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Huntsman CORP  
 Form 10-K  
 February 15, 2017

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**UNITED STATES  
 SECURITIES AND EXCHANGE COMMISSION  
 WASHINGTON, D.C. 20549  
 Form 10-K**

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2016

**OR**

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

Commission File Number	Exact Name of Registrant as Specified in its Charter, Principal Office Address and Telephone Number	State of Incorporation/Organization	I.R.S. Employer Identification No.
001-32427	Huntsman Corporation 10003 Woodloch Forest Drive The Woodlands, Texas 77380 (281) 719-6000	Delaware	42-1648585
333-85141	Huntsman International LLC 10003 Woodloch Forest Drive The Woodlands, Texas 77380 (281) 719-6000	Delaware	87-0630358

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

Registrant	Title of each class	Name of each exchange on which registered
Huntsman Corporation	Common Stock, par value \$0.01 per share	New York Stock Exchange
Huntsman International LLC	None	None

**Securities registered pursuant to Section 12(g) of the Exchange Act:**

Registrant	Title of each class
Huntsman Corporation	None
Huntsman International LLC	None

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

Huntsman Corporation YES  NO   
 Huntsman International LLC YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

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Huntsman Corporation YES  NO   
 Huntsman International LLC YES  NO

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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.

Huntsman Corporation YES  NO   
 Huntsman International LLC YES  NO

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

Huntsman Corporation YES  NO   
 Huntsman International LLC YES  NO

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

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

Huntsman Corporation	Large accelerated filer <input checked="" type="radio"/>	Accelerated filer <input type="radio"/>	Non-accelerated filer <input type="radio"/>	Smaller reporting company <input type="radio"/>
Huntsman International LLC	Large accelerated filer <input type="radio"/>	Accelerated filer <input type="radio"/>	Non-accelerated filer <input checked="" type="radio"/>	Smaller reporting company <input type="radio"/>

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Huntsman Corporation YES  NO   
 Huntsman International LLC YES  NO

On June 30, 2016, the last business day of the registrants' most recently completed second fiscal quarter, the aggregate market value of voting and non-voting common equity held by non-affiliates was as follows:

Registrant	Common Equity	Market Value Held by Nonaffiliates
Huntsman Corporation	Common Stock	\$2,573,379,972(1)
Huntsman International LLC	Units of Membership Interest	\$(2)

(1) Based on the closing price of \$13.45 per share of common stock as quoted on the New York Stock Exchange.

(2) All units of membership interest are held by Huntsman Corporation, an affiliate.

On February 8, 2017, the number of shares outstanding of each of the registrant's classes of common equity were as follows:

Registrant	Common Equity	Outstanding
Huntsman Corporation	Common Stock	238,505,192
Huntsman International LLC	Units of Membership Interest	2,728

This Annual Report on Form 10-K presents information for two registrants: Huntsman Corporation and Huntsman International LLC. Huntsman International LLC is a wholly owned subsidiary of Huntsman Corporation and is the principal operating company of Huntsman Corporation. The information reflected in this Annual Report on Form 10-K is equally applicable to both Huntsman Corporation and Huntsman International LLC, except where otherwise indicated.

Huntsman International LLC meets the conditions set forth in General Instructions (I)(1)(a) and (b) of Form 10-K and, to the extent applicable, is therefore filing this form with a reduced disclosure format.

### Documents Incorporated by Reference

Part III: Proxy Statement for the 2017 Annual Meeting of Stockholders to be filed within 120 days of  
 Huntsman Corporation's fiscal year ended December 31, 2016.

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With respect to Huntsman Corporation, certain information set forth in this report contains "forward-looking statements" within the meaning the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than historical factual information are forward-looking statements, including without limitation statements regarding: projections of revenue, expenses, profit, profit margins, tax rates, tax provisions, cash flows, pension and benefit obligations and funding requirements, our liquidity position or other projected financial measures; management's plans and strategies for future operations, including statements relating to anticipated operating performance, cost reductions, restructuring activities, new product and service developments, competitive strengths or market position, acquisitions, divestitures, spin-offs, or other distributions, strategic opportunities, securities offerings, stock repurchases, dividends and executive compensation; growth, declines and other trends in markets we sell into; new or modified laws, regulations and accounting pronouncements; outstanding claims, legal proceedings, tax audits and assessments and other contingent liabilities; foreign currency exchange rates and fluctuations in those rates; general economic and capital markets conditions; the timing of any of the foregoing; assumptions underlying any of the foregoing; and any other statements that address events or developments that we intend or believe will or may occur in the future. In some cases, forward-looking statements can be identified by terminology such as "believes," "expects," "may," "will," "should," "anticipates" or "intends" or the negative of such terms or other comparable terminology, or by discussions of strategy. We may also make additional forward-looking statements from time to time. All such subsequent forward-looking statements, whether written or oral, by us or on our behalf, are also expressly qualified by these cautionary statements.

All forward-looking statements, including without limitation management's examination of historical operating trends, are based upon our current expectations and various assumptions. Our expectations, beliefs and projections are expressed in good faith and we believe there is a reasonable basis for them, but there can be no assurance that management's expectations, beliefs and projections will result or be achieved. All forward-looking statements apply only as of the date made. We undertake no obligation to publicly update or revise forward-looking statements whether because of new information, future events or otherwise, except as required by securities and other applicable law.

There are a number of risks and uncertainties that could cause our actual results to differ materially from the forward-looking statements contained in or contemplated by this report. Any forward-looking statements should be considered in light of the risks set forth in "Part I. Item 1A. Risk Factors" and elsewhere in this report.

This report includes information with respect to market share, industry conditions and forecasts that we obtained from internal industry research, publicly available information (including industry publications and surveys), and surveys and market research provided by consultants. The publicly available information and the reports, forecasts and other research provided by consultants generally state that the information contained therein has been obtained from sources believed to be reliable. We have not independently verified any of the data from third-party sources, nor have we ascertained the underlying economic assumptions relied upon therein. Similarly, our internal research and forecasts are based upon our management's understanding of industry conditions, and such information has not been verified by any independent sources.

For convenience in this report, the terms "Company," "our," "us," or "we" may be used to refer to Huntsman Corporation and, unless the context otherwise requires, its subsidiaries and predecessors. Any references to our "Company," "we," "us" or "our" as of a date prior to October 19, 2004 (the date of our formation) are to Huntsman Holdings, LLC and its subsidiaries (including their respective

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predecessors). In this report, "Huntsman International" refers to Huntsman International LLC (our 100%-owned subsidiary) and, unless the context otherwise requires, its subsidiaries; "AAC" refers to Arabian Amines Company, our consolidated manufacturing joint venture with the Zamil Group; "HPS" refers to Huntsman Polyurethanes Shanghai Ltd. (our consolidated splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd); "LPC" refers to Louisiana Pigment Company, L.P. (our unconsolidated joint venture with Kronos); "Sasol-Huntsman" refers to Sasol-Huntsman GmbH and Co. KG (our consolidated joint venture with Sasol that owns and operates a maleic anhydride facility in Moers, Germany); and "SLIC" refers to Shanghai Liengheng Isocyanate Investment BV (an unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies).

In this report, we may use, without definition, the common names of competitors or other industry participants. We may also use the common names or abbreviations for certain chemicals or products. Many of these terms are defined in the Glossary of Chemical Terms found at the conclusion of "Part I. Item 1. Business" below.

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**PART I**

**ITEM 1. BUSINESS**

**GENERAL**

We are a global manufacturer of differentiated organic chemical products and of inorganic chemical products. Our Company, a Delaware corporation, was formed in 2004 to hold the businesses of Huntsman Holdings, LLC, a company founded by Jon M. Huntsman. Mr. Huntsman founded the predecessor to our Company in 1970 as a small polystyrene plastics packaging company. Since then, we have grown through a series of significant acquisitions and now own a global portfolio of businesses.

We operate all of our businesses through Huntsman International, our 100% owned subsidiary. Huntsman International is a Delaware limited liability company and was formed in 1999.

Our principal executive offices are located at 10003 Woodloch Forest Drive, The Woodlands, Texas 77380, and our telephone number at that location is (281) 719-6000.

**RECENT DEVELOPMENTS**

On January 30, 2017, our titanium dioxide manufacturing facility in Pori, Finland experienced fire damage and is currently not operational. The fire brigade responded quickly to extinguish the fire and there were no injuries. We have notified applicable customers and suppliers of this *force majeure* event. We do not currently have an estimated time frame for how long the facility will be off line, but we are committed to repairing the facility as quickly as possible. The Pori facility has a nameplate capacity of 130,000 metric tons, which represents approximately 15% of our total titanium dioxide capacity and approximately 10% of total European titanium dioxide demand. The site is insured for property damage as well as business interruption losses. According to our insurance policies, the respective retention levels (deductibles) for physical damage and business interruption are \$15 million and 60 days, respectively. On February 9, 2017, we received a €50 million (approximately \$52 million) payment from our insurer as an initial partial progress payment towards the overall pending claim.

On October 28, 2016, we filed an initial Form 10 registration statement with the Securities and Exchange Commission (the "SEC") as part of the process to spin off our Pigments and Additives and Textile Effects businesses in a tax-free transaction. On January 17, 2017, we announced that we will retain our Textile Effects business and we amended the Form 10 registration statement. We also announced that the name of the spin-off entity will be Venator Materials Corporation ("Venator"). Venator shares are expected to trade on the New York Stock Exchange under the ticker VNTR after the distribution to our stockholders. The completion of the spin-off is subject to the satisfaction or waiver of a number of conditions, including the registration statement on Form 10 for Venator's common stock being declared effective by the SEC and certain other conditions described in the information statement included in the Form 10. The ongoing process to separate the Pigments and Additives business is proceeding and is targeted for the second quarter 2017. As noted above, there was fire damage sustained at our titanium dioxide facility in Pori, Finland. The potential impact of this interruption, if any, on the spin date is not yet known.

On December 30, 2016, our Performance Products segment completed the sale of its European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. Under the terms of the transaction, Innospec acquired our manufacturing facilities located in Saint-Mihiel, France; Castiglione delle Stiviere, Italy; and Barcelona, Spain. The purchase price is subject to the finalization of working capital adjustments. We remain committed to our global surfactants business, including in the U.S. and Australia, where our differentiated surfactants businesses are backward integrated into essential feedstocks. Upon closing the transaction, we entered into supply and long-term tolling arrangements with Innospec in order to continue marketing certain core products strategic to our global agrochemicals, lubes and certain other

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businesses. In connection with this sale, we recognized a pre-tax gain in the fourth quarter of 2016 of \$98 million.

On December 30, 2016, we made an early repayment of \$260 million on our 2015 extended term loan B facility due 2019 ("2015 Extended Term Loan B") using proceeds from the sale of the European surfactants business and existing cash.

## **OVERVIEW**

We operate in five segments: Polyurethanes, Performance Products, Advanced Materials, Textile Effects and Pigments and Additives. Our products comprise a broad range of chemicals and formulations which we market globally to a diversified group of consumer and industrial customers. Our products are used in a wide range of applications, including those in the adhesives, aerospace, automotive, construction products, personal care and hygiene, durable and non-durable consumer products, electronics, medical, packaging, paints and coatings, power generation, refining, synthetic fiber, textile chemicals and dye industries. We are a leading global producer in many of our key product lines, including MDI, amines, surfactants, maleic anhydride, epoxy-based polymer formulations, textile chemicals, dyes, titanium dioxide and color pigments. Our administrative, research and development and manufacturing operations are primarily conducted at the facilities listed in "Item 2. Properties" below, which are located in 29 countries.

As of December 31, 2016, we employed approximately 15,000 associates worldwide. Our revenues for the years ended December 31, 2016, 2015 and 2014 were \$9,657 million, \$10,299 million and \$11,578 million, respectively.

## **Our Products**

We produce differentiated organic and inorganic chemical products. Our Polyurethanes, Performance Products, Advanced Materials and Textile Effects segments produce differentiated organic chemical products and our Pigments and Additives segment produces primarily inorganic chemical products.

Growth in our differentiated products has been driven by the substitution of our products for other materials and by the level of global economic activity. Accordingly, the profitability of our differentiated products has been somewhat less influenced by the cyclicality that typically impacts the petrochemical industry. Titanium dioxide, within our Pigments and Additives segment, is cyclical and influenced by seasonal demand patterns in the coatings industry.

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*2016 Segment Revenues(1)*

*2016 Segment Adjusted EBITDA(1)*

- 
- (1) Percentage allocations in this chart do not give effect to Corporate and other unallocated items and eliminations. For a reconciliation of adjusted EBITDA to net income attributable to Huntsman Corporation and cash provided by operating activities, see "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations Results of Operations."



