016 compared to 2015.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $356 million in 2016 compared to $268 million in 2015, an increase of $88 million, or 33%. This increase was primarily due to higher segment operating profit, partially offset by higher retained corporate costs and higher net interest expense.

Table of Contents

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2016 was $882 million compared to $740 million in 2015, an increase of $142 million, or 19%. The increase was largely attributable to approximately $122 million of segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit by $79 million. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates ($26 million) and higher operating costs ($25 million), primarily due to inflation.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2015		$ 740
Price	$ 79	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(25)	
Effects of changing foreign currency rates	(26)	
Vitro Acquisition	122	
Total net effect on segment operating profit		142
Segment operating profit - 2016		$ 882

Europe: Segment operating profit in Europe in 2016 was $237 million compared with $209 million in 2015, an increase of $28 million, or 13%. The increase in sales volume discussed above improved segment operating profit by $7 million. Segment operating profit also benefited from $51 million in lower operating costs in 2016 than in the prior year due to energy deflation and improved operational performance. In 2015, production volumes were lower due to asset optimization projects that have now been completed. In addition, the region received an energy credit of approximately $10 million from a local government entity in 2016 that had been delayed for legislative reasons in 2015. The unfavorable effects of foreign currency exchange rates, especially the British pound, decreased segment operating profit by $14 million in 2016 compared to the prior year. Lower selling prices also decreased segment operating profit by $26 million.

North America: Segment operating profit in North America in 2016 was $299 million compared with $265 million in 2015, an increase of $34 million, or 13%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $28 million of incremental profit in 2016. Higher selling prices as a result of contractual pass throughs increased segment operating profit by $25 million in 2016 compared to 2015. Higher production volumes and improved operating efficiencies were more than offset by cost inflation. Together, this contributed to a $13 million reduction to segment operating profit in 2016. The unfavorable sales mix discussed above reduced segment operating profit by $5 million. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $1 million.

Latin America: Segment operating profit in Latin America in 2016 was $269 million compared with $183 million in 2015, an increase of $86 million, or 47%. Segment operating profit from the acquired Vitro food and beverage business contributed approximately $94 million of incremental profit to the region in 2016. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $13 million. The unfavorable effects of foreign currency rate changes, especially the Brazilian real, Colombian peso and Mexican peso, decreased segment operating profit by $14 million in the current year. Despite management interventions to contain costs and improve asset optimization, segment operating profit was also unfavorably impacted by $57 million of higher operating costs, primarily due to energy and soda ash inflation in the region. Partially offsetting these declines were higher selling prices that increased segment operating profit by $71 million in 2016. In addition, approximately $5 million of gains related to non-strategic asset sales benefited 2016.

Table of Contents

Asia Pacific: Segment operating profit in Asia Pacific in 2016 was $77 million compared with $83 million in 2015, a decrease of $6 million, or 7%. Cost inflation, higher production downtime due to furnace rebuild activity and higher costs for intra-regional shipments drove operating costs $21 million higher in 2016 compared to the prior year. The favorable effects of foreign currency exchange rates increased segment operating profit by $3 million in 2016. The more favorable sales mix discussed above improved segment operating profit by $3 million. Higher selling prices also increased segment operating profit by $9 million in the current year.

Interest Expense, net

Net interest expense in 2016 was $272 million compared with $251 million in 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2016 was 33.4%, compared with 39.6% for 2015. The Company's effective tax rate for 2016 was lower than 2015 due to the impact of significant costs related to refinancing, restructuring and acquisition-related costs in 2015 within jurisdictions that generated little or no tax benefit.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2016 was approximately 24%, compared with approximately 25% for 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2016 was $21 million compared to $23 million for 2015. The decrease in 2016 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings from Continuing Operations Attributable to the Company

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2016 and 2015 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	2016	2015
Restructuring, asset impairment and other charges	$ (123)	$ (73)
Pension settlement charges	(98)	
Note repurchase premiums and write-off of finance fees	(9)	(42)
Gain on China land sale	62	
Tax benefit (charge) for certain tax adjustments	8	(8)
Strategic transaction costs		(22)
Charge for asbestos-related costs		(16)
Acquisition-related fair value inventory adjustments		(16)
Acquisition-related fair value intangible adjustments		(9)

Total	$ (160)	$ (186)

28

Table of Contents

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2016 were reduced due to foreign currency effects compared to 2015.

This trend has continued into 2017 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2015 with 2014

2015 Highlights

- The unfavorable effect of foreign currency exchange rates reduced net sales by 13% and segment operating profit by 16% in 2015 compared to the prior year
- Acquired the food and beverage glass container business of Vitro, S.A.B. de C.V. for $2.297 billion
- Entered into a new senior secured credit facility that matures in April 2020. To finance the Vitro Acquisition, this facility was then amended to borrow an incremental $1.25 billion. The Company also issued $1 billion of senior notes due 2023 and 2025.
- Repaid the senior notes due 2016
- Repurchased $100 million of shares of common stock

Net sales decreased by $628 million compared to the prior year primarily due to the unfavorable effect of changes in foreign currency exchange rates. Net sales for 2015 included approximately $258 million from the acquired Vitro Business.

Segment operating profit for reportable segments decreased by $168 million compared to the prior year. The decrease was largely attributable to the unfavorable effect of changes in foreign currency exchange rates and higher operating costs due to cost inflation and lower operational performance in Europe. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Business.

Net interest expense in 2015 increased $21 million compared to 2014. The increase was due to higher note repurchase premiums and the write off of finance fees related to debt that was repaid during 2015 prior to its maturity. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $186 million, or $1.15 per share, in 2015 and $249 million, or $1.50 per share, in 2014.

