Owens Corning
Form 10-K
February 08, 2017
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
þ 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
r TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number: 1-33100
Owens Corning
(Exact name of registrant as specified in its charter)

| | |
|---|---|
| Delaware | 43-2109021 |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |
| One Owens Corning Parkway, Toledo, OH | 43659 |
| (Address of principal executive offices) | (Zip Code) |

(419) 248-8000
(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Name of each exchange on which registered |
|---|---|
| Common Stock, par value $0.01 per share | 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 þ No r
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes r No þ
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 þ No r
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 þ No r
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. r
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 definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):
Large accelerated filer þ Accelerated filer r Non-accelerated filer r Smaller reporting company r

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

On June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of $0.01 par value common stock (the voting stock of the registrant) held by non-affiliates (assuming for purposes of this computation only that the registrant had no affiliates) was approximately $5,917,854,524.

As of January 31, 2017, 112,389,347 shares of the registrant's common stock, par value $0.01 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Owens Corning's proxy statement to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held on or about April 20, 2017 (the "2017 Proxy Statement") are incorporated by reference into Part III hereof.

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PART I

ITEM 1. BUSINESS

OVERVIEW

Owens Corning was founded in 1938. Since then, the Company has continued to grow as a market-leading innovator of glass fiber technology. Owens Corning is a world leader in composite and building materials systems, delivering a broad range of high-quality products and services. Our products range from glass fiber used to reinforce composite materials for transportation, electronics, marine, infrastructure, wind-energy and other high-performance markets to insulation and roofing for residential, commercial and industrial applications.

Unless the context indicates otherwise, the terms “Owens Corning,” “Company,” “we” and “our” in this report refer to Owens Corning and its subsidiaries. References to a particular year mean the Company’s year commencing on January 1 and ending on December 31 of that year.

SEGMENT OVERVIEW

The Company has three reporting segments: Composites, Insulation and Roofing. Our Composites, Insulation and Roofing reportable segments accounted for approximately 33%, 30% and 37% of our total reportable segment net sales, respectively, in 2016.

Note 2 to the Consolidated Financial Statements contains information regarding net sales to external customers and total assets attributable to each of Owens Corning’s reportable segments and geographic regions, earnings before interest and taxes for each of Owens Corning’s reportable segments, and information concerning the dependence of our reportable segments on foreign operations, for each of the years 2016, 2015 and 2014.

Composites

Owens Corning glass fiber materials can be found in over 40,000 end-use applications within five primary markets: building and construction, transportation, consumer, industrial, and power and energy. Such end-use applications include pipe, roofing shingles, sporting goods, consumer electronics, telecommunications cables, boats, aviation, defense, automotive, industrial containers and wind-energy. Our products are manufactured and sold worldwide. We primarily sell our products directly to parts molders and fabricators. Within the building and construction market, our Composites segment sells glass fiber and/or glass mat directly to a small number of major shingle manufacturers, including our own Roofing segment.

Our Composites segment includes vertically integrated downstream activities. The Company manufactures, fabricates and sells glass reinforcements in the form of fiber. Glass reinforcement materials are also used downstream by the Composites segment to manufacture and sell glass fiber products in the form of fabrics, non-wovens and other specialized products.

Demand for composites is driven by general global economic activity and, more specifically, by the increasing replacement of traditional materials such as aluminum, wood and steel with composites that offer lighter weight, improved strength, lack of conductivity and corrosion resistance. We estimate that over the last 30 years, on average, annual global demand for composite materials grew at about 1.6 times global industrial production growth.

We compete with composite manufacturers worldwide. According to various industry reports and Company estimates, our Composites segment is a world leader in the production of glass fiber reinforcement materials. Primary methods of competition include innovation, quality, customer service and global geographic reach. For our commodity products, price is also a method of competition. Significant competitors to the Composites segment include China Jushi Group Co., Ltd., Chongqing Polycom International Corporation Ltd ("CPIC"), Johns Manville, Nippon Electric Glass Co. Ltd. ("NEG"), PPG Industries and Taishan Glass Fiber Co., Ltd.

Typically, our composites plants run continuously throughout the year, and we warehouse much of our production prior to sale since we operate primarily with short delivery cycles.

Insulation

Our insulating products help customers conserve energy, provide improved acoustical performance and offer convenience of installation and use, making them a preferred insulating product for new home construction and

remodeling. These products include thermal and acoustical batts, loosefill insulation, foam sheathing and accessories, and are sold under well-recognized brand names and trademarks such as Owens Corning PINK® FIBERGLAS™ Insulation. Our Insulation segment also manufactures and sells glass fiber pipe insulation, energy efficient flexible duct media, bonded and granulated mineral fiber

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insulation and foam insulation used in above- and below-grade construction applications. We sell our insulation products primarily to insulation installers, home centers, lumberyards, retailers and distributors in the United States and Canada.

Demand for Owens Corning's insulating products is driven by new residential construction, remodeling and repair activity, commercial and industrial construction activity, increasingly stringent building codes and the growing need for energy efficiency. Sales in this segment typically follow seasonal home improvement, remodeling and renovation and new construction industry patterns. Demand for new residential construction typically follows housing starts on a three-month lagged basis, although the new residential construction cycle can elongate due to labor availability and other factors beyond our control. The peak season for home construction and remodeling in our geographic markets generally corresponds with the second and third calendar quarters and, therefore, our sales levels are typically higher during the second half of the year.

Our Insulation segment competes primarily with manufacturers in the United States. According to various industry reports and Company estimates, Owens Corning is North America's largest producer of residential, commercial and industrial insulation, and the second-largest producer of extruded polystyrene foam insulation. Principal methods of competition include innovation and product design, service, location, quality, price and compatibility of systems solutions. Significant competitors in this segment include CertainTeed Corporation, Dow Chemical, Johns Manville, and Knauf Insulation.

Our Insulation segment includes a diverse portfolio with a geographic mix of United States, Canada, Asia-Pacific, and Latin America, a market mix of residential, commercial, industrial and other markets, and a channel mix of retail, contractor and distribution.

Working capital practices for this segment historically have followed a seasonal cycle. Typically, our insulation plants run continuously throughout the year. This production plan, along with the seasonal nature of the segment, generally results in higher finished goods inventory balances in the first half of the year. Since sales increase during the second half of the year, our accounts receivable balances are typically higher during this period.

Roofing

Our primary products in the Roofing segment are laminate and strip asphalt roofing shingles. Other products include oxidized asphalt, roofing components and synthetic packaging materials. We have been able to meet the growing demand for longer lasting, aesthetically attractive laminate products with modest capital investment.

We sell shingles and roofing components primarily through home centers, lumberyards, retailers, distributors and contractors in the United States. Our synthetic packaging materials are used primarily in the construction industry for lumber and metal packaging. Oxidized asphalt is a significant input used in the production of our asphalt roofing shingles. We are vertically integrated and have manufacturing facilities that process asphalt for use in our roofing shingles manufacturing process. In addition, we sell asphalt to other shingle manufacturers, to roofing contractors for built-up roofing asphalt systems and to manufacturers in a variety of other industries, including automotive, chemical, rubber and construction. Asphalt input costs and third-party asphalt sales prices are correlated to crude oil prices. As a result, third-party asphalt sales are largely a cost-plus business.

Demand for products in our Roofing segment is generally driven by both residential repair and remodeling activity and by new residential construction. Roofing damage from major storms can significantly increase demand in this segment. As a result, sales in this segment do not always follow seasonal home improvement, remodeling and new construction industry patterns as closely as our Insulation segment.

Our Roofing segment competes primarily with manufacturers in the United States. According to various industry reports and Company estimates, Owens Corning's Roofing segment is the second largest producer of asphalt roofing shingles in the United States. Principal methods of competition include innovation and product design, proximity to customers, quality and price. Significant competitors in the Roofing segment include CertainTeed Corporation, GAF and TAMKO.

Our manufacturing operations are generally continuous in nature, and we warehouse much of our production prior to sale since we operate with relatively short delivery cycles. One of the raw materials important to this segment is sourced from a sole supplier. We have a long-term supply contract for this material, and have no reason to believe that any availability issues will exist. If this supply was to become unavailable, our production could be interrupted until such time as the supplies again became available or the Company reformulated its products. Additionally, the supply of asphalt, another significant raw material in this segment, has been constricted at times. Although this has not caused an interruption of our production in the past, prolonged asphalt shortages would restrict our ability to produce products in this segment.

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ITEM 1. BUSINESS (continued)

GENERAL

Major Customers

No one customer accounted for more than 10% of our consolidated net sales for 2016, 2015 or 2014. A significant portion of the net sales in our Insulation and Roofing segments are generated from large United States home improvement retailers.

Intellectual Property

The Company relies on a combination of intellectual property laws, as well as confidentiality procedures and contractual provisions, to protect our intellectual property, proprietary technology and our brands. Through continuous and extensive use of the color PINK since 1956, Owens Corning became the first owner of a single color trademark registration. In addition to our Owens Corning and PINK brands, the Company has registered, and applied for the registration of, U.S. and international trademarks, service marks, and domain names. Additionally, the Company has filed U.S. and international patent applications, including numerous issued patents, covering certain of our proprietary technology resulting from research and development efforts. Over time, the Company has assembled a portfolio of intellectual property rights including patents, trademarks, service marks, copyrights, domain names, know-how and trade secrets covering our products, services and manufacturing processes. Our proprietary technology is not dependent on any single or group of intellectual property rights and the Company does not expect the expiration of existing intellectual property to have a material adverse affect on the business as a whole. The Company believes the duration of our patents is adequate relative to the expected lives of our products. Although the Company protects its intellectual property and proprietary technology, any significant impairment of, or third-party claim against, our intellectual property rights could harm our business or our ability to compete.

Backlog

Our customer volume commitments are generally short-term, and the Company does not have a significant backlog of orders.

Research and Development

The Company’s research and development expense during each of the last three years is presented in the table below (in millions):

| Period | Research and Development Expense |
|---|---|
| Twelve Months Ended December 31, 2016 | $ 82 |
| Twelve Months Ended December 31, 2015 | $ 73 |
| Twelve Months Ended December 31, 2014 | $ 76 |

Environmental Control

Owens Corning has established policies and procedures to ensure that its operations are conducted in compliance with all relevant laws and regulations and that enable the Company to meet its high standards for corporate sustainability and environmental stewardship. Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and protection of the environment, including emissions to air, discharges to water, management of hazardous materials, handling and disposal of solid wastes, and remediation of contaminated sites. All Company manufacturing facilities operate using an ISO 14001 or equivalent environmental management system. The Company’s 2020 Sustainability Goals require significant global reductions in energy use, water consumption, waste to landfill, emissions of greenhouse gases, fine particulate matter and toxic air emissions. The Company is dedicated to continuous improvement in our environmental, health and safety performance and to achieving its 2020 Sustainability goals.

The Company has not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations. Operating costs associated with environmental compliance were approximately $29 million in 2016. The Company continues to invest in equipment and process modifications to remain in compliance with applicable environmental laws and regulations worldwide.

Our manufacturing facilities are subject to numerous national, state and local environmental protection laws and regulations. Regulatory activities of particular importance to our operations include those addressing air pollution, water pollution, waste disposal and chemical control. The Company expects passage and implementation of new laws and regulations specifically

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addressing climate change, toxic air emissions, ozone forming emissions and fine particulate matter during the next two to five years. New air pollution regulations could impact our ability to expand production or construct new facilities in certain regions of North America. However, based on information known to the Company, including the nature of our manufacturing operations and associated air emissions, at this time we do not expect any of these new laws, regulations or activities to have a material adverse effect on our results of current operations, financial condition or long-term liquidity.

Owens Corning is involved in remedial response activities and is responsible for environmental remediation at a number of sites, including certain of its currently owned or formerly owned plants. These responsibilities arise under a number of laws, including, but not limited to, the Federal Resource Conservation and Recovery Act (RCRA), and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The Company has also been named a potentially responsible party under the United States Federal Superfund law, or state equivalents, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. At the end of 2016, the Company was involved with a total of 19 sites worldwide, including 7 Superfund sites and 12 owned or formerly owned sites. None of the liabilities for these sites are individually significant to the Company.

Remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). A number of factors affect the cost of environmental remediation, including the number of parties involved in a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, variability in clean-up standards, the need for legal action, and changes in remediation technology. Taking these factors into account, Owens Corning has predicted the costs of remediation reasonably estimated to be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the reasonable estimates of these costs when it is probable that a liability has been incurred. Actual cost may differ from these estimates for the reasons mentioned above. At December 31, 2016, the Company had an accrual totaling $4 million for these costs. Changes in required remediation procedures or timing of those procedures at existing legacy sites, or discovery of contamination at additional sites, could result in material increases to the Company’s environmental obligations.

Number of Employees

As of December 31, 2016, Owens Corning had approximately 16,000 employees. Approximately 6,000 of such employees are subject to collective bargaining agreements. The Company believes that its relations with employees are good.

AVAILABILITY OF INFORMATION

Owens Corning makes available, free of charge, through its website the Company’s Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission. These documents are available through the Investor Relations page of the Company’s website at www.owenscorning.com.

ITEM 1A. RISK FACTORS

RISKS RELATED TO OUR BUSINESS AND OUR INDUSTRY

Low levels of residential or commercial construction activity can have a material adverse impact on our business and results of operations.

A large portion of our products are used in the markets for residential and commercial construction, repair and improvement, and demand for certain of our products is affected in part by the level of new residential construction in the United States, although typically not until a number of months after the change in the level of construction. Lower demand in the regions and markets where our products are sold could result in lower revenues and lower profitability. Historically, construction activity has been cyclical and is influenced by prevailing economic conditions, including the level of interest rates and availability of financing, inflation, employment levels, consumer spending habits, consumer confidence and other macroeconomic factors outside our control.

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ITEM 1A. RISK FACTORS (continued)

We face significant competition in the markets we serve and we may not be able to compete successfully.
All of the markets we serve are highly competitive. We compete with manufacturers and distributors, both within and outside the United States, in the sale of building products and composite products. Some of our competitors may have superior financial, technical, marketing and other resources than we do. In some cases, we face competition from manufacturers in countries able to produce similar products at lower costs. We also face competition from the introduction by competitors of new products or technologies that may address our customers' needs in a better manner, whether based on considerations of pricing, usability, effectiveness, sustainability, quality or other features or benefits. If we are not able to successfully commercialize our innovation efforts, we may lose market share. Price competition or overcapacity may limit our ability to raise prices for our products when necessary, may force us to reduce prices and may also result in reduced levels of demand for our products and cause us to lose market share. In addition, in order to effectively compete, we must continue to develop new products that meet changing consumer preferences and successfully develop, manufacture and market these new products. Our inability to effectively compete could result in the loss of customers and reduce the sales of our products, which could have a material adverse impact on our business, financial condition and results of operations.
Our sales may fall rapidly in response to declines in demand because we do not operate under long-term volume agreements to supply our customers and because of customer concentration in certain segments.
Many of our customer volume commitments are short-term; therefore, we do not have a significant manufacturing backlog. As a result, we do not benefit from the hedge provided by long-term volume contracts against downturns in customer demand and sales. Further, we are not able to immediately adjust our costs in response to declines in sales. In addition, although no single customer represents more than 10% of our annual sales, our ability to sell some of the products in Insulation and Roofing are dependent on a limited number of customers, who account for a significant portion of such sales. The loss of key customers for these products, a consolidation of key customers or a significant reduction in sales to those customers, could significantly reduce our revenues from these products. In addition, if key customers experience financial pressure or consolidate, they could attempt to demand more favorable contractual terms, which would place additional pressure on our margins and cash flows. Lower demand for our products, loss of key customers and material changes to contractual terms could materially and adversely impact our business, financial condition and results of operations.
Worldwide economic conditions and credit tightening could have a material adverse impact on the Company.
The Company's business may be materially and adversely impacted by changes in United States or global economic conditions, including global industrial production rates, inflation, deflation, interest rates, availability of capital, consumer spending rates, energy availability and commodity prices, trade laws, and the effects of governmental initiatives to manage economic conditions. Changes in and/or new laws, regulations and policies that may be enacted by the new U.S. presidential administration and Congress could also materially impact economic conditions and the Company's business and results of operations. Volatility in financial markets and the deterioration of national and global economic conditions could materially adversely impact the Company's operations, financial results and/or liquidity including as follows:

- the financial stability of our customers or suppliers may be compromised, which could result in reduced demand for our products, additional bad debts for the Company or non-performance by suppliers;
- one or more of the financial institutions syndicated under the credit agreement governing our revolving credit facility may cease to be able to fulfill their funding obligations, which could materially adversely impact our liquidity;
- it may become more costly or difficult to obtain financing or refinance the Company's debt in the future;
- the value of the Company's assets held in pension plans may decline; and/or
- the Company's assets may be impaired or subject to write-down or write-off.

Uncertainty about global economic conditions may cause consumers of our products to postpone spending in response to tighter credit, negative financial news and/or declines in income or asset values. This could have a material adverse impact on the demand for our products and on our financial condition and operating results. A deterioration of economic conditions would likely exacerbate these adverse effects and could result in a wide-ranging and prolonged

impact on general business conditions, thereby negatively impacting our operations, financial results and/or liquidity.

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ITEM 1A. RISK FACTORS (continued)

Our level of indebtedness could adversely impact our business, financial condition or results of operations.

Our debt level and degree of leverage could have important consequences, including the following:

- our ability to obtain additional debt or equity financing for working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes may be limited;
- a substantial portion of our cash flow from operations could be required for the payment of principal and interest on our indebtedness, and may not be available for other business purposes;
- certain of our borrowings are at variable rates of interest, exposing us to the risk of increased interest rates;
- if due to liquidity needs we must replace any indebtedness upon maturity, we would be exposed to the risk that we may not be able to refinance such indebtedness;
- our ability to adjust to changing market conditions may be limited and place us at a competitive disadvantage compared to our competitors that have less debt; and
- we may be vulnerable in a downturn in general economic conditions or in our business, or we may be unable to carry out important capital spending.

In addition, the credit agreement governing our senior credit facility, the indentures governing our senior notes and the receivables purchase agreement governing our receivables securitization facility contain various covenants that impose operating and financial restrictions on us and/or our subsidiaries. Additionally, instruments and agreements governing our future indebtedness may impose other restrictive conditions or covenants that could restrict our ability to conduct our business operations or pursue growth strategies.

Adverse weather conditions and the level of severe storms could have a material adverse impact on our results of operations.

Weather conditions and the level of severe storms can have a significant impact on the markets for residential and commercial construction, repair and improvement, which can in turn impact our business as follows:

- generally, any weather conditions that slow or limit residential or commercial construction activity can adversely impact demand for our products; and
- a portion of our annual product demand is attributable to the repair of damage caused by severe storms. In periods with below average levels of severe storms, demand for such products could be reduced.

Lower demand for our products as a result of either of these scenarios could adversely impact our business, financial condition and results of operations. Additionally, severely low temperatures may lead to significant and immediate spikes in costs of natural gas, electricity and other commodities that could negatively affect our results of operation.

Our operations require substantial capital, leading to high levels of fixed costs that will be incurred regardless of our level of business activity.

Our businesses are capital intensive, and regularly require capital expenditures to expand operations, maintain equipment, increase operating efficiency and comply with applicable laws and regulations, leading to high fixed costs, including depreciation expense. Also, increased regulatory focus could lead to additional or higher costs in the future. We are limited in our ability to reduce fixed costs quickly in response to reduced demand for our products and these fixed costs may not be fully absorbed, resulting in higher average unit costs and lower gross margins if we are not able to offset this higher unit cost with price increases. Alternatively, we may be limited in our ability to quickly respond to unanticipated increased demand for our products, which could result in an inability to satisfy demand for our products and loss of market share.

We may be exposed to increases in costs of energy, materials and transportation or reductions in availability of materials and transportation, which could reduce our margins and have a material adverse impact on our business, financial condition and results of operations.

Our business relies heavily on certain commodities and raw materials used in our manufacturing processes. Additionally, we spend a significant amount on natural gas inputs and services that are influenced by energy prices, such as asphalt, a large number of chemicals and resins and transportation costs. Price increases for these inputs could raise costs and reduce our margins if we are not able to offset them by increasing the prices of our products, improving productivity or hedging where

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appropriate. In particular, energy prices could increase as a result of climate change legislation or other environmental mandates. Availability of certain of the raw materials we use has, from time to time, been limited, and our sourcing of some of these raw materials from a limited number of suppliers, and in some cases a sole supplier, increases the risk of unavailability. For example, one of the raw materials important to our roofing segment is sourced from a sole supplier, and although we have a long-term supply contract for this material, our production could be interrupted until such time as the supplies again became available or we reformulated our products. Despite our contractual supply agreements with many of our suppliers, it is possible that we could experience a lack of certain raw materials which could limit our ability to produce our products, thereby materially and adversely impact our business, financial condition and results of operations.

Our results of operations in a given period may be impacted by price volatility in certain wind-generated energy markets in the United States.

In connection with our sustainability goals to reduce greenhouse gas and toxic air emissions, we have recently entered into contracts in the United States, pursuant to which we have agreed to purchase wind-generated electricity from third parties. Under these contracts, we do not take physical delivery of wind-generated electricity. The generated electricity is instead sold by our counterparties to local grid operators at the prevailing market price and we obtain the associated non-tax renewable energy credits. The prevailing market pricing for wind-generated electricity can be affected by factors beyond our control and is subject to significant period over period volatility. For example, wind-generated energy output fluctuates due to climactic and other factors beyond our control and can be constrained by available transmission capacity, thereby significantly impacting pricing. Due to this potential volatility, it is possible that these contracts could have an impact on our results of operations in a given reporting period.

We are subject to risks relating to our information technology systems, and any failure to adequately protect our critical information technology systems could materially affect our operations.

We rely on information technology systems across our operations, including for management, supply chain and financial information and various other processes and transactions. Our ability to effectively manage our business depends on the security, reliability and capacity of these systems. Information technology system failures, network disruptions or breaches of security could disrupt our operations, causing delays or cancellation of customer orders or impeding the manufacture or shipment of products, processing of transactions or reporting of financial results. An attack or other problem with our systems could also result in the disclosure of proprietary information about our business or confidential information concerning our customers or employees, which could result in significant damage to our business and our reputation.

We have put in place security measures designed to protect against the misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations. However, advanced cyber-security threats, such as computer viruses, attempts to access information, and other security breaches, are persistent and continue to evolve making them increasingly difficult to identify and prevent. Protecting against these threats may require significant resources, and we may not be able to implement measures that will protect against all of the significant risks to our information technology systems. In addition, we rely on a number of third party service providers to execute certain business processes and maintain certain information technology systems and infrastructure, any breach of security on their part could impair our ability to effectively operate. Moreover, our operations in certain geographic locations may be particularly vulnerable to security attacks or other problems. Any breach of our security measures could result in unauthorized access to and misappropriation of our information, corruption of data or disruption of operations or transactions, any of which could have a material adverse effect on our business.

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ITEM 1A. RISK FACTORS (continued)

We are subject to risks associated with our international operations.

We sell products and operate plants throughout the world. Our international sales and operations are subject to risks and uncertainties, including:

- difficulties and costs associated with complying with a wide variety of complex and changing laws, including securities laws, tax laws, employment and pension-related laws, competition laws, U.S. and foreign export and trading laws, and laws governing improper business practices, treaties and regulations;
- limitations on our ability to enforce legal rights and remedies;
- adverse economic and political conditions, business interruption, war and civil disturbance;
- tax inefficiencies and currency exchange controls that may adversely impact our ability to repatriate cash from non-United States subsidiaries;
- the imposition of tariffs or other import or export restrictions;
- costs and availability of shipping and transportation;
- nationalization of properties by foreign governments;
- currency exchange rate fluctuations between the United States dollar and foreign currencies; and
- uncertainty with respect to the new U.S. presidential administration and Congress and potential changes that may be made in laws, regulations and policies that could exacerbate the risks described above.

As we continue to expand our business globally, we may have difficulty anticipating and effectively managing these and other risks that our international operations may face, which may adversely impact our business outside the United States and our business, financial condition and results of operations.

In addition, we operate in many parts of the world that have experienced governmental corruption and we could be adversely affected by violations of the Foreign Corrupt Practices Act (“FCPA”) and similar worldwide anti-corruption laws. The FCPA and similar anti-corruption laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to officials for the purpose of obtaining or retaining business. Although we mandate compliance with these anti-corruption laws and maintain an anti-corruption compliance program, we cannot provide assurance that these measures will necessarily prevent violations of these laws by our employees or agents. If we were found to be liable for violations of anti-corruption laws, we could be liable for criminal or civil penalties or other sanctions, which could have a material adverse impact on our business, financial condition and results of operations.

The Company’s income tax net operating loss carryforwards may be limited and our results of operations may be adversely impacted.

The Company has substantial deferred tax assets related to net operating losses (“NOLs”) for United States federal and state income tax purposes, which the Company expects are available to offset future taxable income. However, the Company’s ability to utilize or realize the current carrying value of the NOLs may be impacted by certain events, such as changes in tax legislation or the interpretation thereof, or insufficient future taxable income prior to expiration of the NOLs or annual limits imposed under Section 382 of the Internal Revenue Code, or by state law, as a result of a change in control. A change in control is generally defined as a cumulative change of 50% or more in the ownership positions of certain stockholders during a rolling three year period. Changes in the ownership positions of certain stockholders could occur as the result of stock transactions by such stockholders and/or by the issuance of stock by the Company. Such limitations may cause the Company to pay income taxes earlier and in greater amounts than would be the case if the NOLs were not subject to such limitations. Additionally, uncertainty exists with respect to tax reform that could potentially be enacted by the new U.S. presidential administration and Congress that could have an impact on the company's NOL.

Should the Company determine that it is likely that its recorded NOL benefits are not realizable, the Company would be required to reduce the NOL tax benefit reflected on its financial statements to the net realizable amount either by a direct adjustment to the NOL tax benefit or by establishing a valuation reserve and recording a corresponding charge to current earnings. The corresponding charge to current earnings would have an adverse effect on the Company’s financial condition and results of operations in the period in which it is recorded. Conversely, if the Company is

required to increase its NOL tax benefit either by a direct adjustment or reversing any portion of the accounting valuation against its deferred tax assets related

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to its NOLs, such credit to current earnings could have a positive effect on the Company's business, financial condition and results of operations in the period in which it is recorded.

Our intellectual property rights may not provide meaningful commercial protection for our products or brands and third parties may assert that we violate their intellectual property rights, which could adversely impact our business, financial condition and results of operations.

Owens Corning relies on its intellectual property, including numerous patents, registered trademarks, trade secrets, confidential information, as well as its licensed intellectual property. We monitor and protect against activities that might infringe, dilute, or otherwise harm our patents, trademarks and other intellectual property and rely on the patent, trademark and other laws of the United States and other countries. However, we may be unable to prevent third parties from using our intellectual property without our authorization. To the extent we cannot protect our intellectual property, unauthorized use and misuse of our intellectual property could harm our competitive position and have a material adverse impact on our business, financial condition and results of operations. In addition, the laws of some non-United States jurisdictions provide less protection for our proprietary rights than the laws of the United States and we therefore may not be able to effectively enforce our intellectual property rights in these jurisdictions. If we are unable to maintain certain exclusive licenses, our brand recognition and sales could be adversely impacted. Current employees, contractors and suppliers have, and former employees, contractors and suppliers may have, access to trade secrets and confidential information regarding our operations which could be disclosed improperly and in breach of contract to our competitors or otherwise used to harm us.

Third parties may also claim that we are infringing upon their intellectual property rights. If we are unable to successfully defend or license such alleged infringing intellectual property or if we are required to substitute similar technology from another source, our operations could be adversely affected. Even if we believe that such intellectual property claims are without merit, defending such claims can be costly, time consuming and require significant resources. Claims of intellectual property infringement also might require us to redesign affected products, pay costly damage awards, or face injunctions prohibiting us from manufacturing, importing, marketing or selling certain of our products. Even if we have agreements to indemnify us, indemnifying parties may be unable or unwilling to do so.

Our hedging activities to address energy price fluctuations may not be successful in offsetting increases in those costs or may reduce or eliminate the benefits of any decreases in those costs.

In order to mitigate short-term variation in our operating results due to commodity price fluctuations, we hedge a portion of our near-term exposure to the cost of energy, primarily natural gas. The results of our hedging practices could be positive, neutral or negative in any period depending on price changes of the hedged exposures.

Our hedging activities are not designed to mitigate long-term commodity price fluctuations and, therefore, will not protect us from long-term commodity price increases. In addition, in the future, our hedging positions may not correlate to our actual energy costs, which would cause acceleration in the recognition of unrealized gains and losses on our hedging positions in our operating results.

Downgrades of our credit ratings could adversely impact us.

Our credit ratings are important to our cost of capital. The major debt rating agencies routinely evaluate our debt based on a number of factors, which include financial strength and business risk as well as transparency with rating agencies and timeliness of financial reporting. A downgrade in our debt rating could result in increased interest and other expenses on our existing variable interest rate debt, and could result in increased interest and other financing expenses on future borrowings. Downgrades in our debt rating could also restrict our access to capital markets and affect the value and marketability of our outstanding notes.

Increases in the cost of labor, union organizing activity, labor disputes and work stoppages at our facilities could delay or impede our production, reduce sales of our products and increase our costs.

The costs of labor are generally increasing, including the costs of employee benefit plans. We are subject to the risk that strikes or other types of conflicts with personnel may arise or that we may become the subject of union organizing activity at additional facilities. In particular, renewal of collective bargaining agreements typically involves negotiation, with the potential for work stoppages or increased costs at affected facilities.

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ITEM 1A. RISK FACTORS (continued)

We could face potential product liability and warranty claims, we may not accurately estimate costs related to such claims, and we may not have sufficient insurance coverage available to cover such claims.

Our products are used and have been used in a wide variety of residential and commercial applications. We face an inherent business risk of exposure to product liability or other claims in the event our products are alleged to be defective or that the use of our products is alleged to have resulted in harm to others or to property. We may in the future incur liability if product liability lawsuits against us are successful. Moreover, any such lawsuits, whether or not successful, could result in adverse publicity to us, which could cause our sales to decline.

In addition, consistent with industry practice, we provide warranties on many of our products and we may experience costs of warranty or breach of contract claims if our products have defects in manufacture or design or they do not meet contractual specifications. We estimate our future warranty costs based on historical trends and product sales, but we may fail to accurately estimate those costs and thereby fail to establish adequate warranty reserves for them.

We maintain insurance coverage to protect us against product liability claims, but that coverage may not be adequate to cover all claims that may arise or we may not be able to maintain adequate insurance coverage in the future at an acceptable cost. Any liability not covered by insurance or that exceeds our established reserves could materially and adversely impact our business, financial condition and results of operations.

We may be subject to liability under and may make substantial future expenditures to comply with environmental laws and regulations.

Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and the protection of the environment, including those governing emissions to air, discharges to water, use, storage and transport of hazardous materials, storage, treatment and disposal of waste, remediation of contaminated sites and protection of worker health and safety.

Liability under these laws involves inherent uncertainties. Environmental liability estimates may be affected by changing determinations of what constitutes an environmental exposure or an acceptable level of cleanup. For example, remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). “Please see Item 7 - Management Discussion and Analysis - Environmental Controls” for information on costs and accruals related to environmental remediation. To the extent that the required remediation procedures or timing of those procedures change, additional contamination is identified, or the financial condition of other potentially responsible parties is adversely affected, the estimate of our environmental liabilities may change. Change in required remediation procedures or timing of those procedures at existing legacy sites, or discovery of contamination at additional sites, could result in increases to our environmental obligations. Violations of environmental, health and safety laws are subject to civil, and, in some cases, criminal sanctions. As a result of these uncertainties, we may incur unexpected interruptions to operations, fines, penalties or other reductions in income which could adversely impact our business, financial condition and results of operations. In addition, the Company expects passage and implementation of new laws and regulations specifically addressing climate change, toxic air emissions, ozone forming emissions and fine particulate matter during the next two to five years. New air pollution regulations could impact our ability to expand production or construct new facilities in certain regions of North America. Continued and increased government and public emphasis on environmental issues is expected to result in increased future investments for environmental controls at ongoing operations, which will be charged against income from future operations. Present and future environmental laws and regulations applicable to our operations, and changes in their interpretation, may require substantial capital expenditures or may require or cause us to modify or curtail our operations, which may have a material adverse impact on our business, financial condition and results of operations.