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The following table identifies the key products, their principal end markets and applications and representative customers of each of our business segments:

<b>Segment</b>	<b>Products</b>	<b>End Markets and Applications</b>	<b>Representative Customers</b>
Polyurethanes	MDI, PO, polyols, PG, TPU, aniline and MTBE	Refrigeration and appliance insulation, construction products, adhesives, automotive, footwear, furniture, cushioning, specialized engineering applications and fuel additives	BMW, CertainTeed, Electrolux, Firestone, Haier, Henkel, Johnson Controls, Louisiana Pacific, Norbord, PMI
Performance Products	Amines, surfactants, LAB, maleic anhydride, other performance chemicals, EG, olefins and technology licenses	Detergents, personal care products, agrochemicals, lubricant and fuel additives, energy, adhesives, paints and coatings, construction, marine and automotive products, composites, and PET fibers and resins	Afton, AOC, Chevron, Colgate, DAK, L'Oreal, Lubrizol, Monsanto, Procter & Gamble, Tate & Lyle, Unilever
Advanced Materials	Basic liquid and solid epoxy resins; high performance specialty resins and compounds; cross-linkers and curing agents; epoxy, acrylic and polyurethane-based formulations	Aerospace and industrial adhesives, composites for aerospace, automotive, oil and gas and wind power generation; construction and civil engineering; industrial coatings; electrical power transmission; consumer electronics and DIY adhesives	Akzo, Bodo Moeller, Bosch, Chenglai, Cytec, Dow Europe, Freeman, Hexcel, Lianyungang, Omya, PPG, Schneider, Sherwin Williams, Siemens, Syngenta, Speed Fair, Toray
Textile Effects	Textile chemicals, dyes and digital inks	Apparel, home and technical textiles	Aunde, Esquel Group, Fruit of the Loom, Guilford Mills, Hanesbrands, Kahatex, Nice Dyeing, Sage Automotive, Tencate, Trident, Y.R.C., Zaber & Zubair
Pigments and Additives	Titanium dioxide, functional additives, color pigments, timber treatment and water treatment chemicals	Paints and coatings, plastics, paper, printing inks, ceramics, pharmaceuticals, food, cosmetics, wood protection and water purity	AkzoNobel, BASF, Clariant, Jotun, PolyOne, PPG

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For additional information about our business segments, including related financial information, see "Note 26. Operating Segment Information" to our consolidated financial statements and "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of this Form 10-K.

**Polyurethanes**

***General***

We are a leading global manufacturer and marketer of a broad range of polyurethane chemicals, including MDI products, PO, polyols, PG and TPU (each discussed in more detail below under "Products and Markets"). Polyurethane chemicals are used to produce rigid and flexible foams, as well as coatings, adhesives, sealants and elastomers. We focus on the higher-margin, higher-growth markets for specialty MDI and MDI-based polyurethane systems. Growth in our Polyurethanes segment has been driven primarily by the continued substitution of MDI-based products for other materials across a broad range of applications. We operate five primary polyurethane manufacturing facilities in the U.S., Europe and China. We also operate 19 strategically located downstream polyurethane formulation facilities, commonly referred to in the chemical industry as "systems houses," located in close proximity to our customers worldwide (see facilities listed in "Item 2. Properties" below), which enables us to focus on customer support, technical service and a differentiated product offering. We also operate a specialty polyol manufacturing facility focused on the insulation market and three downstream TPU manufacturing facilities in the U.S., Europe and China.

Our customers produce polyurethane products through the combination of an isocyanate, such as MDI, with polyols, which are derived largely from PO and EO. We are able to produce over 2,000 distinct MDI-based polyurethane products by modifying the MDI molecule through varying the proportion and type of polyol used and by introducing other chemical additives to our MDI formulations. As a result, polyurethane products, especially those derived from MDI, are continuing to replace traditional products in a wide range of end-use markets, including insulation in construction and appliances, cushioning for automotive and furniture, coatings, adhesives, wood binders for construction and furniture, footwear and other specialized engineering applications.

We are one of three North American producers of PO. We and some of our customers process PO into derivative products, such as polyols for polyurethane products, PG and various other chemical products. End uses for these derivative products include applications in the home furnishings, construction, appliances, packaging, automotive and transportation, food, paints and coatings and cleaning products industries. We also produce MTBE as a co-product of our PO manufacturing process. MTBE is an oxygenate that is blended with gasoline to reduce harmful vehicle emissions and to enhance the octane rating of gasoline. See "Item 1A. Risk Factors."

In 1992, we were the first global supplier of polyurethane chemicals to open a technical service center in China. We have since expanded this facility to include an integrated polyurethanes formulation facility and a world scale research and development campus. In January 2003, we entered into two related joint ventures to build MDI production and finishing facilities near Shanghai, China in Caojing. In June 2006, HPS, a consolidated joint venture, began production at our MDI finishing plant. In September 2006, SLIC, an unconsolidated joint venture, began production at the MNB, aniline and crude MDI plants. We intend to expand the capacity of these facilities by 2018. These world-scale facilities strengthen our ability to service our customers in the critical Chinese market, the largest MDI market in the world, and will support the long-term demand growth that we believe this region will continue to experience. Additionally, in November 2012, we entered into an agreement with Sinopec to form a joint venture to build a world scale PO/MTBE plant in Nanjing, China. The facility is expected to be mechanically complete in early 2017 with beneficial commercial operations expected in the second half of 2017, and will utilize our proprietary PO/MTBE manufacturing technology. We own a 49%

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interest in the joint venture and account for our interest in the joint venture as an equity method investment.

***Products and Markets***

MDI is used primarily in rigid foam applications and in a wide variety of customized, higher-value flexible foam as well as coatings, adhesives, sealants and elastomers. Polyols, including polyether and polyester polyols, are used in conjunction with MDI in rigid foam, flexible foam and other non-foam applications. PO is one of the principal raw materials for producing polyether polyols. The following chart illustrates the range of product types and end uses for polyurethane chemicals.

Polyurethane chemicals are sold to customers who combine the chemicals to produce polyurethane products. Depending on their needs, customers will use either component polyurethane chemicals produced for mass sales or polyurethane systems tailored for their specific requirements. By varying the blend, additives and specifications of the polyurethane chemicals, manufacturers are able to develop and produce a breadth and variety of polyurethane products.

Our strategy is focused on growing our differentiated product offering (specialty MDI and polyols, formulated MDI systems and TPU), which requires a greater emphasis on formulating capability to provide our downstream customers with the end effect required in their applications. These differentiated products tend to require technical solutions, offer higher margins, lower volatility and are less dependent on industry utilization rates compared to sales of component MDI or component polyols.

**MDI.** MDI has grown substantially over the past three decades, increasing by a factor of 6% or 7% CAGR, well in excess of global GDP. MDI has a substantially larger market size and a higher growth rate than other polyurethane isocyanates. This is primarily because MDI can be used to make polyurethanes with a broader range of properties and can therefore be used in a wider range of applications. We believe that MDI and formulated MDI systems, which combine MDI and polyols, will continue to grow at approximately double the rate of global GDP driven by the mega trends of energy management, food preservation, demographics and urbanization/transportation. MDI offers key products benefits of energy efficiency, comfort and durability aligned with these megatrends. We believe that MDI and formulated MDI systems will continue to substitute for alternative materials such as fiberglass in insulation, phenol formaldehyde in wood binders and TDI in automotive and furniture.

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Specialty cushioning and insulation applications, thermoplastic polyurethanes and adhesives and coatings will further contribute to the continued growth of MDI. MDI experiences some seasonality in its sales reflecting its exposure to seasonal construction-related end markets such as insulation and composite wood products. Sales generally peak during the spring and summer months in the northern hemisphere, resulting in greater sales volumes during the second and third quarters of the year.

**TPU.** TPU is a high-quality, fully formulated thermal plastic derived from the reaction of MDI or an aliphatic isocyanate with polyols to produce unique qualities such as durability, flexibility, strength, abrasion-resistance, shock absorbency and chemical resistance. We can tailor the performance characteristics of TPU to meet the specific requirements of our customers. TPU is used in injection molding and small components for the automotive and footwear industries. It is also extruded into films for apparel, wires and cables for industrial use and in a wide variety of applications in the coatings, adhesives, sealants and elastomers markets.

**Polyols.** Polyols are combined with MDI and other isocyanates to create a broad spectrum of formulated polyurethane systems. Demand for specialty polyols has been growing at approximately the same rate at which MDI consumption has grown.

**Aniline.** Aniline is an intermediate chemical used primarily to manufacture MDI. The majority of our aniline is consumed internally with some sold to third parties. We believe that the lack of a significant spot market for aniline means that in order to remain competitive, MDI manufacturers must either be integrated with an aniline manufacturing facility or have a long-term, cost-competitive aniline supply contract.

**PO.** PO is an intermediate chemical used mainly to produce a wide range of polyols and PG. Demand for PO depends largely on overall economic demand, especially that of consumer durables. Strategically, we use PO produced at our world scale PO/MTBE facility in Port Neches, Texas, downstream in our formulated MDI systems. We are also currently constructing a PO/MTBE facility in Nanjing, China with the strategic aim of supplying PO downstream into our China business, accelerating our differentiated growth in the world's largest PU market. In addition, we also have an important internal strategic outlet for PO, downstream into our Performance Products amines business, which generates significant added value to the PO molecule.

**MTBE.** MTBE is an oxygenate that is blended with gasoline to reduce harmful vehicle emissions and to enhance the octane rating of gasoline. While MTBE has been effectively eliminated in the United States, demand continues to grow in other regions of the world. See "Item 1A. Risk Factors." In 2011, we announced the signing of a license agreement with Chinese chemicals manufacturer Yantai Wanhua Polyurethanes Co., Ltd, for the production of PO and MTBE. In November 2012, we entered into an agreement to form a joint venture with Sinopec to construct and operate a PO/MTBE facility in China. Under the joint venture agreement, we hold a 49% interest in the joint venture and Sinopec holds a 51% interest. See "Manufacturing and Operations" below and "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

It is important to recognize the strategic link between PO, polyols and MDI. MTBE is a co-product of the PO manufacturing process which generates cash in the gasoline market. Our strategic focus is on growing our differentiated (specialty MDI and polyols, formulated MDI based systems and

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TPU) sales and the diagram below provides an overview of that focus with an approximation of the number of grades, formulations, products and stock keeping units which we produce and sell.

***Sales and Marketing***

We market our polyurethane chemicals to over 3,500 customers in more than 90 countries. Our sales, marketing and technical resources are organized to support major regional markets and key end-use markets, some of which requires a coordinated global approach, such as key accounts across the automotive sector. These key end-use markets include the commercial and residential insulation, appliance, automotive, footwear, furniture and coatings, adhesives, sealants and elastomers industries. We sell both directly and indirectly to customers, the latter via a network of distributors and agents who in turn sell our products to customers who cannot be served as cost effectively by our internal sales groups.

We provide a wide variety of polyurethane solutions as components (i.e., the isocyanate or the polyol) or in the form of "systems" in which we provide the total isocyanate and polyol formulation to our customers. Our ability to deliver a range of polyurethane solutions and technical support tailored to meet our customers' needs is critical to our long-term success. We have strategically located our downstream polyurethane systems houses close to our customers, enabling us to focus on customer support and technical service. We believe this customer support and technical service system contributes to customer retention and also provides opportunities for identifying further product and service needs of customers.

Our strategy is to grow the number of and capability of our downstream facilities both organically and inorganically. As a result, we have made a number of "bolt-on" acquisitions in recent years to expand our downstream footprint and align with our strategic intent.

We believe that the extensive market knowledge and industry experience of our sales teams and technical experts, in combination with our strong emphasis on customer relationships, have facilitated our ability to establish and maintain long-term customer supply positions. Our sales strategy is to continue to increase sales to existing customers and to attract new customers by providing innovative solutions, quality products, reliable supply, competitive prices and superior customer service.

Table of Contents**Manufacturing and Operations**

Our world-scale MDI production facilities are located in Geismar, Louisiana; Rotterdam, The Netherlands; and through our joint ventures in Caojing, China. These facilities receive aniline, which is a primary material used in the production of MDI, from our facilities located in Geismar, Louisiana; Wilton, U.K.; and Caojing, China. We believe that this relative scale and product integration of our large facilities is necessary to provide cost competitiveness in MDI production. The following table sets forth the annual production capacity of polyurethane chemicals at each of our polyurethanes facilities:

	MDI	Polyols	TPU	Aniline	Nitrobenzene	PO	PG	MTBE (millions of gallons)
	(millions of pounds)							
Caojing, China	350(1)							
Geismar, Louisiana	1,060	160		750(2)	1,000(2)			
Houston, Texas		170						
Jinshan, China			29					
Osnabrück, Germany		26	59					
Port Neches, Texas						525	145	260
Ringwood, Illinois			20					
Rotterdam, The Netherlands	880	190						
Wilton, U.K.				783	1,045			
Total	2,290	546	108	1,533	2,045	525	145	260

(1) Represents our 50% share of capacity from SLIC.

(2) Represents our approximately 85% share of capacity under our consolidated Rubicon LLC manufacturing joint venture with Chemtura Corporation.

At our Geismar, Rotterdam and Caojing facilities we utilize sophisticated proprietary technology to produce MDI. This technology contributes to our position as a low cost MDI producer. In addition to MDI, we use a proprietary manufacturing process to manufacture PO. We own or license all technology and know-how developed and utilized at our PO facility. Our process combines isobutane and oxygen in proprietary oxidation (peroxidation) reactors, thereby forming TBHP and TBA, which are further processed into PO and MTBE, respectively. Because our PO production process is less expensive relative to other technologies and allows PO co-products to be processed into saleable or useable materials, we believe that our PO production technology possesses several distinct advantages over its alternatives.

**Joint Ventures**

**Rubicon Joint Venture.** Chemtura Corporation is our joint venture partner in Rubicon LLC, which owns aniline, nitrobenzene and DPA manufacturing facilities in Geismar, Louisiana. We are entitled to approximately 85% of the nitrobenzene and aniline production capacity of Rubicon LLC, and Chemtura Corporation is entitled to 100% of the DPA production. In addition to operating the joint venture's aniline, nitrobenzene and DPA facilities, Rubicon LLC operates our wholly-owned MDI, polyol and maleic anhydride facilities at Geismar and is responsible for providing other auxiliary services to the entire Geismar complex. As a result of this joint venture, we are able to achieve greater scale and lower costs for our products than we would otherwise have been able to obtain. Rubicon LLC is consolidated in our financial statements.