Results of Operations—Comparison of 2015 with 2014

Net Sales

The Company's net sales in 2015 were $6,156 million compared with $6,784 million in 2014, a decrease of $628 million. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Colombian peso, Euro, Canadian dollar and Australian dollar in relation to the U.S. dollar, impacted sales by $881 million in 2015 compared to 2014. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 3% in 2015 compared to 2014. The Vitro Acquisition resulted in approximately $258 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2015

29

Table of Contents

were comparable to 2014. On a global basis, sales volumes of wine, spirits, food and non-alcoholic beverages all grew year-on-year. While sales volumes in the beer category declined by approximately 1%, driven by a decline in mainstream beer, shipments into craft and premium beer customers continued to expand. However, an unfavorable sales mix resulted in $47 million of lower net sales in 2015. Net sales also benefited from slightly higher selling prices in 2015.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2014		$ 6,749
Price	$ 19	
Sales volume (excluding acquisitions)	(47)	
Effects of changing foreign currency rates	(881)	
Vitro Acquisition	258	
Total effect on net sales		(651)
Net sales— 2015		$ 6,098

Europe: Net sales in Europe in 2015 were $2,324 million compared with $2,794 million in 2014, a decrease of $470 million, or 17%. The primary reason for the decline in net sales in the region in 2015 was a $445 million impact due to foreign currency exchange rates, as the Euro weakened in relation to the U.S. dollar. Glass container shipments in 2015 increased slightly compared to the prior year and this increased net sales by $9 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $34 million decrease in net sales in 2015. This trend in lower prices is expected to continue into the first quarter of 2016.

North America: Net sales in North America in 2015 were $2,039 million compared with $2,003 million in 2014, an increase of $36 million, or 2%. Net sales from the acquired Vitro food and beverage business in the United States increased the region’s net sales by $80 million in 2015. Total glass container shipments in the region were up 3% in 2015 compared to 2014. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up slightly in 2015, however, an unfavorable sales mix resulted in $4 million of lower sales. Lower selling prices decreased net sales by $14 million in 2015 due, in part, to the Company’s contractual pass through provisions of lower natural gas costs. Unfavorable foreign currency exchange rate changes decreased net sales by $26 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2015 were $1,064 million compared with $1,159 million in 2014, a decrease of $95 million, or 8%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $293 million in 2015 compared to 2014, principally due to a decline in the Brazilian real and the Colombian peso in relation to the U.S. dollar. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region’s net sales by approximately $178 million in 2015. Total glass container shipments were up approximately 18% in 2015. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down nearly 4% in 2015. This decline impacted net sales by approximately $45 million and was primarily due to a general economic slowdown in Brazil, which is expected to continue into 2016. Improved pricing in the current year benefited net sales by $65 million.

Asia Pacific: Net sales in Asia Pacific in 2015 were $671 million compared with $793 million for 2014, a decrease of $122 million, or 15%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $117 million in 2015 compared to 2014, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Glass container shipments were down 3% compared to the prior year, largely due to the planned plant closures in China in 2014. This resulted in $7 million of lower sales in 2015. Higher prices increased net sales by $2 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Table of Contents

Segment operating profit of reportable segments in 2015 was $740 million compared to $908 million in 2014, a decrease of $168 million, or 19%. The decrease in segment operating profit was primarily due to unfavorable foreign currency exchange rates. In addition, cost inflation and lower operational performance in Europe increased operating costs in the current year. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Businesses.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2014		$ 908
Price	$ 19	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(84)	
Vitro Acquisition	46	
Effects of changing foreign currency rates	(141)	
Total net effect on segment operating profit		(168)
Segment operating profit - 2015		$ 740

Europe: Segment operating profit in Europe in 2015 was $209 million compared with $353 million in 2014, a decrease of $144 million, or 41%. The unfavorable effects of foreign currency exchange rates in 2015 decreased segment operating profit by $63 million compared to the prior year. The region also had higher operating costs and lower production volumes in 2015 due to a higher level of furnace rebuild activity and lower productivity. In addition, the region did not receive an energy credit from a local government entity in 2015 as it had in the prior year. Together, this activity contributed to a $49 million increase to operating expenses in Europe in 2015 compared to 2014. Lower selling prices impacted segment operating profit by $34 million due to competitive activity, primarily in Southern Europe, while slightly higher sales volumes benefited segment operating profit by $2 million in 2015.

North America: Segment operating profit in North America in 2015 was $265 million compared with $240 million in 2014, an increase of $25 million, or 10%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $4 million in 2015. Segment operating profit also benefited from lower operating costs of $38 million in the current year, which were driven by lower energy, supply chain and logistics costs. As a result of the lower energy costs and the Company's contractual pass through provisions, selling prices were $14 million lower in 2015 compared to 2014. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $3 million.

Latin America: Segment operating profit in Latin America in 2015 was $183 million compared with $227 million in 2014, a decrease of $44 million, or 19%. The unfavorable effects of foreign currency rate changes decreased segment operating profit by $58 million in the current year. Segment operating profit from the acquired Vitro food and beverage business increased the region's operating profit by $42 million in 2015. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $12 million. Segment operating profit was also impacted by $75 million of higher operating costs, primarily due to energy and soda ash inflation in Brazil. In addition, approximately $6 million of non-strategic asset sales, which benefited 2014, did not reoccur in 2015. Higher selling prices increased segment operating profit by $65 million in 2015.

Asia Pacific: Segment operating profit in Asia Pacific in 2015 was $83 million compared with $88 million in 2014, a decrease of $5 million, or 6%. The unfavorable effects of foreign currency exchange rates decreased segment operating profit by $17 million. Despite the decline in sales volume discussed above, a favorable sales mix resulted in a $2 million increase to segment operating profit. Segment operating profit also benefited as operating costs decreased by $8 million in the current year driven by footprint savings from prior year capacity reductions in the region and the favorable impact of an insurance recovery. Higher selling prices increased segment operating profit by $2 million in the current year.