We will not be insured against all potential losses and could be seriously harmed by natural disasters, catastrophes or sabotage.

Many of our business activities globally involve substantial investments in manufacturing facilities and many products are produced at a limited number of locations. These facilities could be materially damaged by natural disasters such as floods, tornados, hurricanes and earthquakes or by sabotage. We could incur uninsured losses and liabilities arising from such events, including damage to our reputation, and/or suffer material losses in operational capacity, which could have a material adverse impact on our business, financial condition and results of operations.

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ITEM 1A. RISK FACTORS (continued)

We depend on our senior management team and other skilled and experienced personnel to operate our business effectively, and the loss of any of these individuals or the failure to attract additional personnel could adversely impact our financial condition and results of operations.

We are highly dependent on the skills and experience of our senior management team and other skilled and experienced personnel. These individuals possess sales, marketing, manufacturing, logistical, financial, business strategy and administrative skills that are important to the operation of our business. We cannot assure that we will be able to retain all of our existing senior management personnel. The loss of any of these individuals or an inability to attract additional personnel could prevent us from implementing our business strategy and could adversely impact our business and our future financial condition or results of operations.

We are subject to various legal and regulatory proceedings, including litigation in the ordinary course of business, and uninsured judgments or a rise in insurance premiums may adversely impact our business, financial condition and results of operations.

In the ordinary course of business, we are subject to various legal and regulatory proceedings, which may include but are not limited to those involving antitrust, tax, environmental, intellectual property and other matters, including general commercial litigation. Any claims raised in legal and regulatory proceedings, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. Additionally, the outcome of legal and regulatory proceedings may differ from our expectations because the outcomes of these proceedings are often difficult to predict reliably. Various factors and developments can lead to changes in our estimates of liabilities and related insurance receivables, where applicable, or may require us to make additional estimates, including new or modified estimates that may be appropriate due to a judicial ruling or judgment, a settlement, regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could have a material adverse effect on our results of operations in any particular period.

In accordance with customary practice, we maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse impact on our business, financial condition and results of operations.

If our efforts in acquiring and integrating other businesses, establishing joint ventures or expanding our production capacity are not successful, our business may not grow.

We have historically grown our business through acquisitions, joint ventures and the expansion of our production capacity. Our ability to grow our business through these investments depends upon our ability to identify, negotiate and finance suitable arrangements. If we cannot successfully execute on our investments on a timely basis, we may be unable to generate sufficient revenue to offset acquisition, integration or expansion costs, we may incur costs in excess of what we anticipate, and our expectations of future results of operations, including cost savings and synergies, may not be achieved. Acquisitions, joint ventures and production capacity expansions involve substantial risks, including:

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- unforeseen difficulties in operations, technologies, products, services, accounting and personnel;
- diversion of financial and management resources from existing operations;
- unforeseen difficulties related to entering geographic regions, markets or product lines where we do not have prior experience;
- risks relating to obtaining sufficient public or private financing;
- difficulty in integrating the acquired business' standards, processes, procedures and controls with our existing operations;
- potential loss of key employees;
- potential loss of customers; and
- undisclosed or undiscovered liabilities or claims.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of such acquisitions or investments, incur unanticipated liabilities, and harm our business generally. Future acquisitions and investments could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, or amortization expenses, or write-offs of goodwill, any of which could have a material adverse impact on our business, financial condition and results of operations. Also, the anticipated benefits of our investments may not materialize.

Our ongoing efforts to increase productivity and reduce costs may not result in anticipated savings in operating costs.

Our cost reduction and productivity efforts, including those related to our existing operations, production capacity expansions and new manufacturing platforms, may not produce anticipated results. Our ability to achieve cost savings and other benefits within expected time frames is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our business, financial condition and results of operations could be adversely impacted.

Significant changes in the factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could have a negative impact on our financial condition or liquidity.

We have certain defined benefit pension plans and other post-employment benefit ("OPEB") plans. Our future funding requirements for defined benefit pension and OPEB plans depend upon a number of factors and assumptions, including our actual experience against assumptions with regard to interest rates used to determine funding levels; return on plan assets; benefit levels; participant experience (e.g., mortality and retirement rates); health care cost trends; and applicable regulatory changes. To the extent actual results are less favorable than our assumptions, there could be a material adverse impact on our financial condition and results of operations.

Additional risks exist due to the nature and magnitude of our investments, including the implementation of or changes to the investment policy, insufficient market capacity to absorb a particular investment strategy or high volume transactions, and the inability to quickly rebalance illiquid and long-term investments.

As of December 31, 2016 and 2015, our U.S. and worldwide defined benefit pension plans were underfunded by a total of $363 million and $392 million, respectively, and OPEB obligations were underfunded by $225 million and $243 million, respectively. If our cash flows and capital resources are insufficient to fund our pension or OPEB obligations, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or restructure or refinance our indebtedness.

If we were required to write down all or part of our goodwill or other indefinite-lived intangible assets, our results of operations or financial condition could be materially adversely affected in a particular period.

Declines in the Company's business may result in an impairment of the Company's tangible and intangible assets which could result in a material non-cash charge. A significant or prolonged decrease in the Company's market capitalization, including a decline in stock price, or a negative long-term performance outlook, could result in an impairment of its tangible and intangible

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assets which results when the carrying value of the Company's assets exceed their fair value. At least annually, the Company assesses goodwill and intangible assets for impairment. Since the Company utilizes a discounted cash flow methodology to calculate the fair value of its reporting units, weak demand for a specific product line or business could result in an impairment. Accordingly, any determination requiring the write-off of a significant portion of goodwill or intangible assets could negatively impact the Company's results of operations.

RISKS RELATED TO OWNERSHIP OF OUR COMMON STOCK

The market price of our common stock is subject to volatility.

The market price of our common stock could be subject to wide fluctuations in response to numerous factors, many of which are beyond our control. These factors include actual or anticipated variations in our operational results and cash flow, our earnings relative to our competition, changes in financial estimates by securities analysts, trading volume, sales by holders of large amounts of our common stock, short selling, market conditions within the industries in which we operate, seasonality of our business operations, the general state of the securities markets and the market for stocks of companies in our industry, governmental legislation or regulation and currency and exchange rate fluctuations, as well as general economic and market conditions, such as recessions.

We are a holding company with no operations of our own and depend on our subsidiaries for cash.

As a holding company, most of our assets are held by our direct and indirect subsidiaries and we will primarily rely on dividends and other payments or distributions from our subsidiaries to meet our debt service and other obligations and to enable us to pay dividends. The ability of our subsidiaries to pay dividends or make other payments or distributions to us will depend on their respective operating results and may be restricted by, among other things, the laws of their jurisdiction of organization (which may limit the amount of funds available for the payment of dividends or other payments), agreements of those subsidiaries, agreements with any co-investors in non-wholly-owned subsidiaries, the terms of our credit facility and senior notes and the covenants of any future indebtedness we or our subsidiaries may incur.

Provisions in our amended and restated certificate of incorporation and bylaws or Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and therefore depress the trading price of our common stock.

Our amended and restated certificate of incorporation and bylaws contain provisions that could depress the trading price of our common stock through provisions that may discourage, delay or prevent a change in control of our Company or changes in our management that our stockholders may deem advantageous.

Additionally, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder and which may discourage, delay or prevent a change in control of our company.

Dividends on our common stock are declared at the discretion of our Board of Directors.

Since February 2014, the Board has declared a quarterly dividend on our common stock. The payment of any future cash dividends to our stockholders is not guaranteed and will depend on decisions that will be made by our Board of Directors and will depend on then existing conditions, including our operating results, financial conditions, contractual restrictions, corporate law restrictions, capital agreements, applicable laws of the State of Delaware and business prospects.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

Composites

Our Composites segment operates out of 29 manufacturing facilities. We began operations in our recently constructed Gastonia, North Carolina facility in 2016. Earlier in 2016, we announced plans to expand our operations in India, and we expect this new capacity to be available in 2018. Principal manufacturing facilities for our Composites segment, all of which are owned by the Company, include the following:

| | |
|---|---|
| Aiken, South Carolina | Jackson, Tennessee |
| Amarillo, Texas | Kimchon, Korea |
| Anderson, South Carolina | L'Ardoise, France |
| Besana, Italy | Rio Claro, Brazil |
| Chambery, France | Taloja, India |
| Gastonia, North Carolina | Tlaxcala, Mexico |
| Gous, Russia | Yuhang, China |

Insulation

Our Insulation segment operates out of 29 manufacturing facilities. We are still constructing our Joplin, Missouri facility, and we expect this new capacity to be available later in 2017. Principal manufacturing facilities for our Insulation segment, all of which are owned by the Company, include the following:

| | |
|---|---|
| Delmar, New York | Newark, Ohio |
| Edmonton, Alberta, Canada | Rockford, Illinois |
| Fairburn, Georgia | Santa Clara, California |
| Guangzhou, Guandong, China | Tallmadge, Ohio |
| Kansas City, Kansas | Toronto, Ontario, Canada |
| Mexico City, Mexico | Wabash, Indiana |
| Mt. Vernon, Ohio | Waxahachie, Texas |

Roofing

Our Roofing segment operates out of 35 total manufacturing facilities. This number separately counts many roofing and asphalt manufacturing facilities that are located at the same site. Principal manufacturing facilities for our Roofing segment, all of which are owned by the Company, include the following:

| | |
|---|---|
| Brookville, Indiana | Medina, Ohio |
| Compton, California | Minneapolis, Minnesota |
| Denver, Colorado | Portland, Oregon |
| Irving, Texas | Qingdao, China |
| Jacksonville, Florida | Silvassa, India |
| Kearny, New Jersey | Summit, Illinois |

We believe that these properties are in good condition and well maintained, and are suitable and adequate to carry on our business. The capacity of each plant varies depending upon product mix.

Our principal executive offices are located in the Owens Corning World Headquarters, Toledo, Ohio, an owned facility of approximately 400,000 square feet.

Our research and development activities are primarily conducted at our Science and Technology Center, located on approximately 500 acres of land owned by the Company outside of Granville, Ohio. It consists of approximately 20 structures totaling more than 650,000 square feet. In addition, we have application development and other product and market focused research and development centers in various locations.

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ITEM 3. LEGAL PROCEEDINGS

The Company is involved in legal and regulatory proceedings from time to time in the regular course of its business. The Company believes that adequate provisions for resolution of all contingencies, claims and pending litigation have been made for probable losses that are reasonably estimable. The Company does not believe that the ultimate outcome of these actions will have a material adverse effect on its financial condition, but could have a material adverse effect on its results of operations, cash flows, or liquidity in a given quarter or year.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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EXECUTIVE OFFICERS OF OWENS CORNING

The name, age and business experience during the past five years of Owens Corning's executive officers as of January 1, 2017 are set forth below. Each executive officer holds office until his or her successor is elected and qualified or until his or her earlier resignation, retirement or removal. All those listed have been employees of Owens Corning during the past five years except as indicated.

| Name and Age | Position* |
|---|---|
| Brian D. Chambers (50) | President, Roofing and Asphalt since October 2014; formerly Vice President and General Manager, Roofing and Asphalt (2013); Vice President and Managing Director, Composites Solutions Business (2011). |
| Julian Francis (50) | President, Insulation Business since October 2014; formerly Vice President and General Manager, Residential Insulation (2012); Vice President and General Manager, Glass Reinforcements (2011). |
| Arnaud Genis (52) | Group President, Composite Solutions since December 2010. |
| Ava Harter (47) | Senior Vice President, General Counsel and Secretary since May 2015; formerly General Counsel, Chief Compliance Officer and Corporate Secretary, Taleris America LLC, an operating service provider to airlines and cargo carriers (2012). |
| Michael C. McMurray (51) | Senior Vice President and Chief Financial Officer since August 2012; formerly Vice President Finance, Building Materials Group (2011). |
| Kelly J. Schmidt (51) | Vice President, Controller since April 2011. |
| Daniel T. Smith (51) | Senior Vice President, Organization and Administration since November 2014; formerly Senior Vice President, Information Technology and Human Resources (2009). |
| Michael H. Thaman (52) | President and Chief Executive Officer since December 2007 and Chairman of the Board since April 2002; Director since 2002. |

* Information in parentheses indicates year during the past five years in which service in position began. The last item listed for each individual represents the position held by such individual at the beginning of the five-year period.

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Part II

## ITEM 5. MARKET FOR OWENS CORNING'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Owens Corning's common stock trades on the New York Stock Exchange under the symbol "OC." The following table sets forth the high and low sales prices per share of, and dividends declared on, Owens Corning common stock for each quarter from January 1, 2015 through December 31, 2016:

| Period | High | Low | Declared Dividend |
|---|---|---|---|
| First Quarter 2015 | $43.67 | $34.73 | $ 0.17 |
| Second Quarter 2015 | $45.70 | $37.29 | $ 0.17 |
| Third Quarter 2015 | $47.90 | $38.95 | $ 0.17 |
| Fourth Quarter 2015 | $48.50 | $41.59 | $ 0.17 |
| First Quarter 2016 | $47.78 | $38.96 | $ 0.18 |
| Second Quarter 2016 | $52.52 | $45.46 | $ 0.18 |
| Third Quarter 2016 | $58.69 | $50.33 | $ 0.18 |
| Fourth Quarter 2016 | $56.12 | $46.45 | $ 0.20 |

Holders of Common Stock

The number of stockholders of record of Owens Corning's common stock on January 31, 2017 was 475.

Cash Dividends

The payment of any future cash dividends to our stockholders will depend on decisions that will be made by our Board of Directors and will depend on then existing conditions, including our operating results, financial conditions, contractual restrictions, corporate law restrictions, capital agreements, applicable laws of the State of Delaware and business prospects.

Under the credit agreement applicable to our senior revolving credit facility, the Company may not declare a cash dividend if a default or event of default exists or would come to exist at the time of declaration or if a dividend declaration violates the provisions of our formation documents or other material agreements.

The Company's subsidiaries are subject to certain restrictions on their ability to pay dividends under the agreements governing our senior revolving credit facility and our receivables securitization facility.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

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ITEM 5. MARKET FOR OWENS CORNING'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES (continued)

Issuer Purchases of Equity Securities

The following table provides information about Owens Corning's purchases of its common stock during the three months ended December 31, 2016:

| Period | Total Number of Shares (or Units) Purchased | | Average Price Paid per Share (or Unit) | Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs** | Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs** |
|---|---|---|---|---|---|
| October 1-31, 2016 | 631,447 | | $ 51.89 | 630,000 | 10,552,565 |
| November 1-30, 2016 | 501,314 | | 49.79 | 500,000 | 10,052,565 |
| December 1-31, 2016 | 220,000 | | 52.50 | 220,000 | 9,832,565 |
| Total | 1,352,761 | * | $ 51.21 | 1,350,000 | 9,832,565 |

* The Company retained 1,447, 1,314, and 0 shares surrendered to satisfy tax withholding obligations in connection with the vesting of restricted shares granted to our employees in October, November and December, respectively.

** On October 24, 2016, the Board of Directors approved a share buy-back program under which the Company is authorized to repurchase up to 10 million shares of Owens Corning's outstanding common stock (the "2016 Repurchase Authorization"). The 2016 Repurchase Authorization is in addition to the share buy-back program announced April 19, 2012 (the 2012 Repurchase Authorization and collectively with the 2016 Repurchase Authorization, the "Repurchase Authorization"). The Repurchase Authorization enables the Company to repurchase shares through open market, privately negotiated, or other transactions. The timing and actual number of shares repurchased will depend on market conditions and other factors and will be at the Company's discretion.

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ITEM 5. MARKET FOR OWENS CORNING'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES (continued)

Performance Graph

The annual changes for the five-year period shown in the graph on this page are based on the assumption that $100 had been invested in Owens Corning stock ("OC"), the Standard & Poor's 500 Stock Index ("S&P 500") and the Dow Jones U.S. Building Materials & Fixtures Index ("DJ Bld. Mat.") on December 31, 2011, and that all quarterly dividends were reinvested. The total cumulative dollar returns shown on the graph represent the value that such investments would have had on December 31, 2016.

Performance Graph

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| OC | $100 | $129 | $142 | $127 | $169 | $188 |
| S&P 500 | $100 | $116 | $154 | $175 | $177 | $198 |
| DJ Bld. Mat. | $100 | $152 | $195 | $216 | $247 | $292 |

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ITEM 6. SELECTED FINANCIAL DATA

| | Twelve Months Ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2016(a) | 2015(b) | 2014(c)(f) | 2013(d)(f) | 2012(e)(f) |
| | (in millions, except per share amounts) | | | | |
| Statement of Earnings (Loss) Data | | | | | |
| Net sales | $5,677 | $5,350 | $ 5,260 | $ 5,295 | $ 5,172 |
| Gross margin | $1,381 | $1,153 | $ 976 | $ 966 | $ 797 |
| Marketing and administrative expenses | $584 | $525 | $ 487 | $ 530 | $ 509 |
| Earnings before interest and taxes | $699 | $548 | $ 392 | $ 385 | $ 148 |
| Interest expense, net | $108 | $100 | $ 114 | $ 112 | $ 114 |
| Loss (gain) on extinguishment of debt | $1 | $(5) | $ 46 | $ — | $ 74 |
| Income tax expense (benefit) | $188 | $120 | $ 5 | $ 68 | $ (28) |
| Net earnings (loss) | $399 | $334 | $ 228 | $ 205 | $ (16) |
| Net earnings (loss) attributable to Owens Corning | $393 | $330 | $ 226 | $ 204 | $ (19) |
| Earnings (loss) per common share attributable to Owens Corning common stockholders | | | | | |
| Basic | $3.44 | $2.82 | $ 1.92 | $ 1.73 | $ (0.16) |
| Diluted | $3.41 | $2.79 | $ 1.91 | $ 1.71 | $ (0.16) |
| Dividend | $0.74 | $0.68 | $ 0.64 | $ — | $ — |
| Weighted-average common shares | | | | | |
| Basic | 114.4 | 117.2 | 117.5 | 118.2 | 119.4 |
| Diluted | 115.4 | 118.2 | 118.3 | 119.1 | 119.4 |
| Balance Sheet Data | | | | | |
| Total assets | $7,741 | $7,326 | $ 7,483 | $ 7,572 | $ 7,491 |
| Long-term debt, net of current portion | $2,099 | $1,702 | $ 1,978 | $ 2,012 | $ 2,064 |
| Total equity | $3,889 | $3,779 | $ 3,730 | $ 3,830 | $ 3,575 |

(a) During 2016, the Company recorded $28 million of restructuring costs, comprised of $19 million of accelerated depreciation, $6 million of facility-related charges and $3 million of personnel-related charges. In connection with our previously announced acquisitions, mainly InterWrap Holdings, Inc. ("InterWrap"), we recognized $9 million of acquisition-related costs and a $10 million charge related to inventory fair value step-up.

(b) During 2015, the Company recorded $2 million of charges related to cost reduction actions and related items. This was comprised of a $(6) million benefit in charges related to cost reduction actions, mainly due to changes in severance estimates and pension-related adjustments, and $8 million in other related charges, inclusive of $3 million in accelerated depreciation and $5 million in other related charges.

(c) During 2014, the Company recorded $36 million of charges related to cost reduction actions and related items, comprised of $34 million of severance costs, $3 million of contract termination costs, and $(1) million of other related gains. There was also a gain of $45 million related to the sale of the Hangzhou, China facility, a $20 million loss related to the sale of the European Stone Business, $3 million related to the impairment loss on Alcala, Spain facility, and $6 million related to Hurricane Sandy costs.

(d) During 2013, the Company recorded $26 million of charges related to cost reduction actions and related items (comprised of $8 million of severance costs and $18 million of other costs, inclusive of $9 million of accelerated depreciation and $9 million in other related charges). There was also $20 million in accelerated depreciation related to a change in the useful life of assets and a $15 million net gain related to Hurricane Sandy insurance activity.

(e)

During 2012, the Company recorded $136 million of charges related to cost reduction actions and related items (comprised of $51 million of severance costs and $85 million of other costs, inclusive of $55 million of accelerated depreciation and $30 million in other related charges). There was also $9 million in losses related to Hurricane Sandy insurance activity.

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ITEM 6. SELECTED FINANCIAL DATA (continued)

(f) As discussed in Note 1 of the Consolidated Financial Statements, we revised the December 31, 2015 Consolidated Balance Sheet to correct an error in which certain Value Added Tax balances were inappropriately reported gross versus net. Accordingly, we have also revised the previously reported figures here by decreasing Total assets for 2014, 2013 and 2012 by $59 million, $63 million and $65 million, respectively. These revisions were not material to any previously issued financial statements.

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

This Management's Discussion and Analysis ("MD&A") is intended to help investors understand Owens Corning, our operations and our present business environment. MD&A is provided as a supplement to, and should be read in conjunction with, our Consolidated Financial Statements and the accompanying Notes thereto contained in this report. Unless the context requires otherwise, the terms "Owens Corning," "Company," "we" and "our" in this report refer to Owens Corning and its subsidiaries.

### GENERAL

Owens Corning is a leading global producer of glass fiber reinforcements and other materials for composites and of residential and commercial building materials. The Company has three reporting segments: Composites, Insulation and Roofing. Through these lines of business, the Company manufactures and sells products worldwide maintaining leading market positions in many of its major product categories.

### EXECUTIVE OVERVIEW

Net earnings attributable to Owens Corning were $393 million in 2016 compared to $330 million in 2015. The Company reported $699 million in earnings before interest and taxes ("EBIT") in 2016 compared to $548 million in 2015. The Company generated $746 million in adjusted earnings before interest and taxes ("Adjusted EBIT") in 2016 compared to $550 million in 2015. See the Adjusted Earnings Before Interest and Taxes paragraph of MD&A for further information regarding EBIT and Adjusted EBIT, including the reconciliation to net earnings attributable to Owens Corning. Segment EBIT performance compared to 2015 increased $220 million in our Roofing segment, increased $32 million in our Composites segment and decreased $34 million in our Insulation segment. Within our Corporate, Other and Eliminations category, General corporate expenses and other increased by $22 million.

In our Roofing segment, EBIT in 2016 was $486 million compared to $266 million in 2015 driven primarily by higher sales volumes and asphalt cost deflation. In our Composites segment, EBIT in 2016 was $264 million compared to $232 million in 2015 as higher sales volumes and higher selling prices were partially offset by increased furnace rebuild and startup costs. In our Insulation segment, EBIT in 2016 was $126 million compared to $160 million in 2015 primarily due to the negative impact of lower sales and production volumes.

In 2016, the Company generated $943 million in cash flow from operating activities compared to $742 million in 2015. This improvement was primarily due to increased net earnings and the cash tax benefit provided by our net operating loss carryforwards.

On April 21, 2016, the Company acquired all outstanding shares of InterWrap, a leading manufacturer of roofing underlayment and packaging materials, for approximately $452 million, net of cash acquired. This acquisition will expand the Company's position in roofing components, strengthen the Company's capabilities to support the conversion from organic to synthetic underlayment and accelerate its growth in the roofing components market. InterWrap's operating results and a purchase price allocation have been included in the Company's Roofing segment in the Consolidated Financial Statements since the date of the acquisition.

Throughout 2016, the Company had several financing activities leading up to and following the acquisition of InterWrap. The Company issued $400 million of 2026 senior notes in August 2016 with an annual interest rate of 3.40%. The proceeds of these notes were used for general corporate purposes, to fully repay outstanding debt on our Receivables Securitization Facility and to repay all $158 million of outstanding 2016 senior notes through a make whole call redemption. In connection with this redemption, the Company recognized a $1 million loss on extinguishment of debt. During the third quarter of 2016, the remaining proceeds were used, along with borrowings on the Receivables Securitization Facility, to repay the $300 million term loan (the "Term Loan"), that was drawn in the second quarter of 2016. The Term Loan was used, along with borrowings on the Receivables Securitization Facility, to fund the acquisition of InterWrap.

In October 2016, the Board of Directors approved a repurchase authorization of 10 million additional shares of the Company's outstanding common stock. In 2016, the Company repurchased 4.8 million shares of the Company’s common stock for $240 million under previously announced repurchase authorizations. As of December 31, 2016, 9.8 million shares remain available for repurchase under the Repurchase Authorization.

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

RESULTS OF OPERATIONS

Consolidated Results (in millions)

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Net sales | $5,677 | $5,350 | $5,260 |
| Gross margin | $1,381 | $1,153 | $976 |
| % of net sales | 24 % | 22 % | 19 % |
| Marketing and administrative expenses | $584 | $525 | $487 |
| Earnings before interest and taxes | $699 | $548 | $392 |
| Interest expense, net | $108 | $100 | $114 |
| Loss (gain) on extinguishment of debt | $1 | $(5) | $46 |
| Income tax expense | $188 | $120 | $5 |
| Net earnings attributable to Owens Corning | $393 | $330 | $226 |

The Consolidated Results discussion below provides a summary of our results and the trends affecting our business, and should be read in conjunction with the more detailed Segment Results discussion that follows.

NET SALES

2016 Compared to 2015: Net sales increased by $327 million in 2016 as compared to 2015. The increase in net sales was driven by higher sales volumes in our Roofing and Composites segments and the impact of the InterWrap acquisition. This increase was partially offset by lower sales volumes in our Insulation segment and the negative impact of translating sales denominated in foreign currencies into U.S. dollars, primarily in our Composites and Insulation segments.

2015 Compared to 2014: Net sales increased by $90 million in 2015 as compared to 2014. Higher sales volumes across all three segments drove the increase in sales. This increase was partially offset by the negative impact of translating sales denominated in foreign currencies into U.S. dollars, primarily in our Composites and Insulation segments.

GROSS MARGIN

2016 Compared to 2015: Gross margin as a percentage of net sales in 2016 increased about two percentage points compared to 2015. The $228 million improvement was primarily driven by our Roofing segment's higher sales volumes and the benefit of lower input costs, primarily asphalt. The negative impact of production curtailments in our Insulation segment and restructuring and acquisition-related costs were largely offset by the gross margin contribution from the InterWrap acquisition.

2015 Compared to 2014: Gross margin as a percentage of net sales in 2015 increased about three percentage points compared to 2014, or $177 million. The improvement was driven by higher sales volumes in all three business segments and the benefit of lower input costs, primarily asphalt, in our Roofing segment.

RESTRUCTURING AND ACQUISITION-RELATED COSTS

The Company has incurred restructuring, transaction and integration costs related to acquisitions, along with restructuring costs in connection with its global cost reduction and productivity initiatives. These costs are recorded in the Corporate, Other and Eliminations category. Please refer to Notes 7 and 11 of the Consolidated Financial Statements for further information on the nature of these costs.

During the fourth quarter of 2016, the Company took actions to reduce costs in our Insulation segment, mainly through the decision to permanently exit an idle residential fiberglass insulation facility in Canada and shut down foam insulation facilities in Brazil and India.

Following the acquisition of InterWrap by the Company's Roofing segment, the Company took actions in 2016 to realize expected synergies from the newly acquired operations.

During 2014, the Company took actions to reduce costs throughout our global Composites network, mainly through the decision to close a facility in Japan and optimize a facility in Canada, in addition to other cost reduction actions. The Company

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

also took actions in 2014 to streamline its management structure and reduce costs, resulting in the elimination of the Building Materials Group organizational structure. We recorded trailing costs for these actions in 2015 and 2016. The following table presents the impact and respective location of these income (expense) items on the Consolidated Statements of Earnings (in millions):

| | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|
| | Location | 2016 | 2015 | 2014 |
| Restructuring costs | Cost of sales | $(25) | $(10) | $(3) |
| Restructuring costs | Other expenses, net | (3) | 8 | (33) |
| Acquisition-related costs for InterWrap and Ahlstrom transactions | Marketing and administrative expenses | (6) | — | — |
| Acquisition-related costs for Ahlstrom transaction | Other expenses, net | (3) | — | — |
| Recognition of InterWrap inventory fair value step-up | Cost of sales | (10) | — | — |
| Total restructuring, acquisition and integration-related costs | | $(47) | $(2) | $(36) |

MARKETING AND ADMINISTRATIVE EXPENSES

2016 Compared to 2015: Marketing and administrative expenses increased by $59 million in 2016 compared to 2015. The increase was primarily due to higher selling, general and administrative expenses in our Roofing segment (including InterWrap marketing and administrative expenses), higher performance based compensation and acquisition-related costs.

2015 Compared to 2014: Marketing and administrative expenses increased by $38 million in 2015 compared to 2014. The increase was primarily due to higher performance based compensation.

EARNINGS BEFORE INTEREST AND TAXES

2016 Compared to 2015: EBIT increased by $151 million in 2016 compared to 2015. In our Composites segment, EBIT increased by $32 million. In our Insulation segment, EBIT decreased by $34 million. In our Roofing segment, EBIT increased by $220 million. Corporate, Other and Eliminations EBIT losses were $67 million higher year-over-year mainly due to restructuring costs, higher performance-based compensation expenses and acquisition-related expenses.

2015 Compared to 2014: EBIT increased by $156 million in 2015 compared to 2014. In our Composites segment, EBIT increased by $83 million. In our Insulation segment, EBIT increased by $52 million. In our Roofing segment, EBIT increased by $34 million. Corporate EBIT costs during 2015 increased by $13 million compared to 2014, as higher performance-based compensation expenses were offset by lower adjusting items, mainly charges related to cost reduction actions.

INTEREST EXPENSE, NET

2016 Compared to 2015: Interest expense, net in 2016 was $8 million higher than in 2015. The increase was primarily driven by increased long-term debt following the issuance of our 2026 senior notes.

2015 Compared to 2014: Interest expense, net in 2015 was $14 million lower than in 2014. The decrease was driven by reduced interest expense following the refinancing of portions of our Senior Notes due in 2016 and 2019 and lower borrowings on our Senior Revolving Credit Facility and Receivables Securitization Facility.

LOSS (GAIN) ON EXTINGUISHMENT OF DEBT

For the year ended December 31, 2016, the Company recorded a $1 million loss on extinguishment of debt in connection with the redemption of its 2016 senior notes. For the year ended December 31, 2015, the Company recorded a $5 million gain on extinguishment of debt as a result of purchasing its World Headquarters facility, which had previously been classified as a capital lease. For the year ended December 31, 2014, the Company recorded a $46 million loss on extinguishment of debt as a result of refinancing portions of our senior notes due in 2016 and 2019.

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

INCOME TAX EXPENSE

Income tax expense for 2016 was $188 million compared to $120 million in 2015.

The Company's effective tax rate for 2016 was 32% on pre-tax income of $590 million. The difference between the 32% effective tax rate and the U.S. federal statutory tax rate of 35% is primarily attributable to the reversal of valuation allowances recorded in prior years against French and Spanish deferred tax assets, changes in uncertain tax positions and lower foreign tax rates.

Realization of deferred tax assets depends on achieving a certain minimum level of future taxable income. Management currently believes that the minimum level of taxable income will not be met within the next 12 months to reduce the valuation allowances of foreign jurisdictions.

The Company's effective tax rate for 2015 was 27% on pre-tax income of $453 million. The difference between the 27% effective tax rate and the U.S. federal statutory rate of 35% is primarily attributable to tax legislative changes impacting certain Canadian net operating losses and the reversal of a valuation allowance recorded in prior years against Canadian deferred tax assets which cumulatively totaled $27 million, other releases of valuation allowances against deferred tax asses in multiple jurisdictions and lower foreign tax rates.

Adjusted Earnings Before Interest and Taxes ("Adjusted EBIT")

Adjusted EBIT excludes certain items that management does not allocate to our segment results because it believes they are not a result of the Company's current operations. Adjusted EBIT is used internally by the Company for various purposes, including reporting results of operations to the Board of Directors of the Company, analysis of performance and related employee compensation measures. Although management believes that these adjustments result in a measure that provides a useful representation of our operational performance, the adjusted measure should not be considered in isolation or as a substitute for net earnings attributable to Owens Corning as prepared in accordance with accounting principles generally accepted in the United States.