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**Chinese MDI Joint Ventures.** We are involved in two related joint ventures which operate MDI production facilities in Caojing, China. SLIC, our manufacturing joint venture with BASF and three Chinese chemical companies, produces MNB, aniline and crude MDI. We effectively own 35% of SLIC and account for our investment under the equity method. HPS, our splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd, manufactures pure MDI, polymeric MDI, MDI variants and formulated MDI systems. We own 70% of HPS and it is consolidated in our financial statements. These projects have been funded by a combination of equity invested by the joint venture partners and borrowed funds. The total production capacity of the SLIC facilities is 700 million pounds per year of MDI, of which HPS is entitled to 50%, and the splitting capacity of the HPS facility is 350 million pounds per year of MDI.

SLIC is in the process of expanding capacity in Caojing by 530 million pounds per year of MDI and HPS is also expanding splitting capacity. We anticipate that the expansion will be complete with beneficial commercial operations in the first half of 2018.

**Chinese PO/MTBE Joint Venture.** In November 2012, we entered into an agreement to form a joint venture with Sinopec. The joint venture involves the construction and operation of a PO/MTBE facility in China. Under the joint venture agreement, we hold a 49% interest in the joint venture and Sinopec holds a 51% interest. Our total equity investment is anticipated to be approximately \$85 million, net of license fees from the joint venture. At the end of 2016, cumulative capital contributions were approximately \$85 million, net of license fees from the joint venture. Mechanical completion of the project is expected in early 2017. We expect beneficial commercial operations during the second half of 2017 as soon as supply for the key raw material isobutane is available.

**Raw Materials**

The primary raw materials for MDI-based polyurethane chemicals are benzene and PO. Benzene is a widely available commodity that is the primary feedstock for the production of MDI and aniline. Historically, benzene has been the largest component of our raw material costs. We purchase benzene from third parties to manufacture nitrobenzene and aniline, almost all of which we then use to produce MDI.

A major cost in the production of polyols is attributable to the costs of PO. The integration of our PO business with our polyurethane chemicals business gives us access to a competitively priced, strategic source of PO and the opportunity to develop polyols that enhance our range of MDI products. The primary raw materials used in our PO production process are butane/isobutane, propylene, methanol and oxygen.

**Competition**

Our major competitors in the polyurethane chemicals market include BASF, Covestro, Dow, Wanhua Chemical Group and LyondellBasell. While these competitors and others produce various types and quantities of polyurethane chemicals, we focus on MDI and MDI-based formulated polyurethane systems. Our polyurethane chemicals business competes in two basic ways: (1) where price is the dominant element of competition, our polyurethane chemicals business differentiates itself by its high level of customer support, including cooperation on technical and safety matters; and (2) elsewhere, we compete on the basis of product performance, our ability to react quickly to changing customer needs and providing customers with innovative solutions to their needs.

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**Performance Products**

***General***

Our Performance Products segment has leading global positions in the manufacture and sale of amines, surfactants and maleic anhydride and serves a wide variety of consumer and industrial end markets. Our Performance Products segment is organized by region and product family. Our product families are: Amines; Maleic Anhydride (including catalyst and licensing); Surfactants (including LAB); and Upstream Intermediates.

We produce a wide range of amines, many of which are sold into specialty markets such as epoxy curing agents, oil exploration and production, agrochemicals, and fuel and lubricant additives. We believe we are the largest global producer of polyetheramines, one of the largest producers of 2-(2-amino ethoxy) ethanol, sold under our DGA® brand, the second largest producer of ethyleneamines and morpholine and the second largest North American producer of ethanolamines. We are the only producer and largest supplier of propylene carbonate and ethylene carbonate in North America. Many of the markets for these products have growth rates in excess of global GDP.

We believe we are the largest global producer of maleic anhydride, a highly versatile chemical intermediate that is used to produce UPRs, which are mainly used in the production of fiberglass reinforced resins for marine, automotive and construction products. Maleic anhydride is also used in the production of lubricants, food additives and artificial sweeteners. We are also the leading licensor of maleic anhydride manufacturing technology and the largest supplier of butane fixed bed catalyst used in maleic anhydride manufacturing.

We consume internally produced and third-party-sourced base petrochemicals in the manufacture of our surfactants, LAB and ethanolamines products. We produce a broad range of surfactants, which are primarily used in detergency, personal care, agrochemical, oilfield and industrial applications. We manufacture LAB for use as an intermediate in laundry detergents and a higher molecular weight alkylate used as a lubricant additive.

We also use internally produced and third-party-sourced base petrochemicals to produce EG, which is primarily used in the production of polyester fibers, PET packaging and antifreeze.

Beginning in 2013, our Performance Products segment initiated a restructuring program to refocus its surfactants business in Europe. In connection with this program, in 2014 we completed the sale of our European commodity surfactants business, including the ethoxylation facility in Lavera, France to Wilmar. Additionally, in 2014 we ceased production at our Patrica, Italy surfactants facility. In December 2015, we announced plans for a reorganization of our commercial and technical functions and a refocused divisional business strategy to better position our segment for growth in coming years and we launched a program to capture growth opportunities, improve manufacturing cost efficiency and reduce inventories. In 2016, we expanded our EO capacity by 265 million pounds at our Port Neches, Texas facility. On December 30, 2016, we completed the sale of our European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. We remain committed to our global surfactants business, including in the U.S. and Australia, where our differentiated surfactants businesses are backward integrated into essential feedstocks.

We operate 14 Performance Products manufacturing facilities in North America, Europe, the Middle East, Asia and Australia.



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The following chart illustrates the primary raw materials used and range of product types produced by the Performance Products segment:

**Products and Markets**

**Amines.** Amines are a family of intermediate chemicals that are produced by reacting ammonia with various ethylene and propylene derivatives. Generally, amines are valued for their properties as a reactive agent, emulsifier, dispersant, solvent or corrosion inhibitor. Growth in demand for amines is highly correlated with GDP growth. However, certain segments of the amines market, such as polyetheramines, have historically grown at rates in excess of GDP growth due to new product development, technical innovation and end-use substitution. As amines are generally sold based upon the performance characteristics that they provide to customer-specific end-use applications, pricing does not generally fluctuate directly with movements in underlying raw materials. Our Amines business is organized around the following product groups:

<b>Product Group</b>	<b>Applications</b>
Polyetheramines	Epoxy composites, polyurethane foams and insulation, construction and flooring, paints and coatings, lubricant and fuel additives, adhesives, agrochemicals, oilfield chemicals, printing inks, pigment dispersion
Ethyleneamines	Chemical building block used in lubricant and fuel additives, epoxy hardeners, wet strength resins, chelating agents, fungicides
Ethanolamines	Wood preservatives, herbicides, construction products, gas treatment, metalworking, personal care
Other specialty Amines, including DGA® Agent	Gas treating, ag chemicals, personal care, lubricant and fuel additives, polyurethane foams, fabric softeners, paints and coatings, refinery processing, water treating

Polyetheramines are produced by reacting polyol with ammonia. They provide sophisticated performance characteristics as an additive in the manufacture of highly customized epoxy formulations, enabling customers to penetrate new markets and substitute for traditional curing materials.

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Our ethyleneamines are manufactured by reacting EDC and caustic soda with ammonia to produce a range of various ethyleneamines homologues having different molecular weights. Most other producers utilize a reductive amination process, which yields a light slate of ethyleneamines. We believe our heavier slate of homologues allows access to a greater range of markets.

Ethanolamines are a range of chemicals produced by the reaction of EO with ammonia. There are a limited number of competitors due to the technical and cost barriers to entry.

Our amines are used in a wide variety of mainly industrial applications, including composites, paints and coatings, polyurethane foam, fuel and lubricant additives, and solvents. Our key amines customers include Proctor & Gamble, Chevron, Lubrizol, Air Products, Hexion, Afton, Infineum, Univar, Monsanto and PPG.

**Maleic Anhydride (including catalyst and licensing).** Maleic anhydride is a highly versatile chemical intermediate that is used to produce UPRs, which are the main ingredient in fiberglass reinforced resins used for marine and automotive applications and commercial and residential construction products. Maleic anhydride is also used in the production of lubricants, food additives and artificial sweeteners.

**Product Group**

**Applications**

Maleic Anhydride

Boat hulls, automotive, construction, lubricant and fuel additives, countertops, agrochemicals, paper and food additives

Maleic Anhydride Catalyst and Technology Licensing

Maleic anhydride, BDO and its derivatives, and PBT manufacturers

Maleic anhydride is produced by oxidizing either benzene or normal butane through the use of a catalyst. Our maleic anhydride technology is a proprietary fixed bed butane process with solvent. We believe that our process is superior in the areas of feedstock, energy efficiency and solvent recovery. The maleic anhydride-based route to BDO manufacture is currently the preferred process technology and is favored over the other routes, which include PO, butadiene and acetylene as feedstocks. As a result, the growth in demand for BDO has resulted in increased demand for our maleic anhydride technology and catalyst. Generally, changes in price have resulted from a combination of changes in industry capacity utilization and underlying raw material costs.

We license our maleic anhydride technology and supply our catalysts to licensees and to worldwide merchant customers. Revenue from licensing and catalyst comes from new plant commissioning, as well as current plant retrofits and catalyst change schedules. Our licensing group also licenses technology on behalf of other Performance Products businesses and other segments.

Our key maleic anhydride customers include AOC, Reichhold, Tate & Lyle, Afton, CCP Composites, Cranston, Dixie, Gulf Chemical, Lubrizol and MFG Chemical.

**Surfactants (including LAB).** Surfactants or "surface active agents" are substances that combine a water soluble component with a water insoluble component in the same molecule. While surfactants are most commonly used for their detergency in cleaning applications, they are also valued for their emulsification, foaming, dispersing, penetrating and wetting properties in a variety of industries.

We are a leading global manufacturer of nonionic, anionic, cationic and amphoteric surfactants products and are characterized by our breadth of product offering and market coverage. Following the

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sale of our European surfactants business to Innospec at the end of 2016, we now have certain products toll manufactured in Europe.

<b>Product Group</b>	<b>Applications</b>
Surfactants	Home and personal care, agricultural chemicals, construction, paper de-inking, lubricants
Specialty Alkylates	Precursors for lubricant additives
LAB	Consumer detergents, industrial and institutional detergents

Demand growth for surfactants used in basic detergency applications is relatively stable and exhibits little cyclical nature. However, many product applications for surfactants can demand new formulations with improved performance characteristics, which affords considerable opportunity for innovative surfactants manufacturers like us to provide surfactants and blends with differentiated specifications and properties. We continue to strengthen and diversify our surfactant product offering into formulated specialty surfactant products for use in various industrial applications such as leather and textile treatment, foundry and construction, agrochemicals, fuels and lubricants, personal care and polymers and coatings.

For basic surfactants, pricing tends to have a strong relationship to underlying raw material prices and usually lags raw material price movements. Surfactants used in more specialty applications are generally sold based upon the performance characteristics that they provide to customer-specific end-use application. Our key surfactants customers include L'Oreal, Monsanto, Nufarm, Clorox, Henkel, Colgate, Procter & Gamble and Unilever.

LAB is a surfactant intermediate, which is produced through the reaction of benzene with either normal paraffins or linear alpha olefins. Nearly all the LAB produced globally is converted into LAS, a major anionic surfactant used worldwide for the production of consumer, industrial and institutional laundry detergents. We also manufacture a higher-molecular-weight alkylate, which is used as an additive to lubricants. Our key customers for LAB and specialty alkylates include Colgate, Lubrizol, Procter & Gamble and Unilever.

**Upstream Intermediates.** We consume internally produced and third-party-sourced base petrochemicals in the manufacture of our surfactants, LAB, and ethanolamines products, which are primarily used in detergency, consumer products and industrial applications. We also produce EG, which is primarily used in the production of polyester fibers and PET packaging.

We consume our internally produced EO to produce three types of EG: MEG, DEG and TEG. MEG is consumed primarily in the polyester (fiber and bottle resin) and antifreeze end markets and is also used in a wide variety of industrial applications including synthetic lubricants, plasticizers, solvents and emulsifiers. DEG is consumed internally for the production of Morpholine and DGA® Agent and polyols. TEG is used internally for the production of polyols and is sold into the market for dehydration of natural gas. We continue to optimize our EO and EG operations depending on the fundamental market demand for EG.

<b>Product Group</b>	<b>Applications</b>
EG	Polyester fibers and PET bottle resins, heat transfer and hydraulic fluids, chemical intermediates, natural gas and hydrocarbon treating agents, unsaturated polyester resins, polyester polyols, plasticizers, solvent

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***Sales and Marketing***

We sell over 1,500 products to over 3,000 customers globally through our Performance Products regional sales and marketing organizations, which have extensive market knowledge, considerable chemical industry experience and well established customer relationships.

In more specialty markets (e.g. energy, materials, additives, processing chemicals and agrochemicals), our marketing efforts are focused on how our product offerings perform in certain customer applications. We believe that this approach enhances the value of our product offerings and creates opportunities for ongoing differentiation in our development activities with our customers.

Our intermediate surfactants are sold mainly into the home and personal care market for which we have a dedicated marketing group. We also sell EG directly.

We provide extensive pre- and post-sales technical service support to our customers where our technical service professionals work closely with our research and development functions to tailor our product offerings to meet our customers unique and changing requirements. These technical service professionals interact closely with our marketing managers and business leadership teams to help guide future offerings and market approach strategies. In addition to our focused direct sales efforts, we maintain an extensive global network of distributors and agents that also sell our products. These distributors and agents typically promote our products to smaller end-use customers who cannot be served cost effectively by our direct sales forces.