Table of Contents

Interest Expense, net

Net interest expense in 2015 was $251 million compared with $230 million in 2014. The increase was due to higher note repurchase premiums and the write off of finance fees related to refinancing activities in 2015. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2015 was 39.6%, compared with 30.0% for 2014. The effective tax rate for 2015 was impacted by several charges that management considered not representative of ongoing operations, including charges for note repurchase premiums, the write-off of finance fees, restructuring charges and acquisition fees, for which no tax benefit was recorded due to the Company's valuation allowance recorded in the U.S. The effective tax rate for 2014 was impacted by a non income tax charge, which was not deductible for income tax purposes.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2015 was approximately 25%, compared with approximately 22% for 2014. The 2015 effective tax rate was higher due to the geographic mix of earnings and timing issues associated with the establishment of the legal structure for the acquired operations in Mexico, the latter of which was resolved by year end 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2015 was $23 million compared to $28 million for 2014. The decrease in 2015 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings (loss) from Continuing Operations Attributable to the Company

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2015 and 2014 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	2015	2014
Restructuring, asset impairment and other charges	$ (73)	$ (67)
Note repurchase premiums and write-off of finance fees	(42)	(20)
Strategic transaction costs	(22)	
Charge for asbestos-related costs	(16)	(46)
Acquisition-related fair value inventory adjustments	(16)	
Acquisition-related fair value intangible adjustments	(9)	
Tax benefit (charge) for certain tax adjustments	(8)	8
Non-income tax charge		(69)
Pension settlement charges		(55)

Total	$ (186)	$ (249)

Table of Contents

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2015 were reduced due to foreign currency effects compared to 2014.

This trend has continued into 2016 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2016 were $98 million compared with $70 million for 2015. These costs were higher in 2016 primarily due to higher pension expense, management incentive compensation expense and the impact from currency hedges.

Retained corporate costs and other for 2015 were $70 million compared with $100 million for 2014. These costs were lower in 2015 primarily due to lower pension expense, management incentive compensation expense and the favorable impact from currency hedges.

Restructuring, Asset Impairment and Other Charges

During 2016, the Company recorded charges totaling $129 million for restructuring, asset impairment and other charges. These charges reflect $98 million of plant and furnace closures, primarily in the European and Latin America regions. In addition, other charges of $31 million were recorded during 2016, primarily related to an impairment charge recorded at one of the Company's equity investments.

During 2015, the Company recorded charges totaling $80 million for restructuring, asset impairment and other charges. These charges reflect $63 million of completed furnace closures, primarily in the North America and Latin America regions and other charges of $17 million.

During 2014, the Company recorded charges totaling $91 million for restructuring, asset impairment and other charges. These charges reflect $76 million of completed and planned furnace closures in Europe and Asia Pacific and other charges of $15 million.

See Note 8 to the Consolidated Financial Statements for additional information.

Pension Settlement Charges

During 2016, the Company recorded charges totaling $98 million for pension settlements in the United States.

During 2014, the Company recorded charges totaling $65 million for pension settlements in the United States and the Netherlands.

See Note 9 to the Consolidated Financial Statements for additional information.

Charge for Asbestos Related Costs

For the year ended December 31, 2016, there was no adjustment required for asbestos related costs, compared to the charges of $16 million and $46 million for the years ended December 31, 2015 and 2014, respectively. These charges resulted from the Company's comprehensive annual legal review of asbestos related liabilities and costs. As part of its future comprehensive annual reviews, the Company will estimate its total asbestos-related liability and such reviews may result in adjustments to the liability accrued at the time of the review. The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty.

33

Table of Contents

See “Critical Accounting Estimates” and Note 12 to the Consolidated Financial Statements for additional information.

Gain on China Land Compensation

During 2016, the Company recorded a gain of $71 million related to compensation received for land that the Company was required to return to the Chinese government.

Acquisition-related Fair Value Adjustments and Strategic Transaction Costs

During 2015, the Company recorded charges of $23 million for strategic transaction costs related to the Vitro Acquisition.

During 2015, the Company recorded charges of $22 million for acquisition-related fair value inventory adjustments related to the Vitro Acquisition. These charges were due to the accounting rules requiring inventory purchased in a business combination to be marked up to fair value and then recorded as an increase to cost of goods sold as the inventory is sold. During 2015, the Company also recorded charges of $10 million for acquisition-related fair value intangible asset adjustments related to trademark assets with short-term lives acquired as part of the Vitro Acquisition.

Non income tax charge

In 2014, the Company recorded a $69 million charge based on a ruling on a non income tax assessment.

Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank’s International Centre for Settlement of Investment Disputes (“ICSID”) ruled that a subsidiary of the Company is free to pursue the enforcement of a prior arbitration award against Venezuela. That award amounts to more than $485 million after including interest from the date of the expropriation by Venezuela (October 26, 2010). Venezuela’s application to annul the award is still pending, although the annulment proceedings were suspended in October 2016 because Venezuela has not paid its fees owed to ICSID. If the proceeding is stayed for non-payment for a consecutive period in excess of six months, ICSID’s Secretary General could move that the committee discontinue the annulment proceeding altogether. The Company intends to take appropriate steps to vigorously enforce and collect the award, which is enforceable in approximately 150 member states that are party to the ICSID Convention. However, even with the lifting of the stay of enforcement, the Company recognizes that the collection of the award may present significant practical challenges. Because the award has yet to be satisfied and the annulment proceeding is pending, the Company is unable at this stage to reasonably predict the efforts that will be necessary to successfully enforce collection of the award, the amount of the award or the timing of any such collection efforts. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders’ lost interests in the two expropriated plants.

The loss from discontinued operations of $7 million and $4 million, for the years ended December 31, 2016 and 2015, respectively, relates to ongoing costs for the Venezuelan expropriation.

The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

Vitro Acquisition

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five

Table of Contents

food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from a senior notes offering, cash on hand and the incremental term loan facilities (see Note 11 to the Consolidated Financial Statements).

Capital Resources and Liquidity

As of December 31, 2016, the Company had cash and total debt of $492 million and $5.3 billion, respectively, compared to $399 million and $5.6 billion, respectively, as of December 31, 2015. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non U.S. locations as of December 31, 2016 was $459 million.