Adjusting items are shown in the table below (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Restructuring costs | $(28) | $(2) | $(36) |
| Acquisition-related costs for InterWrap and Ahlstrom transactions | (9) | — | — |
| Recognition of InterWrap inventory fair value step-up | (10) | — | — |
| Net loss on sale of European Stone Business | — | — | (20) |
| Impairment loss on Alcala, Spain facility held for sale | — | — | (3) |
| Gain on sale of Hangzhou, China facility | — | — | 45 |
| Net loss related to Hurricane Sandy | — | — | (6) |
| Total adjusting items | $(47) | $(2) | $(20) |

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

The reconciliation from net earnings attributable to Owens Corning to EBIT and Adjusted EBIT is shown in the table below (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| NET EARNINGS ATTRIBUTABLE TO OWENS CORNING | $393 | $330 | $226 |
| Less: Net earnings attributable to noncontrolling interests | 6 | 4 | 2 |
| NET EARNINGS | 399 | 334 | 228 |
| Equity in net earnings (loss) of affiliates | (3) | 1 | 1 |
| Income tax expense | 188 | 120 | 5 |
| EARNINGS BEFORE TAXES | 590 | 453 | 232 |
| Interest expense, net | 108 | 100 | 114 |
| Loss (gain) on extinguishment of debt | 1 | (5) | 46 |
| EARNINGS BEFORE INTEREST AND TAXES | 699 | 548 | 392 |
| Less: adjusting items from above | (47) | (2) | (20) |
| ADJUSTED EBIT | $746 | $550 | $412 |

Segment Results

EBIT by segment consists of net sales less related costs and expenses and are presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included in the Corporate, Other and Eliminations category, which is presented following the discussion of our reportable segments.

Composites

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for our Composites segment (in millions):

| | Twelve Months Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2016 | | 2015 | | 2014 | |
| Net sales | $1,952 | | $1,902 | | $1,919 | |
| % change from prior year | 3 | % | -1 | % | 4 | % |
| EBIT | $264 | | $232 | | $149 | |
| EBIT as a % of net sales | 14 | % | 12 | % | 8 | % |
| Depreciation and amortization expense | $138 | | $125 | | $129 | |

NET SALES

2016 Compared to 2015: Net sales in our Composites segment were $50 million higher in 2016 than in 2015. The increase in sales was driven by higher sales volumes of about 6% and higher selling prices of $22 million. These benefits were partially offset by $57 million of unfavorable product mix (mainly related to the prior year's specialty glass sales and higher sales volumes into the roofing market in 2016) and the $22 million negative impact of translating sales denominated in foreign currencies into United States dollars.

2015 Compared to 2014: Net sales in our Composites business were $17 million lower in 2015 than in 2014. The year-over-year negative impact of translating sales denominated in foreign currencies into United States dollars was $182 million. Composites sales volumes grew about 4%, and higher selling prices contributed an additional $32 million to the year-over-year improvement. The remaining $56 million year-over-year improvement was driven by favorable product mix. Product mix was relatively flat in the fourth quarter of 2015 compared to the fourth quarter of 2014 as higher specialty glass sales in the fourth quarter of 2014 were largely offset by fourth quarter 2015 favorable

product mix.

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

EBIT

2016 Compared to 2015: EBIT in our Composites segment was $32 million higher in 2016 than in 2015. The benefit of higher sales volumes was largely offset by $24 million of unfavorable product mix, which was primarily related to the comparison against the prior year's specialty glass sales and the current year's higher sales volumes into the roofing market. Higher furnace rebuild and startup costs of $28 million were offset about equally by input cost deflation and lower manufacturing costs. The remaining change was driven by higher selling prices of $22 million and one-time benefits from our strategic supply alliances.

2015 Compared to 2014: EBIT in our Composites segment was $83 million higher in 2015 than in 2014. Higher selling prices of $32 million and the impact of favorable product mix contributed about equally to the year-over-year improvement. The remaining year-over-year improvement was driven by higher sales volumes, improved manufacturing performance and lower furnace rebuild costs, which were partially offset by the negative impact ($24 million) of translating sales denominated in foreign currencies into United States dollars. Lower selling, general and administrative expenses were offset by comparison to the benefit of the prior year's favorable contract dispute resolution.

OUTLOOK

Global glass reinforcements market demand has historically grown on average with global industrial production and the Company believes this relationship will continue. In 2017, the Company expects moderate global industrial production growth.

Insulation

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Insulation segment (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Net sales | $1,748 | $1,850 | $1,746 |
| % change from prior year | -6 % | 6 % | 6 % |
| EBIT | $126 | $160 | $108 |
| EBIT as a % of net sales | 7 % | 9 % | 6 % |
| Depreciation and amortization expense | $106 | $101 | $101 |

NET SALES

2016 Compared to 2015: In our Insulation segment, 2016 net sales were $102 million lower than in 2015. The decrease was primarily driven by lower sales volumes of about 5%, primarily due to the expiration of contract manufacturing agreements at the beginning of 2016 and a commercial dispute with a large residential insulation installer. Favorable customer mix of $35 million was largely offset by lower selling prices of $33 million. The remaining decrease of $22 million was due to the negative impact of translating sales denominated in foreign currencies into United States dollars.

2015 Compared to 2014: In our Insulation business, 2015 net sales were $104 million higher than in 2014, primarily due to higher sales volumes of about 5% and higher selling prices of $24 million. The $37 million negative impact of translating sales denominated in foreign currencies into United States dollars was partially offset by favorable customer mix.

EBIT

2016 Compared to 2015: In our Insulation segment, EBIT decreased $34 million in 2016 compared to 2015. The change was primarily driven by the $27 million negative impact of lower production volumes. Lower selling prices of $33 million were largely offset by favorable customer mix of $29 million. The $10 million benefit of input cost

deflation was offset by lower sales volumes. The remaining decrease of $4 million was driven by negative foreign currency translation.

2015 Compared to 2014: In our Insulation business, EBIT increased $52 million in 2015 compared to 2014. Higher selling prices of $24 million and higher sales volumes drove substantially all of the year-over-year improvement. The $13 million negative impact of translating sales denominated in foreign currencies into United States dollars was offset about equally by favorable manufacturing performance and input cost deflation. The remaining increase in EBIT was driven by $7 million of favorable customer mix.

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

OUTLOOK

During the fourth quarter of 2016, the average Seasonally Adjusted Annual Rate ("SAAR") of United States housing starts was approximately 1.215 million starts, up from an annual average of approximately 1.135 million starts in the fourth quarter of 2015. While the trend in United States housing starts has generally been positive over the past few years, the timing and pace of recovery of the United States housing market remains uncertain.

The changes to our market share from a second quarter 2016 commercial dispute with a large residential insulation installer (which represented approximately 7% of 2015 Insulation segment net sales) and the related production curtailments could impact revenue growth and EBIT in the first half of 2017.

In the mid-term, the Company expects its Insulation segment to benefit from an overall strengthening of the United States housing market, higher capacity utilization and improved pricing. We believe the geographic, product and channel mix of our portfolio may continue to moderate the impact of any demand-driven variability associated with United States new construction.

Roofing

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Roofing segment (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Net sales | $2,194 | $1,766 | $1,748 |
| % change from prior year | 24 % | 1 % | -11 % |
| EBIT | $486 | $266 | $232 |
| EBIT as a % of net sales | 22 % | 15 % | 13 % |
| Depreciation and amortization expense | $46 | $39 | $39 |

NET SALES

2016 Compared to 2015: In our Roofing segment, net sales were $428 million higher in 2016 than in 2015. Sales volumes increased by about 20%, as higher reroof demand, driven by storm activity, and increased demand from new construction contributed to the growth of the U.S. asphalt shingle market. Our second quarter 2016 acquisition of InterWrap contributed $182 million of net sales. The impact of higher sales volumes and the InterWrap acquisition was partially offset by $51 million each of lower selling prices and lower third-party asphalt sales.

Third-party asphalt sales represent approximately 9% of our 2016 Roofing segment net sales and are largely a cost-plus business. Asphalt input costs and third-party asphalt sales prices are correlated to crude oil prices.

2015 Compared to 2014: In our Roofing business, net sales were $18 million higher in 2015 than in 2014. The increase in net sales was driven by higher sales volumes, partially offset by $114 million of lower selling prices. For the full year, third-party asphalt sales were lower by $48 million, for which $23 million of this change occurred in the fourth quarter of 2015.

EBIT

2016 Compared to 2015: In our Roofing segment, EBIT was $220 million higher in 2016 than in 2015. The increase was primarily driven by higher sales volumes. The asphalt cost deflation benefit of $108 million was partially offset by lower selling prices. Our second quarter 2016 acquisition of InterWrap contributed $40 million in EBIT for the year. Higher selling, general and administrative expenses, primarily driven by increased sales and marketing costs associated with higher sales volumes and higher performance-based compensation, offset less than half of the benefit of the InterWrap acquisition.

2015 Compared to 2014: In our Roofing business, EBIT was $34 million higher in 2015 than in 2014. Lower selling prices of $114 million negatively impacted EBIT. More than half of the remaining increase was driven by higher sales volumes and favorable product mix. The remainder of the change was driven by the $68 million benefit of asphalt cost deflation.

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

OUTLOOK

In our Roofing business, we expect the factors that have driven margins in recent years, such as growth from new construction and reroof demand, to continue to deliver profitability. Uncertainties that may impact our Roofing margins include demand from storm and other weather events, competitive pricing pressure and the cost and availability of raw materials, particularly asphalt.

Corporate, Other and Eliminations

The table below provides a summary of EBIT and depreciation and amortization expense for the Corporate, Other and Eliminations category (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Restructuring costs | $(28) | $(2) | $(36) |
| Acquisition-related costs for InterWrap and Ahlstrom transactions | (9) | — | — |
| Recognition of InterWrap inventory fair value step-up | (10) | — | — |
| Net loss on sale of European Stone Business | — | — | (20) |
| Impairment loss on Alcala, Spain facility held for sale | — | — | (3) |
| Gain on sale of Hangzhou, China facility | — | — | 45 |
| Net loss related to Hurricane Sandy | — | — | (6) |
| General corporate expense and other | (130) | (108) | (77) |
| EBIT | $(177) | $(110) | $(97) |
| Depreciation and amortization | $53 | $35 | $35 |

EBIT

2016 Compared to 2015: In Corporate, Other and Eliminations, EBIT costs in 2016 were $67 million higher compared to 2015, primarily due to restructuring costs and costs related to our previously announced acquisitions. See details of these costs in the table above and further explained in the Restructuring and Acquisition-Related Costs paragraph of MD&A. The $22 million increase in General corporate expense and other was driven about equally by higher performance-based compensation and increased general corporate expenses, partially offset by a $6 million pension-related gain.

Depreciation and amortization in 2016 was $18 million higher than in 2015, primarily due to accelerated depreciation recorded in 2016 in connection with our Insulation restructuring action and post-acquisition restructuring of InterWrap.

2015 Compared to 2014: In Corporate, Other and Eliminations, EBIT costs in 2015 were $13 million higher compared to 2014. The increase was driven by higher general corporate expense and other partially offset by higher adjusting items in the prior year, which are shown in the table above and further explained in the Adjusted Earnings Before Interest and Taxes paragraph of the MD&A. The $31 million increase in General corporate expense and other was primarily due to increased performance-based compensation.

OUTLOOK

In 2017, we expect general corporate expenses to range between $120 million and $130 million.

SAFETY

Working safely is a condition of employment at Owens Corning. The Company believes this organization-wide expectation provides for a safer work environment for employees, improves our manufacturing processes, reduces our

costs and enhances our reputation. Furthermore, striving to be a world-class leader in safety provides a platform for all employees to understand and apply the resolve necessary to be a high-performing, global organization. We measure our progress on safety based on

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

Recordable Incidence Rate ("RIR") as defined by the United States Department of Labor, Bureau of Labor Statistics. For the year ended December 31, 2016, our RIR was 0.50 as compared to 0.52 in the same period a year ago.

LIQUIDITY, CAPITAL RESOURCES AND OTHER RELATED MATTERS

Liquidity

The Company's primary external sources of liquidity are its Senior Revolving Credit Facility and its Receivables Securitization Facility.

The Company has an $800 million Senior Revolving Credit Facility that has been amended from time to time, which matures in November 2020 and permits incremental term loans under the facility of up to $600 million. In March 2016, the Company obtained commitments for $300 million of the $600 million of permitted incremental term loans under the Senior Revolving Credit Facility. As discussed further below, the Company subsequently borrowed $300 million on this commitment in April 2016 and fully repaid the $300 million of borrowings in September 2016. The Company may obtain new commitments for incremental term loans up to $600 million as permitted under the facility. Subsequent amendments did not impact liquidity terms. As of December 31, 2016, the Company had no borrowings on its Senior Revolving Credit Facility, $9 million of outstanding letters of credit, and had $791 million available under this facility.

During the first quarter of 2016, the Company obtained a $300 million Term Loan commitment, as allowed under its existing Senior Revolving Credit Facility. During the second quarter of 2016, the Company borrowed the $300 million available on its Term Loan commitment. The Term Loan was a partially amortizing loan that required quarterly principal repayments, with a balloon repayment due in November 2020 for any outstanding borrowings. These borrowings were used, in addition to borrowings on the Receivables Securitization Facility, to fund the acquisition of InterWrap. Please see Note 7 of the Notes to Consolidated Financial Statements for more information on this acquisition. In the third quarter of 2016, the Company repaid all outstanding borrowings on this Term Loan.

The Company has a $250 million Receivables Securitization Facility which matures in January 2018. As of December 31, 2016, the Company had no borrowings on its Receivables Securitization Facility, $2 million of outstanding letters of credit, and had $248 million available under this facility.

The Company issued $400 million of 2026 senior notes on August 8, 2016 subject to $5 million of discounts and issuance costs. Interest on the notes is payable semiannually in arrears on February 15 and August 15 each year, beginning on February 15, 2017. A portion of the proceeds from these notes were used to redeem $158 million of our 2016 senior notes, together with a $2 million make-whole call payment and $3 million of accrued interest. In connection with the redemption, the Company recognized a $1 million loss on extinguishment of debt, inclusive of the remaining unamortized financing fees, discount and interest rate swap fair value adjustment. The remaining proceeds were used to pay down portions of our Receivables Securitization Facility and for general corporate purposes.

The Company has no significant debt maturities of senior notes before 2019, and our Receivables Securitization Facility matures in 2018. Our As of December 31, 2016, the Company had $2.1 billion of total debt and cash-on-hand of $112 million.

Cash and cash equivalents held by foreign subsidiaries may be subject to U.S. income tax and foreign withholding taxes upon repatriation to the U.S. As of December 31, 2016 and December 31, 2015, the Company had $53 million and $43 million, respectively, in cash and cash equivalents in certain of its foreign subsidiaries. The Company does not provide for U.S. income taxes on the undistributed earnings of its foreign subsidiaries as earnings are reinvested and, in the opinion of management, will continue to be reinvested indefinitely outside of the U.S.

As a holding company, we have no operations of our own and most of our assets are held by our direct and indirect subsidiaries. Dividends and other payments or distributions from our subsidiaries will be used to meet our debt service and other obligations and to enable us to pay dividends to our stockholders. Please refer to page 13 of the Risk Factors disclosed in Item 1A of this Form 10-K for details on the factors that could inhibit our subsidiaries' abilities to pay

dividends or make other distributions to the parent company.

We expect that our cash on hand, coupled with future cash flows from operations and other available sources of liquidity, including our Senior Revolving Credit Facility and Receivables Securitization Facility, will provide ample liquidity to enable us to meet our cash requirements. Our anticipated uses of cash include capital expenditures, working capital needs, pension contributions, meeting

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

financial obligations, payments of quarterly dividends as authorized by our Board of Directors, acquisitions and reducing outstanding amounts under the Senior Revolving Credit Facility and Receivables Securitization Facility. We have outstanding share repurchase authorizations and will evaluate and consider repurchasing shares of our common stock, as well as strategic acquisitions, divestitures, joint ventures and other transactions to create stockholder value and enhance financial performance. Such transactions may require cash expenditures beyond current sources of liquidity or generate proceeds.

The credit agreements applicable to our Senior Revolving Credit Facility and the Receivables Securitization Facility contain various covenants that we believe are usual and customary. The Senior Revolving Credit Facility and the Receivables Securitization Facility each include a maximum allowed leverage ratio and a minimum required interest expense coverage ratio. We were in compliance with these covenants as of December 31, 2016.

Cash flows

The following table presents a summary of our cash balance, cash flows, and availability on credit facilities (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Cash and cash equivalents | $112 | $96 | $67 |
| Cash provided by operating activities | $943 | $742 | $452 |
| Cash used for investing activities | $(815) | $(369) | $(297) |
| Cash used for financing activities | $(88 ) | $(333) | $(142) |
| Availability on the senior revolving credit facility | $791 | $791 | $791 |
| Availability on the receivables securitization facility | $248 | $228 | $56 |

Operating activities: In 2016, the Company generated $943 million of cash from operating activities compared to $742 million in 2015. The change in cash provided by operating activities was primarily due to increased net earnings, partially offset by slightly lower cash provided by changes in operating assets and liabilities. Due to our advantaged tax position from tax net operating loss carrforwards, our cash tax rate is significantly lower than our effective tax rate. As a result, the conversion of our net earnings into operating cash flow benefits from the realization of these deferred tax assets. The year-over-year impact of lower receivables was more than offset by the comparison of a slight inventory reduction in the current year against a large inventory reduction in the prior year. Despite our net sales increase in 2016, our total working capital was relatively in line with the prior year.

Investing activities: The $446 million increase in cash used for investing activities in 2016 compared to 2015 was primarily driven by our $452 million acquisition of InterWrap in the second quarter of 2016.

Financing activities: Cash used for financing activities in 2016 was $88 million compared to $333 million in 2015. During 2016, we obtained $395 million of proceeds from the issuance of 2026 senior notes and paid $160 million to redeem our 2016 senior notes. Higher treasury stock repurchases were partially offset by the comparison to the prior year's net repayments on our Senior Revolving Credit Facility and Receivables Securitization Facility.

2017 Investments

Capital Expenditures: The Company will continue a balanced approach to the use of its cash flows. Operational cash flow will be used to fund the Company's growth and innovation. Capital expenditures in 2017 are expected to be approximately $375 million which is roughly $30 million greater than expected depreciation and amortization. Capital spending in excess of depreciation and amortization is primarily due to the expansion of our Composites operations in India. The Company will also continue to evaluate projects and acquisitions that provide opportunities for growth in our businesses, and invest in them when they meet our strategic and financial criteria.

Tax Net Operating Losses

Upon emergence from bankruptcy and subsequent to the distribution of contingent stock and cash in January 2007, we generated a significant United States federal tax net operating loss of approximately $3.0 billion. As of December 31, 2016 and 2015, our federal tax net operating losses remaining were $1.8 billion and $2.0 billion, respectively. The decrease in U.S. federal tax net operating losses is primarily due to the impact of 2016 estimated taxable income. Our net operating losses are

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subject to the limitations imposed under section 382 of the Internal Revenue Code. These limits are triggered when a change in control occurs, and are computed based upon several variable factors including the share price of the Company's common stock on the date of the change in control. A change in control is generally defined as a cumulative change of 50% or more in the ownership positions of certain stockholders during a rolling three year period. Our initial three year period for measuring an ownership change started at October 31, 2006.

In addition to the United States net operating losses described above, we have net operating losses in various state and foreign jurisdictions which totaled $2.2 billion and $0.5 billion as of December 31, 2016, respectively and $2.3 billion and $0.6 billion as of December 31, 2015, respectively. The state net operating losses decreased from prior year based on our estimate of 2016 taxable income. Foreign net operating losses decreased from prior year as a result of recent tax legislative changes, changes in foreign currency exchange rates and our estimate of 2016 taxable income. The evaluation of the amount of net operating losses expected to be realized necessarily involves forecasting the amount of taxable income that will be generated in future years. In assessing the realizability of our deferred tax assets, we have not relied on any material future tax planning strategies. We have forecasted future results using estimates management believes to be reasonable, which are based on independent evidence such as expected trends resulting from certain leading economic indicators such as global industrial production and new U.S. residential housing starts. In order to fully utilize our net operating losses, we estimate that the Company will need to generate future federal, state and foreign earnings before taxes of approximately $1.9 billion, $2.3 billion and $0.5 billion, respectively. Management believes the Company will generate sufficient future taxable income within the statutory limitations in order to fully realize the carrying value of its U.S. federal net operating losses. As of December 31, 2016, a valuation allowance was established for certain state and foreign jurisdictions' net operating loss carryforwards.

The realization of deferred income tax assets is dependent on future events. Actual results inevitably will vary from management's forecasts. Should we determine that it is likely that our deferred income tax assets are not realizable, we would be required to reduce our deferred tax assets reflected on our Consolidated Financial Statements to the net realizable amount by establishing an accounting valuation allowance and recording a corresponding charge to current earnings. Such adjustments could be material to the financial statements. To date, we have recorded valuation allowances against certain of these deferred tax assets totaling $103 million as of December 31, 2016.

Pension contributions

Please refer to Note 13 of the Consolidated Financial Statements. The Company has several defined benefit pension plans. The Company made cash contributions of $63 million and $60 million to the plans during the twelve months ended December 31, 2016 and 2015, respectively. The Company expects to contribute $59 million in cash to its pension plans during 2017. Actual contributions to the plans may change as a result of a variety of factors, including changes in laws that impact funding requirements. The ultimate cash flow impact to the Company, if any, of the pension plan liability and the timing of any such impact will depend on numerous variables, including future changes in actuarial assumptions, legislative changes to pension funding laws, and market conditions.

Derivatives

Please refer to Note 4 of the Consolidated Financial Statements.

Fair Value Measurement

Please refer to Note 19 of the Consolidated Financial Statements.

OFF-BALANCE-SHEET ARRANGEMENTS

The Company has entered into limited off-balance-sheet arrangements, as defined under Securities and Exchange Commission rules, in the ordinary course of business. The Company does not believe these arrangements will have a material effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of

operations, liquidity, capital expenditures or capital resources.

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

CONTRACTUAL OBLIGATIONS

In the ordinary course of business, the Company enters into contractual obligations to make cash payments to third parties. The Company's known contractual obligations as of December 31, 2016 are as follows (in millions):

| | Payments due by period | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 and Beyond | Total |
| Long-term debt obligations | $— | $— | $144 | $— | $— | $ 1,950 | $2,094 |
| Interest on variable rate debt (1), fixed rate debt, capital lease payments | 113 | 112 | 104 | 97 | 95 | 723 | 1,244 |
| Capital lease obligations | 4 | 4 | 4 | 5 | 5 | 11 | 33 |
| Operating lease obligations | 63 | 50 | 42 | 29 | 22 | 48 | 254 |
| Purchase obligations (2) | 239 | 95 | 56 | 51 | 50 | 104 | 595 |
| Deferred acquisition payments | 2 | 4 | — | — | — | — | 6 |
| Pension contributions (3) | 59 | — | — | — | — | — | 59 |
| Total (4) | $480 | $265 | $350 | $182 | $172 | $ 2,836 | $4,285 |

(1) Interest on variable rate debt is calculated using the weighted-average interest rate in effect as of December 31, 2016 for all future periods.

(2) Purchase obligations are commitments to suppliers to purchase goods or services, and include take-or-pay arrangements, capital expenditures, and contractual commitments to purchase equipment. The Company did not include ordinary course of business purchase orders in this amount as the majority of such purchase orders may be canceled and are reflected in historical operating cash flow trends. The Company does not believe such purchase orders will adversely affect our liquidity position.

(3) Pension contributions include estimated contributions for our defined benefit pension plans. The Company is not presenting estimated payments in the table above beyond 2017 as funding can vary significantly from year to year based upon changes in the fair value of plan assets, funding regulations and actuarial assumptions.

(4) The Company has not included its accounting for uncertainty in income taxes liability in the contractual obligation table as the timing of payment, if any, cannot be reasonably estimated. The balance of this liability at December 31, 2016 was $29 million.

CRITICAL ACCOUNTING ESTIMATES

Our discussion and analysis of our financial condition and results of operations is based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments related to these assets, liabilities, revenues and expenses. We believe these estimates to be reasonable under the circumstances. Management bases its estimates and judgments on historical experience, expected future outcomes, and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The Company believes that the following accounting estimates are critical to our financial results:

Tax Estimates. The determination of our tax provision is complex due to operations in several tax jurisdictions outside the United States. We apply a more-likely-than-not recognition threshold for all tax uncertainties. Such uncertainties

include any claims by the Internal Revenue Service for income taxes, interest, and penalties attributable to audits of open tax years.

In addition, we record a valuation allowance to reduce our deferred tax assets to the amount that we believe is more likely than not to be realized. We estimate future taxable income and the effect of tax planning strategies in our consideration of whether deferred tax assets will more likely than not be realized. In the event we were to determine that we would not be able to realize

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

all or part of our net deferred tax assets in the future, an adjustment to reduce the net deferred tax assets would be charged to earnings in the period such determination was made. Conversely, if we were to determine that we would be able to realize our net deferred tax assets in the future in excess of their currently recorded amount, an adjustment to increase the net deferred tax assets would be credited to earnings in the period such determination was made.

Impairment of Assets. The Company exercises judgment in evaluating assets for impairment. Goodwill and other indefinite-lived intangible assets are tested for impairment annually, or when circumstances arise which indicate there may be an impairment. Long-lived assets are tested for impairment when economic conditions or management decisions indicate an impairment may exist. These tests require comparing recorded values to estimated fair values for the assets under review.

The Company has recorded its goodwill and conducted testing for potential goodwill impairment at a reporting unit level. Our reporting units represent a business for which discrete financial information is available and segment management regularly reviews the operating results. The Company has three reporting units; Composites, Insulation and Roofing. The following table summarizes the segment allocation of recorded goodwill on our Consolidated Balance Sheet (in millions):

| Segment | December 31, 2016 | Percent of Total |
|---|---|---|
| Composites | $ 55 | 4 % |
| Insulation | $ 888 | 67 % |
| Roofing | $ 393 | 29 % |
| Total goodwill | $ 1,336 | 100 % |

Goodwill is an intangible asset that is not subject to amortization; however, annual tests are required to be performed to determine whether impairment exists. Prior to performing the two-step impairment process described in Accounting Standards Codification ("ASC") 350-20, the guidance permits companies to assess qualitative factors to determine if it is more likely than not that a reporting unit's fair value is less than its carrying value. If it is more likely than not that a reporting unit's fair value is greater than its carrying value, then no additional testing is required. If it is more likely than not that a reporting unit's fair value is less than or close to its carrying value then step one of the impairment test must be performed to determine if impairment is required. In 2016, the Company has elected not to perform the qualitative approach, and proceeded in performing a step one analysis.

As part of our quantitative testing process for goodwill, we estimated fair values using a discounted cash flow approach from the perspective of a market participant. Significant estimates in the discounted cash flow approach are cash flow forecasts of our reporting units, the discount rate, the terminal business value and the projected income tax rate. The cash flow forecasts of the reporting units are based upon management's long-term view of our markets and are the forecasts that are used by senior management and the Board of Directors to evaluate operating performance. The discount rate utilized is management's estimate of what the market's weighted average cost of capital is for a company with a similar debt rating and stock volatility, as measured by beta. The projected income tax rates utilized are the statutory tax rates for the countries where each reporting unit operates. The terminal business value is determined by applying a business growth factor to the latest year for which a forecast exists. As part of our goodwill quantitative testing process, the Company evaluates whether there are reasonably likely changes to management's estimates that would have a material impact on the results of the goodwill impairment testing.

Our annual test of goodwill for impairment was conducted as of October 1, 2016. The fair value of each of our reporting units was in excess of its carrying value and thus, no impairment exists. The fair value of all three reporting units substantially exceeded the carrying value as of the date of our assessment.

Other indefinite-lived intangible assets are the Company's trademarks. Fair values used in testing for potential impairment of our trademarks are calculated by applying an estimated market value royalty rate to the forecasted

revenues of the businesses that utilize those assets. The assumed cash flows from this calculation are discounted using the Company's weighted average cost of capital. Our annual test of indefinite-lived intangibles was conducted as of October 1, 2016. The fair value of each of our indefinite-lived intangible assets was in excess of its carrying value and thus, no impairment exists. The fair value of these assets substantially exceeded the carrying value as of the date of our assessment.

Fair values for long-lived asset testing are calculated by estimating the undiscounted cash flows from the use and ultimate disposition of the asset or by estimating the amount that a willing third party would pay. For impairment testing, long-lived assets are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. The Company groups long-lived assets based on manufacturing facilities that produce similar products either globally or within a geographic region. Management tests asset groups for potential impairment whenever events or

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changes in circumstances indicate that the carrying value may not be recoverable. Current market conditions have caused the Company to have idle capacity. We consider such temporary idled capacity to be unimpaired because there has not been a significant change in the forecasted long-term cash flows at the asset group level to indicate that the carrying values may not be recoverable. While management's current strategy is to utilize this capacity to meet expected future demand, any significant decrease in this expectation or change in management's strategy could result in future impairment charges related to this excess capacity. We evaluated and concluded that there are not any reasonably likely changes to management's estimates that would indicate that the carrying value of our long-lived assets is unrecoverable.

In addition, changes in management intentions, market conditions, operating performance and other similar circumstances could affect the assumptions used in these impairment tests. Changes in the assumptions could result in impairment charges that could be material to our Consolidated Financial Statements in any given period.

Pensions and Other Postretirement Benefits, Accounting for pensions and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, extensive use is made of assumptions about investment returns, discount rates, inflation, mortality, turnover, and medical costs. Changes in assumptions used could result in a material impact to our Consolidated Financial Statements in any given period.

Two key assumptions that could have a significant impact on the measurement of pension liabilities and pension expense are the discount rate and the expected return on plan assets. For our largest plan, the United States plan, the discount rate used for the December 31, 2016 measurement date was derived by matching projected benefit payments to bond yields obtained from the Towers Watson's proprietary United States RATE:Link 40-90 pension discount curve developed as of the measurement date. The Towers Watson United States RATE:Link 40-90 pension discount curve is based on certain corporate bonds rated Aa whose weighted average yields lie within the $40^{th}$ to $90^{th}$ percentiles of the bonds considered. Corporate bonds are considered to be AA graded if they receive an AA (or equivalent) rating from either or both of the two primary rating agencies in a given geography. For this purpose, we reference the two agencies with the highest ratings coverage for bonds in each region. Those two agencies are Standard and Poor's and Moody's.

The result supported a discount rate of 3.95% at December 31, 2016 compared to 4.20% at December 31, 2015. A 25 basis point increase (decrease) in the discount rate would decrease (increase) the December 31, 2016 projected benefit obligation for the United States pension plans by approximately $32 million. A 25 basis point increase (decrease) in the discount rate would decrease (increase) 2017 net periodic pension cost by less than $1 million.

The expected return on plan assets in the United States was derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers and plan related and investment related expenses paid from the plan trust. The Company uses the target plan asset allocation because we rebalance our portfolio to target on a quarterly basis. An asset return model was used to develop an expected range of returns on plan investments over a 20 year period, with the expected rate of return selected from a best estimate range within the total range of projected results. This process resulted in the selection of an expected return of 6.75% at the December 31, 2016 measurement date, which is used to determine net periodic pension cost for the year 2017. This assumption is slightly lower than the 7.00% return selected at the December 31, 2015 measurement date. A 25 basis point increase (decrease) in return on plan assets assumption would result in a respective decrease (increase) of 2017 net periodic pension cost by approximately $2 million.

The discount rate for our United States postretirement plan was selected using the same method as described for the pension plan. The result supported a discount rate of 3.80% at December 31, 2016 compared to 4.00% at December 31, 2015. A 25 basis point increase (decrease) in the discount rate would decrease (increase) the United States postretirement benefit obligation by approximately $5 million and decrease (increase) 2017 net periodic postretirement benefit cost by less than $1 million.

The methods corresponding to those described above are used to determine the discount rate and expected return on assets for non-U.S. pension and postretirement plans, to the extent applicable.

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

RECENT ACCOUNTING PRONOUNCEMENTS

Please refer to Note 1 of the Consolidated Financial Statements.