***Manufacturing and Operations***

Our Performance Products segment has the capacity to produce more than six billion pounds annually of a wide variety of products and formulations at 14 manufacturing locations in North America, EAME, Asia and Australia. These production capacities are as follows:

Product Area	North America	Current capacity		
		EAME	APAC(1)	Total
(millions of pounds)				
Amines	663	227(2)	107	997
Carbonates	52			52
Surfactants	613		126	739
Maleic anhydride	340	231(3)		571
EG	890		55	945
EO	1,265		100	1,365
Ethanolamines	400			400
LAB	400			400
Ethylene	460			460
Propylene	300			300

(1) Asia-Pacific region including India ("APAC").

(2) Includes up to 30 million pounds of ethyleneamines that are made available from Dow's Terneuzen, The Netherlands facility by way of a long-term supply arrangement and 60 million pounds from AAC, our consolidated 50%-owned joint venture, located in Jubail, Saudi Arabia.

(3) Represents total capacity of a facility owned by Sasol-Huntsman, of which we own a 50% equity interest and Sasol owns the remaining 50% interest. We have consolidated the financial results of this entity since April 2011.

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Our amines facilities are located globally. These facilities have a competitive cost base and use modern manufacturing units that allow for flexibility in production capabilities and technical innovation.

Almost all of our surfactants facilities in the U.S. and Asia have integrated EO supply, which we believe gives us a competitive cost advantage.

Our primary ethylene, propylene, EO, EG and ethanolamines facilities are located in Port Neches, Texas alongside our Polyurethanes PO/MTBE facility. The Port Neches, Texas facility benefits from extensive logistics infrastructure, which allows for efficient sourcing of other raw materials and distribution of finished products.

A number of our facilities are located within large integrated petrochemical manufacturing complexes. We believe this results in greater scale and lower costs for our products than we would be able to obtain if these facilities were stand-alone operations. These include our LAB facility in Chocolate Bayou, Texas; our maleic anhydride facilities in Pensacola, Florida, Geismar, Louisiana and Moers, Germany and our ethyleneamines facility in Freeport, Texas.

***Joint Ventures***

***Ethyleneamines Joint Venture.*** Since July 1, 2010, we have consolidated the results of AAC, our 50%-owned joint venture with the Zamil Group. AAC operates an ethyleneamines manufacturing plant in Jubail, Saudi Arabia. The plant has an approximate annual capacity of 60 million pounds. We purchase and sell all of the production from this joint venture.

***Maleic Anhydride Joint Venture.*** Since the second quarter of 2011, we have consolidated the results of Sasol-Huntsman, our 50%-owned maleic anhydride joint venture. This entity operates a manufacturing facility in Moers, Germany with the capacity to produce 232 million pounds of maleic anhydride. The output from the facility is sold in the European region.

***Raw Materials***

We have the capacity to produce 460 million pounds of ethylene and 300 million pounds of propylene, depending on feedstocks, at our Port Neches, Texas facility. All of the ethylene is used to produce EO and all of the propylene is used to produce PO at our Port Neches, Texas facility (primarily for our Polyurethanes segment). We have the capacity to use approximately 1,000 million pounds of ethylene each year in the production of EO and ethyleneamines. Accordingly, we purchase or toll the remainder of our ethylene requirements from third parties. We consume all of our EO in the manufacture of our EG, surfactants, carbonates and amines products. We also use internally produced PO and DEG in the manufacture of these products.

In addition to internally produced raw materials, the main raw materials used in the production of our amines are EDC, caustic soda, ammonia, hydrogen, methylamines and acrylonitrile. The majority of these raw materials are available from multiple sources in the merchant market at competitive prices.

Maleic anhydride is produced by the reaction of normal butane with oxygen using our proprietary catalyst. The principal raw material is normal butane, which is purchased pursuant to long-term contracts and delivered to our Pensacola, Florida site by barge, to our facility in Geismar, Louisiana via pipeline and to our Moers, Germany site by railcar. Our maleic anhydride catalyst is toll-manufactured by a third party under a long-term contract according to our proprietary methods. These raw materials are available from multiple sources at competitive prices.

In the production of surfactants and LAB, our primary raw materials, in addition to internally produced and third-party sourced EO and ethylene, are synthetic and natural alcohols, paraffin, alpha olefins, benzene and nonylphenol. All of these raw materials are widely available in the merchant market at competitive prices.

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**Competition**

There are a small number of competitors for many of our amines due to the considerable customization of product formulations, the proprietary nature of many of our product applications and manufacturing processes and the relatively high research and development and technical costs involved. Our global competitors include BASF, Air Products, Dow, Tosoh and AkzoNobel. We compete primarily on the basis of product performance, new product innovation and, to a lesser extent, on the basis of price.

In our maleic anhydride market, we compete primarily on the basis of price, customer service, technical support and logistics management. Our competitors include Lanxess, Flint Hills Resources, Bartek, Polynt and Ashland. We are the leading global supplier of maleic anhydride catalyst. Competitors in our maleic anhydride catalyst market include Scientific Design, Ineos, BASF and Polynt. In our maleic anhydride technology licensing market, our primary competitor is Scientific Design. We compete primarily on the basis of technological performance and service.

In surfactants, we compete in a broad range of markets with major global suppliers as well as various smaller or more local competitors. Our major competitors include Clariant, Shell, Stepan, Croda and Sasol. For our more specialty offerings into markets such as agrochemicals, oilfield and personal care, we compete on the basis of the performance of our product in customer applications, service and price. Competition in much of the detergency market is based principally on price and reliability of supply.

There are numerous global producers of EG. Our main competitors include global companies such as Dow/MEGlobal, Sasol, BASF and Petresa, as well as various smaller or more local competitors. We compete primarily on the basis of price.

**Advanced Materials**

**General**

Our Advanced Materials segment is a leading global manufacturer and marketer of technologically advanced epoxy, acrylic and polyurethane-based polymer products. We focus on formulations and systems that are used to address customer-specific needs in a wide variety of industrial and consumer applications. Our products are used either as replacements for traditional materials or in applications where traditional materials do not meet demanding engineering specifications. For example, structural adhesives are used to replace metal rivets and advanced composites are used to replace traditional aluminum panels and other steel materials to lighten structures in aerospace, automotive and other transportation. Our Advanced Materials segment is characterized by the breadth of our product offering, our expertise in complex chemistry, our long-standing relationships with our customers, our ability to develop and adapt our technology and our applications expertise for new markets and new applications.

We operate synthesis, formulating and production facilities in North America, Europe, Asia, and South America. We sell to more than 1,900 customers in the following end markets: aerospace, automotive, liquid natural gas transport, coatings and construction, printed circuit boards, consumer and industrial electronics, consumer and industrial appliances, wind power generation, consumer/do it yourself ("DIY"), electrical power transmission and distribution, recreational sports equipment, medical appliances and food and beverage packaging.

**Products and Markets**

**Aerospace.** Our Advanced Materials segment is a leading global supplier of advanced, high-performance materials for the fabrication and repair of aircraft components. We supply leading aerospace companies with innovations in composites, adhesives, laminating and repair systems.

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We offer a wide range of materials to the aerospace market under the ARALDITE®, EPIBOND®, EPOCAST® and URALANE® brands. Many of these products are qualified under the specification of major aerospace original equipment manufacturers ("OEM") , complying with appropriate regulations governing large civil aircraft."

**Automotive, Wind and Industrial Composites.** We offer the automotive, wind, recreational sports equipment and industrial composite markets high end composite formulations including to leading automotive OEM's and Tier 1 suppliers. Lightweight, strength, flexibility, shorter cycle time and fatigue resistance are key requirements of our industrial partners. Our Advanced Materials segment has been awarded by the JEC Composite Association for product performances as well as applications and process innovation to the composite industry.

Our products are used by leading wind blade manufacturers on a large range of applications from plugs to complete composite turbine blade production, as well as its assembly and repair. Our portfolio includes standard products as well as custom-made solutions formulated to meet specific customer requirements.

**Electrical Engineering and Electronics.** We are a leading global supplier of insulating materials for motors, generators, switchgears, distribution and instrument transformers, and insulators and bushings for utility and industrial applications. The products formulated by our Advanced Materials segment are designed to provide an extended service life and meet specific industry requirements for electrical insulation in indoor and outdoor environments.

In the field of electronics, our Advanced Materials segment has a long history delivering a wide range of solutions meeting stringent requirements for electronics applications, such as high temperature and chemical resistance, flame-retardancy and excellent mechanical and dielectric properties.

**Structural Adhesives.** ARALDITE® is an important brand in high-performance adhesive technologies. We offer formulation expertise in various chemistries, including epoxies, polyurethanes, methacrylates and phenolics.

Our materials address requirements such as long open times for large area applications, fast-curing adhesives for early removal and rapid through-put, resistance to high temperature, water and chemicals, thixotropy for gap-filling or vertical applications, and toughness, impact-resistance and elasticity to cope with different thermal expansions when bonding larger structures.

**Sales and Marketing**

We maintain multiple routes to market to service our diverse and fragmented customer base throughout the world. These routes to market range from using our own direct sales force for targeted, technically-oriented distribution to mass distribution. Our direct sales force focuses on engineering solutions for our major customers who purchase significant amount of product. We use technically-oriented specialist distributors to augment our sales effort in niche markets and applications where we do not believe it is appropriate to develop direct sales resources. We use mass general distribution channels to sell our products into a wide range of general applications where technical expertise is less important, which reduces our overall selling expenses. We believe our use of multiple routes to market enables us to reach a broader customer base at an efficient cost.

We conduct sales activities through dedicated regional sales teams in EAME, Asia and the Americas. Our global customers are covered by key account managers who are familiar with the specific requirements of these customers. The management of long-standing customer relationships is critical to the sales and marketing process.

For our consumer/DIY range, with the exception of the Indian market, we have entered into branding and distribution arrangements. Under these arrangements, our distribution partners fund

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advertising and sales promotions, negotiate and sell to major retail chains, own inventories and provide store deliveries (and sometimes shelf merchandising) in exchange for ARALDITE® branded, ready-to-sell packaged products.

**Manufacturing and Operations**

We are a global business serving customers in three principal geographic regions: EAME, Asia and the Americas. To service our customers efficiently, we maintain manufacturing plants around the world with a strategy of global, regional and local manufacturing employed to optimize the level of service and minimize the cost to our customers. Our facilities in Asia are well-positioned to take advantage of the market growth that is expected in these regions. The following table summarizes the plants that we operate:

Location	Description of Facility
Bad Saeckingen, Germany	Formulating Facility
Bergkamen, Germany	Synthesis Facility
Duxford, U.K.	Formulating Facility
East Lansing, Michigan	Formulating Facility
Los Angeles, California	Formulating Facility
McIntosh, Alabama	Resins and Synthesis Facility
Monthey, Switzerland	Resins and Synthesis Facility
Nanjing, China(1)	Formulating Facility
Pamplona, Spain	Synthesis Facility
Panyu, China(1)(2)	Formulating and Synthesis Facility
Taboão da Serra, Brazil	Formulating Facility

(1) Leased land and/or building.

(2) 95%-owned and consolidated manufacturing joint venture with Guangzhou Sheng'an Package Company Limited.

**Raw Materials**

The principal raw materials we purchase for the manufacture of basic and advanced epoxy resins are epichlorohydrin, bisphenol A, MDA, phenol and aminophenols. We also purchase amines, polyols, isocyanates, acrylic materials, hardeners and fillers for the production of our formulated polymer systems and complex chemicals and additives. Raw material costs constitute a sizeable percentage of the costs for certain applications. We have supply contracts with a number of suppliers. The terms of our supply contracts vary, but, in general, these contracts contain provisions that set forth the quantities of product to be supplied and purchased. Formula pricing is sometimes used if advantageous for the business.

Additionally, we produce large volumes of some of our most important raw materials, such as BLR and its basic derivatives, which are the basic building blocks of many of our products. Approximately 63% of the BLR we produce is consumed internally in our downstream products. The balance of our BLR is sold in the merchant market, allowing us to increase the utilization of our production plants and lower our overall BLR production cost. We believe that manufacturing a large proportion of our own BLR gives us a competitive advantage over other epoxy-based polymer systems formulators, who buy BLR from third-party suppliers. This position helps protect us from pricing pressure from BLR suppliers and aids in providing us a stable supply of BLR in difficult market conditions.

We consume certain amines produced by our Performance Products segment and isocyanates produced by our Polyurethanes segment, which we use to formulate Advanced Materials products.



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**Competition**

The markets in which Advanced Materials competes are diverse and require an appropriate human capital and asset footprint to compete effectively. The competitive intensity, capital investment and development of proprietary technology and maintenance of product research and development are all market specific. We operate dedicated technology centers in Basel, Switzerland; The Woodlands, Texas; and Shanghai, China in support of our product and technology development. Among our competitors are some of the world's largest chemical companies with integrated raw material value chains to formulation companies that leverage intellectual and highly proprietary technology for problem solving.

**Aerospace.** Our leading market position is driven by our specialty resins and formulations offerings backed by customer-specific certifications, quality and consistency. These products are value-added, and differentiated, backed by many years of reliable global supply and service. Our major competitors include Mitsui, Sumitomo, Wakayama Seika, 3M and Henkel Loctite.

**Automotive, Wind and Industrial Composites.** These dynamic growth markets for thermoset resins are being driven by light weighting and energy efficiency, and are serviced by our leading positions in systems formulations backed by application and process manufacturing knowledge. Our product offering allows for competitively priced solutions with a robust supply chain to fulfill customers' expectant demand for service and quality. Our major competitors include Olin, Hexion, BASF, Swancor, Wells and Nagase.