Current and Long Term Debt

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on February 3, 2016 (the "Amended Agreement"). In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 19 to the Consolidated Financial Statements), the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Amended Agreement and (ii) a $575 million term loan B facility, which was subsequently repaid in full in November 2016 as described below.

At December 31, 2016, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,395 million net of debt issuance costs), and a €279 million term loan A facility ($282 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2016, the Company had unused credit of $884 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2016 was 2.39%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of (i) 4.5x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and (ii) 4.0x for the fourth fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2016, the Company was in compliance with

Table of Contents

all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting the debt discount and debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2016 and 2015 is as follows:

	2016	2015
Balance (included in short-term loans)	$ 152	$ 158
Weighted average interest rate	0.74%	1.21%

Cash Flows

Operating activities: Cash provided by continuing operating activities was $758 million for 2016 compared to $612 million for 2015. Higher net earnings and the impact from higher depreciation and amortization were the primary drivers for the improvement in cash provided by continuing operating activities in 2016. In addition, lower asbestos-related payments and cash paid for restructuring activities in 2016 more than offset the impact of higher pension contributions than in the prior year. Working capital was a source of cash of $90 million and $88 million for 2016 and 2015, respectively, and included $128 million received in 2016 as a refund on value added taxes previously paid by the Company in conjunction with the Vitro Acquisition. This refund will not reoccur in 2017.

Table of Contents

Investing activities: Cash utilized in investing activities was $417 million for 2016 compared to $2,748 million for 2015. Capital spending for property, plant and equipment during 2016 was $454 million, compared with $402 million in the prior year, and reflected a full year of capital spending related to the Vitro Business in 2016 compared to only four months in 2015.

Investing activities in 2016 also included $56 million paid for acquisitions and primarily related to additional contributions made to the Company's investment in a joint venture in Nava, Mexico. In 2017, the Company expects to contribute approximately $42 million for the joint venture's expansion plans. Cash utilized for acquisitions in 2015 was $2,351 and primarily related to the Vitro Acquisition. In 2016, the Company received $85 million in net proceeds on the disposal of assets, which were primarily related to cash received from the Chinese government for the Company's sale of certain land use rights and related properties.

Financing activities: Cash utilized in financing activities was $228 million for 2016 compared to $2,057 million of cash provided by financing activities for 2015. Financing activities in 2016 included additions to long-term debt of $1,235 million, which included the issuance of €500 million of senior notes. Financing activities in 2016 also included the repayment of long-term debt of $1,453 million, which included the repayment of floating-rate debt in the Company's Senior Secured Credit Facility from the proceeds of the previously mentioned senior note issuance. Financing activities in 2015 included additions to long-term debt of $4,538 million, primarily related to the borrowings for the Vitro Acquisition and the refinancing of the Company's Senior Secured Credit Facility. Financing activities in 2015 included the repayment of long-term debt of $2,321 million, which included the repayment of the previous credit agreement and the repayment of the senior notes due in 2016. Borrowings under short-term loans increased by $10 million in 2016. The Company paid approximately $9 million in note repurchase premiums and finance fees in 2016 compared to $90 million in 2015.

The Company paid $16 million and $22 million in distributions to noncontrolling interests in 2016 and 2015, respectively. In 2016, the Company did not repurchase any shares of its common stock compared to $100 million repurchased in 2015.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Amended Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short term (twelve months) and long term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short term or long term basis.

Contractual Obligations and Off Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2016 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$ 5,109	$ 27	$ 375	$ 2,414	$ 2,293
Capital lease obligations	57	6	13	14	24
Operating leases	205	65	79	37	24

Interest(1)	1,267	233	433	320	281
Purchase obligations(2)	1,742	637	593	168	344
Pension benefit plan contributions(3)	32	32			
Postretirement benefit plan benefit payments(1)	102	11	22	21	48
Equity affiliate investment obligation(4)	42	42			
Total contractual cash obligations	$ 8,556	$ 1,053	$ 1,515	$ 2,974	$ 3,014

Table of Contents

	Amount of commitment expiration per period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$ 56	$ 56	$ —	$ —	$ —
Total commercial commitments	$ 56	$ 56	$ —	$ —	$ —

(1) Amounts based on rates and assumptions at December 31, 2016.
(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.
(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $32 million in 2017. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.
(4) In 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant over the next two years. The Company expects to contribute approximately $42 million for the joint venture's expansion plans through 2017.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 10 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other factors believed to be reasonable under the circumstances at the time the financial statements are issued. The results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for the impairment of long lived assets, pension benefit plans, contingencies and litigation related to its asbestos liability, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Impairment of Long Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be

Table of Contents

identified, typically a segment or a component of a segment. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill –Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, and terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. The Company has determined that the Europe and North America segments are reporting units. The Company aggregated the components of the Latin America and Asia Pacific segments into single reporting units equal to the reportable segments. The aggregation of the components of these segments was based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors, including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. Goodwill at December 31, 2016 totaled approximately $2.5 billion, representing 27% of total assets. The Company has four reporting units of which three of the reporting units have goodwill and include; approximately $800 million of recorded goodwill to the Company's Europe segment, approximately $600 million of recorded goodwill to the Company's Latin America segment and approximately $1 billion of recorded goodwill to the Company's North America segment. The testing performed as of October 1, 2016, indicated a significant excess of BEV over book value for North America and Latin America. Europe exceeded its carrying values by approximately 12%, and is determined to be the reporting unit having the greatest risk of future impairment if actual results fall modestly short of expectations. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2016, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been

Table of Contents

decreased by 5%, or if the weighted average cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