ENVIRONMENTAL MATTERS

Please refer to Note 15 of the Consolidated Financial Statements.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Our disclosures and analysis in this report, including Management's Discussion and Analysis of Financial Condition and Results of Operations, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements present our current forecasts and estimates of future events. These statements do not strictly relate to historical or current results and can be identified by words such as "anticipate," "appear," "assume," "believe," "estimate," "expect," "forecast," "intend," "likely," "may," "plan," "project," "seek," "should," "strategy," "will" and other terms of similar meaning import in connection with any discussion of future operating, financial or other performance. These forward-looking statements are subject to risks, uncertainties and other factors and actual results may differ materially from those results projected in the statements. These risks, uncertainties and other factors include, without limitation:

- relationships with key customers;
- levels of residential and commercial construction activity;
- competitive and pricing factors;
- levels of global industrial production;
- demand for our products;
- industry and economic conditions that affect the market and operating conditions of our customers, suppliers or lenders;
- domestic and international economic and political conditions, including new legislation, policies or other governmental actions by the new U.S. presidential administration and Congress;
- foreign exchange and commodity price fluctuations;
- our level of indebtedness;
- weather conditions;
- availability and cost of credit;
- availability and cost of energy and raw materials;
- issues involving implementation and protection of information technology systems;
- labor disputes;
- legal and regulatory proceedings, including litigation and environmental actions;
- our ability to utilize our net operating loss carryforwards;
- research and development activities and intellectual property protection;
- interest rate movements;
- uninsured losses;
- issues related to acquisitions, divestitures and joint ventures;
- achievement of expected synergies, cost reductions and/or productivity improvements;
- defined benefit plan funding obligations; and
- price volatility in certain wind energy markets in the U.S.

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

All forward-looking statements in this report should be considered in the context of the risks and other factors described above and as detailed from time to time in the Company's filings with the U.S. Securities and Exchange Commission. Any forward-looking statements speak only as of the date the statement is made and we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise except as required by federal securities laws. It is not possible to identify all of the risks, uncertainties and other factors that may affect future results. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results may differ materially from those anticipated or implied in the forward-looking statements. Accordingly, users of this report are cautioned not to place undue reliance on the forward-looking statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is exposed to the impact of changes in foreign currency exchange rates, interest rates and the prices of various commodities used in the normal course of business. To mitigate some of the near-term volatility in our earnings and cash flows, the Company manages certain of our exposures through the use of financial contracts, contracts for physical delivery of a particular commodity, and derivative financial instruments. The Company's objective with these instruments is to reduce exposure to near-term fluctuations in earnings and cash flows. The Company's policy enables the use of foreign currency, interest rate and commodity derivative financial instruments only to the extent necessary to manage exposures as described above. The Company does not enter into such transactions for trading purposes.

A discussion of the Company's accounting policies for derivative financial instruments, as well as the Company's exposure to market risk, is included in the Notes to the Consolidated Financial Statements.

For purposes of disclosing the market risk inherent in its derivative financial instruments the Company uses sensitivity analysis disclosures that express the potential loss in fair values of market rate sensitive instruments resulting from changes in interest rates, foreign currency exchange rates, and commodity prices that assume instantaneous, parallel shifts in exchange rates, interest rate yield curves, and commodity prices. The following analysis provides such quantitative information regarding market risk. There are certain shortcomings inherent in the sensitivity analysis presented, primarily due to the assumption that exchange rates change instantaneously and that interest rates change in a parallel fashion. In addition, the analyses are unable to reflect the complex market reactions that normally would arise from the market shifts modeled.

Foreign Exchange Rate Risk

The Company has transactional foreign currency exposures related to buying, selling, and financing in currencies other than the local currencies in which it operates. The Company enters into various forward contracts, which change in value as foreign currency exchange rates change, to preserve the carrying amount of foreign currency-denominated assets, liabilities, commitments, and certain anticipated foreign currency transactions. Exposures are related to the United States Dollar primarily relative to the Brazilian Real, Chinese Yuan, Indian Rupee, Japanese Yen, and South Korean Won exchange rates. Also, there are additional exposures related to the European Euro primarily versus the British Pound and Russian Ruble. These transactional risks are mitigated through the use of derivative financial instruments and balancing of cash deposits and loans. The net fair value of derivative financial instruments used to limit exposure to foreign currency risk was a liability of $1 million and an asset of less than $1 million as of December 31, 2016 and 2015, respectively. The potential change in fair value at both December 31, 2016 and 2015 for such financial instruments from an increase (decrease) of 10% in quoted foreign currency exchange rates would be an increase (decrease) of approximately $3 million and $3 million, respectively.

We have translation exposure resulting from translating the financial statements of foreign subsidiaries into United States dollars. Our most significant translation exposures are the Canadian Dollar, Chinese Yuan, European Euro, and Indian Rupee in relation to the United States Dollar. The Company has partially hedged the translation exposure for the European Euro through derivative financial instruments. The fair value of these instruments is $10 million as of

December 31, 2016 and December 31, 2015. The potential change in fair value at December 31, 2016 and December 31, 2015 for such financial instruments from an increase (decrease) of 10% in quoted foreign currency exchange rate would be an increase (decrease) of approximately $27 million and $28 million, respectively.

Interest Rate Risk

The Company is subject to market risk from exposure to changes in interest rates due to its financing, investing, and cash management activities. The Company has a Senior Revolving Credit Facility, Receivables Securitization Facility, other floating rate debt and cash and cash equivalents which are exposed to floating interest rates and may impact cash flow. As of December 31, 2016, the Company had no borrowings on its Senior Revolving Credit Facility or its Receivables Securitization

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ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK (continued)

Facility, with the balance of other floating rate debt of less than $1 million. As of December 31, 2015, the Company had no borrowings on its Senior Revolving Credit Facility or its Receivables Securitization Facility, with the balance of other floating rate debt of $6 million. Cash and cash equivalents were $112 million and $96 million at December 31, 2016 and 2015, respectively. A one percentage point increase (decrease) in interest rates at both December 31, 2016 and 2015 would increase (decrease) our annual net interest expense by less than $1 million in both years.

The fair market value of the Company's senior notes are subject to interest rate risk. The following table shows how a one percentage point increase / decrease in interest rates would impact the fair market value of the senior notes:

| | Senior Notes Maturity Year | | | | | |
|---|---|---|---|---|---|---|
| As of December 31, 2016: | 2016 | 2019 | 2022 | 2024 | 2026 | 2036 |
| Increase in interest rates | | | | | | |
| Decrease in fair value | —% | 2 % | 5 % | 6 % | 8 % | 11 % |
| Decrease in interest rates | | | | | | |
| Increase in fair value | —% | 2 % | 5 % | 7 % | 8 % | 12 % |

| | Senior Notes Maturity Year | | | | | |
|---|---|---|---|---|---|---|
| As of December 31, 2015: | 2016 | 2019 | 2022 | 2024 | 2026 | 2036 |
| Increase in interest rates | | | | | | |
| Decrease in fair value | 1 % | 2 % | 6 % | 7 % | —% | 10 % |
| Decrease in interest rates | | | | | | |
| Increase in fair value | 1 % | 5 % | 6 % | 8 % | —% | 12 % |

In 2013, the Company entered into fixed to floating interest rate swaps totaling $100 million, designated as a fair value hedge of the senior notes due in 2022. During the first quarter of 2016, the interest rate swap was terminated. Please see Note 4 to the Consolidated Financial Statements for further detail. A one percentage point increase (decrease) in absolute interest rates at December, 31 2015 would decrease (increase) the fair value of the swaps by $7 million and increase (decrease) annual interest expense by $1 million.

Commodity Price Risk

The Company is exposed to changes in prices of commodities used in its operations, primarily associated with energy, such as natural gas, and raw materials, such as asphalt and polystyrene. The Company enters into cash-settled natural gas swap contracts to protect against changes in natural gas prices that mature within 15 months; however, no financial instruments are currently used to protect against changes in raw material costs. At December 31, 2016 and 2015, the net fair value of such swap contracts was a liability of $5 million and a liability of $6 million, respectively. The potential change in fair value at December 31, 2016 and 2015 resulting from an increase (decrease) of 10% change in the underlying commodity prices would be an increase (decrease) of approximately $3 million and $2 million, respectively. This amount excludes the offsetting impact of the price risk inherent in the physical purchase of the underlying commodities.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Pages 45 through 107 of this filing are incorporated herein by reference.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company maintains (a) disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)), and (b) internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

The Company’s management, with the participation of the Company’s Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company’s disclosure controls and procedures as of the end of the period covered by this report. Based on such evaluation, the Company’s Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company’s disclosure controls and procedures are effective.

On April 21, 2016, the Company completed its acquisition of InterWrap. As a result, the Company's management excluded the operations of InterWrap from its assessment of internal control over financial reporting as of December 31, 2016. InterWrap represented 2% of the Company's consolidated Total assets as of December 31, 2016 and 3% of the Company's consolidated Net sales for the year ended December 31, 2016. SEC guidelines permit companies to omit an acquired entity's internal control over financial reporting from its management assessment during the first year of the acquisition. We plan to fully integrate InterWrap into our internal control over financial reporting in 2017.

A report of the Company’s management on the Company’s internal control over financial reporting is contained on page 46 hereof and is incorporated here by reference. PricewaterhouseCoopers LLP’s report on the effectiveness of internal control over financial reporting is included in the Report of Independent Registered Public Accounting Firm beginning on page 47 hereof.

ITEM 9B. OTHER INFORMATION

None.

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Part III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to directors and corporate governance will be presented in the 2017 Proxy Statement in the sections titled “Information Concerning Directors,” “Governance Information” and “Section 16(a) Beneficial Ownership Reporting Compliance,” and such information is incorporated herein by reference.

Information with respect to executive officers is included herein under Part I, “Executive Officers of Owens Corning.”

Code of Ethics for Senior Financial Officers

Owens Corning has adopted an Ethics Policy for Chief Executive and Senior Financial Officers that applies to our Chief Executive Officer, Chief Financial Officer and Controller. This policy is available on our website (www.owenscorning.com) under “Corporate Governance” located in the "Investing in Owens Corning" section and print copies will be made available free of charge upon request to the Secretary of the Company. To the extent required by applicable SEC rules or New York Stock Exchange listing standards, the Company intends to post any amendments or waivers to the above referenced codes of ethics to our website, under the tab entitled "Corporate Governance".

ITEM 11. EXECUTIVE COMPENSATION

Information regarding executive officer and director compensation will be presented in the 2017 Proxy Statement under the section titled “Executive Compensation,” exclusive of the subsection titled “Compensation Committee Report,” and the section titled “2016 Non-Management Director Compensation,” and such information is incorporated herein by reference.

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

Information regarding security ownership of certain beneficial owners and management and related stockholder matters, as well as equity compensation plan information, will be presented in the 2017 Proxy Statement under the sections titled “Security Ownership of Certain Beneficial Owners and Management” and “Securities Authorized for Issuance Under Equity Compensation Plans,” and such information is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, DIRECTOR INDEPENDENCE

Information regarding certain relationships and related transactions and director independence will be presented in the 2017 Proxy Statement under the sections titled “Certain Transactions with Related Persons,” “Review of Transactions with Related Persons,” “Director Qualifications Standards” and “Director Independence,” and such information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accounting fees and services will be presented in the 2017 Proxy Statement under the sections titled “Principal Accountant Fees and Services,” and such information is incorporated herein by reference.

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Part IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) DOCUMENTS FILED AS PART OF THIS REPORT
1. See Index to Consolidated Financial Statements on page 45 hereof.
2. See Index to Financial Statement Schedules on page 108 hereof.
3. See Exhibit Index beginning on page 110 hereof.
Management contracts and compensatory plans and arrangements required to be filed as an exhibit pursuant to Form 10-K are denoted in the Exhibit Index by an asterisk ("*").

ITEM 16. SUMMARY

None.

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SIGNATURES

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

OWENS CORNING

By /s/ Michael H. Thaman February 8, 2017
Michael H. Thaman,
Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)

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

| | |
|---|---|
| /s/ Michael H. Thaman<br>Michael H. Thaman,<br>Chairman of the Board, President,<br>Chief Executive Officer and Director | February 8, 2017 |
| /s/ Michael C. McMurray<br>Michael C. McMurray,<br>Senior Vice President and<br>Chief Financial Officer | February 8, 2017 |
| /s/ Kelly J. Schmidt<br>Kelly J. Schmidt,<br>Vice President and Controller | February 8, 2017 |
| /s/ Cesar Conde<br>Cesar Conde,<br>Director | February 8, 2017 |
| /s/ J. Brian Ferguson<br>J. Brian Ferguson,<br>Director | February 8, 2017 |
| /s/ Ralph F. Hake<br>Ralph F. Hake,<br>Director | February 8, 2017 |
| /s/ F. Philip Handy<br>F. Philip Handy,<br>Director | February 8, 2017 |
| /s/ Ann Iverson<br>Ann Iverson,<br>Director | February 8, 2017 |
| /s/ Edward F. Lonergan<br>Edward F. Lonergan,<br>Director | February 8, 2017 |

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| | |
|---|---|
| /s/ Maryann T. Mannen<br>Maryann T. Mannen,<br>Director | February 8, 2017 |
| /s/ James J. McMonagle<br>James J. McMonagle,<br>Director | February 8, 2017 |
| /s/ W. Howard Morris<br>W. Howard Morris,<br>Director | February 8, 2017 |
| /s/ Suzanne P. Nimocks<br>Suzanne P. Nimocks,<br>Director | February 8, 2017 |
| /s/ John D. Williams<br>John D. Williams,<br>Director | February 8, 2017 |

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Management’s Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Management has assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2016 based on criteria established in the Internal Control-Integrated Framework in 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

On April 21, 2016, the Company completed its acquisition of InterWrap. As a result, the Company's management excluded the operations of InterWrap from its assessment of internal control over financial reporting as of December 31, 2016. InterWrap represented 2% of the Company's consolidated Total assets as of December 31, 2016 and 3% of the Company's consolidated Net sales for the year ended December 31, 2016. SEC guidelines permit companies to omit an acquired entity's internal control over financial reporting from its management assessment during the first year of the acquisition. We plan to fully integrate InterWrap into our internal control over financial reporting in 2017.

PricewaterhouseCoopers LLP has audited the effectiveness of the internal controls over financial reporting as of December 31, 2016 as stated in their Report of Independent Registered Public Accounting Firm on page 47 hereof.

Based on our assessment, management determined that, as of December 31, 2016, the Company’s internal control over financial reporting was effective.

| | |
|---|---|
| /s/ Michael H. Thaman<br>Michael H. Thaman,<br>President and Chief Executive Officer | February 8, 2017 |
| /s/ Michael C. McMurray<br>Michael C. McMurray,<br>Senior Vice President and Chief Financial Officer | February 8, 2017 |

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Owens Corning:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of earnings, comprehensive earnings (loss), stockholders' equity and cash flows present fairly, in all material respects, the financial position of Owens Corning and its subsidiaries at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in the Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

As described in Management's Report on Internal Control over Financial Reporting, management has excluded the operations of InterWrap (as defined in Note 5) from the Company's assessment of internal control over financial reporting as of December 31, 2016 as it was acquired by the Company in a business combination on April 21, 2016. We have also excluded InterWrap from our audit of internal control over financial reporting. InterWrap represents approximately 2% of consolidated total assets as of December 31, 2016 and 3% of net sales for the year ended December 31, 2016.

/s/ PricewaterhouseCoopers LLP
Toledo, OH
February 8, 2017

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EARNINGS
(in millions, except per share amounts)

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| NET SALES | $5,677 | $5,350 | $5,260 |
| COST OF SALES | 4,296 | 4,197 | 4,284 |
| Gross margin | 1,381 | 1,153 | 976 |
| OPERATING EXPENSES | | | |
| Marketing and administrative expenses | 584 | 525 | 487 |
| Science and technology expenses | 82 | 73 | 76 |
| Other expenses, net | 16 | 7 | 21 |
| Total operating expenses | 682 | 605 | 584 |
| EARNINGS BEFORE INTEREST AND TAXES | 699 | 548 | 392 |
| Interest expense, net | 108 | 100 | 114 |
| Loss (gain) on extinguishment of debt | 1 | (5) | 46 |
| EARNINGS BEFORE TAXES | 590 | 453 | 232 |
| Less: Income tax expense | 188 | 120 | 5 |
| Equity in net earnings (loss) of affiliates | (3) | 1 | 1 |
| NET EARNINGS | 399 | 334 | 228 |
| Less: Net earnings attributable to noncontrolling interests | 6 | 4 | 2 |
| NET EARNINGS ATTRIBUTABLE TO OWENS CORNING | $393 | $330 | $226 |
| EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS | | | |
| Basic | $3.44 | $2.82 | $1.92 |
| Diluted | $3.41 | $2.79 | $1.91 |
| Dividend | $0.74 | $0.68 | $0.64 |
| WEIGHTED AVERAGE COMMON SHARES | | | |
| Basic | 114.4 | 117.2 | 117.5 |
| Diluted | 115.4 | 118.2 | 118.3 |

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS (LOSS)
(in millions)

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| NET EARNINGS | $399 | $334 | $228 |
| Currency translation adjustment, including net investment hedge (net of tax of $(2), $(5), and $0, for the periods ended December 31, 2016, 2015 and 2014, respectively) | (37) | (115) | (134) |
| Pension and other postretirement adjustment (net of tax of $15, $1, and $67, for the periods ended December 31, 2016, 2015 and 2014, respectively) | (10) | (6) | (113) |
| Deferred income (loss) on hedging (net of tax of $(3), $(1), and $3 for the periods ended December 31, 2016, 2015 and 2014, respectively) | 7 | 1 | (6) |
| COMPREHENSIVE EARNINGS (LOSS) | 359 | 214 | (25) |
| Less: Comprehensive earnings attributable to noncontrolling interests | 6 | 4 | 2 |
| COMPREHENSIVE EARNINGS (LOSS) ATTRIBUTABLE TO OWENS CORNING | $353 | $210 | $(27) |

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in millions)

| | December 31, 2016 | December 31, 2015 |
|---|---|---|
| ASSETS | | |
| CURRENT ASSETS | | |
| Cash and cash equivalents | $ 112 | $ 96 |
| Receivables, less allowances of $9 at December 31, 2016 and $8 at December 31, 2015 | 678 | 709 |
| Inventories | 710 | 644 |
| Assets held for sale – current | 12 | 12 |
| Other current assets | 74 | 47 |
| Total current assets | 1,586 | 1,508 |
| Property, plant and equipment, net | 3,112 | 2,956 |
| Goodwill | 1,336 | 1,167 |
| Intangible assets, net | 1,138 | 999 |
| Deferred income taxes | 375 | 492 |
| Other non-current assets | 194 | 204 |
| TOTAL ASSETS | $ 7,741 | $ 7,326 |
| LIABILITIES AND EQUITY | | |
| CURRENT LIABILITIES | | |
| Accounts payable and accrued liabilities | $ 960 | $ 894 |
| Short-term debt | — | 6 |
| Long-term debt – current portion | 3 | 163 |
| Total current liabilities | 963 | 1,063 |
| Long-term debt, net of current portion | 2,099 | 1,702 |
| Pension plan liability | 367 | 397 |
| Other employee benefits liability | 221 | 240 |
| Deferred income taxes | 36 | 8 |
| Other liabilities | 164 | 137 |
| Redeemable equity | 2 | — |
| OWENS CORNING STOCKHOLDERS' EQUITY | | |
| Preferred stock, par value $0.01 per share (a) | — | — |
| Common stock, par value $0.01 per share (b) | 1 | 1 |
| Additional paid in capital | 3,984 | 3,965 |
| Accumulated earnings | 1,377 | 1,055 |
| Accumulated other comprehensive deficit | (710) | (670) |
| Cost of common stock in treasury (c) | (803) | (612) |
| Total Owens Corning stockholders' equity | 3,849 | 3,739 |
| Noncontrolling interests | 40 | 40 |
| Total equity | 3,889 | 3,779 |
| TOTAL LIABILITIES AND EQUITY | $ 7,741 | $ 7,326 |

(a) 10 shares authorized; none issued or outstanding at December 31, 2016 and December 31, 2015
(b)

400 shares authorized; 135.5 issued and 112.7 outstanding at December 31, 2016; 135.5 issued and 115.9 outstanding at December 31, 2015

(c) 22.8 shares at December 31, 2016 and 19.6 shares at December 31, 2015

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

| | Common Stock Outstanding | | Treasury Stock | | APIC (a) | Accumulated Earnings | AOCI (b) | NCI (c) | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Shares | Par Value | Shares | Cost | | | | | |
| Balance at December 31, 2013 | 117.8 | $ 1 | 17.7 | $(504) | $3,938 | $ 655 | $ (297) | $ 37 | $3,830 |
| Net earnings attributable to Owens Corning | — | — | — | — | — | 226 | — | — | 226 |
| Net earnings attributable to noncontrolling interests | — | — | — | — | — | — | — | 2 | 2 |
| Currency translation adjustment | — | — | — | — | — | — | (134) | (1) | (135) |
| Pension and other postretirement adjustment (net of tax) | — | — | — | — | — | — | (113) | — | (113) |
| Deferred gain on hedging transactions (net of tax) | — | — | — | — | — | — | (6) | — | (6) |
| Stock issuance | 0.3 | | (0.3) | 9 | (1) | | | | 8 |
| Purchases of treasury stock | (1.0) | — | 1.0 | (44) | — | — | — | — | (44) |
| Stock-based compensation | 0.7 | — | (0.7) | 21 | 17 | — | — | — | 38 |
| Dividends declared | — | — | — | — | — | (76) | — | — | (76) |
| Balance at December 31, 2014 | 117.8 | $ 1 | 17.7 | $(518) | $3,954 | $ 805 | $ (550) | $ 38 | $3,730 |
| Net earnings attributable to Owens Corning | — | — | — | — | — | 330 | — | — | 330 |
| Net earnings attributable to noncontrolling interests | — | — | — | — | — | — | — | 4 | 4 |
| Currency translation adjustment | — | — | — | — | — | — | (115) | (2) | (117) |
| Pension and other postretirement adjustment (net of tax) | — | — | — | — | — | — | (6) | — | (6) |
| Deferred gain on hedging transactions (net of tax) | — | — | — | — | — | — | 1 | — | 1 |
| Stock issuance | 0.7 | — | (0.7) | 21 | (1) | — | — | — | 20 |
| Purchases of treasury stock | (3.3) | — | 3.3 | (140) | — | — | — | — | (140) |
| Stock-based compensation | 0.7 | — | (0.7) | 25 | 12 | — | — | — | 37 |
| Dividends declared | — | — | — | — | — | (80) | — | — | (80) |
| Balance at December 31, 2015 | 115.9 | $ 1 | 19.6 | $(612) | $3,965 | $ 1,055 | $ (670) | $ 40 | $3,779 |
| Net earnings attributable to Owens Corning | — | — | — | — | — | 393 | — | — | 393 |
| Net earnings attributable to noncontrolling interests | — | — | — | — | — | — | — | 6 | 6 |
| Currency translation adjustment | — | — | — | — | — | — | (37) | (2) | (39) |
| Pension and other postretirement adjustment (net of tax) | — | — | — | — | — | — | (10) | — | (10) |
| Deferred loss on hedging transactions (net of tax) | — | — | — | — | — | — | 7 | — | 7 |
| Redeemable equity issued | — | — | — | — | (2) | — | — | — | (2) |
| Stock issuance | 1.0 | — | (1.0) | 32 | (5) | — | — | — | 27 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Purchases of treasury stock | (4.9) | — | 4.9 | (248) | — | — | — | — | (248) |
| Stock-based compensation | 0.7 | — | (0.7) | 25 | 26 | — | — | — | 51 |
| Cumulative effect of accounting change (d) | — | — | — | — | — | 14 | — | — | 14 |
| Dividends declared | — | — | — | — | — | (85) | — | (4) | (89) |
| Balance at December 31, 2016 | 112.7 | $ 1 | 22.8 | $(803) | $3,984 | $ 1,377 | $ (710) | $ 40 | $3,889 |

(a) Additional Paid in Capital ("APIC")
(b) Accumulated Other Comprehensive Earnings (Deficit) ("AOCI")
(c) Noncontrolling Interest ("NCI")
(d) Cumulative effect of accounting change relates to our adoption of ASU 2016-09. Please refer to Note 20 of the Consolidated Financial Statements for further detail on the adoption of this accounting standard.

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES | | | |
| Net earnings | $399 | $334 | $228 |
| Adjustments to reconcile net earnings to cash provided by operating activities: | | | |
| Depreciation and amortization | 343 | 300 | 304 |
| Gain on sale of assets or affiliates | — | (2) | (55) |
| Net loss on sale of European Stone Business | — | — | 20 |
| Deferred income taxes | 136 | 64 | (15) |
| Provision for pension and other employee benefits liabilities | 11 | 15 | 18 |
| Stock-based compensation expense | 41 | 30 | 29 |
| Other non-cash | 4 | (11) | (30) |
| Loss (gain) on extinguishment of debt | 1 | (5) | 46 |
| Change in operating assets and liabilities: | | | |
| Changes in receivables, net | 55 | (71) | (10) |
| Changes in inventories | 5 | 150 | (29) |
| Changes in accounts payable and accrued liabilities | 25 | 28 | 3 |
| Changes in other current and non-current assets | (4) | (19) | (3) |
| Pension fund contribution | (63) | (60) | (52) |
| Payments for other employee benefits liabilities | (18) | (20) | (22) |
| Other | 8 | 9 | 20 |
| Net cash flow provided by operating activities | 943 | 742 | 452 |
| NET CASH FLOW USED FOR INVESTING ACTIVITIES | | | |
| Cash paid for property, plant and equipment | (373) | (393) | (374) |
| Derivative settlements | — | 4 | 5 |
| Proceeds from the sale of assets or affiliates | — | 20 | 65 |
| Investment in subsidiaries and affiliates, net of cash acquired | (452) | — | (12) |
| Purchases of alloy | — | (8) | (28) |
| Proceeds from sale of alloy | — | 8 | 47 |
| Other | 10 | — | — |
| Net cash flow used for investing activities | (815) | (369) | (297) |
| NET CASH FLOW USED FOR FINANCING ACTIVITIES | | | |
| Proceeds from senior revolving credit and receivables securitization facilities | 669 | 1,546 | 1,276 |
| Payments on senior revolving credit and receivables securitization facilities | (669) | (1,652) | (1,344) |
| Proceeds from term loan | 300 | — | — |
| Payments on term loan | (300) | — | — |
| Proceeds from long-term debt | 395 | — | 390 |
| Payments on long-term debt | (163) | (8) | (402) |
| Dividends paid | (81) | (78) | (56) |
| Net (decrease) increase in short-term debt | (6) | (22) | 30 |
| Purchases of treasury stock | (247) | (138) | (44) |
| Other | 14 | 19 | 8 |

| | | | |
|---|---|---|---|
| Net cash flow used for financing activities | (88) | (333) | (142) |
| Effect of exchange rate changes on cash | (18) | (11) | (3) |
| Net increase in cash, cash equivalents and restricted cash | 22 | 29 | 10 |
| Cash, cash equivalents and restricted cash at beginning of period | 96 | 67 | 57 |
| CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD | $118 | $96 | $67 |
| DISCLOSURE OF CASH FLOW INFORMATION | | | |
| Cash paid during the year for income taxes | $69 | $33 | $19 |
| Cash paid during the year for interest | $118 | $113 | $122 |

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Description of Business

Owens Corning, a Delaware corporation, is a leading global producer of glass fiber reinforcements and other materials for composite systems and of residential and commercial building materials. The Company operates within three segments: Composites, which includes the Company’s Reinforcements and Downstream businesses; Insulation and Roofing. Through these lines of business, Owens Corning manufactures and sells products worldwide. The Company maintains leading market positions in many of its major product categories.

### General

On February 2, 2017, the Board of Directors declared a quarterly dividend of $0.20 per common share payable on April 3, 2017 to shareholders of record as of March 10, 2017.

During 2016, the Company discovered an error in which certain Value Added Tax ("VAT") balances were inappropriately reported gross versus net in the Consolidated and Condensed Consolidating (Non-Guarantor Subsidiaries) Balance Sheets. We revised the December 31, 2015 balance sheet in these financial statements to correctly report the related VAT balances as either a net asset or a net liability. As of December 31, 2015, this resulted in a decrease to the previously reported Other current assets of $30 million, Other non-current assets of $24 million and Accounts payable and accrued liabilities of $54 million. These revisions were deemed immaterial to the current and prior periods and had no impact on the Consolidated and Condensed Consolidating Statements of Earnings or the Consolidated and Condensed Consolidating Statements of Cash Flows.

During the fourth quarter of 2016, the Company adopted Financial Accounting Standards Board (the "FASB") Accounting Standards Update ("ASU") No. 2016-09. This adoption resulted in the recognition of a previously unrecognized deferred tax asset as of January 1, 2016. Please refer to the accounting pronouncements section of Note 1, Note 16 and Note 20 for additional detail on this adoption.

### Basis of Presentation

Unless the context requires otherwise, the terms “Owens Corning,” “Company,” “we” and “our” in these notes refer to Owens Corning and its subsidiaries.

The accompanying Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States.

### Principles of Consolidation

The Consolidated Financial Statements of the Company include the accounts of majority-owned subsidiaries. Intercompany accounts and transactions are eliminated.

### Reclassifications

Certain reclassifications have been made to the 2015 and 2014 Consolidated Financial Statements and Notes to the Consolidated Financial Statements to conform to the classifications used in 2016.

### Use of Estimates and Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

### Revenue Recognition

Revenue is recognized when title and risk of loss pass to the customer and collectability is reasonably assured. Provisions for discounts and rebates to customers, returns and other adjustments are provided in the same period that the related sales are recorded and are based on historical experience, current conditions and contractual obligations, as applicable.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Cost of Sales
Cost of sales includes material, labor, energy and manufacturing overhead costs, including depreciation and amortization expense associated with the manufacture and distribution of the Company's products. Provisions for warranties are provided in the same period that the related sales are recorded and are based on historical experience, current conditions and contractual obligations, as applicable. Distribution costs include inbound freight costs; purchasing and receiving costs; inspection costs; warehousing costs; shipping and handling costs, which include costs incurred relating to preparing, packaging, and shipping products to customers; and other costs of the Company's distribution network. All shipping and handling costs billed to the customer are included as net sales in the Consolidated Statements of Earnings.

Marketing and Advertising Expenses
Marketing and advertising expenses are included in Marketing and administrative expenses. These costs include advertising and marketing communications, which are expensed the first time the advertisement takes place. Marketing and advertising expenses for the years ended December 31, 2016, 2015 and 2014 were $105 million, $98 million and $100 million, respectively.

Science and Technology Expenses
The Company incurs certain expenses related to science and technology. These expenses include salaries, building and equipment costs, utilities, administrative expenses, materials and supplies associated with the improvement and development of the Company's products and manufacturing processes. These costs are expensed as incurred.

Earnings per Share
Basic earnings per share are computed using the weighted-average number of common shares outstanding during the period. Diluted earnings per share reflect the dilutive effect of common equivalent shares and increased shares that would result from the conversion of equity securities. The effects of anti-dilution are not presented.

Cash, Cash Equivalents and Restricted Cash
The Company defines cash and cash equivalents as cash and time deposits with maturities of three months or less when purchased. On the Consolidated Statements of Cash Flows, the total of Cash, cash equivalents and restricted cash includes restricted cash of $6 million as of December 31, 2016. On the Consolidated Balance Sheets, restricted cash is included in Other current assets. There were no restricted cash amounts for the previous time periods presented in the Consolidated Financial Statements. Restricted cash represents amounts received from a counterparty related to its performance assurance on an executory contract. These amounts are contractually required to be set aside, and the counterparty can exchange the cash for another form of performance assurance at its discretion.

Accounts Receivable
Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is an estimate of the amount of probable credit losses in our existing accounts receivable. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered.

Inventory Valuation
Inventory costs include material, labor, and manufacturing overhead costs, including depreciation and amortization expense associated with the manufacture and distribution of the Company's products. Inventories are stated at lower of cost or market and expense estimates are made for excess and obsolete inventories. Cost is determined by the first-in, first-out ("FIFO") method.

Investments in Affiliates
The Company accounts for investments in affiliates of 20% to 50% ownership when the Company does not have a controlling financial interest using the equity method under which the Company's share of earnings and losses of the affiliate is reflected in earnings and dividends are credited against the investment in affiliate when declared.

Investments in affiliates are recorded in

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Other non-current assets on the Consolidated Balance Sheets and as of December 31, 2016 and 2015, the total value of investments was $50 million and $54 million, respectively.

Goodwill and Other Intangible Assets

Goodwill assets are not amortized but are tested for impairment on at least an annual basis. In the current year, as part of the annual assessment, the Company used a quantitative approach to determine whether the fair value of a reporting unit was less than its carrying amount.