**Electrical Engineering and Electronics.** Our competitive position in these diverse markets is primarily based on formulations expertise, product reliability and performance, process expertise and technical support. Our competitive strengths result from our focus on defined market segment needs, our long-standing customer relationships, product reliability and technical performance, and reputation and recognition as a quality supplier. Our major competitors in these markets are Altana, Hexion, Wuxi Bluestar, Shanghai Xiongrun, Dexter-Hysol, Hitachi Chemical, Nagase Chemtex, Toshiba Chemical, Peters, Taiyo Ink, Tamura and Sun Chemicals.

**Coatings & Construction.** Our long standing position in these mature markets is served by our basic epoxy and specialty resins and additives products. Basic liquid and solid epoxy resins are driven by global supply-and-demand and industry consolidation and rationalization continues as a trend as macro-economic factors affect profitability and supply balance. Our additives and specialty resins offerings, including epoxy hardeners, are value-added products that allow our customers to differentiate their own products. Our major competitors include Olin, Hexion, NanYa, Kukdo, Versum, Evonik, Cray Valley, Allnex and BASF.

**Textile Effects**

Our Textile Effects segment is a major global solutions provider in the wet processing of textiles across pretreatment, coloration, printing and finishing and provides a diverse portfolio of textile chemicals, dyes and digital inks. Our textile solutions provide color and enhance the fashion, durability and performance of finished textiles, including functionality such as wrinkle resistance and water and stain repellence. Our Textile Effects segment is characterized by the breadth of our product offering and long-standing relationships with our customers and downstream brands and retailers and OEMs (e.g., the automotive sector).

We market products to customers in multiple end-markets, including consumer fashion apparel, sportswear, career and uniform apparel, military, automotive, home and institutional textiles and furnishings, carpet and other functional textiles. Competition within these markets is generally fragmented with few competitors who can offer complete solutions for each market. We develop and adapt our technology and our applications expertise for new markets and new applications to improve our competitive offering. Increased environmental regulations, particularly in China, and consumer

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awareness about the environmental impact of the apparel industry has resulted in increased demand for sustainably produced textiles. We are at the forefront of developing sustainable textiles with advanced technology such as non-fluorinated durable water repellence, waterless dyeing and eco-friendly digital printing. Our award-winning AVITERA® reactive dyeing technology meets global industry environmental standards and helps textile mills increase yield, improve productivity and reduce processing costs by significantly reducing water and energy consumption. We operate 13 synthesis and formulation production sites in Asia, Europe and the Americas.

Since 2011, our Textile Effects segment has implemented a plan ("the Textile Effects Restructuring Plan") to significantly restructure its business including geographically and commercially repositioning operations, optimizing supply chains and improving operational efficiency. The segment closed large, inefficient operations, transferred most of its production to facilities located closer to its customers, formed strategic partnerships and expanded in Mexico, Thailand and India, which has resulted in improved cash flows in the segment. In connection with the Textile Effects Restructuring Plan, during 2016, we recorded charges of \$20 million for decommissioning and \$8 million for non-cancelable long-term contract termination costs associated with this initiative.

**Products and Markets**

**Textile Chemicals.** Our product offering in textile chemicals covers process and effect chemicals for the entire wet processing of textiles, such as pretreatment, optical brightener, dyeing and printing processes and finishing effects such as UV-protection, flame-retardancy, wrinkle resistance, water and oil repellency, moisture management and enhanced textile comfort.

We own a portfolio of textile chemical brands such as PHOBOTEX®, which is used in the sportswear sector and for outdoor textiles for products that provide non-fluorinated durable water repellency, UVITEX®, which is used for products that provide lasting white in the apparel sector to T-shirts and formal shirts as well as in the home textile sector for towels and bed sheeting, and PYROVATEX®, which is used for products that provide non-halogenated flame-retardancy to functional textiles like protective workwear and textile insulation material used in the automotive sector.

**Dyes.** We provide dyes for all major fibers, including cotton, polyester, wool, nylon, silk and acrylic, each of which requires different dye chemistry for optimum results. We develop and offer processes for technological applications of dyes that enable our customers to improve their production yield and reduce their water and energy consumption. We focus on high-quality specialty dyes, which sets us apart from our Asian competitors who are primarily focused on commodity dyes. Because we provide dyes for all major fibers, we are able to differentiate ourselves from industry competitors by providing solutions for a broad range of fiber blended fabrics.

We own a portfolio of dye brands such as AVITERA®, for dyes used in T-shirts, formal shirts and towels for achieving sustainability, NOVACRON®, for dyes used widely across casual wear and home textiles, LANASOL®, for dyes used in wool formal suits, TERASIL®, for dyes used in sportswear, outerwear, home textiles and furnishings, ERIOFAST®, for dyes used in high-end intimate apparel and lingerie, TERATOP®, for dyes used across the automotive industry and NOVASOL®, for dyes used across military, protective wear and other technical textiles.

**Digital Inks.** We are at the forefront of the emerging trend in digital textile printing, including the time-to-market pressures of rapidly changing fashion trends and environmental concerns. Our range of digital inks solutions cover cotton, polyester, nylon, silk and other types of fiber blends, and are available for all mainstream digital printing technologies from plotters to industrial printers. Our innovative and sustainable digital inks technology is designed to help mills improve process efficiency, print reliability and improve overall environmental performance.

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We own a portfolio of digital inks brands such as LANASET® and TERASIL® used for inks primarily for apparel and sportswear, and LYOSPERSE®, TERASIL® and NOVACRON® used for inks for apparel and home textiles. We have digital ink solutions designed for the fast-growing segments of soft-signage and technical textiles.

**Markets.** Textiles generally involve a complex matrix of fibers, colors, effects and functionality, and the resulting products range from fashion apparel to bulletproof vests, home and institutional textiles to carpet, and upholstery to automotive interiors. Our broad range of dyes, chemicals and digital inks enhance both the aesthetic appearance of these products and the functionality needed to ensure that they perform in their end-use markets. To meet the emerging digital market landscape and increasing demands for sustainable textiles, our Textile Effects segment has a comprehensive range of digital inks to meet this trend and new market opportunity. Since the requirements for these markets vary dramatically, our business strategy focuses on three major end markets—apparel, home and institutional furnishings, and functional and technical textiles. We work to provide the right balance of products and service to meet the technical and environmental challenges in each of these markets.

The apparel market focuses on products that provide an aesthetic effect through colors, as well as comfort and performance effects. Our solutions also extend to improving the processing efficiency within the textile mill. We offer a complete range of colors for cotton, polyester, wool and nylon that cover the range of shades needed for casualwear, sportswear, intimate apparel, and formal wear. Our dyes have been developed to ensure that they offer the highest levels of color durability currently available in the market. The Textile Effects segment's AVITERA® dyes meet global industry environmental standards and helps textile mills increase yield, improve productivity and reduce processing costs by reducing water and energy consumption. Pretreatment and dyeing auxiliaries ensure that these fabrics are processed efficiently and effectively—cleaning the fabrics with fewer chemicals, less energy and less water and thereby minimizing the environmental footprint and reducing the processing costs. Silicone softeners may be used to enhance the feel of products. Textile Effects has developed advanced non-fluorinated durable water repellent technology that enhances the performance levels of sportswear and outdoor wear offering comfort and durability.

Home and institutional textiles include bed linen, towels, curtains, carpets, upholstery, mattress ticking and other textiles that are used within the home or institutions such as hotels. Dyes, chemicals and digital ink technology for these applications enhance color and shape durability, comfort, prevent color fading and enable limitless design possibilities for consumers. Optical brighteners and other pretreatment products provide "bright white" effects for towels and sheeting.

Functional and technical textiles include automotive textiles, carpet, military fabrics, protective wear, nonwoven and other technical fabrics. Though the product groups may differ in their end uses, the articles must provide a high-level of functionality, durability and performance in their respective markets. High-lightfast dyes and UV absorbers are used in automotive interiors and outdoor furnishings to provide colors that do not fade when exposed to sunlight and heat. Powerful stain repellent and release technology imparts durable protection for upholstery, military and medical fabrics, without affecting the color, breathability or feel of the fabric. Specialized dyes and prints create unique camouflage patterns for military uniforms, backpacks and tarps that will not fade through wash and wear or during exposure to the elements.

Textile Effects is at the forefront of the emerging trend in digital textile printing including the time-to-market pressures of rapidly changing fashion trends and environmental concerns. The segment's range of digital ink solutions cover cotton, polyester, silk and other types of fiber blends. The innovative and sustainable digital ink technology is designed to help mills improve process efficiency, print reliability and improve overall environmental performance.

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***Sales and Marketing***

During 2016, approximately 75% of our sales were generated with approximately 2,050 direct customers through our global sales and technical services network and the remaining 25% is generated through our distribution partners. Our sales and technical services representatives work directly with our existing customers forming strong relationships and uncovering new opportunities.

In determining the markets on which we focus, we look at growth opportunity and value proposition. Consumption markets are primarily in developed economies such as Europe and North America, while production markets are primarily in Asia like China, India, Taiwan, Vietnam, Indonesia, Turkey and Bangladesh. Our downstream marketing team engages with leading brands and retailers in developed economies while our sales force and manufacturing footprint are primarily in Asia, closer to the manufacturing and sourcing base for textiles. We believe that this set-up also enables us to take advantage of continuous demand growth due to demographic and lifestyle changes in emerging markets.

For our textile effects products, we focus on providing effect competence and process competence to our customers. Effect competence, which we define as delivering value-added effects to our customers' products, enables us to capitalize on new and innovative technologies and to assist our customers in their efforts to differentiate themselves from competitors. Process competence, which we define as applying know-how and expertise to improve customers' processes, allows us to utilize our technical service to reduce cost, enhance efficiency and offer recommendations to improve the ecological and environmental footprint in the wet processing of textiles.

We maintain strong customer relationships through the delivery of high levels of technical service and product innovation. There are 14 technical services laboratories in North America, South America, Europe and Asia that are close to our customers in these markets, which enables us to serve our customers with greater speed and flexibility.

***Manufacturing and Operations***

We are a global business serving customers in three principal geographic regions: EAME, the Americas and Asia. To service our customers efficiently, we maintain manufacturing plants around the world with a strategy of global, regional and local manufacturing employed to optimize the level of

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service and minimize the cost to our customers. The following table summarizes the capabilities of each of the plants that we operate:

Location	Description of Facility				
	Textile Chemicals		Textile Dyes		Inks
	Synthesis	Formulation	Synthesis	Formulation	Formulation
Atotonilquillo, Mexico	ü	ü	ü	ü	
Baroda, India			ü	ü	ü
Bogota, Colombia		ü			
Charlotte, North Carolina		ü			
Frajanes, Guatemala		ü			
Gandaria, Jakarta, Indonesia					ü
Hangzhou, China(1)		ü			
Corlu, Turkey(1)(3)		ü			
Karachi, Pakistan(1)		ü			
Langweid am Leich, Germany	ü	ü			ü
Panyu, China(1)(2)	ü	ü			
Samutsakorn (Mahachai), Thailand			ü	ü	ü
Taboão da Serra, Brazil		ü			ü

- (1) Leased land and/or building.
- (2) 95%-owned and consolidated manufacturing joint venture with Guangzhou Sheng'an Package Company Limited.
- (3) Chemical Formulations operations were transferred to Huntsman Pursan Chemicals, a majority-owned joint venture, in 2016.

**Joint Venture**

In September 2015, the Textile Effects segment established a joint venture agreement with Huntsman Pursan Chemicals, a 60%-owned consolidated joint venture, for the manufacture, formulation and sale of textile chemicals and dyes in Turkey. The joint venture extends the long-term partnership between the two companies to a strategic level of collaboration and strengthens Textile Effects' competitive position in the Turkish textile sector.

**Raw Materials**

The manufacture of textile effects products requires a wide selection of raw materials (approximately 1,000 different chemicals), including amines, ethoxylates, acrylics and sulfones. No one raw material represents greater than 5% of our textile effects raw material expenditures. Raw material costs constitute a sizeable percentage of sales for certain applications. We have tolling arrangements with several Chinese suppliers, but the majority of our raw materials are not purchased under long-term contracts. The terms of our supply contracts vary, but, in general, these contracts contain provisions that set forth the quantities of product to be supplied and purchased.

**Competition**

We are a major global solutions provider for textile chemicals, dyes and digital inks in our chosen markets. Competition within the textile chemicals and dyes markets is generally fragmented with few competitors who can offer complete solutions for the entire textile markets. Our major competitors that compete in both textile chemicals and dyes are Archroma (businesses formerly owned by Clariant and BASF) and Dystar (owned by Kiri-Longsheng). Key competitors within dyes include Longsheng, Runtu, Jihua and Dystar. For textile chemicals, key competitors include Archroma, Transfar/Tannatex and CHT, while key competition in Digital Inks includes Kiian/Jteck/Sawgrass, Sensient/Xennia and DuPont.

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We believe that our competitive strengths include our product offering, which is characterized by its broad and deep technology range, high quality, significant integration between products and service, reliable technical expertise, long-standing relationships with customers, and strong business infrastructure in Asia. We are a leader in environmentally sustainable chemistry with products that help customers enhance efficiency and reduce their environmental footprint. We believe that we have more customer service capability and account management capability than any of our competitors worldwide. In addition, we engage regularly with downstream brands and retailers on industry and sustainability issues.

**Pigments and Additives**

Our Pigments and Additives segment manufactures titanium dioxide, functional additives, color pigments, timber treatment and water treatment products. Our broad product range, coupled with our ability to develop and supply specialized products into technically exacting end-use applications, has positioned us as a leader in the markets we serve. In 2014, we acquired the Performance Additives and Titanium Dioxide businesses ("Rockwood Acquisition") of Rockwood Holdings, Inc. ("Rockwood"), broadening our specialty titanium dioxide product offerings and adding significant scale and capacity to our titanium dioxide facilities. The Rockwood Acquisition positioned us as a leader in the specialty and differentiated titanium dioxide industry segments, which includes products that sell at a premium and have more stable margins. The Rockwood Acquisition also provided us with complementary functional additives, color pigments, timber treatment and water treatment businesses.