During the time subsequent to the annual evaluation, and at December 31, 2016, the Company considered whether any events and/or changes in circumstances had resulted in the likelihood that the goodwill of any of its reporting units may have been impaired and has determined that no such events have occurred. The Company will monitor conditions throughout 2017 that might significantly affect the projections and variables used in the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2017, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets - Intangibles – Other long-lived assets consist primarily of purchased customer relationships intangibles and are amortized using the accelerated amortization method over their estimated useful lives. The Company reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. In the event that a decline in fair value of an asset occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. The test for impairment would require the Company to make estimates about fair value, which may be determined based on discounted cash flows, third party appraisals or other methods that provide appropriate estimates of value. The Company continually monitors the carrying value of their assets.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2016, the weighted average discount rate was 4.17 % and 2.94 % for U.S. and non U.S. plans, respectively. The Company uses an expected long term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long term investing strategy. For purposes of determining pension charges and credits in 2016, the Company's estimated weighted average expected long term rate of return on plan assets is 7.50% for U.S. plans and 7.15% for non U.S. plans compared to 8.00% for U.S. plans and 7.21% for non U.S. plans in 2015. The Company recorded pension expense from continuing operations (exclusive of settlement charges) of $23 million, $24 million, and $19 million for the U.S. plans in 2016, 2015 and 2014, respectively, and $8 million, $7 million, and $24 million for the non U.S. plans in 2016, 2015, and 2014, respectively from its principal defined benefit pension plans. Depending on currency translation rates, the Company expects to record approximately $29 million of total pension expense for the full year of 2017. The 2017 pension expense will reflect a 7.50% expected long-term rate of return for the U.S. assets.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $7 million and $13 million, respectively, in the pretax pension expense for the full year 2017.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation Related to Asbestos Liability

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party consultant with expertise in predicting future claims filings based on actuarial inputs such as disease incidence and mortality. The Company uses these estimates of total future claims, along with its legal judgment regarding an estimation of future disposition costs and related legal costs, as inputs to develop a reasonable estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are described in the Risk Factors section and in Note 12 to the Consolidated Financial Statements. Changes in these significant assumptions have the potential to impact the Company's asbestos-related liability.

In addition, if trends relating to the Company's actual claims filings materially differ, up or down, from the amounts predicted, the total number of estimated claims indicated by future actuarial analyses could change significantly. Significant changes in the total number of predicted claims could impact the total predicted asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company uses historical data for both indemnity and related legal costs, as well as its legal judgment and expectations about future inflationary and deflationary drivers, to predict the estimated disposition cost per claim and the legal costs for the remainder of the litigation. If trends relating to the actual per claim cost differ materially, up or down, from the previously estimated amount, the Company may in the future revise its estimate of its asbestos-related liability. The same may also be true with respect to legal costs. Significant changes in the estimated asbestos-related liability could result in a material charge or credit to the Company's results of operations.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $692 million as of December 31, 2016. The Company estimates that reasonably possible losses could be as high as $825 million. This estimate of additional reasonably possible loss reflects a legal judgment about the number and cost of potential future claims. The Company believes this estimate is consistent with the level of variability it has experienced when comparing actual results to recent near-term projections. However, it is also possible that the ultimate asbestos-related liability could be above this estimate.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. The Company has received tax assessments in excess of established reserves. The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Table of Contents

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

· future reversals of existing taxable temporary differences;
· future taxable income exclusive of reversing temporary differences and carryforwards;
· taxable income in prior carryback years; and
· tax planning strategies

The assessment regarding whether a valuation allowance is required or should be adjusted also considers all available positive and negative evidence, including but not limited to:

· nature, frequency, and severity of recent losses;
· duration of statutory carryforward periods;
· historical experience with tax attributes expiring unused; and
· near and medium term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last three years and current year anticipated results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company’s best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company’s results of operations and financial condition.

In certain foreign jurisdictions, the Company’s analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

The utilization of tax attributes to offset taxable income reduces the overall level of deferred tax assets subject to a valuation allowance. Additionally, the Company’s recorded effective tax rate is lower than the applicable statutory tax rate, due primarily to income earned in jurisdictions for which a valuation allowance is recorded. The effective tax rate will approach the statutory tax rate in periods after valuation allowances are released. In the period in which valuation allowances are released, the Company will record a material tax benefit, which could result in a negative effective tax rate.

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company’s operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The

42

Table of Contents

Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its North American region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits the exposure with individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of operations outside the United States

A substantial portion of the Company’s operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company’s subsidiaries are in Canada, Australia, China, Latin America (principally Brazil, Colombia, and Mexico), and Europe (principally France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom). In general, revenues earned and costs incurred by the Company’s major international operations are denominated in their respective local currencies. Consequently, the Company’s reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company’s subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2016, 2015 and 2014, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings not denominated in the functional currency

Because the Company’s subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long and short term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

The Company believes the near term exposure to foreign currency exchange rate risk of its foreign currency risk sensitive instruments was not material at December 31, 2016 and 2015.

Interest Rate Risk

The Company’s interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Secured Credit Agreement (see Note 11 to the Consolidated Financial Statements for further information). The Company’s interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating rate debt, and, from time to time, may enter into interest rate swap agreements.

43

Table of Contents

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations at December 31, 2016. The table presents principal cash flows and related weighted average interest rates by expected maturity date.

(Dollars in millions)	2017	2018	2019	2020	2021	There-after	Total	Fair Value at 12/31/2016
Long-term debt at variable rate:								
Principal by expected maturity	$ 25	$ 29	$ 92	$ 1,542	$ 2	$ —	$ 1,690	$ 1,690
Avg. principal outstanding	$ 845	$ 1,678	$ 1,651	$ 1,590	$ 773	$ 1		
Avg. interest rate	2.43 %	2.43 %	2.43 %	2.43 %	2.43 %	2.43 %		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 8	$ 258	$ 9	$ 532	$ 353	$ 2,316	$ 3,476	$ 3,771
Avg. principal outstanding	$ 3,474	$ 3,224	$ 3,224	$ 2,700	$ 2,346	$ 1,852		
Avg. interest rate	5.50 %	4.68 %	4.18 %	4.29 %	4.09 %	5.09 %		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2016.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $7 million and $13 million, respectively, in the pretax pension expense for the full year 2017.

Commodity Price Risk

The Company has exposure to commodity price risk, principally related to energy. In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs, primarily related to customer requests to lock the price of natural gas. In Europe, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 3 years or less.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2016.