As part of our testing process for goodwill the Company estimates fair values using a discounted cash flow approach from the perspective of a market participant. Significant estimates in the discounted cash flow approach are cash flow forecasts of our reporting units, the discount rate, the terminal business value and the projected income tax rate. The cash flow forecasts of the reporting units are based upon management's long-term view of our markets and are the forecasts that are used by senior management and the Board of Directors to evaluate operating performance. The discount rate utilized is management's estimate of what the market's weighted average cost of capital is for a company with a similar debt rating and stock volatility, as measured by beta. The projected income tax rates utilized are the statutory tax rates for the countries where each reporting unit operates. The terminal business value is determined by applying a business growth factor to the latest year for which a forecast exists. As part of our goodwill quantitative testing process, we would evaluate whether there are reasonably likely changes to management's estimates that would have a material impact on the results of the goodwill impairment testing.

Other indefinite-lived intangible assets are not amortized but are tested for impairment on at least an annual basis or when determined to have a finite useful life. Substantially all of the indefinite-lived intangible assets are in trademarks and trade names. The Company uses the royalty relief approach to determine whether it is more likely than not that the fair value of these assets is less than its carrying amount. This review is performed annually, or when circumstances arise which indicate there may be impairment. When applying the royalty relief approach, the Company performs a discounted cash flow analysis based on the value derived from owning these trademarks and trade names and being relieved from paying royalty to third parties. Significant assumptions used include projected cash flows, discount rate, projected income tax rate and terminal business value. These inputs are considered Level 3 inputs under the fair value hierarchy as they are the Company's own data, and are unobservable in the marketplace. Indefinite-lived intangible assets purchased through acquisition are generally tested qualitatively for impairment in the first year following the acquisition before transitioning to the standard methodology described herein in subsequent years.

Identifiable intangible assets with a determinable useful life are amortized over that determinable life. Amortization expense for the years ended December 31, 2016, 2015 and 2014 was $25 million, $22 million and $21 million, respectively. See Note 5 to the Consolidated Financial Statements for further discussion.

Properties and Depreciation

Property, plant and equipment are stated at cost and depreciated over their estimated useful lives using the straight-line method. Property, plant and equipment accounts are relieved of the cost and related accumulated depreciation when assets are disposed of or otherwise retired.

Precious metals used in our production tooling are included in property, plant and equipment and are depleted as they are consumed during the production process. Depletion typically represents an annual expense of less than 3% of the outstanding value and is recorded in Cost of sales on the Consolidated Statements of Earnings.

For the years ended December 31, 2016, 2015 and 2014 depreciation expense was $318 million, $278 million and $283 million, respectively. In 2016, 2015 and 2014, depreciation expense included $19 million, $3 million and $1 million, respectively, of accelerated depreciation related to restructuring actions further explained in Note 11 to the Consolidated Financial Statements. In 2014, depreciation expense also included $3 million of impairment losses on held for sale assets.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

The range of useful lives for the major components of the Company's plant and equipment is as follows:

| | |
|---|---|
| Buildings and leasehold improvements | 15 – 40 years |
| Machinery and equipment | |
| Furnaces | 4 – 15 years |
| Information systems | 5 – 10 years |
| Equipment | 5 – 20 years |

Expenditures for normal maintenance and repairs are expensed as incurred.

Asset Impairments

The Company evaluates tangible and intangible long-lived assets for impairment when triggering events have occurred. This requires significant assumptions including projected cash flows, projected income tax rate and terminal business value. These inputs are considered Level 3 inputs under the fair value hierarchy as they are the Company's own data, and are unobservable in the marketplace. Changes in management intentions, market conditions or operating performance could indicate that impairment charges might be necessary that would be material to the Company's Consolidated Financial Statements in any given period.

Income Taxes

The Company recognizes current tax liabilities and assets for the estimated taxes payable or refundable on the tax returns for the current year. Deferred tax balances reflect the impact of temporary differences between the carrying amount of assets and liabilities and their tax basis. Amounts are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. In addition, realization of certain deferred tax assets is dependent upon our ability to generate future taxable income. The Company records a valuation allowance to reduce its deferred tax assets to the amount that it believes is more likely than not to be realized. In addition, the Company estimates tax reserves to cover potential taxing authority claims for income taxes and interest attributable to audits of open tax years.

Taxes Collected from Customers and Remitted to Government Authorities and Taxes Paid to Vendors

Taxes are assessed by various governmental authorities at different rates on many different types of transactions. The Company charges sales tax or Value Added Tax ("VAT") on sales to customers where applicable, as well as captures and claims back all available VAT that has been paid on purchases. VAT is recorded in separate payable or receivable accounts and does not affect revenue or cost of sales line items in the income statement. VAT receivable is recorded as a percentage of qualifying purchases at the time the vendor invoice is processed. VAT payable is recorded as a percentage of qualifying sales at the time an Owens Corning sale to a customer subject to VAT occurs. Amounts are paid to the taxing authority according to the method and collection prescribed by local regulations. Where applicable, VAT payable is netted against VAT receivable. The Company also pays sales tax to vendors who include a tax, required by government regulations, to the purchase price charged to the Company.

Pension and Other Postretirement Benefits

Accounting for pensions and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, extensive use is made of assumptions about investment returns, discount rates, inflation, mortality, turnover and medical costs.

Derivative Financial Instruments

The Company recognizes all derivative instruments as either assets or liabilities at fair value on the balance sheet. To the extent that a derivative is effective as a cash flow hedge, the change in fair value of the derivative is deferred in accumulated other comprehensive income/deficit ("OCI"). Any portion considered to be ineffective is reported in earnings immediately. To the extent that a derivative is effective as a fair value hedge, the change in the fair value of the derivative is offset by the change in the fair value of the item being hedged in the Consolidated Statements of Earnings. See Note 4 to the Consolidated Financial Statements for further discussion.

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Foreign Currency

The functional currency of the Company’s subsidiaries is generally the applicable local currency. Assets and liabilities of foreign subsidiaries are translated into United States dollars at the period-end rate of exchange, and their Statements of Earnings and Statements of Cash Flows are converted on an ongoing basis at the monthly average rate. The resulting translation adjustment is included in accumulated OCI in the Consolidated Balance Sheets and Consolidated Statements of Stockholders’ Equity. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are included in the Consolidated Statements of Earnings as incurred. The Company recorded a foreign currency transaction loss of $2 million, $5 million and $4 million during the years ended December 31, 2016, 2015 and 2014, respectively.

Accounting Pronouncements

The following table summarizes recent accounting standard updates ("ASU") issued by the Financial Accounting Standards Board (the "FASB") that could have an impact on the Company's Consolidated Financial Statements:

| Standard | Description | Effective Date for Company | Effect on the Consolidated Financial Statements |
|---|---|---|---|
| Recently issued standards: | | | |
| ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)," as amended by ASU's 2015-14, 2016-08, 2016-10, 2016-11, 2016-12 and 2016-20. | This standard outlines a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. Entities can adopt this standard either through a retrospective or modified-retrospective approach. | January 1, 2018 | We are currently assessing the impact this standard will have on our Consolidated Financial Statements. We expect to complete our assessment in the second half of 2017 and plan to use the modified-retrospective method of adoption. Many of our customer volume commitments are short-term (as explained on pg. 5 of Item 1A Risk Factors) and contain single performance obligations. As a result, we do not expect many elements of this standard to be applicable to our business model.<br><br>Under our current accounting policy (as described in Note 1 of the Consolidated Financial Statements), we recognize revenue when title and risk of loss pass to the customer and collectability is reasonably assured, and we estimate variable consideration based on historical experience, current conditions and contractual obligations. We believe our current variable consideration estimates are largely consistent with the new standard, but we are still analyzing potential quarterly timing differences for our consignment sales arrangements and customized products manufactured for customers. We are also still assessing the standard's new disclosure requirements, including the disaggregation of |

| | | | |
|---|---|---|---|
| | | | segment revenue. |
| ASU 2016-01 "Financial Instruments - Overall (Subtopic 825-10)" | This standard modifies certain aspects of the recognition, measurement, presentation and disclosure of financial instruments. The update eliminates certain disclosure requirements for financial instruments measured at amortized cost, requires that disclosure of financial instruments be based on an exit price notion, and requires separate presentation of financial assets and liabilities by measurement category and form of financial asset. | January 1, 2018 | We do not expect the adoption of this standard to have a material impact on our Consolidated Financial Statements. |
| ASU 2016-02 "Leases (Topic 842)" | The standard requires lessees to recognize a right-of-use asset and lease liability for all leases with terms of more than 12 months. The recognition and presentation of expenses will depend on classification as a finance or operating lease. Entities will adopt this standard through a retrospective approach. | January 1, 2019 | We are currently assessing the potential impact of this standard adoption on our financial reporting processes and disclosures. We believe that our adoption of the standard will likely have a material impact to our Consolidated Balance Sheets for the recognition of certain operating leases as right-of-use assets and lease liabilities. Our operating lease obligations are described in Note 8 of the Consolidated Financial Statements. We are in the process of analyzing our lease portfolio and evaluating systems to comply with the standard's retrospective adoption requirements. |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

| | | | |
|---|---|---|---|
| ASU 2016-13 "Financial Instruments - Credit Losses (Topic 326)" | This standard replaces the incurred loss methodology for recognizing credit losses with a current expected credit losses model and applies to all financial assets, including trade receivables. Entities will adopt the standard using a modified-retrospective approach. | January 1, 2020 | We are currently assessing the impact this standard will have on our Consolidated Financial Statements. Our current accounts receivable policy (as described in Note 1 of the Consolidated Financial Statements) uses historical and current information to estimate the amount of probable credit losses in our existing accounts receivable. We have not yet analyzed our current systems and methods to determine the impact of using forward-looking information to estimate expected credit losses. |
| ASU 2016-16 "Income Taxes (Topic 740)" | This standard clarifies that an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. | January 1, 2018 | We are currently assessing the impact this standard will have on our Consolidated Financial Statements. |
| Recently adopted standards: | | | |
| ASU 2014-15 "Presentation of Financial Statements - Going Concern (Subtopic 205-40)" | This standard provides guidance on management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures in the event of such doubt. | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. |
| ASU 2015-07 "Fair Value Measurement (Topic 820)" | This standard removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. This standard permitted us to separately present certain assets in the pension plan assets table of Note 13 to the Consolidated Financial Statements. |
| ASU 2015-16 "Business Combinations (Topic 805)" | This standard requires that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. |
| ASU 2016-09 "Compensation - Stock Compensation (Topic 718)" | This standard simplifies several aspects of the accounting for share-based payment transactions, but may increase volatility in income tax expense. All excess tax benefits and tax deficiencies will be recognized as income tax expense or benefit in the income statement. An entity will recognize excess tax | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. Please refer to Note 20 of the Consolidated Financial Statements for a detailed explanation of the cumulative effect of adoption recognized on January 1, 2016 and the |

| | | | |
|---|---|---|---|
| | benefits regardless of whether the benefit reduces taxes payable in the current period, subject to normal valuation allowance considerations. | | impact to our Consolidated Statements of Earnings. |
| ASU 2016-15 "Statement of Cash Flows (Topic 230)" | This standard addresses the presentation and classification of eight specific cash flow issues, including debt prepayment and extinguishment costs. Entities will adopt the standard using a retrospective method. | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. |
| ASU 2016-18 "Statement of Cash Flows (Topic 230)" | This standard requires that a statement of cash flows explain the change in the total of cash, cash equivalents and amounts generally described as restricted cash. Entities will adopt the standard using a retrospective method. | January 1, 2016 | The adoption of this standard did not have a material impact on our Consolidated Financial Statements. |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
2. SEGMENT INFORMATION

The Company has three reportable segments: Composites, Insulation and Roofing. Accounting policies for the segments are the same as those for the Company. The Company's three reportable segments are defined as follows:
Composites – The Composites segment includes vertically integrated downstream activities. The Company manufactures, fabricates and sells glass reinforcements in the form of fiber. Glass reinforcement materials are also used downstream by the Composites segment to manufacture and sell glass fiber products in the form of fabrics, non-wovens and other specialized products.
Insulation – Within our Insulation segment, the Company manufactures and sells fiberglass insulation into residential, commercial, industrial and other markets for both thermal and acoustical applications. It also manufactures and sells glass fiber pipe insulation, energy efficient flexible duct media, bonded and granulated mineral fiber insulation and foam insulation used in above- and below-grade construction applications.
Roofing – Within our Roofing segment, the Company manufactures and sells residential roofing shingles, oxidized asphalt materials, roofing components used in residential and commercial construction and specialty applications, and synthetic packaging materials.

NET SALES
The following table summarizes our net sales by segment and geographic region (in millions). Corporate eliminations (shown below) largely reflect the intercompany sales from Composites to Roofing. External customer sales are attributed to geographic region based upon the location from which the product is shipped to the external customer.

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Reportable Segments | | | |
| Composites | $1,952 | $1,902 | $1,919 |
| Insulation | 1,748 | 1,850 | 1,746 |
| Roofing | 2,194 | 1,766 | 1,748 |
| Total reportable segments | 5,894 | 5,518 | 5,413 |
| Corporate eliminations | (217) | (168) | (153) |
| NET SALES | $5,677 | $5,350 | $5,260 |
| External Customer Sales by Geographic Region | | | |
| United States | $3,963 | $3,697 | $3,557 |
| Europe | 550 | 515 | 575 |
| Asia Pacific | 666 | 662 | 636 |
| Canada and other | 498 | 476 | 492 |
| NET SALES | $5,677 | $5,350 | $5,260 |

EARNINGS BEFORE INTEREST AND TAXES
Earnings before interest and taxes ("EBIT") by segment consists of net sales less related costs and expenses and are presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included in the Corporate, Other and Eliminations category.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
2. SEGMENT INFORMATION (continued)

The following table summarizes EBIT by segment (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Reportable Segments | | | |
| Composites | $264 | $232 | $149 |
| Insulation | 126 | 160 | 108 |
| Roofing | 486 | 266 | 232 |
| Total reportable segments | 876 | 658 | 489 |
| Restructuring costs | (28) | (2) | (36) |
| Acquisition-related costs for InterWrap and Ahlstrom transactions | (9) | — | — |
| Recognition of InterWrap inventory fair value step-up | (10) | — | — |
| Net loss on sale of European Stone Business | — | — | (20) |
| Impairment loss on Alcala, Spain facility held for sale | — | — | (3) |
| Gain on sale of Hangzhou, China facility | — | — | 45 |
| Net loss related to Hurricane Sandy | — | — | (6) |
| General corporate expense and other | (130) | (108) | (77) |
| EBIT | $699 | $548 | $392 |

TOTAL ASSETS AND PROPERTY, PLANT AND EQUIPMENT BY GEOGRAPHIC REGION
The following table summarizes total assets by segment and property, plant and equipment by geographic region (in millions):

| | December 31, | |
|---|---|---|
| TOTAL ASSETS | 2016 | 2015 |
| Reportable Segments | | |
| Composites | $2,375 | $2,359 |
| Insulation | 2,864 | 2,873 |
| Roofing | 1,553 | 1,055 |
| Total reportable segments | 6,792 | 6,287 |
| Cash and cash equivalents | 112 | 96 |
| Current and noncurrent deferred income taxes | 375 | 492 |
| Investments in affiliates | 50 | 54 |
| Assets held for sale – current | 12 | 12 |
| Corporate property, plant and equipment, other assets and eliminations | 400 | 385 |
| CONSOLIDATED TOTAL ASSETS | $7,741 | $7,326 |

| | December 31, | |
|---|---|---|
| PROPERTY, PLANT AND EQUIPMENT BY GEOGRAPHIC REGION | 2016 | 2015 |
| United States | $2,070 | $1,918 |
| Europe | 351 | 359 |
| Asia Pacific | 360 | 347 |
| Canada and other | 331 | 332 |
| TOTAL PROPERTY, PLANT AND EQUIPMENT | $3,112 | $2,956 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
2. SEGMENT INFORMATION (continued)

PROVISION FOR DEPRECIATION AND AMORTIZATION

The following table summarizes the provision for depreciation and amortization by segment (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Reportable Segments | | | |
| Composites | $138 | $125 | $129 |
| Insulation | 106 | 101 | 101 |
| Roofing | 46 | 39 | 39 |
| Total reportable segments | 290 | 265 | 269 |
| General corporate depreciation and amortization (a) | 53 | 35 | 35 |
| CONSOLIDATED PROVISION FOR DEPRECIATION AND AMORTIZATION | $343 | $300 | $304 |

(a) In 2016, 2015 and 2014, General corporate depreciation and amortization expense included $19 million, $3 million and $1 million, respectively, of accelerated depreciation related to restructuring actions further explained in Note 11 to the Consolidated Financial Statements. In 2014, depreciation expense also included $3 million of impairment losses on held for sale assets.

ADDITIONS TO PROPERTY, PLANT AND EQUIPMENT

The following table summarizes additions to property, plant and equipment by segment (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Reportable Segments | | | |
| Composites | $152 | $186 | $239 |
| Insulation | 154 | 141 | 78 |
| Roofing | 66 | 44 | 41 |
| Total reportable segments | 372 | 371 | 358 |
| General corporate additions | 42 | 40 | 33 |
| CONSOLIDATED ADDITIONS TO PROPERTY, PLANT AND EQUIPMENT | $414 | $411 | $391 |

The amounts in the table above represent Additions to property, plant and equipment on an accrual basis.

3. INVENTORIES

Inventories consist of the following (in millions):

| | December 31, | |
|---|---|---|
| | 2016 | 2015 |
| Finished goods | $482 | $436 |
| Materials and supplies | 228 | 208 |
| Total inventories | $710 | $644 |

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4. DERIVATIVE FINANCIAL INSTRUMENTS

The Company is exposed to, among other risks, the impact of changes in commodity prices, foreign currency exchange rates, and interest rates in the normal course of business. The Company's risk management program is designed to manage the exposure and volatility arising from these risks, and utilizes derivative financial instruments to offset a portion of these risks. The Company uses derivative financial instruments only to the extent necessary to hedge identified business risks, and does not enter into such transactions for trading purposes.

The Company generally does not require collateral or other security with counterparties to these financial instruments and is therefore subject to credit risk in the event of nonperformance; however, the Company monitors credit risk and currently does not anticipate nonperformance by other parties. Contracts with counterparties generally contain right of offset provisions. These provisions effectively reduce the Company's exposure to credit risk in situations where the Company has gain and loss positions outstanding with a single counterparty. It is the Company's policy to offset on the Consolidated Balance Sheets the amounts recognized for derivative instruments with any cash collateral arising from derivative instruments executed with the same counterparty under a master netting agreement. As of December 31, 2016 and 2015, the Company did not have any amounts on deposit with any of its counterparties, nor did any of its counterparties have any amounts on deposit with the Company.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
4. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

The following table presents the fair value and respective location of derivatives and hedging instruments on the Consolidated Balance Sheets (in millions):

| | Location | Fair Value at December 31, 2016 | Fair Value at December 31, 2015 |
|---|---|---|---|
| Derivative assets designated as hedging instruments: | | | |
| Net investment hedges | | | |
| Cross currency swaps | Other current assets | $ 4 | $ 4 |
| Cross currency swaps | Other non current assets | $ 6 | $ 6 |
| Amount of gain recognized in OCI (effective portion) | OCI | $ 18 | $ 14 |
| Fair value hedges | | | |
| Interest rate swaps | Other non current assets | $ — | $ 4 |
| Cash flow hedges: | | | |
| Natural gas forward swaps | Other current assets | $ 4 | $ — |
| Amount of gain recognized in OCI (effective portion) | OCI | $ 4 | $ — |
| Derivative liabilities designated as hedging instruments: | | | |
| Cash flow hedges: | | | |
| Natural gas forward swaps | Accounts payable and accrued liabilities | $ — | $ 5 |
| Amount of loss recognized in OCI related to natural gas forward swaps (effective portion) | OCI | $ — | $ 5 |
| Amount of loss recognized in OCI related to foreign exchange contracts (effective portion) | OCI | $ — | $ 1 |
| Amount of loss recognized in OCI related to treasury interest rate lock (effective portion) | OCI | $ 1 | $ — |
| Derivative assets not designated as hedging instruments: | | | |
| Natural gas forward swaps | Other current assets | $ 1 | $ — |
| Foreign exchange contracts | Other current assets | $ 1 | $ — |
| Derivative liabilities not designated as hedging instruments: | | | |
| Natural gas forward swaps | Accounts payable and accrued liabilities | $ — | $ 1 |
| Foreign exchange contracts | Accounts payable and accrued liabilities | $ 2 | $ — |

The following table presents the notional of derivatives and hedging instruments on the Consolidated Balance Sheets (in millions):

| | Unit of Measure | Notional December 31, 2016 |
|---|---|---|
| Net investment hedges | | |
| Cross currency swaps | U.S. Dollars | $ 250 |
| Cash flow hedges: | | |
| Natural gas forward swaps U.S. indices | MMBtu | 7 |
| Natural gas forward swaps European indices | MMBtu (equivalent) | 1 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
4. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

The Company had notional amounts for derivative hedging instruments related to non-designated foreign currency exposure in U.S. Dollars primarily relative to Brazilian Real, Chinese Yuan, Indian Rupee, Japanese Yen, and South Korean Won for $106 million. In addition the Company had notional amounts for derivative hedging instruments related to non-designated foreign currency exposure in European Euro primarily relative to British Pounds and Russian Rubles for $28 million.

The following table presents the impact and respective location of derivative activities on the Consolidated Statements of Earnings (in millions):

| | | Twelve Months Ended December 31, | | |
|---|---|---|---|---|
| | Location | 2016 | 2015 | 2014 |
| Derivative activity designated as hedging instruments: | | | | |
| Natural gas and electricity: | | | | |
| Amount of loss reclassified from OCI into earnings (effective portion) | Cost of sales | $6 | $10 | $ — |
| Foreign Currency | | | | |
| Amount of loss reclassified from OCI into earnings (effective portion) | | $1 | $— | $ — |
| Interest rate swaps: | | | | |
| Amount of loss recognized in earnings | Interest expense, net | $1 | $— | $ — |
| Derivative activity not designated as hedging instruments: | | | | |
| Natural gas and electricity: | | | | |
| Amount of (gain) loss recognized in earnings | Other expenses, net | $(2) | $1 | $ 1 |
| Foreign currency exchange contract: | | | | |
| Amount of (gain) loss recognized in earnings (a) | Other expenses, net | $3 | $(6 ) | $ 1 |

(a) (Gains) / losses related to foreign currency derivatives were substantially offset by net revaluation impacts on foreign denominated balance sheet exposures, which were also recorded in Other expenses, net.

Cash Flow Hedges

The Company uses forward and swap contracts, which qualify as cash flow hedges, to manage forecasted exposure to natural gas and electricity prices. The effective portion of the change in the fair value of cash flow hedges is deferred in accumulated OCI on the Consolidated Balance Sheets and is subsequently recognized in cost of sales on the Consolidated Statements of Earnings for commodity hedges, when the hedged item impacts earnings. Changes in the fair value of derivative assets and liabilities designated as hedging instruments are included in the Other non-cash line within operating activities on the Consolidated Statements of Cash Flows. Any portion of the change in fair value of derivatives designated as hedging instruments that is determined to be ineffective is recorded in other expenses, net on the Consolidated Statements of Earnings.

The Company currently has natural gas derivatives designated as hedging instruments that mature within 15 months. The Company’s policy for natural gas exposures is to hedge up to 75 percent of its total forecasted exposures for the next two months, up to 60 percent of its total forecasted exposures for the following four months, and lesser amounts for the remaining periods. The Company's policy for electricity exposures is to hedge up to 75 percent of its total forecasted exposures for the current calendar year and up to 65 percent of its total forecasted exposures for the first calendar year forward. Based on market conditions, approved variation from the standard policy may occur. The Company performs an analysis for effectiveness of its derivatives designated as hedging instruments at the end of each quarter based on the terms of the contract and the underlying item being hedged.

In June 2016, the Company entered into a $200 million forward U.S. Treasury rate lock agreement to manage the U.S. Treasury portion of its interest rate risk associated with the anticipated issuance of 10 fixed rate senior notes in 2016. The locked fixed

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rate of this agreement was 1.633% . In July 2016, the Company entered into a similar forward U.S. Treasury rate lock agreement for $100 million at a locked fixed rate of 1.490%. The Company designated these outstanding forward U.S. Treasury rate lock agreements, which would have expired on September 15, 2016, as cash flow hedges. The Company paid $1 million to settle these agreements in August 2016 upon issuance of its 2026 senior notes, effectively locking in the U.S. Treasury fixed interest rate in effect at the time the agreements were initiated. The $1 million fair value of these agreements will be amortized over the remaining life of the senior notes as a component of interest expense. Hedge ineffectiveness for these agreements was less than $1 million. Please refer to Note 12 of the Consolidated Financial Statements for further information on the issuance of the 2026 senior notes.

As of December 31, 2016, $4 million of loss included in accumulated OCI on the Consolidated Balance Sheets relate to contracts that will impact earnings during the next 12 months. Transactions and events that are expected to occur over the next 12 months that will necessitate recognizing these deferred gains include the recognition of the hedged item through earnings.

Fair Value Hedges

In the first quarter of 2016, the Company terminated the interest rate swaps designated to hedge a portion of its 4.20% senior notes due 2022 and received net settlement proceeds totaling $8 million. The swaps were carried at fair value and recorded as other assets or liabilities, with the offset to long-term debt on the Consolidated Balance Sheets. Changes in the fair value of these swaps and that of the related debt were recorded in Interest expense, net on the Consolidated Statements of Earnings. These proceeds were classified as cash provided by operating activities in the Consolidated Statements of Cash Flows. The $8 million fair value adjustment to debt will be amortized through 2022 as a reduction to interest expense in conjunction with the maturity date of the Company's 4.20% senior notes due 2022.

Net Investment Hedges

The Company uses cross currency forward contracts to hedge a portion of the net investment in foreign subsidiaries against fluctuations in foreign exchange rates. For derivative instruments that are designated and qualify as hedges of net investments in foreign operations, settlements and changes in fair values of the derivative instruments are recognized in Currency translation adjustment, a component of Accumulated OCI, to offset the changes in the values of the net investments being hedged. Any portion of net investment hedges that is determined to be ineffective is recorded in Other expenses, net on the Consolidated Statements of Earnings.

Other Derivatives

The Company uses forward currency exchange contracts to manage existing exposures to foreign exchange risk related to assets and liabilities recorded on the Consolidated Balance Sheets. Gains and losses resulting from the changes in fair value of these instruments are recorded in other expenses, net on the Consolidated Statements of Earnings.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

5. GOODWILL AND OTHER INTANGIBLE ASSETS

Intangible assets and goodwill consist of the following (in millions):

| December 31, 2016 | Weighted Average Useful Life | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount |
|---|---|---|---|---|
| Amortizable intangible assets: | | | | |
| Customer relationships | 22 | $ 252 | $ (94) | $ 158 |
| Technology | 19 | 216 | (103) | 113 |
| Franchise and other agreements | 9 | 45 | (23) | 22 |
| Indefinite-lived intangible assets: | | | | |
| Trademarks | | 845 | — | 845 |
| Total intangible assets | | $ 1,358 | $ (220) | $ 1,138 |
| Goodwill | | $ 1,336 | | |

| December 31, 2015 | Weighted Average Useful Life | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount |
|---|---|---|---|---|
| Amortizable intangible assets: | | | | |
| Customer relationships | 18 | $ 172 | $ (82) | $ 90 |
| Technology | 21 | 193 | (93) | 100 |
| Franchise and other agreements | 10 | 43 | (20) | 23 |
| Indefinite-lived intangible assets: | | | | |
| Trademarks | | 786 | — | 786 |
| Total intangible assets | | $ 1,194 | $ (195) | $ 999 |
| Goodwill | | $ 1,167 | | |

The changes in the gross carrying amount of amortizable intangible assets by asset group are as follows (in millions):

| | Customer Relationships | Technology | Franchise and Other Agreements | Trademarks | Total |
|---|---|---|---|---|---|
| Balance at December 31, 2015 | $ 172 | $ 193 | $ 43 | $ 786 | $1,194 |
| Acquisitions (see Note 7) | 81 | 23 | — | 59 | 163 |
| Additional Franchises and Agreements | — | — | 2 | — | 2 |
| Foreign currency translation | (1) | — | — | — | (1) |
| Balance at December 31, 2016 | $ 252 | $ 216 | $ 45 | $ 845 | $1,358 |

The changes in the net carrying amount of goodwill by segment are as follows (in millions):

| | Composites | Insulation | Roofing | Total |
|---|---|---|---|---|
| Balance at December 31, 2015 | $ 56 | $ 888 | $ 223 | $1,167 |
| Foreign currency translation | (1) | — | (3) | (4) |
| Acquisitions (see Note 7) | — | — | 173 | 173 |
| Balance at December 31, 2016 | $ 55 | $ 888 | $ 393 | $1,336 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
5. GOODWILL AND OTHER INTANGIBLE ASSETS (continued)

Other Intangible Assets
The Company amortizes the cost of other intangible assets over their estimated useful lives which, individually, range up to 25 years. The Company expects the ongoing amortization expense for amortizable intangible assets to be $27 million in each of the next five fiscal years. The Company's future cash flows are not materially impacted by its ability to extend or renew agreements related to its amortizable intangible assets. These costs are reported in Other expenses, net on the Consolidated Statements of Earnings.

Goodwill and Indefinite-Lived Intangible Assets
During 2016, goodwill increased by $173 million as a result of the acquisition of Interwrap Holdings, Inc. ("Interwrap"); see Note 7 for more details of this acquisition. The Company tests goodwill and indefinite-lived intangible assets for impairment as of October 1 each year, or more frequently should circumstances change or events occur that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The annual test performed in 2016 resulted in no impairment of goodwill.

6. PROPERTY, PLANT AND EQUIPMENT
Property, plant and equipment consist of the following (in millions):

| | December 31, 2016 | December 31, 2015 |
|---|---|---|
| Land | $ 189 | $ 186 |
| Buildings and leasehold improvements | 874 | 788 |
| Machinery and equipment | 3,818 | 3,478 |
| Construction in progress | 250 | 359 |
| | 5,131 | 4,811 |
| Accumulated depreciation | (2,019) | (1,855) |
| Property, plant and equipment, net | $ 3,112 | $ 2,956 |

Machinery and equipment includes certain precious metals used in the Company's production tooling, which comprise approximately 14% and 15% of total machinery and equipment as of December 31, 2016 and December 31, 2015, respectively. Precious metals used in our production tooling are depleted as they are consumed during the production process, which typically represents an annual expense of less than 3% of the outstanding carrying value.

7. ACQUISITIONS
On April 21, 2016, the Company acquired all outstanding shares of InterWrap, a leading manufacturer of roofing underlayment and packaging materials, for approximately $452 million, net of cash acquired. This acquisition expands the Company's position in roofing components, strengthens the Company's capabilities to support the conversion from organic to synthetic underlayment and accelerates its growth in the roofing components market. Interwrap's operating results have been included in the Roofing segment of the Company's Consolidated Financial Statements since the date of the acquisition. During the year ended December 31, 2016, the Company recorded certain immaterial measurement period adjustments to the purchase price allocation which are reflected in the value of goodwill noted below.
The Company's acquisition of InterWrap included intangible assets valued at $163 million. These assets consist of indefinite-lived trademarks of $59 million, customer relationships of $81 million with an estimated weighted average life of 25 years, and technology, including patented technology, of $23 million with an estimated weighted average useful life of 14 years. Goodwill is valued at approximately $173 million with $20 million expected to be tax-deductible. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the InterWrap acquisition and will support continued

market growth through conversion from organic to synthetic

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
7. ACQUISITIONS (continued)

underlayment, as well as provide growth opportunities in lumber and metal packaging. Please refer to Note 5 for further information on these intangible assets. The acquisition also included inventory valued at $72 million. During the year ended December 31, 2016, the Consolidated Statements of Earnings included $182 million in Net sales attributable to the acquisition and a $10 million charge related to inventory fair value step-up in Cost of sales. The pro forma effect of this acquisition on earnings and revenue was not material.

On July 26, 2016, the Company and Ahlstrom agreed to terminate the previously announced purchase agreement of the non-wovens and fabrics business of Ahlstrom due to challenges associated with obtaining regulatory clearance in Germany. In connection with the termination of the purchase agreement, the Company paid Ahlstrom a termination fee of approximately $3 million. The expense was included within Other expenses, net in the Consolidated Statements of Earnings in the third quarter of 2016.