Our Pigments and Additives segment has 27 manufacturing facilities operating in 10 countries with a total production capacity of approximately 1.3 million metric tons per year. We operate eight titanium dioxide manufacturing facilities in Europe, North America and Asia and 19 color pigments, functional additives, water treatment and timber treatment manufacturing and processing facilities in Europe, North America, Asia and Australia.

We have substantially transformed our Pigments and Additives segment in recent years and have firmly established ourselves as a market leader in the industries in which we operate. Our Pigments and Additives segment spent \$1.3 billion from January 1, 2014 to December 31, 2016 on acquisitions, restructuring and integration. We have recently identified plans for additional business improvements in our Pigments and Additives segment, which are expected to be completed by the end of 2018 and deliver additional adjusted EBITDA to our business. As a result of these efforts, we believe we are well-positioned to capitalize on market recovery and growth opportunities, and maximize profitability as demand and prices increase.

On October 28, 2016, we filed an initial Form 10 registration statement with the SEC as part of the process to spin off our Pigments and Additives and Textile Effects businesses in a tax-free transaction. On January 17, 2017, we announced that we will retain our Textile Effects business and we amended the Form 10 registration statement. We also announced that the name of the spin-off entity will be Venator. Venator shares are expected to trade on the New York Stock Exchange under the ticker VNTR after the distribution to our stockholders. The completion of the spin-off is subject to the satisfaction or waiver of a number of conditions, including the registration statement on Form 10 for Venator's common stock being declared effective by the SEC and certain other conditions described in the information statement included in the Form 10. The ongoing process to separate the Pigments and Additives business is proceeding and is targeted for the second quarter 2017. As noted in "Recent Developments" above, there was fire damage sustained at our titanium dioxide facility in Pori, Finland. The potential impact of this interruption, if any, on the spin date is not yet known.

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**Products and Markets**

**Titanium Dioxide.** Titanium dioxide is derived from titanium bearing ores and is a white inert pigment that provides whiteness, opacity and brightness to thousands of everyday items, including coatings, plastics, paper, printing inks, fibers, food and personal care products. We are one of the six major producers of titanium dioxide that collectively account for approximately 60% of global TiO<sub>2</sub> production capacity according to TZ Mineral International Pty Ltd. ("TZMI"), an independent consulting company that reports market data for the chemicals sector. Producers of the remaining 40% are primarily single-plant producers that focus on regional sales. We are among the three largest global titanium dioxide producers, with nameplate production capacity of approximately 782,000 metric tons per year, accounting for approximately 11% of global titanium dioxide production capacity. We are able to manufacture a broad range of titanium dioxide products from functional to specialty. Our specialty products sell at a premium into specialized applications such as fibers, catalysts, food, pharmaceuticals and cosmetics. By operating both sulfate and chloride processes, we also have the ability to use a wide range of titanium feedstocks, which enhances the competitiveness of our manufacturing operations, by providing flexibility in the selection of raw materials. This helps insulate us from price fluctuations for any particular feedstock and allows us to reduce our raw material costs.

Global TiO<sub>2</sub> demand growth rates tend to track GDP growth rates over the medium term; however, this varies by region. Developed markets such as the U.S. and Western Europe exhibit higher consumption per person but lower demand growth rates, while emerging markets such as Asia exhibit much higher demand growth rates. The TiO<sub>2</sub> industry experiences some seasonality in its sales reflecting the high exposure to seasonal coatings end-use markets. Coating sales generally peak during the spring and summer months in the northern hemisphere, resulting in greater sales volumes during the second and third quarters of the year.

We own a portfolio of brands including TIOXIDE®, HOMBITAN®, HOMBITEC®, UVTITAN® and ALTIRIS® used in connection with materials, which are produced in our eight manufacturing facilities around the globe. We service over 2,300 customers in most major industries and geographic regions. Our global manufacturing footprint allows us to service the needs of both local and global customers, including A. Schulman, AkzoNobel, Ampacet, BASF, Clariant, DSM, Flint, PPG, PolyOne, Sherwin-Williams and Sun Chemical.

There are two manufacturing processes for the production of titanium dioxide, the sulfate process and the chloride process. We believe that the chloride process accounts for approximately 45% of global production capacity. Our production capabilities are distinguished from some of our competitors because of our ability to manufacture titanium dioxide using both sulfate and chloride manufacturing processes, which gives us the flexibility to tailor our products to meet our customers' needs. Most end-use applications can use pigments produced by either process, although there are markets that prefer pigment from a specific manufacturing route for example, the inks market prefers sulfate products and the automotive coatings market prefers chloride products. Regional customers typically favor products that are available locally. The sulfate process produces titanium dioxide in both the rutile and anatase forms, the latter being used in certain high-value specialty applications.

Once an intermediate titanium dioxide pigment has been produced using either the chloride or sulfate process, it is "finished" into a product with specific performance characteristics for particular end-use applications. Co-products from both processes require treatment prior to disposal in order to comply with environmental regulations. In order to reduce our disposal costs and to increase our cost competitiveness, we have developed and marketed the co-products of our titanium dioxide manufacturing. We sell approximately 60% of the co-products generated by our business.

We have an established broad customer base and have successfully differentiated ourselves by establishing ourselves as a market leader in a variety of niche market segments where the innovation

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and specialization of our products is rewarded with higher growth prospects and strong customer relationships.

<b>Product Type</b>	<b>Rutile titanium dioxide</b>	<b>Anatase titanium dioxide</b>	<b>Nano titanium dioxide</b>
Characteristics	Most common crystal form of titanium dioxide; harder and more durable	Softer, less abrasive pigment, preferred for some specialty applications	Ultra-fine titanium dioxide and other titanium dioxide specialties
Applications	Coatings, printing inks, PVC window frames and plastic masterbatches	Cosmetics, pharmaceuticals, food, polyester fibers and polyamide fibers	Catalysts and cosmetics

**Functional Additives.** Functional additives are barium and zinc based inorganic chemicals used to make colors more brilliant, coatings shine, plastic more stable and protect products from fading. We believe we are the leading global manufacturer of zinc and barium functional additives. The demand dynamics of functional additives are closely aligned with those of functional titanium dioxide given the overlap in applications served, including coatings, plastics and pharmaceuticals.

<b>Product Type</b>	<b>Barium and Zinc Additives</b>
Characteristics	Specialty pigments and fillers based on barium and zinc based chemistry
Applications	Coatings, films, pharmaceuticals, paper and glass fiber reinforced plastics

**Color Pigments.** We are a leading global producer of colored inorganic pigments for the construction, coating, plastics and specialty markets. We are one of three global leaders in the manufacture and processing of liquid, powder and granulated forms of iron oxide color pigments. We also sell natural and synthetic inorganic pigments and metal carboxylate driers. The cost effectiveness, weather resistance, chemical and thermal stability and coloring strength of iron oxide make it an ideal colorant for construction materials, such as concrete, brick and roof tile, and for coatings and plastics. We produce a wide range of color pigments and are the world's second largest manufacturer of technical grade ultramarine blue pigments, which have a unique blue shade and are widely used to correct colors, giving them a desirable clean, blue undertone. These attributes have resulted in ultramarine blue being used world-wide for polymeric applications such as construction plastics, food packaging, automotive polymers, consumer plastics, coatings and cosmetics.

Our products are sold under a portfolio of brands used in connection with items that are targeted to the construction sector such as DAVIS COLORS , GRANUFIN and FERROXIDE and the following brands HOLLIDAY PIGMENTS , COPPERAS RED® and MAPICO used for products focused predominantly on the coatings and plastics sectors.

Our products are also used by manufacturers of colorants, rubber, paper, cosmetics, pet food, digital ink, toner and other industrial uses delivering benefits in other applications such as corrosion protection and catalysis.



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Our construction customers value our broad product range and benefit from our custom blending, color matching and color dosing systems. Our coatings customers benefit from a consistent and quality product.

<b>Product Type</b>	<b>Iron Oxides</b>	<b>Ultramarines</b>	<b>Specialty Inorganics Chemicals</b>	<b>Driers</b>
Characteristics	Powdered, granulated or in liquid form are synthesized using a range of feedstocks	Range of ultramarine blue and violet and also manganese violet pigments	Complex inorganic pigments and cadmium pigments	Range of metal carboxylates and driers
Applications	Construction, coatings, plastics, cosmetics, inks, catalyst and laminates	Predominantly used in plastics, coatings and cosmetics	Coatings, plastics and inks	Predominantly coatings

Iron oxide pigment's cost effectiveness, weather resistance, chemical and thermal stability and coloring strength make it an ideal colorant for construction materials, such as concrete, brick and roof tile, and for coatings such as paints and plastics. We are one of the three largest synthetic inorganic color pigments producers which together represent more than 50% of the global market for iron oxide pigments. The remaining market share consists primarily of Chinese competitors.

Made from clay, our ultramarine blue pigments are non-toxic, weather resistant and thermally stable. Ultramarine blue is used world-wide for food contact applications. Our synthetic ultramarines are permitted for unrestricted use in certain cosmetics applications. Ultramarine blue is used extensively in plastics and the paint industry. We focus on supplying our customers with technical grade ultramarine blues and violets to high specification markets such as the cosmetics industry.

We are now commissioning a new production facility in Augusta, Georgia for the synthesis of iron oxide pigments, which we purchased from Rockwood. During commissioning, the facility has experienced delays producing products at the expected specifications and quantities, causing us to question the capabilities of the Augusta technology. Based on the facility's performance during the commissioning process, we have concluded that production capacity at our Augusta facility will be substantially lower than originally anticipated. On February 6, 2017, we filed a lawsuit against Rockwood, Albemarle Corporation (as Rockwood's successor) and certain former Rockwood executives to recover damage for fraud and breach of contract involving the Augusta technology.

***Timber Treatment and Water Treatment.*** We manufacture wood protection chemicals used primarily in residential and commercial applications to prolong the service life of wood through protection from decay and fungal or insect attack. Wood that has been treated with our products is sold to consumers through major branded retail outlets such as Lowe's.

We manufacture our timber treatment chemicals in the U.S. and market our products primarily in North America through Viance, LLC ("Viance"), our 50%-owned joint venture with Dow Chemical formed in 2007. Our residential construction products such as ACQ, ECOLIFE® and Copper Azole are sold for use in decking, fencing and other residential outdoor wood structures. Our industrial construction products such as Chromated Copper Arsenate (CCA) are sold for use in telephone poles and salt water piers and pilings.

We manufacture our water treatment chemicals in Germany, and these products are used to improve water purity in industrial, commercial and municipal applications. We are one of Europe's largest suppliers of polyaluminium chloride (PAC) based flocculants with approximately 140,000 metric

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tons of production capacity. Our main markets are municipal and industrial waste water treatment and the paper industry.

**Sales and Marketing**

We serve over 9,000 customers through our Pigments and Additives segment. These customers produce paints and coatings, plastics, paper, printing inks, fibers and films, pharmaceuticals, food, cosmetics, materials for the construction industry, catalyst applications and protect wood and treat water with our chemicals. Approximately 85% of our Pigments and Additives sales are made directly to customers through our own global sales and technical services network. This network enables us to work directly with our customers and develop a deep understanding of our customers' needs and to develop valuable relationships. The remaining 15% of sales are made through our distribution network. We maximize the reach our distribution network by utilizing specialty distributors in selected markets.

Larger customers are typically served via our own sales network and these customers often have annual volume targets with associated pricing mechanisms. Smaller customers are served through a combination of our global sales teams and a distribution network, and the route to market decision is often dependent upon customer size and end application.

We sell iron oxides primarily through our global sales force whereas our ultramarine sales are predominantly through specialty distributors. We sell the majority of our timber treatment products directly to end customers via our joint venture Viance.

Our focus is on marketing products and services to higher growth and higher value applications. For example, we believe that our Pigments and Additives segment is well-positioned to benefit from growth sectors, such as fibers and films, catalysts, cosmetics, pharmaceuticals and food, where customers' needs are complex resulting in fewer companies that have the capability to support them. We maximize reach through specialty distributors in selected markets. Our focused sales effort, technical expertise, strong customer service and local manufacturing presence have allowed us to achieve leading market positions in a number of the countries where we manufacture our products.

**Manufacturing and Operations**

As of December 31, 2016, our Pigments and Additives segment has 27 manufacturing facilities operating in 10 countries with a total production capacity of approximately 1.3 million metric tons per year.

Product Area	Annual Capacity (metric tons)			Total
	EAME(1)	North America	APAC(2)	
Titanium dioxide	647,000	75,000	60,000	782,000
Functional additives	100,000			100,000
Color pigments	85,000	55,000	20,000	160,000
Timber treatment		140,000		140,000
Water treatment	140,000			140,000

(1) "EAME" refers to Europe, Africa and the Middle East.

(2) "APAC" refers to the Asia-Pacific region including India.

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Production capacities of our eight titanium dioxide manufacturing facilities are listed below. Approximately 80% of our titanium dioxide capacity is in Western Europe.