Table of Contents

Forward Looking Statements

This document contains "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Section 27A of the Securities Act of 1933. Forward-looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words “believe,” “expect,” “anticipate,” “will,” “could,” “would,” “should,” “may,” “plan,” “estimate “predict,” “potential,” “continue,” and the negatives of these words and other similar expressions generally identify forward-looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) the Company’s ability to integrate the Vitro Business in a timely and cost effective manner, and to realize expected growth opportunities, cost savings and synergies from the Vitro Acquisition, (2) foreign currency fluctuations relative to the U.S. dollar, (3) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at favorable terms, (4) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in capital markets, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (5) the Company’s ability to generate sufficient future cash flows to ensure the Company’s goodwill is not impaired, (6) consumer preferences for alternative forms of packaging, (7) cost and availability of raw materials, labor, energy and transportation, (8) the Company’s ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (9) consolidation among competitors and customers, (10) the Company’s ability to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (11) unanticipated expenditures with respect to environmental, safety and health laws, (12) the Company’s ability to further develop its sales, marketing and product development capabilities, (13) the Company’s ability to prevent and detect cybersecurity threats against its information technology systems, (14) the Company’s ability to accurately estimate its total asbestos-related liability or to control the timing and occurrence of events relates to asbestos-related claims, (15) changes in U.S. trade policies, (16) the Company’s ability to achieve its strategic plan, and the other risk factors discussed in this Annual Report on Form 10-K for the year ended December 31, 2016 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward-looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this document.

Table of Contents

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of

Owens Illinois, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Illinois, Inc. at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 10, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Toledo, Ohio

February 10, 2017

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2016	2015	2014
Net sales	$ 6,702	$ 6,156	$ 6,784
Cost of goods sold	(5,490)	(5,046)	(5,531)
Gross profit	1,212	1,110	1,253
Selling and administrative expense	(503)	(476)	(523)
Research, development and engineering expense	(65)	(64)	(63)
Interest expense, net	(272)	(251)	(230)
Equity earnings	60	60	64
Other expense, net	(76)	(111)	(194)
Earnings from continuing operations before income taxes	356	268	307
Provision for income taxes	(119)	(106)	(92)
Earnings from continuing operations	237	162	215
Loss from discontinued operations	(7)	(4)	(23)
Net earnings	230	158	192
Net (earnings) attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 209	$ 135	$ 164
Amounts attributable to the Company:			
Earnings from continuing operations	$ 216	$ 139	$ 187
Loss from discontinued operations	(7)	(4)	(23)
Net earnings	$ 209	$ 135	$ 164
Basic earnings per share:			
Earnings from continuing operations	$ 1.33	$ 0.86	$ 1.14
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.29	$ 0.83	$ 1.00
Diluted earnings per share:			
Earnings from continuing operations	$ 1.32	$ 0.85	$ 1.13
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.28	$ 0.82	$ 0.99

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2016	2015	2014
Net earnings	$ 230	$ 158	$ 192
Other comprehensive loss:			
Foreign currency translation adjustments	(224)	(529)	(305)
Pension and other postretirement benefit adjustments, net of tax	52	(4)	(90)
Change in fair value of derivative instruments, net of tax	13	(6)	1
Other comprehensive loss	(159)	(539)	(394)
Total comprehensive income (loss)	71	(381)	(202)
Comprehensive income attributable to noncontrolling interests	(17)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ 54	$ (388)	$ (209)

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$ 492	$ 399
Trade receivables, net of allowances of $32 million and $29 million at December 31, 2016 and 2015, respectively	580	562
Inventories	983	1,007
Prepaid expenses and other current assets	199	366
Total current assets	2,254	2,334
Other assets:		
Equity investments	433	409
Pension assets	40	32
Other assets	602	599
Intangibles	464	597
Goodwill	2,462	2,489
Total other assets	4,001	4,126
Property, plant and equipment:		
Land, at cost	241	252
Buildings and equipment, at cost:		
Buildings and building equipment	1,090	1,123
Factory machinery and equipment	4,496	4,526
Transportation, office and miscellaneous equipment	85	88
Construction in progress	238	238
	6,150	6,227
Less accumulated depreciation	3,270	3,266
Net property, plant and equipment	2,880	2,961
Total assets	$ 9,135	$ 9,421

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions, except per share amounts

December 31,	2016	2015
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,135	$ 1,212
Salaries and wages	174	145
U.S. and foreign income taxes	58	36
Current portion of asbestos-related liabilities	115	130
Other accrued liabilities	383	371
Short-term loans	162	160
Long-term debt due within one year	33	68
Total current liabilities	2,060	2,122
Long-term debt	5,133	5,345
Deferred taxes	100	124
Pension benefits	552	504
Nonpension postretirement benefits	162	155
Other liabilities	188	205
Asbestos-related liabilities	577	687
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 185,354,796 and 184,480,646 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,080	3,064
Treasury stock, at cost, 23,017,367 and 23,519,049 shares, respectively	(560)	(573)
Retained loss	(96)	(305)
Accumulated other comprehensive loss	(2,172)	(2,017)
Total share owners' equity of the Company	254	171
Noncontrolling interests	109	108
Total share owners' equity	363	279
Total liabilities and share owners' equity	$ 9,135	$ 9,421

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Earnings (Loss)	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total Share Owners' Equity
Balance on January 1, 2014	$ 2	$ 3,040	$ (454)	$ (604)	$ (1,121)	$ 147	$ 1,010
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.2 million shares)			6				6
Treasury shares purchased (1.1 million shares)			(32)				(32)
Stock compensation		21					21
Net earnings				164		28	192
Other comprehensive income (loss)					(373)	(21)	(394)
Distributions to noncontrolling interests						(37)	(37)
Balance on December 31, 2014	2	3,066	(480)	(440)	(1,494)	117	771
Issuance of common stock (0.2 million shares)		1					1
Reissuance of common stock (0.3 million shares)			7				7
Treasury shares purchased (4.1 million shares)			(100)				(100)
Stock compensation		15					15
Net earnings				135		23	158
Other comprehensive income (loss)					(523)	(16)	(539)
Distributions to noncontrolling interests						(22)	(22)
Acquisitions of noncontrolling interests		(18)				6	(12)
Balance on December 31, 2015	2	3,064	(573)	(305)	(2,017)	108	279
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.1 million shares)			13				13

Stock compensation		11					11
Net earnings				209		21	230
Other comprehensive income (loss)					(155)	(4)	(159)
Distributions to noncontrolling interests						(16)	(16)
Balance on December 31, 2016	$ 2	$ 3,080	$ (560)	$ (96)	$ (2,172)	$ 109	$ 363

See accompanying Notes to the Consolidated Financial Statements.