8. OPERATING LEASES

The Company leases certain equipment and facilities under operating leases expiring on various dates through 2031. Some of these leases include cost-escalation clauses. Such cost-escalation clauses are recognized on a straight-line basis over the lease term. Total rental expense was $79 million , $88 million and $91 million in the years ended December 31, 2016, 2015 and 2014, respectively. At December 31, 2016, the minimum future rental commitments under non-cancelable operating leases with initial maturities greater than one year payable over the remaining lives of the leases are (in millions):

| Period | Minimum Future Rental Commitments |
|---|---|
| 2017 | $ 63 |
| 2018 | $ 50 |
| 2019 | $ 42 |
| 2020 | $ 29 |
| 2021 | $ 22 |
| 2022 and beyond | $ 48 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

9. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consist of the following (in millions):

| | December 31, 2016 | 2015 |
|---|---|---|
| Accounts payable | $615 | $535 |
| Payroll, vacation pay and incentive compensation | 160 | 153 |
| Payroll, property and other taxes | 46 | 56 |
| Other employee benefits liabilities | 36 | 38 |
| Dividends payable | 23 | 21 |
| Warranties (current portion) | 13 | 14 |
| Deferred revenue (current portion) | 11 | 9 |
| Legal and audit fees | 8 | 7 |
| Accrued interest | 11 | 7 |
| Restructuring costs | 2 | 7 |
| Other | 35 | 47 |
| Total | $960 | $894 |

10. WARRANTIES

The Company records a liability for warranty obligations at the date the related products are sold. Adjustments are made as new information becomes available. A reconciliation of the warranty liability is as follows (in millions):

| | December 31, 2016 | 2015 |
|---|---|---|
| Beginning balance | $43 | $40 |
| Amounts accrued for current year | 21 | 15 |
| Settlements of warranty claims | (12 ) | (12 ) |
| Ending balance | $52 | $43 |

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## 11. RESTRUCTURING AND ACQUISITION-RELATED COSTS

The Company has incurred restructuring, transaction and integration costs related to acquisitions, along with restructuring costs in connection with its global cost reduction and productivity initiatives.

### Acquisition-Related Costs

During 2016, the Company incurred $9 million of transaction and integration costs related to its announced acquisitions, including a $3 million termination fee paid in the third quarter of 2016 to terminate the Ahlstrom purchase agreement. Please refer to Note 7 of the Consolidated Financial Statements for further information on these acquisitions. These costs are recorded in the Corporate, Other and Eliminations category. See Restructuring Costs section below for detail on additional costs related to the InterWrap acquisition. The following table presents the impact and respective location of acquisition-related costs for 2016 on the Consolidated Statements of Earnings (in millions):

| Location | Ahlstrom Acqusition | InterWrap Acquisition | Total |
|---|---|---|---|
| Marketing and administrative expenses | $ 1 | $ 5 | $ 6 |
| Other expenses, net | 3 | — | 3 |
| Total acquisition-related costs | $ 4 | $ 5 | $ 9 |

### Restructuring Costs

2016 Cost Reduction Actions
During the fourth quarter of 2016, the Company took actions to reduce costs in our Insulation segment, mainly through the decision to permanently exit an idle residential fiberglass insulation facility in Canada and shut down foam insulation facilities in Brazil and India. During 2016, the Company recorded $18 million of charges for this restructuring, primarily comprised of accelerated depreciation. The Company expects to incur an immaterial amount of exit costs related to this restructuring in 2017.

InterWrap Acquisition-Related Restructuring Costs
Following the acquisition of InterWrap into the Company's Roofing segment, the Company took actions to realize expected synergies from the newly acquired operations. During 2016, the Company recorded $3 million of accelerated depreciation charges for this restructuring. The Company expects to incur an immaterial amount of exit costs related to this restructuring in 2017.

2014 Cost Reduction Actions
During 2014, the Company took actions to reduce costs throughout its global Composites network, mainly through the decisions to close a facility in Japan and optimize a facility in Canada, in addition to other cost reduction actions. The Company also took actions in 2014 to streamline its management structure and reduce costs, resulting in the elimination of the Building Materials Group organizational structure. In 2016, the Company incurred $7 million of charges for this restructuring, comprised of facility optimization costs, revision of estimated severance costs and a pension-related charge.

Consolidated Statements of Earnings Classification

The following table presents the impact and respective location of restructuring charges (gains) on the Consolidated Statements of Earnings (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| Location | 2016 | 2015 | 2014 |
| Cost of sales | $25 | $10 | $ 3 |
| Other expenses, net | 3 | (8) | 33 |
| Total restructuring costs | $28 | $2 | $ 36 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
11. RESTRUCTURING AND ACQUISITION-RELATED COSTS (continued)

Summary of Unpaid Liabilities
The following table summarizes the status of the unpaid liabilities from the Company's restructuring activities (in millions):

| | 2016 Cost Reduction Actions | InterWrap Acquisition-Related Restructuring | 2014 Cost Reduction Actions | Total |
|---|---|---|---|---|
| Balance at December 31, 2015 | $ — | $ — | $ 7 | $7 |
| Restructuring costs | 18 | 3 | 7 | 28 |
| Payments | — | — | (11) | (11) |
| Non-cash items and reclassifications to other accounts | (17) | (3) | (2) | (22) |
| Balance at December 31, 2016 | $ 1 | $ — | $ 1 | $2 |
| Cumulative charges incurred | $ 18 | $ 3 | $ 45 | $66 |

The Company expects the unpaid balance of these restructuring costs to be paid over the next year. As of December 31, 2016, the remaining liability balance is comprised of $2 million of severance.

12. DEBT
Details of the Company's outstanding long-term debt are as follows (in millions):

| | December 31, 2016 | December 31, 2015 |
|---|---|---|
| 6.50% senior notes, net of discount and financing fees, due 2016 | $ — | $ 158 |
| 9.00% senior notes, net of discount and financing fees, due 2019 | 143 | 143 |
| 4.20% senior notes, net of discount and financing fees, due 2022 | 596 | 596 |
| 4.20% senior notes, net of discount and financing fees, due 2024 | 391 | 390 |
| 3.40% senior notes, net of discount and financing fees, due 2026 | 395 | — |
| 7.00% senior notes, net of discount and financing fees, due 2036 | 536 | 536 |
| Various capital leases, due through and beyond 2050 | 33 | 36 |
| Fair value adjustment to debt | 8 | 6 |
| Total long-term debt | 2,102 | 1,865 |
| Less – current portion | 3 | 163 |
| Long-term debt, net of current portion | $ 2,099 | $ 1,702 |

Senior Notes
The Company issued $400 million of 2026 senior notes on August 8, 2016 subject to $5 million of discounts and issuance costs. Interest on the notes is payable semiannually in arrears on February 15 and August 15 each year, beginning on February 15, 2017. A portion of the proceeds from these notes was used to redeem $158 million of our 2016 senior notes, together with a $2 million make whole call payment and $3 million of accrued interest. In connection with the redemption, the Company recognized a $1 million loss on extinguishment of debt, inclusive of the remaining unamortized financing fees, discount and interest rate swap fair value adjustment. The remaining proceeds were used to pay down portions of our Receivables Securitization Facility and for general corporate purposes.
The Company issued $400 million of 2024 senior notes on November 12, 2014. Interest on the notes is payable semiannually in arrears on June 1 and December 1 each year, beginning on June 1, 2015. A portion of the proceeds from these notes was used to repay $242 million of our 2016 senior notes and $105 million of our 2019 senior notes. The remaining proceeds were used to pay down our Senior Revolving Credit Facility (as defined below), finance

general working capital needs, and for general corporate purposes.

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The Company issued $600 million of 2022 senior notes on October 17, 2012. Interest on the notes is payable semiannually in arrears on June 15 and December 15 each year, beginning on June 15, 2013. The proceeds of these notes were used to refinance $250 million of our 2016 senior notes and $100 million of our 2019 senior notes and pay down our Senior Revolving Credit Facility.

The Company issued $350 million of 2019 senior notes on June 3, 2009. On October 31, 2006, the Company issued $650 million of 2016 senior notes and $540 million of 2036 senior notes. The proceeds of these notes were used to pay certain unsecured and administrative claims, finance general working capital needs and for general corporate purposes.

As of December 31, 2015, the $158 million in outstanding principal related to the 2016 senior notes was recorded in Long-term debt - current portion on the Consolidated Balance Sheets, along with with $2 million net in associated unamortized financing fees, discount, and interest rate swap basis adjustment. These senior notes were fully repaid in the third quarter of 2016, with a portion of the proceeds from the issuance of our 2026 senior notes.

Collectively, the notes above are referred to as the “Senior Notes.” The Senior Notes are general unsecured obligations of the Company and rank pari passu with all existing and future senior unsecured indebtedness of the Company.

The Senior Notes are fully and unconditionally guaranteed by each of the Company’s current and future domestic subsidiaries that are a borrower or guarantor under the Company’s Credit Agreement (as defined below). The guarantees are unsecured and rank equally in right of payment with all other existing and future senior unsecured indebtedness of the guarantors. The guarantees are effectively subordinated to existing and future secured debt of the guarantors to the extent of the assets securing that indebtedness.

The Company has the option to redeem all or part of the Senior Notes at any time at a “make-whole” redemption price. The Company is subject to certain covenants in connection with the issuance of the Senior Notes that it believes are usual and customary. The Company was in compliance with these covenants as of December 31, 2016.

In the fourth quarter of 2011, the Company terminated all interest rate swaps designated to hedge a portion of the 6.5% senior notes due 2016. The swaps were carried at fair value and recorded as other assets or liabilities, with a fair value adjustment to long-term debt on the Consolidated Balance Sheets. The fair value adjustment to debt was fully amortized in the third quarter of 2016 as a reduction to interest expense in conjunction with the extinguishment of the 2016 senior notes in the same quarter.

In the first quarter of 2016, the Company terminated the existing interest rate swaps designated to hedge a portion of the 4.20% senior notes due 2022 and received net settlement proceeds totaling $8 million. The swaps were carried at fair value and recorded as other assets or liabilities, with a fair value adjustment to long-term debt on the Consolidated Balance Sheets. The proceeds are classified as cash provided by operating activities in the Consolidated Statements of Cash Flows. The $8 million fair value adjustment to debt will be amortized through 2022 as a reduction to interest expense in conjunction with the maturity date of the 2022 senior notes.

Senior Credit Facilities

The Company has an $800 million multi-currency senior revolving credit facility that has been amended from time to time (the "Senior Revolving Credit Facility") with a maturity date in November 2020 and uncommitted incremental loans permitted under the facility of $600 million. The Company obtained commitments for $300 million of the $600 million of permitted incremental term loans in March 2016. As discussed further below, the Company subsequently borrowed $300 million on this commitment in April 2016 and fully repaid the $300 million of borrowings in September 2016. The Company may obtain new commitments for incremental term loans up to $600 million as permitted under the Senior Revolving Credit Facility. No subsequent amendments had an impact on current liquidity terms. The Company removed certain subsidiaries from the list of named guarantors in May 2016. As of September 30, 2016, the Company added additional subsidiaries to the list of named guarantors. The Senior Revolving Credit Facility includes both borrowings and letters of credit. Borrowings under the Senior Revolving Credit Facility may be

used for general corporate purposes and working capital. The Company has the discretion to borrow under multiple options, which provide for varying terms and interest rates including the United States prime rate or LIBOR plus a spread.

The Senior Revolving Credit Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio that the Company believes are usual and customary for a senior unsecured credit agreement. The Company was in compliance with these covenants as of December 31, 2016.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
12. DEBT (continued)

As of December 31, 2016, the Company had no borrowings on its Senior Revolving Credit Facility, $9 million of outstanding letters of credit, and had $791 million available under the facility.

Term Loan

During the first quarter of 2016, the Company obtained a Term Loan commitment for $300 million (the "Term Loan"), as allowed under its existing Senior Revolving Credit Facility. The Term Loan was a partially amortizing loan that required quarterly principal repayments, with a balloon repayment due in November 2020 for any outstanding borrowings. The Term Loan contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio, that the Company believes are usual and customary for a senior unsecured credit agreement.

On April 20, 2016, the Company borrowed the $300 million available on the Term Loan at LIBOR plus a spread. These borrowings were used, in addition to borrowings on the Receivables Securitization Facility, to fund the acquisition of InterWrap. Please see Note 7 of the Notes to Consolidated Financial Statements for more information on this acquisition. In the third quarter of 2016, the Company repaid all outstanding borrowings on the Term Loan.

Receivables Securitization Facility

Included in long-term debt on the Consolidated Balance Sheets are amounts outstanding under a Receivables Purchase Agreement (the “RPA”) that are accounted for as secured borrowings in accordance with ASC 860, Accounting for Transfers and Servicing. Owens Corning Sales, LLC and Owens Corning Receivables LLC, each a subsidiary of the Company, have a $250 million RPA with certain financial institutions. The securitization facility was amended in January of 2015 to extend its maturity to January 2018. The Company has the ability to borrow at the lenders' cost of funds, which approximates A-1/P-1 commercial paper rates, plus a fixed spread.

As of December 31, 2016, the Company had no borrowings on its Receivables Securitization Facility, $2 million of outstanding letters of credit, and had $248 million available on the facility.

The Receivables Securitization Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio that the Company believes are usual and customary for a securitization facility. The Company was in compliance with these covenants as of December 31, 2016.

Owens Corning Receivables LLC’s sole business consists of the purchase or acceptance through capital contributions of trade receivables and related rights from Owens Corning Sales, LLC and the subsequent retransfer of or granting of a security interest in such trade receivables and related rights to certain purchasers party to the RPA. Owens Corning Receivables LLC is a separate legal entity with its own separate creditors who will be entitled, upon its liquidation, to be satisfied out of Owens Corning Receivables LLC’s assets prior to any assets or value in Owens Corning Receivables LLC becoming available to Owens Corning Receivables LLC’s equity holders. The assets of Owens Corning Receivables LLC are not available to pay creditors of the Company or any other affiliates of the Company or Owens Corning Sales, LLC.

Debt Maturities

The aggregate maturities for all long-term debt issues for each of the five years following December 31, 2016 and thereafter are presented in the table below (in millions). The maturities stated below are the aggregate par amounts of the outstanding senior notes and capital lease payments.

| Period | Maturities |
|---|---|
| 2017 | $ 6 |
| 2018 | 6 |
| 2019 | 150 |
| 2020 | 6 |
| 2021 | 6 |
| 2022 and beyond | 1,964 |

| | |
|---|---|
| Total | $ 2,138 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
12. DEBT (continued)

Short-Term Debt
At December 31, 2016 and December 31, 2015, short-term borrowings were less than $1 million and $6 million, respectively. The short-term borrowings for both periods consisted of various operating lines of credit and working capital facilities. Certain of these borrowings are collateralized by receivables, inventories or property. The borrowing facilities are typically for one-year renewable terms. The weighted average interest rate on all short-term borrowings was approximately 5.4% for December 31, 2016 and 4.5% for December 31, 2015.

13. PENSION PLANS
The Company sponsors defined benefit pension plans. Under the plans, pension benefits are based on an employee's years of service and, for certain categories of employees, qualifying compensation. Company contributions to these pension plans are determined by an independent actuary to meet or exceed minimum funding requirements. In our U.S. plan, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average remaining life expectancy of inactive participants. In all of our Non-U.S plans, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average future service period of plan participants expected to receive benefits.
During the second quarter of 2016, the Company recorded a $6 million pension curtailment gain related to 2015. This benefit was recorded in Cost of sales on the Consolidated Statements of Earnings and reduced General corporate expense and other in our Corporate, Other and Eliminations category. The effect of this error was not material to the current or any previously issued financial statements.
The following tables provide a reconciliation of the change in the projected benefit obligation, the change in plan assets and the net amount recognized in the Consolidated Balance Sheets (in millions):

| | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. | Total | U.S. | Non-U.S. | Total |
| Change in Projected Benefit Obligation | | | | | | |
| Benefit obligation at beginning of period | $1,092 | $ 485 | $1,577 | $1,193 | $ 571 | $1,764 |
| Service cost | 7 | 3 | 10 | 8 | 4 | 12 |
| Interest cost | 44 | 18 | 62 | 44 | 19 | 63 |
| Actuarial (gain) loss | 5 | 75 | 80 | (50) | (19) | (69) |
| Currency (gain) | — | (46) | (46) | — | (55) | (55) |
| Benefits paid | (82) | (21) | (103) | (101) | (21) | (122) |
| Settlements/curtailments | — | (7) | (7) | — | (7) | (7) |
| Other | — | 5 | 5 | (2) | (7) | (9) |
| Benefit obligation at end of period | $1,066 | $ 512 | $1,578 | $1,092 | $ 485 | $1,577 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
13. PENSION PLANS (continued)

| | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. | Total | U.S. | Non-U.S. | Total |
| Change in Plan Assets | | | | | | |
| Fair value of assets at beginning of period | $806 | $ 379 | $1,185 | $883 | $ 437 | $1,320 |
| Actual return on plan assets | 47 | 53 | 100 | (23) | 2 | (21) |
| Currency (loss) | — | (29) | (29) | — | (46) | (46) |
| Company contributions | 50 | 13 | 63 | 47 | 13 | 60 |
| Benefits paid | (82) | (21) | (103) | (101) | (21) | (122) |
| Settlements/curtailments | — | (4) | (4) | — | (7) | (7) |
| Other | 1 | 2 | 3 | — | 1 | 1 |
| Fair value of assets at end of period | $822 | $ 393 | $1,215 | $806 | $ 379 | $1,185 |
| Funded status | $(244) | $ (119) | $(363) | $(286) | $ (106) | $(392) |

| | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. | Total | U.S. | Non-U.S. | Total |
| Amounts Recognized in the Consolidated Balance Sheets | | | | | | |
| Prepaid pension cost | $— | $ 5 | $5 | $— | $ 6 | $6 |
| Accrued pension cost – current | — | (1) | (1) | — | (1) | (1) |
| Accrued pension cost – non-current | (244) | (123) | (367) | (286) | (111) | (397) |
| Net amount recognized | $(244) | $ (119) | $(363) | $(286) | $ (106) | $(392) |
| Amounts Recorded in Accumulated OCI | | | | | | |
| Net actuarial loss | $(433) | $(129) | $(562) | $(431) | $(96) | $(527) |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
13. PENSION PLANS (continued)

The following table presents information about the projected benefit obligation, accumulated benefit obligation ("ABO") and plan assets of the Company's pension plans (in millions):

| | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. | Total | U.S. | Non-U.S. | Total |
| Plans with ABO in excess of fair value of plan assets: | | | | | | |
| Projected benefit obligation | $1,066 | $ 310 | $1,376 | $1,092 | $ 314 | $1,406 |
| Accumulated benefit obligation | $1,066 | $ 305 | $1,371 | $1,092 | $ 311 | $1,403 |
| Fair value of plan assets | $822 | $ 192 | $1,014 | $806 | $ 206 | $1,012 |
| Plans with fair value of assets in excess of ABO: | | | | | | |
| Projected benefit obligation | $— | $ 202 | $202 | $— | $ 171 | $171 |
| Accumulated benefit obligation | $— | $ 187 | $187 | $— | $ 156 | $156 |
| Fair value of plan assets | $— | $ 201 | $201 | $— | $ 173 | $173 |
| Total projected benefit obligation | $1,066 | $ 512 | $1,578 | $1,092 | $ 485 | $1,577 |
| Total accumulated benefit obligation | $1,066 | $ 492 | $1,558 | $1,092 | $ 467 | $1,559 |
| Total plan assets | $822 | $ 393 | $1,215 | $806 | $ 379 | $1,185 |

Weighted-Average Assumptions Used to Determine Benefit Obligation

The following table presents weighted average assumptions used to determine benefit obligations at the measurement dates noted:

| | December 31, | |
|---|---|---|
| | 2016 | 2015 |
| United States Plans | | |
| Discount rate | 3.95% | 4.20% |
| Expected return on plan assets | 6.75% | 7.00% |
| Non-United States Plans | | |
| Discount rate | 3.14% | 3.88% |
| Expected return on plan assets | 5.92% | 6.23% |
| Rate of compensation increase | 4.25% | 3.97% |

Components of Net Periodic Pension Cost

The following table presents the components of net periodic pension cost for the periods noted (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Service cost | $10 | $12 | $13 |
| Interest cost | 62 | 63 | 71 |
| Expected return on plan assets | (81) | (84) | (84) |
| Amortization of actuarial loss | 16 | 18 | 11 |
| Settlement/curtailment | (6) | (3) | — |
| Other | 2 | 1 | — |
| Net periodic benefit cost | $3 | $7 | $11 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
13. PENSION PLANS (continued)

Weighted-Average Assumptions Used to Determine Net Periodic Pension Cost
The following table presents weighted-average assumptions used to determine net periodic pension costs for the periods noted:

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| United States Plans | | | |
| Discount rate | 4.20 % | 3.85 % | 4.65 % |
| Expected return on plan assets | 7.00 % | 7.00 % | 7.00 % |
| Rate of compensation increase | N/A (a) | N/A (a) | N/A (a) |
| Non-United States Plans | | | |
| Discount rate | 3.88 % | 3.60 % | 4.45 % |
| Expected return on plan assets | 6.23 % | 6.27 % | 6.38 % |
| Rate of compensation increase | 3.97 % | 4.01 % | 3.94 % |

(a) Not applicable due to changes in plan made on August 1, 2009 that were effective beginning January 1, 2010.
The expected return on plan assets assumption is derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers. An asset return model is used to develop an expected range of returns on plan investments over a 20 year period, with the expected rate of return selected from a best estimate range within the total range of projected results. The result is then rounded down to the nearest 25 basis points.
Accumulated Other Comprehensive Earnings (Deficit)
Of the $(562) million balance in OCI, $19 million is expected to be recognized as net periodic pension cost during 2017.
Items Measured at Fair Value
The Company classifies and discloses pension plan assets in one of the following three categories:
Level 1: Quoted market prices in active markets for identical assets.
Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.
Level 3: Unobservable inputs that are not corroborated by market data.

Plan Assets

The tables in this section show pension plan asset fair values and fair value leveling information. The assets are categorized into one of the three levels of the fair value hierarchy or are not subject to leveling. Following our adoption of ASU 2015-07 on January 1, 2016, the assets that are not subject to leveling are investments that are valued using the net asset value per share (or its equivalent) practical expedient. We have applied this approach retrospectively to the 2015 tables for comparability. The fair value amounts presented in the "not subject to leveling" column are intended to permit reconciliation of the fair value hierarchy tables to the amounts presented for total pension plan assets.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
13. PENSION PLANS (continued)

The following table summarizes the fair values and applicable fair value hierarchy levels of United States pension plan assets (in millions):

| | December 31, 2016 | | | | |
|---|---|---|---|---|---|
| Asset Category | Level 1 | Level 2 | Level 3 | Not subject to leveling | Total |
| Equity | | | | | |
| Domestic actively managed | $69 | $ — | $ — | $ 50 | $119 |
| Domestic passive index | — | — | — | 71 | 71 |
| International actively managed | 81 | — | — | 33 | 114 |
| International passive index | — | — | — | 26 | 26 |
| Fixed income and cash equivalents | | | | | — |
| Cash | — | — | — | — | — |
| Short-term debt | — | — | — | 26 | 26 |
| Corporate bonds | 200 | 25 | — | 28 | 253 |
| Government debt | 86 | — | — | — | 86 |
| Real estate investment trusts | 24 | — | — | — | 24 |
| Absolute return strategies | — | — | — | 52 | 52 |
| Real assets | — | — | — | 51 | 51 |
| Total United States plan assets | $460 | $ 25 | $ — | $ 337 | $822 |

| | December 31, 2015 | | | | |
|---|---|---|---|---|---|
| Asset Category | Level 1 | Level 2 | Level 3 | Not subject to leveling | Total |
| Equity | | | | | |
| Domestic actively managed | $85 | $ — | $ — | $ 36 | $121 |
| Domestic passive index | — | — | — | 51 | 51 |
| International actively managed | 79 | — | — | 31 | 110 |
| International passive index | — | — | — | 23 | 23 |
| Fixed income and cash equivalents | | | | | — |
| Cash | — | — | — | 1 | 1 |
| Short-term debt | — | — | — | 33 | 33 |
| Corporate bonds | 204 | 27 | — | 25 | 256 |
| Government debt | 88 | — | — | — | 88 |
| Real estate investment trusts | 25 | — | — | — | 25 |
| Absolute return strategies | — | — | — | 52 | 52 |
| Real assets | — | — | — | 46 | 46 |
| Total United States plan assets | $481 | $ 27 | $ — | $ 298 | $806 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
13. PENSION PLANS (continued)

The following table summarizes the fair values and applicable fair value hierarchy levels of non-United States pension plan assets (in millions):

| | December 31, 2016 | | | | |
|---|---|---|---|---|---|
| Asset Category | Level 1 | Level 2 | Level 3 | Not subject to leveling | Total |
| Equity | | | | | |
| Domestic actively managed | $— | $ 1 | $ — | $ 28 | $29 |
| Domestic passive index | — | — | — | 1 | 1 |
| International actively managed | — | 2 | — | 58 | 60 |
| International passive index | — | — | — | 3 | 3 |
| Fixed income and cash equivalents | | | | | — |
| Cash and cash equivalents | — | 36 | — | 1 | 37 |
| Corporate bonds | — | 5 | — | 163 | 168 |
| Government Debt | — | — | — | — | — |
| Absolute return strategies | — | — | — | 95 | 95 |
| Total non-United States plan assets | $— | $ 44 | $ — | $ 349 | $393 |

| | December 31, 2015 | | | | |
|---|---|---|---|---|---|
| Asset Category | Level 1 | Level 2 | Level 3 | Not subject to leveling | Total |
| Equity | | | | | |
| Domestic actively managed | $— | $ 2 | $ — | $ 22 | $24 |
| Domestic passive index | — | — | — | 1 | 1 |
| International actively managed | 39 | 5 | — | 18 | 62 |
| International passive index | — | — | — | 25 | 25 |
| Fixed income and cash equivalents | | | | | — |
| Cash and cash equivalents | — | 24 | — | 2 | 26 |
| Corporate bonds | — | 11 | — | 138 | 149 |
| Government Debt | — | — | — | — | — |
| Absolute return strategies | — | — | — | 92 | 92 |
| Total non-United States plan assets | $39 | $ 42 | $ — | $ 298 | $379 |

Investment Strategy
The current investment policy for the United States pension plan is to have 38% of assets invested in equities, 3% in real estate, 6% in real assets, 47% in intermediate and long-term fixed income securities and 6% in absolute return strategies. Assets are rebalanced quarterly to conform to policy tolerances. The Company actively evaluates the reasonableness of its asset mix given changes in the projected benefit obligation and market dynamics. Our investment policy and asset mix for the non-United States pension plans varies by location and is based on projected benefit obligation and market dynamics.

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13. PENSION PLANS (continued)

Estimated Future Benefit Payments

The following table shows estimated future benefit payments from the Company's pension plans (in millions):

| Year | Estimated Benefit Payments |
|---|---|
| 2017 | $ 100 |
| 2018 | $ 96 |
| 2019 | $ 98 |
| 2020 | $ 97 |
| 2021 | $ 94 |
| 2022-2026 | $ 460 |

Contributions

Owens Corning expects to contribute $50 million in cash to the United States pension plan during 2017 and another $9 million to non-United States plans. Actual contributions to the plans may change as a result of a variety of factors, including changes in laws that impact funding requirements.

Defined Contribution Plans

The Company sponsors two defined contribution plans which are available to substantially all United States employees. The Company matches a percentage of employee contributions up to a maximum level and contributes up to 2% of an employee's wages regardless of employee contributions. The Company recognized expense of $38 million, $33 million and $34 million during the years ended December 31, 2016, 2015 and 2014, respectively, related to these plans.

14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company maintains health care and life insurance benefit plans for certain retired employees and their dependents. The health care plans in the United States are non-funded and pay either (1) stated percentages of covered medically necessary expenses, after subtracting payments by Medicare or other providers and after stated deductibles have been met, or (2) fixed amounts of medical expense reimbursement.

Salaried employees hired on or before December 31, 2005 become eligible to participate in the United States health care plans upon retirement if they have accumulated 10 years of service after age 45, 48 or 50, depending on the category of employee. For employees hired after December 31, 2005, the Company does not provide subsidized retiree health care. Some of the plans are contributory, with some retiree contributions adjusted annually. The Company has reserved the right to change or eliminate these benefit plans subject to the terms of collective bargaining agreements.

The Company implemented an Employee Group Waiver Plan ("EGWP") effective January 1, 2013 to manage its prescription drug benefits for certain retiree groups. The Company also negotiated with certain unionized employees to increase the eligibility age for retiree medical benefits and to eliminate the post-65 retiree reimbursement account benefit for employees retiring on or after January 1, 2014.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

The following table provides a reconciliation of the change in the projected benefit obligation and the net amount recognized in the Consolidated Balance Sheets for the years ended December 31, 2016 and 2015 (in millions):

| | December 31, 2016 | | | December 31, 2015 | | |
|---|---|---|---|---|---|---|
| | U.S. | Non-U.S. | Total | U.S. | Non-U.S. | Total |
| Change in Projected Benefit Obligation | | | | | | |
| Benefit obligation at beginning of period | $230 | $ 13 | $243 | $238 | $ 16 | $254 |
| Service cost | 2 | — | 2 | 2 | — | 2 |
| Interest cost | 9 | — | 9 | 8 | 1 | 9 |
| Actuarial gain | (15) | — | (15) | (3) | — | (3) |
| Currency gain | — | — | — | — | (2) | (2) |
| Plan amendments | — | — | — | — | — | — |
| Benefits paid | (14) | (1) | (15) | (15) | (1) | (16) |
| Other | — | 1 | 1 | — | (1) | (1) |
| Benefit obligation at end of period | $212 | $ 13 | $225 | $230 | $ 13 | $243 |
| Funded status | $(212) | $ (13) | $(225) | $(230) | $ (13) | $(243) |
| Amounts Recognized in the Consolidated Balance Sheets | | | | | | |
| Accrued benefit obligation – current | $(17) | $(1) | $(18) | $(17) | $(1) | $(18) |
| Accrued benefit obligation – non-current | (195) | (12) | (207) | (213) | (12) | (225) |
| Net amount recognized | $(212) | $(13) | $(225) | $(230) | $(13) | $(243) |
| Amounts Recorded in Accumulated OCI | | | | | | |
| Net actuarial gain | $(19) | $(4) | $(23) | $(4) | $(4) | $(8) |
| Net prior service credit | (12) | — | (12) | (17) | — | (17) |
| Net amount recognized | $(31) | $(4) | $(35) | $(21) | $(4) | $(25) |

Weighted-Average Assumptions Used to Determine Benefit Obligations

The following table presents the discount rates used to determine the benefit obligations:

| | December 31, | |
|---|---|---|
| | 2016 | 2015 |
| United States plans | 3.80% | 4.00% |
| Non-United States plans | 3.55% | 3.80% |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

Components of Net Periodic Postretirement Benefit Cost

The following table presents the components of net periodic postretirement benefit cost (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Service cost | $2 | $ 2 | $ 2 |
| Interest cost | 9 | 9 | 10 |
| Amortization of prior service cost | (4 ) | (4 ) | (4 ) |
| Amortization of actuarial gain | (1 ) | (1 ) | (2 ) |
| Other | 1 | 1 | — |
| Net periodic postretirement benefit cost | $7 | $ 7 | $ 6 |

Weighted-Average Assumptions Used to Determine Net Periodic Postretirement Benefit Cost

The following table presents the discount rates used to determine net periodic postretirement benefit cost:

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| United States plans | 4.00% | 3.70% | 4.35% |
| Non-United States plans | 3.80% | 3.70% | 4.45% |

The following table presents health care cost trend rates used to determine net periodic postretirement benefit cost, as well as information regarding the ultimate rate and the year in which the ultimate rate is reached:

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| United States plans | | | |
| Initial rate at end of year | 6.78 % | 7.00 % | 7.00 % |
| Ultimate rate | 5.00 % | 5.00 % | 5.00 % |
| Year in which ultimate rate is reached | 2025 | 2025 | 2024 |
| Non-United States plans | | | |
| Initial rate at end of year | 5.07 % | 5.25 % | 5.43 % |
| Ultimate rate | 4.70 % | 4.70 % | 4.70 % |
| Year in which ultimate rate is reached | 2019 | 2019 | 2019 |

The health care cost trend rate assumption can have a significant effect on the amounts reported. To illustrate, a one-percentage point change in the December 31, 2016 assumed health care cost trend rate would have the following effects (in millions):

| | 1-Percentage Point Increase | 1-Percentage Point Decrease |
|---|---|---|
| Increase (decrease) in total service cost and interest cost components of net periodic postretirement benefit cost | $ 1 | $ — |
| Increase (decrease) of accumulated postretirement benefit obligation | $ 8 | $ (7 ) |

Accumulated Other Comprehensive Earnings (Deficit)

Approximately $6 million of the $35 million balance in accumulated OCI is expected to be recognized as net periodic postretirement benefit during 2017.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

Estimated Future Benefit Payments
The following table shows estimated future benefit payments from the Company's postretirement benefit plans (in millions):

| Year | Estimated Benefit Payments |
|---|---|
| 2017 | $ 19 |
| 2018 | $ 19 |
| 2019 | $ 19 |
| 2020 | $ 18 |
| 2021 | $ 18 |
| 2022-2026 | $ 81 |

Postemployment Benefits
The Company may also provide benefits to former or inactive employees after employment but before retirement under certain conditions. These benefits include continuation of benefits such as health care and life insurance coverage. The accrued postemployment benefits liability at December 31, 2016 and 2015 was $14 million and $15 million, respectively. The net periodic postemployment benefit expense was $2 million for the year ended December 31, 2016, and $1 million in each of 2015 and 2014.