Site	Annual Capacity (metric tons)			Process
	EAME(1)	North America	APAC	
Greatham, U.K.	150,000			Chloride
Pori, Finland	130,000			Sulfate
Uerdingen, Germany	107,000			Sulfate
Duisburg, Germany	100,000			Sulfate
Huelva, Spain	80,000			Sulfate
Scarlino, Italy	80,000			Sulfate
Lake Charles, Louisiana(2)		75,000		Chloride
Teluk Kalung, Malaysia			60,000	Sulfate
<b>Total</b>	<b>647,000</b>	<b>75,000</b>	<b>60,000</b>	

- (1) Excludes a Sulfate plant in Umbogintwini, South Africa, which closed in the fourth quarter of 2016, and our titanium dioxide finishing plant in Calais, France.
- (2) This facility is owned and operated by LPC, a manufacturing joint venture that is owned 50% by us and 50% by Kronos. The capacity shown reflects our 50% interest in LPC.

### **Joint Ventures**

**U.S. Titanium Dioxide Joint Venture.** LPC is our 50%-owned unconsolidated joint venture with Kronos. We share production offtake and operating costs of the plant with Kronos, though we market our share of the production independently. The operations of the joint venture are under the direction of a supervisory committee on which each partner has equal representation. Our investment in LPC is accounted for using the equity method.

**U.S. Timber Treatment Joint Venture.** Viance is our 50%-owned joint venture with Dow Chemical. Viance markets our timber treatment products. Our joint venture interest in Viance was acquired as part of the Rockwood Acquisition on October 1, 2014. The joint venture sources all of its products through a contract manufacturing arrangement at our Harrisburg, North Carolina facility, and we bear a disproportionate amount of working capital risk of loss due to the supply arrangement whereby we control manufacturing on Viance's behalf. As a result, we concluded that we are the primary beneficiary and began consolidating Viance upon the Rockwood Acquisition on October 1, 2014.

### **Raw Materials**

The primary raw materials used in our Pigments and Additives segment are as follows:

	Titanium Dioxide	Functional Additives	Color Pigments	Timber Treatment	Water Chemicals
Primary raw materials	Titanium bearing ore, sulfuric acid, chlorine	Barium and zinc based inorganics	Iron oxide particles, scrap iron, copperas alkali	DCOIT, copper, monoethanolamine	Aluminum oxide

The primary raw materials that are used to produce titanium dioxide are various types of titanium feedstock, which include ilmenite, rutile, titanium slag (chloride slag and sulfate slag) and synthetic rutile. According to TZMI, the world market for titanium-bearing ores has a diverse range of suppliers with the four largest accounting for approximately 40% of global supply. The majority of our titanium-bearing ores are sourced from India, Africa, Canada and Norway. Ore accounts for approximately 45%



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of titanium dioxide variable manufacturing costs, while utilities (electricity, gas and steam), sulfuric acid and chlorine collectively account for approximately 30% of variable manufacturing costs.

The majority of the titanium-bearing ores market is transacted on short-term contracts, or longer-term volume contracts with market-based pricing re-negotiated several times per year. This form of market-based ore contract provides flexibility and responsiveness in terms of pricing and quantity obligations.

The primary raw materials for functional additives production are barite and zinc. We currently source material barite from China, where we have long standing supplier relationships and pricing is negotiated largely on a purchase by purchase basis. The quality of zinc required for our business is mainly mined in Australia but can also be sourced from Canada and South America. The majority of our zinc is sourced from two key suppliers with whom we have long standing relationships.

We source our raw material for the majority of our color pigments business from China, the U.S., France and Italy. Key raw materials are iron powder and metal scrap that are sourced from various mid-size and smaller producers primarily on a spot contract basis.

The primary raw materials for our timber treatment business are dichloro-octylisothiazolinone ("DCOIT") and copper. We source the raw materials for the majority of our timber treatment business from China and the U.S. DCOIT is sourced on a long term contract whereas copper is procured from various mid-size and larger producers primarily on a spot contract basis.

The primary raw materials for our water treatment business are aluminum hydroxide, hydrochloric acid and nitric acid, which are widely available from a number of sources and typically sourced through long term contracts. We also use sulfuric acid which we source internally.

***Competition***

The global markets in which our Pigments and Additives segment operates are highly competitive and vary according to product.

Competition within the standard grade titanium dioxide market is based on price, product quality and service. Our key competitors are Chemours, Tronox, Kronos and Cristal, each of which is a major global producer with the ability to service all global markets and Billions, a Chinese titanium dioxide producer. If any of our current or future competitors develops proprietary technology that enables them to produce products at a significantly lower cost, our technology could be rendered uneconomical or obsolete. Moreover, the sulfate based titanium dioxide technology used by our Pigments and Additives segment is widely available. Accordingly, barriers to entry, apart from capital availability, may be low and the entrance of new competitors into the industry may reduce our ability to capture improving margins in circumstances where capacity utilization in the industry is increasing.

Competition within the specialty titanium dioxide market and the color pigments market is based on customer service, technical expertise in the customers' applications, product attributes (such as product form and quality) and price. Product quality is particularly critical in the technically demanding applications in which we focus as inconsistent product quality adversely impacts consistency in the end-product. Our primary competitors within specialty titanium dioxide include Fuji Titanium Industry, Kronos and Precheza. Our primary competitors within color pigments include Lanxess AG, Cathay Pigments Group, Ferro Corporation and Shanghai Yipin Pigments Co., Ltd.

Competition within the functional additives market is primarily based on application know-how, brand recognition, product quality and price. Key competitors for barium-based additives include Solvay S.A., Sakai Chemical Industry Co., Ltd., 20 Microns Ltd. and Chinese barium producers. Key competitors for zinc-based additives include Chinese lithopone producers.

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Competition within the timber treatment market is based on price, customer support services, innovative technology and product range. Our primary competitors are Lonza Group and Koppers. Competition within the water treatment market is based on proximity to customers and price. Our primary competitors are Kemira and Feralco.

**RESEARCH AND DEVELOPMENT**

For the years ended December 31, 2016, 2015 and 2014, we spent \$152 million, \$160 million and \$158 million, respectively, on research and development.

We support our business with a major commitment to research and development, technical services and process engineering improvement. Our research and development centers are located in The Woodlands, Texas; Everberg, Belgium; and Shanghai, China. Other regional development/technical service centers are located in Wynyard, England and Duisburg, Germany (pigments and additives); Auburn Hills, Michigan (polyurethanes for the automotive industry); Derry, New Hampshire, Shanghai, China, Deggendorf, Germany and Ternate, Italy (polyurethanes); Melbourne, Australia (surfactants); Port Neches, Texas (process engineering support); Basel, Switzerland and Panyu, China (advanced materials and textile effects); and Mumbai, India (textile effects).

**INTELLECTUAL PROPERTY RIGHTS**

Proprietary protection of our processes, apparatuses, and other technology and inventions is important to our businesses. We own approximately 3,015 unexpired global patents and have approximately 1,370 patent applications (including provisionals) currently pending. While a presumption of validity exists with respect to issued U.S. patents, we cannot assure that any of our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Furthermore, we cannot assure the issuance of any pending patent application, or that if patents do issue, that these patents will provide meaningful protection against competitors or against competitive technologies. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. There can be no assurance, however, that confidentiality and other agreements into which we enter and have entered will not be breached, that they will provide meaningful protection for our trade secrets or proprietary know-how, or that adequate remedies will be available in the event of an unauthorized use or disclosure of such trade secrets and know-how. In addition, there can be no assurance that others will not obtain knowledge of these trade secrets through independent development or other access by legal means.

In addition to our own patents and patent applications and proprietary trade secrets and know-how, we are a party to certain licensing arrangements and other agreements authorizing us to use trade secrets, know-how and related technology and/or operate within the scope of certain patents owned by other entities. We also have licensed or sub-licensed intellectual property rights to third parties.

We have associated brand names with a number of our products, and we have approximately 4,080 global trademark registrations and 235 pending registrations. Some of these registrations and applications include filings under the Madrid system for the international registration of marks and may confer rights in multiple countries. However, there can be no assurance that the trademark registrations will provide meaningful protection against the use of similar trademarks by competitors, or that the value of our trademarks will not be diluted.

Because of the breadth and nature of our intellectual property rights and our business, we do not believe that any single intellectual property right (other than certain trademarks for which we intend to

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maintain the applicable registrations) is material to our business. Moreover, we do not believe that the termination of intellectual property rights expected to occur over the next several years, either individually or in the aggregate, will materially adversely affect our business, financial condition or results of operations.

**EMPLOYEES**

As of December 31, 2016, we employed approximately 15,000 associates in our operations around the world. Approximately 3,000 of these employees are located in the U.S., while approximately 12,000 are located in other countries. We believe our relations with our employees are good.

**GEOGRAPHIC DATA**

For sales revenue and long-lived assets by geographic areas, see "Note 26. Operating Segment Information" to our consolidated financial statements.

**ENVIRONMENTAL, HEALTH AND SAFETY MATTERS**

**General**

We are subject to extensive federal, state, local and international laws, regulations, rules and ordinances relating to safety, pollution, protection of the environment, product management and distribution, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. In the ordinary course of business, we are subject to frequent environmental inspections and monitoring and occasional investigations by governmental enforcement authorities. In addition, our production facilities require operating permits that are subject to renewal, modification and, in certain circumstances, revocation. Actual or alleged violations of safety laws, environmental laws or permit requirements could result in restrictions or prohibitions on plant operations or product distribution, substantial civil or criminal sanctions, as well as, under some environmental laws, the assessment of strict liability and/or joint and several liability. Moreover, changes in environmental regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations. Accordingly, environmental or regulatory matters may cause us to incur significant unanticipated losses, costs or liabilities. Information related to environmental, health and safety ("EHS") matters may also be found in other areas of this report including "Item 1A. Risk Factors," "Note 2. Summary of Significant Accounting Policies Environmental Expenditures" to our consolidated financial statements and "Note 21. Environmental Health and Safety Matters" to our consolidated financial statements.

**Environmental, Health and Safety Systems**

We are committed to achieving and maintaining compliance with all applicable EHS legal requirements, and we have developed policies and management systems that are intended to identify the multitude of EHS legal requirements applicable to our operations, enhance compliance with applicable legal requirements, improve the safety of our employees, contractors, community neighbors and customers and minimize the production and emission of wastes and other pollutants. Although EHS legal requirements are constantly changing and are frequently difficult to comply with, these EHS management systems are designed to assist us in our compliance goals while also fostering efficiency and improvement and reducing overall risk to us.

**Environmental Remediation**

We have incurred, and we may in the future incur, liability to investigate and clean up waste or contamination at our current or former facilities or facilities operated by third parties at which we may have disposed of waste or other materials. Similarly, we may incur costs for the cleanup of waste that

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was disposed of prior to the purchase of our businesses. Under some circumstances, the scope of our liability may extend to damages to natural resources.

In cases where our potential liability arises from historical contamination based on operations and other events occurring prior to our ownership of a business or specific facility, we frequently obtain an indemnity agreement from the prior owner addressing remediation liabilities arising from pre-closing conditions. We have successfully exercised our rights under these contractual covenants for a number of sites and, where applicable, mitigated our ultimate remediation liability. We cannot assure you, however, that the liabilities for all such matters subject to indemnity will be honored by the prior owner or that our existing indemnities will be sufficient to cover our liabilities for such matters.

Based on available information and the indemnification rights we believe are likely to be available, we believe that the costs to investigate and remediate known contamination will not have a material effect on our financial statements. However, if such indemnities are not honored or do not fully cover the costs of investigation and remediation or we are required to contribute to such costs, then such expenditures may have a material effect on our financial statements. At the current time, we are unable to estimate the total cost, exclusive of indemnification benefits, to remediate contamination sites.

**Regulatory Matters**

***Greenhouse Gas Regulation and Climate Change***

Globally, our operations are increasingly subject to regulations that seek to reduce emissions of greenhouse gases ("GHGs"), such as carbon dioxide and methane, which may be contributing to changes in the earth's climate. At the Durban negotiations of the Conference of the Parties to the Kyoto Protocol in 2012, a limited group of nations, including the European Union (the "EU"), agreed to a second commitment period for the Kyoto Protocol, an international treaty that provides for reductions in GHG emissions. More significantly, the EU GHG Emissions Trading System ("ETS"), established pursuant to the Kyoto Protocol to reduce GHG emissions in the EU, continues in its third phase. The EU parliament has used a process to formalize "backloading" the withholding of GHG allowances during the trading period from 2014 to 2016 with additional allowances auctioned during 2019 to 2020 to prop up carbon prices. As backloading is only a temporary measure, a sustainable solution to the imbalance between supply and demand requires structural changes to the ETS. The European Commission proposes to establish a market stability reserve to address the current surplus of allowances and improve the system's resilience. The reserve will start operating in 2019. In addition, the EU has announced the binding target to reduce domestic GHG emissions by at least 40% below the 1990 level by 2030. The European Commission proposed an objective of increasing the share of renewable energy to at least 27% of the EU's energy consumption by 2030. The European Council endorsed this target, which is binding at the EU level. The European Commission also proposed a 30% energy savings target for 2030. The European Council, however, endorsed an indicative target of 27% to be reviewed in 2020 having in mind a 30% target.

In addition, at the 2015 United Nations Framework Convention on Climate Change in Paris, the U.S. and nearly 200 other nations entered into an international climate agreement, which entered into effect in November 2016. Although the agreement does not create any binding obligations for nations to limit their GHG emissions, it does include pledges to voluntarily limit or reduce future emissions. The U.S. is one of over 100 nations that have indicated an intent to comply with the agreement.