Table of Contents

Owens-Illinois, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2016	2015	2014
Operating activities:			
Net earnings	$ 230	$ 158	$ 192
Loss from discontinued operations	7	4	23
Non-cash charges (credits):			
Depreciation	375	323	335
Amortization of intangibles and other deferred items	103	86	83
Amortization of finance fees and debt discount	13	15	30
Deferred tax provision (benefit)	(4)	12	(18)
Pension expense	31	31	43
Restructuring, asset impairment and related charges	98	63	76
Pension settlement charges	98		65
Impairment of equity investment	25		
Gain on China land sale	(71)		
Non-income tax charge			69
Asbestos-related costs		16	46
Acquisition-related fair value inventory adjustments		22	
Acquisition-related fair value intangible adjustments		10	
Pension contributions	(38)	(17)	(28)
Asbestos-related payments	(125)	(138)	(148)
Cash paid for restructuring activities	(24)	(38)	(58)
Change in components of working capital	90	88	117
Other	(50)	(23)	(129)
Cash provided by continuing operating activities	758	612	698
Cash utilized in discontinued operating activities	(7)	(4)	(23)
Total cash provided by operating activities	751	608	675
Investing activities:			
Additions to property, plant and equipment	(454)	(402)	(369)
Acquisitions, net of cash acquired	(56)	(2,351)	(114)
Net cash proceeds related to sale of assets and other	85	1	19
Net foreign exchange derivative activity	8	4	
Net activity for non-controlling partner loans			9
Cash utilized in investing activities	(417)	(2,748)	(455)
Financing activities:			
Additions to long-term debt	1,235	4,538	1,247
Repayments of long-term debt	(1,453)	(2,321)	(1,101)
Increase (decrease) in short-term loans	10	51	(139)
Payment of finance fees	(9)	(90)	(11)
Distributions paid to noncontrolling interests	(16)	(22)	(37)
Treasury shares purchased		(100)	(32)
Issuance of common stock and other	5	1	3
Cash provided by (utilized in) financing activities	(228)	2,057	(70)

Effect of exchange rate fluctuations on cash	(13)	(30)	(21)
Increase (decrease) in cash	93	(113)	129
Cash and cash equivalents at beginning of period	399	512	383
Cash and cash equivalents at end of period	$ 492	$ 399	$ 512

See accompanying Notes to the Consolidated Financial Statements.

53

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Tabular data dollars in millions, except per share amounts

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable   Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts   The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation   Inventories are valued at the lower of average costs or market.

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from forward exchange contracts not designated as hedges are classified as an investing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

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

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company has started an implementation process, including a review of customer contracts, to evaluate the effect this standard will have on its consolidated financial statements and related disclosures. At this time, the Company does not expect that the implementation of this standard in 2018 will have a significant impact on the timing in which it recognizes revenue. While the Company continues to assess the potential impacts of the new standard, the Company does not currently expect the adoption of the new standard to have a material impact on consolidated net income or the consolidated balance sheet. The Company plans to select the modified retrospective transition method upon adoption effective January 1, 2018.

Leases - In February 2016, the FASB issued ASU No. 2016-02, "Leases". Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. The standard also requires a lessee to recognize a single lease cost allocated over the lease term, generally on a straight-line basis. The new guidance is effective for the Company on January 1, 2019. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date and provides for certain practical expedients. Early adoption is permitted. The Company is currently evaluating the effects that the adoption of ASU No. 2016-02 will have on the Company's consolidated financial statements, and anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As further described in Note 16, Operating Leases, as of December 31, 2016, the Company had minimum lease commitments under non-cancellable operating leases totaling $205 million.

Credit Losses - In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

Stock Compensation - In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting,” which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. Application of the standard is required for the Company on January 1, 2017. The Company does not expect a significant impact in its Consolidated Financial Statements.

Pension Asset Value - In May 2015, the FASB issued ASU No. 2015-07, “Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent).” Under the new guidance, investments measured at net asset value (“NAV”), as a practical expedient for fair value, are excluded from the fair value hierarchy. Removing investments measured using the practical expedient from the fair value hierarchy is intended to eliminate the diversity in practice that currently exists with respect to the categorization of these investments. The new guidance is effective for the Company on January 1, 2016. The guidance impacted the presentation of certain pension related assets that use NAV as a practical expedient. See Note 9 for additional information.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company’s acquisition (the “Vitro Acquisition”) of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the “Vitro Business”) on September 1, 2015 (see Note 19), the Company has renamed the former South America segment to the Latin America segment. These four segments are aligned with the Company’s internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company’s measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company’s management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company’s reportable segments is as follows:

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794

North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Retained corporate costs and other	(98)	(70)	(100)
Charge for asbestos-related costs		(16)	(46)
Restructuring, asset impairment and other charges	(129)	(80)	(91)
Pension settlement charges	(98)		(65)
Gain on China land sale	71		
Strategic transaction costs		(23)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Interest expense, net	(272)	(251)	(230)
Earnings from continuing operations before income taxes	$ 356	$ 268	$ 307