15. CONTINGENT LIABILITIES AND OTHER MATTERS
The Company may be involved in various legal and regulatory proceedings relating to employment, antitrust, tax, product liability, environmental and other matters (collectively, "Proceedings"). The Company regularly reviews the status of such Proceedings along with legal counsel. Liabilities for such Proceedings are recorded when it is probable that the liability has been incurred and when the amount of the liability can be reasonably estimated. Liabilities are adjusted when additional information becomes available. Management believes that the amount of any reasonably possible losses in excess of any amounts accrued, if any, with respect to such Proceedings or any other known claim, including the matters described below under the caption Environmental Matters (the "Environmental Matters") are not material to the Company's financial statements. Management believes that the ultimate disposition of the Proceedings and the Environmental Matters will not have a material adverse effect on the Company's financial condition. While the likelihood is remote, the disposition of the Proceedings and Environmental Matters could have a material impact on the results of operations, cash flows or liquidity in any given reporting period.
Litigation and Regulatory Proceedings

The Company is involved in litigation and regulatory Proceedings from time to time in the regular course of its business. The Company believes that adequate provisions for resolution of all contingencies, claims and pending matters have been made for probable losses that are reasonably estimable.

Environmental Matters

The Company has established policies and procedures to ensure that its operations are conducted in compliance with all relevant laws and regulations that enable the Company to meet its high standards for corporate sustainability and environmental stewardship. Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and protection of the environment, including

emissions to air, discharges to water, management of hazardous materials, handling and disposal of solid wastes, and remediation of contaminated sites. All Company manufacturing facilities operate using an ISO 14001 or equivalent environmental management system. The Company's 2020 Sustainability Goals require significant global reductions in energy use, water consumption, waste to landfill, and emissions of greenhouse gases, fine particulate matter and toxic air emissions.

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Owens Corning is involved in remedial response activities and is responsible for environmental remediation at a number of sites, including certain of its currently owned or formerly owned plants. These responsibilities arise under a number of laws, including, but not limited to, the Federal Resource Conservation and Recovery Act ("RCRA"), and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The Company has also been named a potentially responsible party under the U.S. Federal Superfund law, or state equivalents, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. As of December 31, 2016, the Company was involved with a total of 19 sites worldwide, including 7 Superfund sites and 12 owned or formerly owned sites. None of the liabilities for these sites are individually significant to the Company.

Remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). A number of factors affect the cost of environmental remediation, including the number of parties involved in a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, variability in clean-up standards, the need for legal action, and changes in remediation technology. Taking these factors into account, Owens Corning has predicted the costs of remediation reasonably estimated to be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the reasonable estimates of these costs when it is probable that a liability has been incurred. Actual cost may differ from these estimates for the reasons mentioned above. At December 31, 2016, the Company had an accrual totaling $4 million, for these costs. Changes in required remediation procedures or timing of those procedures, or discovery of contamination at additional sites, could result in material increases to the Company’s environmental obligations.

16. STOCK COMPENSATION

During the fourth quarter of 2016, the Company adopted FASB ASU No. 2016-09. Please refer to Note 20 for discussion of the income tax-related impact of this adoption. No other provisions of this ASU had a material impact on the Consolidated Financial Statements.

2016 Stock Plan

On April 21, 2016, the Company's stockholders approved the Owens Corning 2016 Stock Plan (the "2016 Stock Plan") which replaced the 2013 Stock Plan. The 2016 Stock Plan authorizes grants of stock options, stock appreciation rights, restricted stock awards, restricted stock units, bonus stock awards and performance stock awards. At December 31, 2016, the number of shares remaining available under the 2016 Stock Plan for all stock awards was 3.9 million.

Stock Options

The Company has granted stock options under its stockholder approved stock plans. The Company calculates a weighted-average grant-date fair value using a Black-Scholes valuation model for options granted. Compensation expense for options is measured based on the fair market value of the option on the date of grant, and is recognized on a straight-line basis over a four year vesting period. In general, the exercise price of each option awarded was equal to the closing market price of the Company’s common stock on the date of grant and an option’s maximum term is 10 years. The volatility assumption was based on a benchmark study of our peers prior to 2014. Starting with the options granted in 2014, the volatility was based on the Company’s historic volatility.

During 2016 and 2015, no stock options were granted.

During 2014, 374,500 stock options were granted with a weighted-average grant date fair value of $19.05. Assumptions used in the Company's Black-Scholes valuation model to estimate the grant date fair value were expected volatility of 50.9%, expected dividends of 0%, expected term of 6.25 years and a risk-free interest rate of 1.9%. During the years ended December 31, 2016, 2015 and 2014, the Company recognized expense of $2 million, $4 million and $6 million, respectively, related to the Company's stock options. As of December 31, 2016, there was $2 million of total unrecognized compensation cost related to stock options. That cost is expected to be recognized over a weighted-average period of 1.09 years. The total aggregate intrinsic value of options outstanding as of December 31, 2016, 2015 and 2014 was $16 million, $31 million and $16 million, respectively. The total aggregate intrinsic value of options exercisable as of December 31,

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2016, 2015 and 2014 was $13 million, $28 million and $15 million, respectively. Cash received from option exercises was $26 million, $21 million and $8 million for the years ended December 31, 2016, 2015 and 2014, respectively. Tax benefits realized from tax deductions associated with option exercises totaled $9 million, $4 million and $2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The following table summarizes the Company's stock option activity:

| | Twelve Months Ended December 31 | | | | | |
|---|---|---|---|---|---|---|
| | 2016 | | 2015 | | 2014 | |
| | Number of Options | Weighted-Average Exercise Price | Number of Options | Weighted-Average Exercise Price | Number of Options | Weighted-Average Exercise Price |
| Beginning Balance | 1,953,320 | $ 31.09 | 2,754,895 | $ 31.04 | 2,748,720 | $ 29.55 |
| Granted | — | — | — | — | 374,500 | 37.65 |
| Exercised | (960,570) | 26.90 | (691,375) | 29.75 | (328,875) | 25.23 |
| Forfeited | (11,350) | 38.50 | (105,100) | 38.09 | (35,400) | 38.09 |
| Expired | (6,000) | 30.00 | (5,100) | 41.89 | (4,050) | 34.50 |
| Ending Balance | 975,400 | $ 35.14 | 1,953,320 | $ 31.09 | 2,754,895 | $ 31.04 |

The following table summarizes information about the Company's options outstanding and exercisable:

| Options Outstanding | | | | Options Exercisable | | |
|---|---|---|---|---|---|---|
| Range of Exercise Prices | Options Outstanding | Weighted-Average Remaining Contractual Life | Weighted-Average Exercise Price | Number Exercisable at Dec. 31, 2016 | Weighted-Average Remaining Contractual Life | Weighted-Average Exercise Price |
| $13.89-$42.16 | 975,400 | 5.25 | $ 35.14 | 774,425 | 4.84 | $ 34.14 |

Restricted Stock Awards and Restricted Stock Units

The Company has granted restricted stock awards and restricted stock units (collectively referred to as "restricted stock") under its stockholder approved stock plans. Compensation expense for restricted stock is measured based on the closing market price of the stock at date of grant and is recognized on a straight-line basis over the four year vesting period. Restricted stock is subject to alternate vesting plans for death, disability, approved early retirement and involuntary termination, over various periods ending in 2016.

During the years ended December 31, 2016, 2015 and 2014, the Company recognized expense of $19 million, $17 million and $17 million, respectively, related to the Company's restricted stock. As of December 31, 2016, there was $29 million of total unrecognized compensation cost related to restricted stock. That cost is expected to be recognized over a weighted-average period of 2.53 years. The total grant date fair value of shares vested during the years ended December 31, 2016, 2015 and 2014, was $15 million, $17 million and $15 million, respectively.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
16. STOCK COMPENSATION (continued)

The following table shows a summary of the Company's Restricted Stock plans:

| | Twelve Months Ended December 31 | | | | | |
|---|---|---|---|---|---|---|
| | 2016 | | 2015 | | 2014 | |
| | Number of Shares | Weighted-Average Grant Date Fair Value | Number of Shares | Weighted-Average Grant Date Fair Value | Number of Shares | Weighted-Average Grant Date Fair Value |
| Beginning Balance | 1,707,490 | $ 35.37 | 1,727,741 | $ 33.58 | 1,735,824 | $ 32.49 |
| Granted | 544,627 | 45.61 | 625,652 | 39.75 | 522,994 | 36.72 |
| Vested | (398,751) | 37.55 | (504,704) | 34.24 | (459,359) | 32.49 |
| Forfeited | (52,809) | 39.80 | (141,199) | 38.20 | (71,718) | 37.17 |
| Ending Balance | 1,800,557 | $ 37.78 | 1,707,490 | $ 35.37 | 1,727,741 | $ 33.58 |

Performance Stock Awards and Performance Stock Units

The Company has granted performance stock awards and performance stock units (collectively referred to as "PSUs") as a part of its long-term incentive plan. All outstanding performance grants will fully settle in stock. The amount of stock ultimately distributed from the 2016 and 2015 grants is contingent on meeting internal company-based metrics or an external-based stock performance metric. The amount of stock ultimately distributed from 2014 and prior grants is contingent on meeting an external based stock performance metric.

In 2016 and 2015, the Company granted both internal company-based and external-based metric PSUs. In 2014, the company granted external-based metric PSU's.

Internal Company-based metrics

The internal company-based metrics vest after a three-year period and are based on various company-based metrics over a three-year period. The amount of stock distributed will vary from 0% to 300% of PSUs awarded depending on performance versus the company-based metrics.

The initial fair value for all internal company-based metric PSUs assumes that the performance goals will be achieved and is based on the grant date stock price. This assumption is monitored quarterly and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted and previous surplus compensation expense recognized will be reversed or additional expense will be recognized. The expected term represents the period from the grant date to the end of the three-year performance period. Pro-rata vesting may be utilized in the case of death, disability or retirement, and awards if earned will be paid at the end of the three-year period.

External based metrics

The external-based metric vests after a three-year period. Outstanding grants issued in or after 2015 will be based on the Company's total stockholder return relative to the performance of the S&P Building & Construction Industry Index. Outstanding grants issued prior to 2015 are based on the Company's total stockholder return relative to the performance of the companies in the S&P 500 Index. The amount of stock distributed will vary from 0% to 200% of PSUs awarded depending on the relative stockholder return performance.

For all PSUs, respectively, during the years ended December 31, 2016, 2015 and 2014, the Company recognized expense of $16 million, $8 million and $6 million. As of December 31, 2016, there was $16 million of total unrecognized compensation cost related to PSUs. That cost is expected to be recognized over a weighted-average period of 1.61 years. The total grant date fair value of shares vested during the years ended December 31, 2016, 2015 and 2014, was $3 million, $1 million and $1 million, respectively.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
16. STOCK COMPENSATION (continued)

2016 Grant

For the 2016 grant, the fair value of external based metric PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 26.55%, a risk free interest rate of 0.84% and an expected term of 2.91 years. Expected volatility was based on Owens Corning's most recent 2.91 years volatility. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three-year performance period.

For the 2016 grant, the fair value of the internal based metric PSUs was estimated using the grant date stock price and assumed that the performance goals will be achieved. This assumption is monitored each quarter and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted. This adjustment results in either reversing previous surplus compensation expense recognized or recognizing additional expense.

2015 Grant

For the 2015 grant, the fair value of external based metric PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 29.2%, a risk free interest rate of 1.08% and an expected term of 2.90 years. Expected volatility was based on Owens Corning's most recent 2.90 years volatility. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three-year performance period.

For the 2015 grant, the fair value of the internal based metric PSUs was estimated using the grant date stock price and assumed that the performance goals will be achieved. This assumption is monitored each quarter and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted. This adjustment results in either reversing previous surplus compensation expense recognized or recognizing additional expense.

2014 Grant

For the 2014 grant, the fair value of PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 36.0%, a risk free interest rate of 0.68% and an expected term of 2.90 years. Expected volatility was based on a benchmark study of our peers. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three-year performance period.

The following table shows a summary of the Company's PSU plans:

| | Twelve Months Ended December 31 | | | | | |
|---|---|---|---|---|---|---|
| | 2016 | | 2015 | | 2014 | |
| | Number of PSUs | Weighted-Average Grant Date Fair Value | Number of PSUs | Weighted-Average Grant Date Fair Value | Number of PSUs | Weighted-Average Grant Date Fair Value |
| Beginning Balance | 431,400 | $ 44.52 | 416,250 | $ 49.53 | 410,500 | $ 53.04 |
| Granted | 244,250 | 48.74 | 252,200 | 43.88 | 248,950 | 44.43 |
| Vested | (186,750) | 44.43 | (151,700) | 56.71 | (199,450) | 52.11 |
| Forfeited/canceled | (16,600 ) | 44.48 | (85,350 ) | 48.66 | (43,750 ) | 41.71 |
| Ending Balance | 472,300 | $ 47.19 | 431,400 | $ 44.52 | 416,250 | $ 49.53 |

Employee Stock Purchase Plan

The Owens Corning Employee Stock Purchase Plan (“ESPP”) is a tax qualified plan under Section 423 of the Internal Revenue Code. The purchase price of shares purchased under the ESPP is equal to 85% of the lower of the fair market value of shares of Owens Corning common stock at the beginning or ending of the offering period, which is a six month period ending on May 31 and November 30 of each year. There were 2 million shares available for purchase under the ESPP as of its approval date. The Company recognized expense related to the ESPP of $3 million, $2 million and $2 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, the Company had $1 million of total unrecognized compensation

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16. STOCK COMPENSATION (continued)

costs related to the ESPP. For the years ended December 31, 2016, 2015 and 2014, our employees purchased 0.2 million shares at an average price of $41.99, 0.2 million shares at an average price of $32.57, and 0.2 million shares at an average price of $34.10, respectively. Under the outstanding ESPP as of January 27, 2017, employees have contributed $2 million to purchase shares for the current purchase period ending May 31, 2017.

17. ACCUMULATED OTHER COMPREHENSIVE INCOME

The following table summarizes the changes in accumulated other comprehensive income (deficit) ("AOCI") (in millions):

| | Twelve Months Ended December 31, | |
|---|---|---|
| | 2016 | 2015 |
| Currency Translation Adjustment | | |
| Beginning balance | $(247) | $(132) |
| Net investment hedge amounts classified into AOCI, net of tax | 2 | 9 |
| Loss on foreign currency translation | (39) | (124) |
| Other comprehensive loss, net of tax | (37) | (115) |
| Ending balance | $(284) | $(247) |
| | | |
| Pension and Other Postretirement Adjustment | | |
| Beginning balance | $(419) | $(413) |
| Amounts reclassified from AOCI to net earnings, net of tax (a) | 4 | 6 |
| Amounts classified into AOCI, net of tax | (14) | (12) |
| Other comprehensive loss, net of tax | (10) | (6) |
| Ending balance | $(429) | $(419) |
| | | |
| Deferred Gain (Loss) on Hedging | | |
| Beginning balance | $(4) | $(5) |
| Amounts reclassified from AOCI to net earnings, net of tax (b) | 5 | 6 |
| Amounts classified into AOCI, net of tax | 2 | (5) |
| Other comprehensive income, net of tax | 7 | 1 |
| Ending balance | $3 | $(4) |
| | | |
| Total AOCI ending balance | $(710) | $(670) |

(a)These AOCI components are included in the computation of total Pension and OPEB expense and are recorded in cost of sales and marketing and administrative expenses. See Notes 13 and 14 for additional information.
(b) Amounts reclassified from gain/(loss) on cash flow hedges are reclassified from AOCI to income when the hedged item affects earnings and is recognized in cost of sales. See Note 4 for additional information.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

18. EARNINGS PER SHARE

The following table summarizes the number of shares outstanding as well as our basic and diluted earnings per share (in millions, except per share amounts):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Net earnings attributable to Owens Corning | $393 | $330 | $226 |
| Weighted-average number of shares outstanding used for basic earnings per share | 114.4 | 117.2 | 117.5 |
| Non-vested restricted and performance shares | 0.8 | 0.6 | 0.4 |
| Options to purchase common stock | 0.2 | 0.4 | 0.4 |
| Weighted-average number of shares outstanding and common equivalent shares used for diluted earnings per share | 115.4 | 118.2 | 118.3 |
| Earnings per common share attributable to Owens Corning common stockholders: | | | |
| Basic | $3.44 | $2.82 | $1.92 |
| Diluted | $3.41 | $2.79 | $1.91 |

Basic earnings per share is calculated by dividing earnings attributable to Owens Corning by the weighted-average number of shares of the Company’s common stock outstanding during the period. Outstanding shares consist of issued shares less treasury stock.

On October 24, 2016, the Board of Directors approved a new share buy-back program under which the Company is authorized to repurchase up to 10 million shares of the Company’s outstanding common stock (the “2016 Repurchase Authorization"). The 2016 Repurchase Authorization is in addition to the share buy-back program announced April 19, 2012 (the 2012 Repurchase Authorization and collectively with the 2016 Repurchase Authorization, the "Repurchase Authorization"). The Repurchase Authorization enables the Company to repurchase shares through the open market, privately negotiated, or other transactions. The actual number of shares repurchased will depend on timing, market conditions and other factors and will be at the Company’s discretion. During the year ended December 31, 2016, 4.8 million shares were repurchased under the Repurchase Authorization. As of December 31, 2016, 9.8 million shares remain available for repurchase under the Repurchase Authorization.

For the year ended December 31, 2016, the number of shares used in the calculation of diluted earnings per share did not include 0.1 million performance shares, due to their anti-dilutive effect.

For the year ended December 31, 2015, the number of shares used in the calculation of diluted earnings per share did not include 0.1 million performance shares and 0.6 million options to purchase common stock, due to their anti-dilutive effect.

For the year ended December 31, 2014, the number of shares used in the calculation of diluted earnings per share did not include 1.0 million options to purchase common stock, due to their anti-dilutive effect.

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19. FAIR VALUE MEASUREMENT

The Company classifies and discloses assets and liabilities carried at fair value in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

Items Measured at Fair Value

The carrying value of cash and cash equivalents, accounts receivable and short-term debt approximate fair value because of the short-term maturity of the instruments.

Derivatives

The Company executes financial derivative contracts for the purpose of mitigating risk exposure that is generated from our normal operations. These derivatives consist of natural gas swaps, interest rate swaps, cross currency swaps, and foreign exchange forward contracts, all of which are over-the-counter and not traded through an exchange. The Company uses widely accepted valuation tools to determine fair value, such as discounting cash flows to calculate a present value for the derivatives. The models use Level 2 inputs, such as forward curves and other commonly quoted observable transactions and prices.

The following table summarizes the fair values, and levels within the fair value hierarchy in which the fair value measurements fall, for assets and liabilities measured on a recurring basis as of December 31, 2016 (in millions):

| | Total Measured at Fair Value | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| Assets: | | | | |
| Derivative assets | $ 16 | $ — | $ 16 | $ — |
| Liabilities: | | | | |
| Derivative liabilities | $ 2 | $ — | $ 2 | $ — |

The following table summarizes the fair values, and levels within the fair value hierarchy in which the fair value measurements fall, for assets and liabilities measured on a recurring basis as of December 31, 2015 (in millions):

| | Total Measured at Fair Value | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| Assets: | | | | |
| Derivative assets | $ 14 | $ — | $ 14 | $ — |
| Liabilities: | | | | |
| Derivative liabilities | $ 6 | $ — | $ 6 | $ — |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
19. FAIR VALUE MEASUREMENT (continued)

Items Disclosed at Fair Value

Long-term debt

The following table shows the fair value of the Company's long-term debt as calculated based on quoted market prices for the same or similar issues (Level 2 input), or on the current rates offered to the Company for debt of the same remaining maturities:

| | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|
| 6.50% senior notes, net of discount, due 2016 | — | % | 103 | % |
| 9.00% senior notes, net of discount, due 2019 | 114 | % | 116 | % |
| 4.20% senior notes, net of discount, due 2022 | 104 | % | 99 | % |
| 4.20% senior notes, net of discount, due 2024 | 102 | % | 100 | % |
| 3.40% senior notes, net of discount, due 2026 | 95 | % | — | % |
| 7.00% senior notes, net of discount, due 2036 | 118 | % | 105 | % |

The Company determined that the book value of the remaining long-term debt instruments approximates market value.

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## 20. INCOME TAXES

The following table summarizes our earnings before taxes and income tax expense (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Earnings before taxes: | | | |
| United States | $281 | $214 | $106 |
| Foreign | 309 | 239 | 126 |
| Total | $590 | $453 | $232 |
| Income tax expense: | | | |
| Current | | | |
| United States | $(7) | $2 | $(2) |
| State and local | 4 | 1 | — |
| Foreign | 55 | 53 | 22 |
| Total current | 52 | 56 | 20 |
| Deferred | | | |
| United States | 117 | 83 | (6) |
| State and local | 8 | 10 | 8 |
| Foreign | 11 | (29) | (17) |
| Total deferred | 136 | 64 | (15) |
| Total income tax expense | $188 | $120 | $5 |

The reconciliation between the United States federal statutory rate and the Company's effective income tax rate from continuing operations is:

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| United States federal statutory rate | 35% | 35% | 35% |
| State and local income taxes, net of federal tax benefit | 2 | 2 | 1 |
| Foreign tax rate differential | (4) | 2 | (15) |
| U.S. tax expense (benefit) on foreign earnings/loss | 2 | 4 | (5) |
| Valuation allowance | (3) | (16) | (1) |
| Uncertain tax positions and settlements | 1 | — | (18) |
| Other, net | (1) | — | 5 |
| Effective tax rate | 32% | 27% | 2% |

As of December 31, 2016, the Company has not recorded a deferred tax liability of approximately $683 million for foreign withholding and United States federal income taxes on approximately $1.8 billion of accumulated undistributed earnings of its foreign subsidiaries and affiliates as they are considered by management to be permanently reinvested.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
20. INCOME TAXES (continued)

The cumulative temporary differences giving rise to the deferred tax assets and liabilities are as follows (in millions):

| | December 31, 2016 | | December 31, 2015 | |
|---|---|---|---|---|
| | Deferred Tax Assets | Deferred Tax Liabilities | Deferred Tax Assets | Deferred Tax Liabilities |
| Other employee benefits | $117 | $ — | $120 | $ — |
| Pension plans | 146 | — | 156 | — |
| Operating loss and tax credit carryforwards | 826 | — | 957 | — |
| Depreciation | — | 330 | — | 315 |
| Amortization | — | 384 | — | 367 |
| State and local taxes | 5 | — | 6 | — |
| Other | 62 | — | 62 | — |
| Subtotal | 1,156 | 714 | 1,301 | 682 |
| Valuation allowances | (103) | — | (135) | — |
| Total deferred taxes | $1,053 | $ 714 | $1,166 | $ 682 |

During the fourth quarter of 2016, the Company adopted ASU No. 2016-09 “Compensation - Stock Compensation (Topic 718).” Under this standard, all excess tax benefits and tax deficiencies related to stock compensation will be recognized as income tax expense or benefit in the income statement. An entity will recognize excess tax benefits regardless of whether the benefit reduces taxes payable in the current period, subject to normal valuation allowance considerations. The standard is applied using a modified retrospective transition method by means of a cumulative-effect adjustment to equity as of the beginning of the year of adoption. As of January 1, 2016, we recorded a $14 million increase in Deferred income tax assets and Accumulated earnings. Please refer to our Consolidated Statements of Stockholders’ Equity for further information about this cumulative adjustment. For the twelve months ended December 31, 2016, the adoption of this standard resulted in a $4 million reduction of Income tax expense, substantially all of which related to the fourth quarter of 2016. Our interim quarterly financial information was not revised due to the immaterial impact on those previous quarters.

The following table summarizes the amount and expiration dates of our deferred tax assets related to operating loss and credit carryforwards at December 31, 2016 (in millions):

| | Expiration Dates | Amounts |
|---|---|---|
| U.S. federal loss carryforwards | 2027 – 2032 | $ 584 |
| U.S. state loss carryforwards (a) | 2017 – 2034 | 72 |
| Foreign loss and tax credit carryforwards | Indefinite | 72 |
| Foreign loss and tax credit carryforwards (a) | 2017 – 2034 | 59 |
| U.S. alternative minimum tax credit | Indefinite | 19 |
| Other U.S. federal and state tax credits | 2028 – 2034 | 20 |
| Total operating loss and tax credit carryforwards | | $ 826 |

(a) As of December 31, 2016, $17 million of U.S. state and $13 million of foreign deferred tax assets related to loss carryforwards are set to expire over the next three years.

At December 31, 2016, the Company had federal, state and foreign net operating loss carryforwards of $1.8 billion, $2.2 billion and $0.5 billion, respectively. In order to fully utilize our operating loss and tax credit carryforwards, the Company will need to generate federal, state, and foreign earnings before taxes of approximately $1.9 billion, $2.3

billion, and $0.5 billion, respectively. Certain of these loss carryforwards are subject to limitation as a result of the changes of control that resulted from the Company's emergence from bankruptcy in 2006 and the acquisition of certain foreign entities in 2007. However, the Company believes that these limitations on its loss carryforwards will not result in a forfeiture of any of the carryforwards.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
20. INCOME TAXES (continued)

Deferred income taxes are provided for temporary differences between amounts of assets and liabilities for financial reporting purposes and the basis of such assets and liabilities as measured under enacted tax laws and regulations, as well as NOLs, tax credits and other carryforwards. A valuation allowance will be recorded to reduce deferred tax assets if, based on all available evidence, it is considered more likely than not that some portion or all of the recorded deferred tax assets will not be realized in future periods. To the extent the reversal of deferred tax liabilities is relied upon in our assessment of the realizability of deferred tax assets, they will reverse in the same period and jurisdiction as the temporary differences giving rise to the deferred tax assets. As of December 31, 2016, the Company had federal, state, and foreign net deferred tax assets before valuation allowances of $287 million, $44 million, and $111 million, respectively.

The valuation allowance of $103 million as of December 31, 2016 is related to tax assets of $13 million and $90 million for certain state and foreign jurisdictions, respectively. Realization of deferred tax assets depends on achieving a certain minimum level of future taxable income. Management currently believes that the minimum level of taxable income will not be met within the next 12 months to reduce the valuation allowance of certain foreign jurisdictions. The valuation allowance of $135 million as of December 31, 2015 related to tax assets of $11 million and $124 million for certain state and foreign jurisdictions, respectively.

The Company, or one of its subsidiaries, files income tax returns in the United States and other foreign jurisdictions. The Company is no longer subject to U.S. federal tax examinations for years before 2013 or state and foreign examinations for years before 2008. Due to the potential for resolution of federal, state and foreign examinations, and the expiration of various statutes of limitation, it is reasonably possible that the gross unrecognized tax benefits balance may change within the next 12 months by a range of zero to $14 million.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows (in millions):

| | Twelve Months Ended December 31, | | |
|---|---|---|---|
| | 2016 | 2015 | 2014 |
| Balance at beginning of period | $84 | $106 | $155 |
| Tax positions related to the current year | | | |
| Gross additions | 1 | 1 | 2 |
| Tax positions related to prior years | | | |
| Gross additions | 19 | 2 | 10 |
| Gross reductions | (5) | (18) | (57) |
| Settlements | (1) | (7) | (1) |
| Lapses on statutes of limitations | — | — | (3) |
| Balance at end of period | $98 | $84 | $106 |

If these unrecognized tax benefits were to be recognized as of December 31, 2016, the Company’s income tax expense would decrease by about $75 million.

The Company classifies all interest and penalties as income tax expense. As of December 31, 2016, 2015 and 2014, the Company recognized $11 million , $8 million and $8 million respectively, in liabilities for tax related interest and penalties on its Consolidated Balance Sheets and $(1) million, $3 million and $2 million, respectively, of interest and penalty expense (income) on its Consolidated Statements of Earnings.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. QUARTERLY FINANCIAL INFORMATION (unaudited)

Select quarterly financial information is presented in the tables below for the quarterly periods (in millions, except per share amounts):

| | Quarter | | | |
|---|---|---|---|---|
| | First | Second | Third | Fourth |
| 2016 | | | | |
| Net sales | $1,231 | $1,545 | $1,518 | $1,383 |
| Gross margin | $272 | $416 | $374 | $319 |
| Net earnings attributable to Owens Corning | $57 | $138 | $112 | $86 |
| BASIC EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS | $0.49 | $1.20 | $0.98 | $0.77 |
| DILUTED EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING STOCKHOLDERS | $0.49 | $1.19 | $0.97 | $0.76 |

| | Quarter | | | |
|---|---|---|---|---|
| | First | Second | Third | Fourth |
| 2015 | | | | |
| Net sales | $1,203 | $1,403 | $1,447 | $1,297 |
| Gross margin | $209 | $308 | $340 | $296 |
| Net earnings attributable to Owens Corning | $18 | $91 | $112 | $109 |
| BASIC EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS | $0.15 | $0.77 | $0.96 | $0.94 |
| DILUTED EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING STOCKHOLDERS | $0.15 | $0.77 | $0.95 | $0.92 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

The following Condensed Consolidating Financial Statements present the financial information required with respect to those entities which guarantee certain of the Company's debt. The Condensed Consolidating Financial Statements are presented on the equity method. Under this method, the investments in subsidiaries are recorded at cost and adjusted for the Company's share of the subsidiaries' cumulative results of operations, capital contributions, distributions and other equity changes. The principal elimination entries eliminate investment in subsidiaries and intercompany balances and transactions.

In May 2016, the Company entered into an Acknowledgment and Agreement and Second Amendment to its Credit Agreement which, among other things, removed certain subsidiaries from the list of named guarantors. This amendment had no impact on the composition of the Company's consolidated group and had no effect on the Consolidated Financial Statements including total stockholders' equity in Guarantor Subsidiaries. The Condensed Consolidating Balance Sheet was revised to present the financial statements of the Guarantor Subsidiaries and Nonguarantor Subsidiaries for December 31, 2015, based on this change in composition. The related increases (decreases) from this revision are shown in the table below (in millions):

| Description | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| Due from affiliates - current | $ — | $ (287) | $ — | $ 287 | $ — |
| Investment in subsidiaries | — | (452) | — | 452 | — |
| Due from affiliates | — | — | (739) | 739 | — |
| TOTAL ASSETS | $ — | $ (739) | $ (739) | $ 1,478 | $ — |
| | | | | | |
| Due to affiliates - current | $ — | $ — | $ (287) | $ 287 | $ — |
| Due to affiliates | — | (739) | — | 739 | — |
| Total equity | — | — | (452) | 452 | — |
| TOTAL LIABILITIES AND EQUITY | $ — | $ (739) | $ (739) | $ 1,478 | $ — |

During the second quarter of 2016, the Company discovered classification errors in the December 31, 2015 Condensed Consolidating Balance Sheet related to intercompany activity recorded in the Due from and Due to affiliates, Investment in subsidiary and Equity line items between and among the Parent, Guarantor Subsidiaries and Non-Guarantor Subsidiaries. These classifications errors had no effect on the Consolidated Financial Statements. The effect of correcting these classification errors was not material to the 2015 Condensed Consolidating Balance Sheet, and the related amounts presented as of December 31, 2015 have been revised. The related increases (decreases) from this revision are shown in the table below (in millions):

| Description | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| Due from affiliates - current | $— | $ (474) | $ — | $ 474 | $ — |
| Investment in subsidiaries | (484) | (569) | (559) | 1,612 | — |
| TOTAL ASSETS | $(484) | $ (1,043) | $ (559) | $ 2,086 | $ — |
| | | | | | |
| Due to affiliates - current | $(484) | $ — | $ 10 | $ 474 | $ — |
| Total equity | — | (1,043) | (569) | 1,612 | — |
| TOTAL LIABILITIES AND EQUITY | $(484) | $ (1,043) | $ (559) | $ 2,086 | $ — |

Additional domestic subsidiaries were added to the Credit Agreement as Guarantor Subsidiaries as of September 30, 2016. As a result, the Condensed Consolidating Financial Statements presented for previous periods were retrospectively revised based on the updated guarantor structure. The impact of this revision was not material to the periods presented.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

Guarantor and Nonguarantor Financial Statements

The Senior Notes and the Senior Revolving Credit Facility are guaranteed, fully, unconditionally and jointly and severally, by certain of Owens Corning's current and future wholly-owned material domestic subsidiaries that are borrowers or guarantors under the Credit Agreement, which permits changes to the named guarantors in certain situations (collectively, the "Guarantor Subsidiaries"). The remaining subsidiaries have not guaranteed the Senior Notes and the Senior Revolving Credit Facility (collectively, the "Nonguarantor Subsidiaries").