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consoli-dated Totals
Total assets:							
2016	$ 2,792	$ 2,522	$ 2,537	$ 926	$ 8,777	$ 358	$ 9,135
2015	2,902	2,500	2,807	917	9,126	295	9,421
2014	3,214	1,971	1,300	1,018	7,503	340	7,843
Equity investments:							
2016	$ 78	$ 21	$ —	$ 117	$ 216	$ 217	$ 433
2015	78	22		145	245	164	409
2014	81	24		153	258	169	427
Equity earnings:							
2016	$ 15	$ 12	$ —	$ 4	$ 31	$ 29	$ 60
2015	16	19		7	42	18	60
2014	19	17		4	40	24	64
Capital expenditures:							
2016	$ 163	$ 108	$ 123	$ 59	$ 453	$ 1	$ 454
2015	164	97	89	50	400	2	402
2014	188	89	55	34	366	3	369
Depreciation and amortization expense:							
2016	$ 118	$ 139	$ 173	$ 37	$ 467	$ 11	$ 478
2015	120	128	107	40	395	14	409
2014	140	131	79	53	403	15	418

The Company’s net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 749	$ 2,131	$ 2,880
2015	736	2,225	2,961
2014	713	1,732	2,445

The Company’s net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 2,124	$ 4,578	$ 6,702
2015	1,939	4,217	6,156
2014	1,852	4,932	6,784

Intercompany sales in Latin America totaled $195 million, $101 million and $0 for the years ended December 31, 2016, 2015, and 2014, respectively.

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015 — 10%, 2014 — 11%).

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

3. Inventories

Major classes of inventory are as follows:

	2016	2015
Finished goods	$ 827	$ 858
Raw materials	118	113
Operating supplies	38	36
	$ 983	$ 1,007

4. Equity Investments

At December 31, 2016 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL ("COV")	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2016	2015	2014
Equity in earnings:			
Non-U.S.	$ 19	$ 23	$ 23
U.S.	41	37	41
Total	$ 60	$ 60	$ 64
Dividends received	$ 38	$ 53	$ 54

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2016	2015
At end of year:		
Current assets	$ 451	$ 430
Non-current assets	1,025	959
Total assets	1,476	1,389

Current liabilities	200	203
Other liabilities and deferred items	368	211
Total liabilities and deferred items	568	414
Net assets	$ 908	$ 975

For the year:	2016	2015	2014
Net sales	$ 755	$ 719	$ 752
Gross profit	$ 182	$ 193	$ 198
Net earnings	$ 134	$ 139	$ 150

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2016, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

The Company made purchases of approximately $176 million and $161 million from equity affiliates in 2016 and 2015, respectively, and owed approximately $76 million and $66 million to equity affiliates as of December 31, 2016 and 2015, respectively.

There is a difference of approximately $12 million as of December 31, 2016, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2016, 2015 and 2014 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2014	$ 1,044	$ 734	$ 276	$ 5	$ 2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisition related adjustments		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	840	1,020	624	5	2,489
Acquisition related adjustments		15	26		41
Translation effects	(32)	3	(39)		(68)
Balance as of December 31, 2016	$ 808	$ 1,038	$ 611	$ 5	$ 2,462

The acquisition related adjustments in 2016 and 2015 primarily relate to the Vitro Acquisition (see Note 19).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2016, 2015 and 2014.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 19).

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $464 million and $597 million for the years ended December 31, 2016 and

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

2015, respectively. Amortization expense for intangible assets was $39 million, $21 million and $1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Estimated amortization related to intangible assets through 2021 is as follows: 2017, $44 million; 2018, $44 million; 2019, $42 million; 2020, $41 million; and 2021, $39 million. No impairment existed on these assets at December 31, 2016.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets at December 31, 2016 and 2015 are as follows:

	2016	2015
Prepaid expenses	$ 50	$ 52
Value added taxes	46	195
Other	103	119
	$ 199	$ 366

Other assets (noncurrent) consist of the following at December 31, 2016 and 2015:

	2016	2015
Deferred tax assets	$ 185	$ 177
Deferred returnable packaging costs	115	110
Repair part inventories	107	118
Capitalized software	85	86
Value added taxes	22	17
Deferred finance fees	5	6
Other	83	85
	$ 602	$ 599

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $13 million, $19 million and $17 million for 2016, 2015 and 2014, respectively. Estimated amortization related to capitalized software through 2021 is as follows: 2017, $14 million; 2018, $14 million; 2019, $13 million; 2020, $12 million; and 2021, $11 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016 and 2015, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs and 7,300,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2016 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized gain of $6 million at December 31, 2016 and an unrecognized loss of $4 million at December 31, 2015 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2016 and 2015 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2016	2015	2014	2016	2015	2014
$ 7	$ (4)	$ 3	$ —	$ (1)	$ 2

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2016 and 2015, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $490 million and $790 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2016	2015	2014
Other expense, net	$ 6	$ 10	$ (8)

63

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2016 and 2015:

	Fair Value Balance Sheet Location	2016	2015
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	b	$ 6	$ —
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	$ 9	$ 14
Total asset derivatives		$ 15	$ 14
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ —	$ 3
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	c	5	2
Total liability derivatives		$ 5	$ 5

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

In 2011, the Company initiated the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0, $0, and $1 million for the years ended 2016, 2015 and 2014, respectively for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company recorded total cumulative charges of $127 million and does not expect to execute any further actions under this program.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $4 million, $5 million and $73 million for the years ended 2016, 2015 and 2014, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company recorded total cumulative charges of $224 million and does not expect to execute any further actions under this program.

Other Restructuring Actions

In 2016, the Company recorded charges of $94 million for other restructuring actions. These charges primarily represented employee costs, write-down of assets, and other exit costs of $64 million for plant closures in Latin America, Europe, and North America and $30 million related to other restructuring actions. The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2015 through December 31, 2015:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2015	$ 12	$ 12	$ 36	$ 60
Charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)

Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

Table of Contents

Owens Illinois, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Tabular data dollars in millions, except per share amounts

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2016 through December 31, 2016:

Other