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET SALES | $— | $ 4,103 | $ 2,046 | $ (472) | $ 5,677 |
| COST OF SALES | 1 | 3,203 | 1,564 | (472) | 4,296 |
| Gross margin | (1) | 900 | 482 | — | 1,381 |
| OPERATING EXPENSES | | | | | |
| Marketing and administrative expenses | 148 | 316 | 120 | — | 584 |
| Science and technology expenses | — | 68 | 14 | — | 82 |
| Other expenses, net | (14) | 24 | 6 | — | 16 |
| Total operating expenses | 134 | 408 | 140 | — | 682 |
| EARNINGS BEFORE INTEREST AND TAXES | (135) | 492 | 342 | — | 699 |
| Interest expense, net | 99 | (2) | 11 | — | 108 |
| Loss (gain) on extinguishment of debt | 1 | — | — | — | 1 |
| EARNINGS BEFORE TAXES | (235) | 494 | 331 | — | 590 |
| Less: Income tax expense | (89) | 206 | 71 | — | 188 |
| EARNINGS BEFORE EQUITY IN NET EARNINGS OF SUBSIDIARIES AND AFFILIATES | (146) | 288 | 260 | — | 402 |
| Equity in net earnings of subsidiaries | 539 | 251 | — | (790) | — |
| Equity in net earnings (loss) of affiliates | — | — | (3) | — | (3) |
| NET EARNINGS | 393 | 539 | 257 | (790) | 399 |
| Less: Net earnings attributable to noncontrolling interests | — | — | 6 | — | 6 |
| NET EARNINGS ATTRIBUTABLE TO OWENS CORNING | $393 | $ 539 | $ 251 | $ (790) | $ 393 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET SALES | $— | $ 3,826 | $ 1,892 | $ (368) | $ 5,350 |
| COST OF SALES | 1 | 3,095 | 1,469 | (368) | 4,197 |
| Gross margin | (1) | 731 | 423 | — | 1,153 |
| OPERATING EXPENSES | | | | | |
| Marketing and administrative expenses | 126 | 285 | 114 | — | 525 |
| Science and technology expenses | — | 60 | 13 | — | 73 |
| Other expenses, net | (48) | 26 | 29 | — | 7 |
| Total operating expenses | 78 | 371 | 156 | — | 605 |
| EARNINGS BEFORE INTEREST AND TAXES | (79) | 360 | 267 | — | 548 |
| Interest expense, net | 95 | 3 | 2 | — | 100 |
| Loss (gain) on extinguishment of debt | (5) | — | — | — | (5) |
| EARNINGS BEFORE TAXES | (169) | 357 | 265 | — | 453 |
| Less: Income tax expense | (71) | 159 | 32 | — | 120 |
| EARNINGS BEFORE EQUITY IN NET EARNINGS OF SUBSIDIARIES AND AFFILIATES | (98) | 198 | 233 | — | 333 |
| Equity in net earnings of subsidiaries | 428 | 230 | — | (658) | — |
| Equity in net earnings (loss) of affiliates | — | — | 1 | — | 1 |
| NET EARNINGS | 330 | 428 | 234 | (658) | 334 |
| Less: Net earnings attributable to noncontrolling interests | — | — | 4 | — | 4 |
| NET EARNINGS ATTRIBUTABLE TO OWENS CORNING | $330 | $ 428 | $ 230 | $ (658) | $ 330 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET SALES | $— | $ 3,699 | $ 1,936 | $ (375) | $ 5,260 |
| COST OF SALES | (12) | 3,065 | 1,606 | (375) | 4,284 |
| Gross margin | 12 | 634 | 330 | — | 976 |
| OPERATING EXPENSES | | | | | |
| Marketing and administrative expenses | 112 | 252 | 123 | — | 487 |
| Science and technology expenses | — | 58 | 18 | — | 76 |
| Other expenses, net | (37) | 9 | 49 | — | 21 |
| Total operating expenses | 75 | 319 | 190 | — | 584 |
| EARNINGS BEFORE INTEREST AND TAXES | (63) | 315 | 140 | — | 392 |
| Interest expense, net | 106 | 3 | 5 | — | 114 |
| Loss (gain) on extinguishment of debt | 46 | — | — | — | 46 |
| EARNINGS BEFORE TAXES | (215) | 312 | 135 | — | 232 |
| Less: Income tax expense | (81) | 85 | 1 | — | 5 |
| EARNINGS BEFORE EQUITY IN NET EARNINGS OF SUBSIDIARIES AND AFFILIATES | (134) | 227 | 134 | — | 227 |
| Equity in net earnings of subsidiaries | 360 | 133 | — | (493) | — |
| Equity in net earnings (loss) of affiliates | — | — | 1 | — | 1 |
| NET EARNINGS | 226 | 360 | 135 | (493) | 228 |
| Less: Net earnings attributable to noncontrolling interests | — | — | 2 | — | 2 |
| NET EARNINGS ATTRIBUTABLE TO OWENS CORNING | $226 | $ 360 | $ 133 | $ (493) | $ 226 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS (LOSS)
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET EARNINGS | $393 | $ 539 | $ 257 | $ (790) | $ 399 |
| Currency translation adjustment, including net investment hedge | (37) | (7) | (33) | 40 | (37) |
| Pension and other postretirement adjustment (net of tax) | (10) | 41 | (30) | (11) | (10) |
| Deferred income (loss) on hedging (net of tax) | 7 | 1 | 1 | (2) | 7 |
| COMPREHENSIVE EARNINGS (LOSS) | 353 | 574 | 195 | (763) | 359 |
| Less: Comprehensive earnings attributable to noncontrolling interests | — | — | 6 | — | 6 |
| COMPREHENSIVE EARNINGS (LOSS) ATTRIBUTABLE TO OWENS CORNING | $353 | $ 574 | $ 189 | $ (763) | $ 353 |

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS (LOSS)
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET EARNINGS | $330 | $ 428 | $ 234 | $ (658) | $ 334 |
| Currency translation adjustment, including net investment hedge | (115) | (5) | (118) | 123 | (115) |
| Pension and other postretirement adjustment (net of tax) | (6) | (2) | 8 | (6) | (6) |
| Deferred income (loss) on hedging (net of tax) | 1 | 4 | (1) | (3) | 1 |
| COMPREHENSIVE EARNINGS (LOSS) | 210 | 425 | 123 | (544) | 214 |
| Less: Comprehensive earnings attributable to noncontrolling interests | — | — | 4 | — | 4 |
| COMPREHENSIVE EARNINGS (LOSS) ATTRIBUTABLE TO OWENS CORNING | $210 | $ 425 | $ 119 | $ (544) | $ 210 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS (LOSS)
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET EARNINGS | $226 | $ 360 | $ 135 | $ (493) | $ 228 |
| Currency translation adjustment, including net investment hedge | (134) | (17) | (118) | 135 | (134) |
| Pension and other postretirement adjustment (net of tax) | (113) | 85 | (30) | (55) | (113) |
| Deferred income (loss) on hedging (net of tax) | (6) | (5) | (1) | 6 | (6) |
| COMPREHENSIVE EARNINGS (LOSS) | (27) | 423 | (14) | (407) | (25) |
| Less: Comprehensive earnings attributable to noncontrolling interests | — | — | 2 | — | 2 |
| COMPREHENSIVE EARNINGS (LOSS) ATTRIBUTABLE TO OWENS CORNING | $(27) | $ 423 | $ (16) | $ (407) | $ (27) |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF DECEMBER 31, 2016
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| ASSETS | | | | | |
| CURRENT ASSETS | | | | | |
| Cash and cash equivalents | $— | $ 55 | $ 57 | $ — | $ 112 |
| Receivables, net | — | — | 678 | — | 678 |
| Due from affiliates | — | 2,612 | — | (2,612) | — |
| Inventories | — | 422 | 288 | — | 710 |
| Assets held for sale – current | — | 3 | 9 | — | 12 |
| Other current assets | 24 | 26 | 24 | — | 74 |
| Total current assets | 24 | 3,118 | 1,056 | (2,612) | 1,586 |
| Investment in subsidiaries | 7,745 | 1,653 | — | (9,398) | — |
| Due from affiliates | — | — | — | — | — |
| Property, plant and equipment, net | 470 | 1,600 | 1,042 | — | 3,112 |
| Goodwill | — | 1,159 | 177 | — | 1,336 |
| Intangible assets, net | — | 1,038 | 217 | (117) | 1,138 |
| Deferred income taxes | (42) | 360 | 57 | — | 375 |
| Other non-current assets | 19 | 64 | 111 | — | 194 |
| TOTAL ASSETS | $8,216 | $ 8,992 | $ 2,660 | $ (12,127) | $ 7,741 |
| LIABILITIES AND EQUITY | | | | | |
| CURRENT LIABILITIES | | | | | |
| Accounts payable and accrued liabilities | $75 | $ 832 | $ 53 | $ — | $ 960 |
| Due to affiliates | 1,941 | — | 671 | (2,612) | — |
| Short-term debt | — | — | — | — | — |
| Long-term debt – current portion | — | 2 | 1 | — | 3 |
| Total current liabilities | 2,016 | 834 | 725 | (2,612) | 963 |
| Long-term debt, net of current portion | 2,069 | 12 | 18 | — | 2,099 |
| Due to affiliates | — | — | — | — | — |
| Pension plan liability | 244 | — | 123 | — | 367 |
| Other employee benefits liability | — | 208 | 13 | — | 221 |
| Deferred income taxes | — | — | 36 | — | 36 |
| Other liabilities | 38 | 193 | 50 | (117) | 164 |
| Redeemable equity | — | — | 2 | — | 2 |
| OWENS CORNING STOCKHOLDERS' EQUITY | | | | | |
| Preferred stock | — | — | — | — | — |
| Common stock | 1 | — | — | — | 1 |
| Additional paid in capital | 3,984 | — | — | — | 3,984 |
| Accumulated earnings | 1,377 | — | — | — | 1,377 |

| | | | | | |
|---|---|---|---|---|---|
| Accumulated other comprehensive deficit | (710) | — | — | — | (710) |
| Cost of common stock in treasury | (803) | — | — | — | (803) |
| Total Owens Corning stockholders' equity | 3,849 | 7,745 | 1,653 | (9,398) | 3,849 |
| Noncontrolling interests | — | — | 40 | — | 40 |
| Total equity | 3,849 | 7,745 | 1,693 | (9,398) | 3,889 |
| TOTAL LIABILITIES AND EQUITY | $8,216 | $ 8,992 | $ 2,660 | $ (12,127) | $ 7,741 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF DECEMBER 31, 2015
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| ASSETS | | | | | |
| CURRENT ASSETS | | | | | |
| Cash and cash equivalents | $— | $ 48 | $ 48 | $ — | $ 96 |
| Receivables, net | — | — | 709 | — | 709 |
| Due from affiliates | — | 2,382 | — | (2,382) | — |
| Inventories | — | 392 | 252 | — | 644 |
| Assets held for sale – current | — | — | 12 | — | 12 |
| Other current assets | 11 | 21 | 15 | — | 47 |
| Total current assets | 11 | 2,843 | 1,036 | (2,382) | 1,508 |
| Investment in subsidiaries | 7,220 | 1,423 | — | (8,643) | — |
| Due from affiliates | — | — | — | — | — |
| Property, plant and equipment, net | 463 | 1,451 | 1,042 | — | 2,956 |
| Goodwill | — | 1,149 | 18 | — | 1,167 |
| Intangible assets, net | — | 986 | 144 | (131) | 999 |
| Deferred income taxes | — | 430 | 62 | — | 492 |
| Other non-current assets | 25 | 61 | 118 | — | 204 |
| TOTAL ASSETS | $7,719 | $ 8,343 | $ 2,420 | $ (11,156) | $ 7,326 |
| LIABILITIES AND EQUITY | | | | | |
| CURRENT LIABILITIES | | | | | |
| Accounts payable and accrued liabilities | $56 | $ 703 | $ 135 | $ — | $ 894 |
| Due to affiliates | 1,760 | — | 622 | (2,382) | — |
| Short-term debt | — | — | 6 | — | 6 |
| Long-term debt – current portion | 160 | 2 | 1 | — | 163 |
| Total current liabilities | 1,976 | 705 | 764 | (2,382) | 1,063 |
| Long-term debt, net of current portion | 1,668 | 14 | 20 | — | 1,702 |
| Due to affiliates | — | — | — | — | — |
| Pension plan liability | 286 | — | 111 | — | 397 |
| Other employee benefits liability | — | 227 | 13 | — | 240 |
| Deferred income taxes | — | — | 8 | — | 8 |
| Other liabilities | 50 | 177 | 41 | (131) | 137 |
| Redeemable equity | — | — | — | — | — |
| OWENS CORNING STOCKHOLDERS' EQUITY | | | | | |
| Preferred stock | — | — | — | — | — |
| Common stock | 1 | — | — | — | 1 |
| Additional paid in capital | 3,965 | — | — | — | 3,965 |
| Accumulated earnings | 1,055 | — | — | — | 1,055 |

| | | | | | |
|---|---|---|---|---|---|
| Accumulated other comprehensive deficit | (670) | — | — | — | (670) |
| Cost of common stock in treasury | (612) | — | — | — | (612) |
| Total Owens Corning stockholders' equity | 3,739 | 7,220 | 1,423 | (8,643) | 3,739 |
| Noncontrolling interests | — | — | 40 | — | 40 |
| Total equity | 3,739 | 7,220 | 1,463 | (8,643) | 3,779 |
| TOTAL LIABILITIES AND EQUITY | $7,719 | $ 8,343 | $ 2,420 | $ (11,156) | $ 7,326 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES | $(113) | $ 497 | $ 584 | $ (25) | $ 943 |
| NET CASH FLOW USED FOR INVESTING ACTIVITIES | | | | | |
| Cash paid for property, plant and equipment | (20) | (281) | (72) | — | (373) |
| Derivative settlements | — | — | — | — | — |
| Proceeds from the sale of assets or affiliates | — | — | — | — | — |
| Investment in subsidiaries and affiliates, net of cash acquired | — | — | (452) | — | (452) |
| Purchases of alloy | — | — | — | — | — |
| Other | 10 | — | — | — | 10 |
| Proceeds from the sale of alloy | — | — | — | — | — |
| Net cash flow used for investing activities | (10) | (281) | (524) | — | (815) |
| NET CASH FLOW USED FOR FINANCING ACTIVITIES | | | | | |
| Proceeds from senior revolving credit and receivables securitization facilities | — | — | 669 | — | 669 |
| Payments on senior revolving credit and receivables securitization facilities | — | — | (669) | — | (669) |
| Proceeds from long-term debt | 395 | — | — | — | 395 |
| Payments on long-term debt | (160) | (1) | (2) | — | (163) |
| Proceeds from term loan | 300 | — | — | — | 300 |
| Payments on term loan | (300) | — | — | — | (300) |
| Dividends paid | (81) | — | — | — | (81) |
| Net (decrease) increase in short-term debt | — | — | (6) | — | (6) |
| Purchases of treasury stock | (247) | — | — | — | (247) |
| Intercompany dividends paid | — | — | (25) | 25 | — |
| Other | 14 | — | — | — | 14 |
| Other intercompany loans | 208 | (208) | — | — | — |
| Net cash flow used for financing activities | 129 | (209) | (33) | 25 | (88) |
| Effect of exchange rate changes on cash | — | — | (18) | — | (18) |
| Net increase in cash, cash equivalents and restricted cash | 6 | 7 | 9 | — | 22 |
| Cash, cash equivalents and restricted cash at beginning of period | — | 48 | 48 | — | 96 |
| CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD | $6 | $ 55 | $ 57 | $ — | $ 118 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES | $(106) | $ 465 | $ 388 | $ (5) | $ 742 |
| NET CASH FLOW USED FOR INVESTING ACTIVITIES | | | | | |
| Cash paid for property, plant and equipment | (21) | (271) | (101) | — | (393) |
| Derivative settlements | 4 | — | — | — | 4 |
| Proceeds from the sale of assets or affiliates | — | — | 20 | — | 20 |
| Investment in subsidiaries and affiliates, net of cash acquired | — | — | — | — | — |
| Purchases of alloy | — | — | (8) | — | (8) |
| Proceeds from sale of alloy | — | — | 8 | — | 8 |
| Other | — | — | — | — | — |
| Net cash flow used for investing activities | (17) | (271) | (81) | — | (369) |
| NET CASH FLOW USED FOR FINANCING ACTIVITIES | | | | | |
| Proceeds from senior revolving credit and receivables securitization facilities | 1,236 | — | 310 | — | 1,546 |
| Payments on senior revolving credit and receivables securitization facilities | (1,236) | — | (416) | — | (1,652) |
| Proceeds from term loan | — | — | — | — | — |
| Payments on term loan | — | — | — | — | — |
| Proceeds from long-term debt | — | — | — | — | — |
| Payments on long-term debt | (5) | (1) | (2) | — | (8) |
| Dividends paid | (78) | — | — | — | (78) |
| Net (decrease) increase in short-term debt | — | (25) | 3 | — | (22) |
| Purchases of treasury stock | (138) | — | — | — | (138) |
| Other | 19 | — | — | — | 19 |
| Intercompany dividends paid | — | — | (5) | 5 | — |
| Other intercompany loans | 325 | (121) | (204) | — | — |
| Net cash flow used for financing activities | 123 | (147) | (314) | 5 | (333) |
| Effect of exchange rate changes on cash | — | — | (11) | — | (11) |
| Net increase in cash, cash equivalents and restricted cash | — | 47 | (18) | — | 29 |
| Cash, cash equivalents and restricted cash at beginning of period | — | 1 | 66 | — | 67 |
| CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD | $— | $ 48 | $ 48 | $ — | $ 96 |

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
22. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2014
(in millions)

| | Parent | Guarantor Subsidiaries | Non-Guarantor Subsidiaries | Eliminations | Consolidated |
|---|---|---|---|---|---|
| NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES | $(110) | $ 474 | $ 94 | $ (6) | $ 452 |
| NET CASH FLOW USED FOR INVESTING ACTIVITIES | | | | | |
| Cash paid for property, plant and equipment | (13) | (223) | (138) | — | (374) |
| Derivative settlements | — | — | 5 | — | 5 |
| Proceeds from the sale of assets or affiliates | 44 | — | 21 | — | 65 |
| Investment in subsidiaries and affiliates, net of cash required | — | (5) | (7) | — | (12) |
| Purchases of alloy | — | — | (28) | — | (28) |
| Proceeds from sale of alloy | 4 | — | 43 | — | 47 |
| Other | — | — | — | — | — |
| Net cash flow used for investing activities | 35 | (228) | (104) | — | (297) |
| NET CASH FLOW USED FOR FINANCING ACTIVITIES | | | | | |
| Proceeds from senior revolving credit and receivables securitization facilities | 1,226 | — | 50 | — | 1,276 |
| Payments on senior revolving credit and receivables securitization facilities | (1,238) | — | (106) | — | (1,344) |
| Proceeds from term loan | — | — | — | — | — |
| Payments on term loan | — | — | — | — | — |
| Proceeds from long-term debt | 390 | — | — | — | 390 |
| Payments on long-term debt | (400) | — | (2) | — | (402) |
| Dividends paid | (56) | — | — | — | (56) |
| Net (decrease) increase in short-term debt | — | 25 | 5 | — | 30 |
| Purchases of treasury stock | (44) | — | — | — | (44) |
| Other | 8 | — | — | — | 8 |
| Intercompany dividends paid | — | — | (6) | 6 | — |
| Other intercompany loans | 189 | (273) | 84 | — | — |
| Net cash flow used for financing activities | 75 | (248) | 25 | 6 | (142) |
| Effect of exchange rate changes on cash | — | — | (3) | — | (3) |
| Net increase in cash, cash equivalents and restricted cash | — | (2) | 12 | — | 10 |
| Cash, cash equivalents and restricted cash at beginning of period | — | 3 | 54 | — | 57 |
| CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD | $— | $ 1 | $ 66 | $ — | $ 67 |

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OWENS CORNING AND SUBSIDIARIES
INDEX TO CONDENSED FINANCIAL STATEMENT SCHEDULE


| Number | Description | Page |
|---|---|---|
| II | Valuation and Qualifying Accounts and Reserves – for the years ended December 31, 2016, 2015 and 2014 | 109 |

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OWENS CORNING AND SUBSIDIARIES
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS AND RESERVES FOR THE YEARS ENDED December 31, 2016, 2015 AND 2014
(in millions)

| | Balance at Beginning of Period | Charged to Costs and Expenses | Charged to Other Accounts | Deductions | Acquisitions and Divestitures | Balance at End of Period |
|---|---|---|---|---|---|---|
| FOR THE YEAR ENDED DECEMBER 31, 2016 | | | | | | |
| Allowance for doubtful accounts | $ 8 | $ 2 | $ — | $ (1) (a) | $ — | $ 9 |
| Tax valuation allowance | $ 135 | $ (27) | $ (5) | $ — | $ — | $ 103 |
| FOR THE YEAR ENDED DECEMBER 31, 2015 | | | | | | |
| Allowance for doubtful accounts | $ 10 | $ — | $ — | $ (2) (a) | $ — | $ 8 |
| Tax valuation allowance | $ 227 | $ (73) | $ (18) | $ (1) | $ — | $ 135 |
| FOR THE YEAR ENDED DECEMBER 31, 2014 | | | | | | |
| Allowance for doubtful accounts | $ 14 | $ 2 | $ — | $ (6) (a) | $ — | $ 10 |
| Tax valuation allowance | $ 270 | $ (15) | $ (17) | $ (11) | $ — | $ 227 |

(a) Uncollectible accounts written off, net of recoveries.

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EXHIBIT INDEX

Pursuant to the rules and regulations of the SEC, the Company has filed or incorporated by reference certain agreements as exhibits to this Annual Report on Form 10-K. These agreements may contain representations and warranties by the parties. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in the Company's public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe the Company's actual state of affairs at the date hereof and should not be relied upon.

| Exhibit Number | Description |
|---|---|
| 3.1 | Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100), for the quarter ended March 31, 2016). |
| 3.2 | Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended March 31, 2016). |
| 4.1 | Indenture, dated as of October 31, 2006, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed November 2, 2006). |
| 4.2 | First Supplemental Indenture, dated as of April 13, 2007, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 13, 2007). |
| 4.3 | Second Supplemental Indenture, dated as of December 12, 2007, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2007). |
| 4.4 | Third Supplemental Indenture, dated as of April 24, 2008, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended June 30, 2008). |
| 4.5 | Indenture, dated as of June 2, 2009, between Owens Corning, certain of Owens Corning's subsidiaries and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Registration Statement on Form S-3 (File No. 333-159689), filed June 3, 2009). |
| 4.6 | First Supplemental Indenture, dated June 8, 2009, between Owens Corning, the guarantors named therein and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed June 8, 2009). |
| 4.7 | Form of 9.000% Senior Notes due 2019 (incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed June 8, 2009). |

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| 4.8 | Form of 4.200% Senior Notes due 2022 (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed October 22, 2013). |
| 4.9 | Form of 4.200% Senior Notes due 2024 (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed November 12, 2014). |
| 4.10 | Second Supplemental Indenture, dated as of May 26, 2010, by and among Owens Corning, certain subsidiaries, and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed May 28, 2010). |

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| 4.11 | Third Supplemental Indenture, dated as of October 22, 2012, by and among Owens Corning, certain subsidiaries, and Wells Fargo Bank, National Association, as successor Trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Form 8-K (File No. 1-33100), filed October 22, 2012). |
| 4.12 | Fourth Supplemental Indenture, dated as of November 12, 2014, by and among Owens Corning, the guarantors named therein and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100) filed November12, 2014). |
| 4.13 | Fifth Supplemental Indenture, dated as of August 8, 2016, by and among the Company, the guarantors party thereto and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100) filed August 8, 2016). |
| 4.14 | Form of 3.400% Senior Notes due 2026 (incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K (File No. 1-33100) filed August 8, 2016). |
| 10.1 | Amended and Restated Credit Agreement, dated as of November 13, 2015, by and among the Company, certain of its subsidiaries, the lenders signatory thereto and Wells Fargo Bank, National Association, as Administrative Agent, (incorporated by reference to Exhibit 10.1 of Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed November 17, 2015). |
| 10.2 | First Amendment to the Amended and Restated Credit Agreement, dated as of March 22, 2016, by and among the Company, certain of its subsidiaries, the lenders signatory thereto and Wells Fargo Bank, National Association, as Administrative Agent (incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 22, 2016). |
| 10.3 | Acknowledgment and Agreement and Second Amendment to Amended and Restated Credit Agreement, dated as of May 27, 2016, (incorporated by reference to Exhibit 10.40 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100), for the quarter ended June 30, 2016. |
| 10.4 | Purchase and Sale Agreement dated as of March 31, 2011 between Owens Corning Sales, LLC and Owens Corning Receivables LLC (incorporated by reference to Exhibit 10.2 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 5, 2011). |
| 10.5 | Amended and Restated Receivables Purchase Agreement dated as of December 16, 2011 (incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed December 19, 2011). |
| 10.6 | Second Amendment to Amended and Restated Purchase Agreement dated as of July 26, 2013 (incorporated by reference to Exhibit 10.1 to Owens Corning Current Report on Form 8-K (File No. 1-33100), filed July 29, 2013). |
| 10.7 | Performance Guaranty dated as of March 31, 2011 (incorporated by reference to Exhibit 10.3 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 5, 2011). |
| 10.8 | Key Management Severance Agreement with Charles E. Dana (incorporated by reference to Exhibit 10.18 to Owens Corning's annual report on Form 10-K (File No. 1-33100) for the year ended December 31, 2008).* |

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| 10.9 | Form of Key Management Severance Agreement for Executive Officers* (incorporated by reference to Exhibit 10.10 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |
| 10.10 | Amended and restated Key Management Severance Agreement with Michael H. Thaman (incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Annual Report on Form 10-K (File No. 1-3660) for the year ended December 31, 2005).* |
| 10.11 | Amendment, dated April 16, 2015, to Key Management Severance Agreement with Michael H. Thaman (incorporated by reference to Exhibit 10.31 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended March 31, 2015).* |

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| 10.12 | Form of Directors' Indemnification Agreement (incorporated by reference to Exhibit 10.2 of Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed November 2, 2006). |
| 10.13 | Owens Corning Long-Term Incentive Plan (incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q (File No. 1-3660) for the quarter ended June 30, 2003).* |
| 10.14 | Owens Corning Executive Supplemental Benefit Plan, 2009 Restatement (incorporated by reference to Exhibit 10.28 to Owens Corning's annual report on Form 10-K (File No. 1-33100) for the year ended December 31, 2008).* |
| 10.15 | Corporate Incentive Plan Terms Applicable to Certain Executive Officers (incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q (File No. 1-3660) for the quarter ended March 31, 1999).* |
| 10.16 | Amended and Restated Corporate Incentive Plan Terms Applicable to Certain Executive Officers (incorporated by reference to Annex B to Owens Corning's Proxy Statement (File No. 1-33100), filed March 16, 2011).* |
| 10.17 | Owens Corning Supplemental Executive Retirement Plan, as amended and restated, effective as of January 1, 2009 (incorporated by reference to Exhibit 10.30 to Owens Corning's annual report on Form 10-K (File No. 1-33100) for the year ended December 31, 2008).* |
| 10.18 | Corporate Incentive Plan Terms Applicable to Key Employees Other Than Certain Executive Officers (incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q (File No. 1-3660) for the quarter ended June 30, 1999).* |
| 10.19 | Corporate Incentive Plan Terms Applicable to Certain Executive Officers (As Amended and Restated as of January 1, 2016) (incorporated by reference to Exhibit 10.38 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended March 31, 2016).* |
| 10.20 | Owens Corning Deferred Compensation Plan, effective as of January 1, 2007 (incorporated by reference to Exhibit 10.5 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended March 31, 2007).* |
| 10.21 | First Amendment to the Owens Corning Deferred Compensation Plan, effective as of January 1, 2009 (incorporated by reference to Exhibit 10.33 to Owens Corning's annual report on Form 10-K (File No. 1-33100) for the year ended December 31, 2008).* |
| 10.22 | Owens Corning Amended and Restated Deferred Compensation Plan, effective as of January 1, 2014 (incorporated by reference to Exhibit 10.22 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |
| 10.23 | Owens Corning 2010 Stock Plan (incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 23, 2010).* |
| 10.24 | Owens Corning 2013 Stock Plan (incorporated by reference to Annex C to Owens Corning's Proxy Statement (File No 1-33100), filed March 14, 2013).* |

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| 10.25 | Owens Corning 2016 Stock Plan (incorporated by reference to Exhibit 10.39 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended March 31, 2016).* |
| 10.26 | Owens Corning Employee Stock Purchase Plan, effective as of April 18, 2013, (incorporated by reference to Annex B to Owens Corning's Proxy Statement (File No. 1-33100), filed March 14, 2013).* |
| 10.27 | Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Option Award (incorporated by reference to Exhibit 10.27 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |

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| 10.28 | Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Performance Share Unit (incorporated by reference to Exhibit 10.28 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |
| 10.29 | Form of Owens Corning 2016 Long Term Incentive Program Award Agreement for Performance Share Unit (filed herewith)* |
| 10.30 | Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Restricted Stock Unit (incorporated by reference to Exhibit 10.29 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |
| 10.31 | Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Restricted Stock (incorporated by reference to Exhibit 10.30 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).* |
| 10.32 | Form of Deferred Stock Unit Award Agreement for Directors (incorporated by reference to Exhibit 10.32 to Owens Corning’s Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).* |
| 10.33 | Form of Long Term Incentive Program Award Agreement for Restricted Stock Unit (incorporated by reference to Exhibit 10.33 to Owens Corning’s Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).* |
| 10.34 | Form of Long Term Incentive Program Award Agreement for Performance Share Unit (incorporated by reference to Exhibit 10.34 to Owens Corning’s Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).* |
| 10.35 | Form of Long Term Incentive Program Award Agreement for Restricted Stock (incorporated by reference to Exhibit 10.35 to Owens Corning’s Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).* |
| 21.1 | Subsidiaries of Owens Corning (filed herewith). |
| 23.1 | Consent of PricewaterhouseCoopers LLP (filed herewith). |
| 31.1 | Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith). |
| 31.2 | Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith). |
| 32.1 | Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 (filed herewith). |
| 32.2 | Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350 (filed herewith). |
| 101.INS | XBRL Taxonomy Extension Schema |
| 101.SCH | XBRL Taxonomy Extension Schema |

101.CAL XBRL Taxonomy Extension Calculation Linkbase

101.LAB XBRL Taxonomy Extension Label Linkbase

101.PRE XBRL Taxonomy Extension Presentation Linkbase

* Denotes management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Form 10-K.

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Owens Corning agrees to furnish to the U.S. Securities and Exchange Commission, upon request, copies of all instruments defining the rights of holders of long-term debt of Owens Corning where the total amount of securities authorized under each issue does not exceed 10% of the total assets of Owens Corning and its subsidiaries on a consolidated basis.