Federal climate change legislation in the U.S. appears unlikely in the near-term. As a result, domestic efforts to curb GHG emissions will continue to be led by the U.S. Environmental Protection Agency's (the "EPA") GHG regulations and the efforts of states. To the extent that our domestic operations are subject to the EPA's GHG regulations, we may face increased capital and operating costs associated with new or expanded facilities. Significant expansions of our existing facilities or construction of new facilities may be subject to the Clean Air Act's (the "CAA") requirements for



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pollutants regulated under the Prevention of Significant Deterioration and Title V programs. Some of our facilities are also subject to the EPA's Mandatory Reporting of Greenhouse Gases rule, and any further regulation may increase our operational costs. In addition, under a consent decree with states and environmental groups, the EPA is due to propose new source performance standards for GHG emissions from refineries. These standards could significantly increase the costs of constructing or adding capacity to refineries and may ultimately increase the costs or decrease the supply of refined products. Either of these events could have an adverse effect on our business.

We are already managing and reporting GHG emissions, to varying degrees, as required by law for our sites in locations subject to U.S. federal and state requirements, Kyoto Protocol obligations and/or ETS requirements. Although these sites are subject to existing GHG legislation, few have experienced or anticipate significant cost increases as a result of these programs, although it is possible that GHG emission restrictions may increase over time. Potential consequences of such restrictions include capital requirements to modify assets to meet GHG emission restrictions and/or increases in energy costs above the level of general inflation, as well as direct compliance costs. Currently, however, it is not possible to estimate the likely financial impact of potential future regulation on any of our sites.

Finally, it should be noted that some scientists have concluded that increasing concentrations of GHGs in the earth's atmosphere may produce climate changes that have significant physical effects, such as increased frequency and severity of storms, droughts, and floods and other climatic events. If any of those effects were to occur, they could have an adverse effect on our assets and operations

**AVAILABLE INFORMATION**

We maintain an internet website at <http://www.huntsman.com>. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports are available free of charge through our website as soon as reasonably practicable after we file this material with the SEC. We also provide electronic or paper copies of our SEC filings free of charge upon request.

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**GLOSSARY OF CHEMICAL TERMS**

BDO	butane diol
BLR	base liquid resin
DEG	di-ethylene glycol
DGA® Agent	DIGLYCOLAMINE® agent
DPA	diphenylamine
EA	ethyleneamines
EDC	ethylene dichloride
EG	ethylene glycol
EO	ethylene oxide
EOA	ethanolamines
LAB	linear alkyl benzene
LAS	linear alkylbenzene sulfonate
LER	liquid epoxy resins
LNG	liquefied natural gas
MDA	methylene dioxy amphetamine
MDI	methyl diphenyl diisocyanate
MEG	mono-ethylene glycol
MNB	mononitrobenzene
MTBE	methyl tertiary-butyl ether
PBT	polybutylene terephthalate
PEA	polyetheramines
PET	polyethylene terephthalate
PG	propylene glycol
PO	propylene oxide
Polyols a substance containing several hydroxyl groups. A diol, triol and tetrol contain two, three and four hydroxyl groups, respectively.	
TBA	tertiary butyl alcohol
TBHP	tert-butyl hydroperoxide
TDI	toluene diisocyanate
TEG	tri-ethylene glycol
TiO <sub>2</sub>	titanium dioxide pigment
TPU	thermoplastic polyurethane
UPR	unsaturated polyester resin

**ITEM 1A. RISK FACTORS**

*Any of the following risks could materially and adversely affect our business, results of operations, financial condition and liquidity.*

***RISKS RELATED TO THE PROPOSED SPIN-OFF***

*The proposed spin-off of our Pigments and Additives businesses is contingent upon the satisfaction of a number of conditions, may require significant time and attention of our management and may have an adverse effect on us if not completed.*

On October 28, 2016, we announced plans to spin off our Pigments and Additives business into a separate, publicly traded company, Venator. Completion of the proposed spin-off is subject to various conditions and may be affected by unanticipated developments or changes in market conditions that could delay, prevent, or otherwise adversely affect the spin-off. Completion of the spin-off will be contingent upon several factors, including, but not limited to, authorization and approval of our Board of Directors, receipt of a private letter ruling from the IRS, receipt of a tax opinion regarding the

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tax-free status of the spin-off, completion of new financing arrangements, execution of ancillary agreements, and the effectiveness of a registration statement with the SEC. There can be no assurance that the spin-off will be completed as expected, if at all.

In pursuing the proposed spin-off, our ongoing businesses may be adversely affected, and we may be subject to certain risks and consequences, including, but not limited to, the following:

execution of the proposed spin-off will require significant time and attention from management, which may postpone the execution of other initiatives that may have been beneficial to us;

completion of the spin-off will require strategic, structural and process realignment and restructuring actions within our operations, which could lead to a disruption of our operations and loss of, or inability to recruit key personnel needed to operate and grow our businesses and to complete the proposed spin-off;

completion of the spin-off may require certain management and procedural redundancies as we prepare for the spin-off, which may result in operating inefficiencies; and

we will be required to pay certain costs and expenses relating to the spin-off, such as legal, accounting, and other professional fees, whether or not it is completed.

We may also experience negative reactions from the financial markets if we fail to complete the spin-off. Any of these factors could have a material adverse effect on our financial condition, results of operations, cash flows, and the price of our common stock.

#### ***We may be unable to achieve some or all of the anticipated benefits from the proposed spin-off.***

We may not achieve some or all of the financial, operational, managerial, and other anticipated benefits from the proposed spin-off, or the spin-off may not provide such benefits on the scale we anticipate for a variety of reasons. In addition, we will incur one-time costs in connection with the spin-off that may negate some of the benefits we expect to achieve.

#### ***If the proposed spin-off of our Pigments and Additives business is completed, the trading price of our common stock will likely decline.***

We expect the trading price of our common stock immediately following the proposed spin-off to be lower than immediately preceding the spin-off, as the trading price of our common stock will no longer reflect the value of our Pigments and Additives business. In addition, we can not assure you that that the combined value of the common stock of the two publicly-traded companies following the completion of the spin-off, as adjusted for any changes in the combined capitalization of these companies, will be equal to or greater than what the value of our common stock would have been had the proposed spin-off not occurred. Until the market has fully evaluated the business of our Company without its Pigments and Additives segment, the price at which our common stock trades may fluctuate significantly. Similarly, until the market has fully evaluated Venator, the price at which Venator's common stock trades may fluctuate significantly.

#### ***The proposed spin-off could result in substantial tax liability.***

The proposed spin-off is intended to qualify for tax-free treatment under Section 355, 361 and/or 368(a)(1)(D) of the Internal Revenue Code of 1986, as amended (the "Code"). We are seeking, and completion of the spin-off is conditioned upon the receipt of, a private letter ruling from the U.S. Internal Revenue Service ("IRS") to the effect that our retention of Venator Class A common stock will not be in pursuance of a plan having as one of its principal purposes the avoidance of federal income tax, that certain post-spin-off exchanges of such Venator stock for our Company's indebtedness will be treated as tax-free under Section 355 and 361 of the Code and that certain payments or

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transfers of assets and liabilities that may occur following the spin-off will be treated as part of the spin-off transaction (the "IRS Ruling"). If the IRS Ruling is received, our tax counsel is expected to issue an opinion that our pro rata distribution of all outstanding Venator Class B common stock to our stockholders qualifies as a tax-free transaction under Sections 355, 361 and/or 368(a)(1)(D) of the Code and that certain elements of the restructuring transactions undertaken as part of the spin-off will also qualify for tax-free treatment under Sections 355, 361 and/or 368(a)(1)(D) of the Code (the "Tax Opinion").

The tax-free treatment of the spin-off will be contingent on the continued validity of the IRS Ruling and the Tax Opinion, both of which will be based on certain facts, representations and undertakings. If any of such facts, representations or undertakings are not correct, are incomplete, or are violated, the IRS Ruling could be revoked or modified by the IRS and our Company's ability to rely on the Tax Opinion could be jeopardized. If the spin-off distribution, and/or related internal transactions, were determined to be taxable, Huntsman or Venator could incur significant U.S. federal income tax liabilities. In addition, if the spin-off were deemed to be taxable, each holder of Huntsman common stock who received shares of Venator would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the shares of Venator received.

Even if the distribution otherwise qualifies for tax-free treatment, the distribution may result in a corporate-level taxable gain to our Company if 50 percent or more, by vote or value, of Huntsman or Venator common stock, is treated as acquired or issued as part of a plan or series of related transactions that includes the distribution. In that event, while our Company would recognize a taxable gain as described above, the distribution would be tax-free to our common stockholders.

***RISKS RELATED TO OUR BUSINESS***

***Our industry is affected by global economic factors including risks associated with volatile economic conditions.***

Our financial results are substantially dependent on overall economic conditions in the U.S., Europe and Asia. Declining economic conditions in all or any of these locations or negative perceptions about economic conditions could result in a substantial decrease in demand for our products and could adversely affect our business. The timing and extent of any changes to currently prevailing market conditions is uncertain, and supply and demand may be unbalanced at any time. For example, our operations in Asia have been impacted by slower growth in China, which continues to adversely affect demand for some of our products. Uncertain economic conditions and market instability make it particularly difficult for us to forecast demand trends. As a consequence, we may not be able to accurately predict future economic conditions or the effect of such conditions on our financial condition or results of operations. We can give no assurances as to the timing, extent or duration of the current or future economic cycles impacting the industries in which we operate.

***The markets for many of our products are cyclical and volatile, and we may experience depressed market conditions for such products.***

The cyclical nature of the markets for many of our products occurs as a result of alternating periods of tight supply, causing prices and margins to increase, followed by periods of lower capacity utilization, resulting in oversupply and declining prices and margins. The volatility these markets experience occurs as a result of changes in the demand for products as a consequence of global economic activity, changes in energy prices and changes in customers' requirements. For example, demand for our products depends in part on the housing and construction industries, which are cyclical in nature and have historically been impacted by downturns in the economy. In addition, margins for MTBE sales are volatile and seasonal. The supply-demand balance is also impacted by capacity additions or reductions that result in changes in utilization rates. The cyclical nature and volatility

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of our industry results in significant fluctuations in profits and cash flow from period to period and over the business cycle.

Primarily as a result of oversupply in the market, global prices for titanium dioxide declined throughout 2015 before reaching a trough in the first quarter of 2016. Although this market has experienced recent success in implementing price increases and increasing margins, there can be no assurances that the market will recover fully to historically normalized levels. Furthermore, the market could deteriorate to conditions worse than the trough experienced in the first quarter of 2016. If selling prices and margins do not recover fully to historically normalized levels or worsen, our results of operations and/or financial condition could be negatively impacted.

***Disruptions in production at our manufacturing facilities may have a material adverse impact on our business, results of operations and/or financial condition.***

Manufacturing facilities in our industry are subject to planned and unplanned production shutdowns, turnarounds, outages and other disruptions. Any serious disruption at any of our facilities could impair our ability to use our facilities and have a material adverse impact on our revenues and increase our costs and expenses. Alternative facilities with sufficient capacity may not be available, may cost substantially more or may take a significant time to increase production or qualify with our customers, any of which could negatively impact our business, results of operations and/or financial condition. Long-term production disruptions may cause our customers to seek alternative supply which could further adversely affect our profitability.

Unplanned production disruptions may occur for external reasons including natural disasters, weather, disease, strikes, transportation interruption, government regulation, political unrest or terrorism, or internal reasons, such as fire, unplanned maintenance or other manufacturing problems. Any such production disruption could have a material impact on our operations, operating results and financial condition.

In addition, we rely on a number of vendors, suppliers, and in some cases sole-source suppliers, service providers, toll manufacturers and collaborations with other industry participants to provide us with chemicals, feedstocks and other raw materials, along with energy sources and, in certain cases, facilities that we need to operate our business. If the business of these third parties is disrupted, some of these companies could be forced to reduce their output, shut down their operations or file for bankruptcy protection. If this were to occur, it could adversely affect their ability to provide us with the raw materials, energy sources or facilities that we need, which could materially disrupt our operations, including the production of certain of our products. Moreover, it could be difficult to find replacements for certain of our business partners without incurring significant delays or cost increases. All of these risks could have a material adverse effect on our business, results of operations, financial condition and liquidity.

While we maintain business recovery plans that are intended to allow us to recover from natural disasters or other events that could disrupt our business, we cannot provide assurances that our plans would fully protect us from the effects of all such disasters or from events that might increase in frequency or intensity due to climate change. In addition, insurance may not adequately compensate us for any losses incurred as a result of natural or other disasters. In areas prone to frequent natural or other disasters, insurance may become increasingly expensive or not available at all. Furthermore, some potential climate-driven losses, particularly inundation due to sea-level rise, may pose long-term risks to our physical facilities such that operations cannot be restored in their current locations.

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***Our results of operations may be adversely affected by international business risks, including fluctuations in currency exchange rates, legal restrictions and taxes.***

We conduct a majority of our business operations outside the U.S., and these operations are subject to risks normally associated with international operations. These risks include the need to convert currencies that may be received for our products into currencies in which we purchase raw materials or pay for services, which could result in a gain or loss depending on fluctuations in exchange rates. We transact business in many foreign currencies, including euros, Swiss francs, Chinese renminbi, Indian rupees, Brazilian reals and Thai bahts. We translate our local currency financial results into U.S. dollars based on average exchange rates prevailing during the reporting period or the exchange rate at the end of that period. During times of a strengthening U.S. dollar, our reported international sales and earnings may be reduced because the local currency may translate into fewer U.S. dollars. Because we currently have significant operations located outside the U.S., we are exposed to fluctuations in global currency rates which may result in gains or losses on our financial statements.

Other risks of international operations include trade barriers, tariffs, exchange controls, cash repatriation restrictions, national and regional labor strikes, social and political risks, general economic risks and required compliance with a variety of U.S. and foreign laws, including monetary policies, tax laws, the Foreign Corrupt Practices Act (and foreign equivalents), export controls and regulations administered by the Office of Foreign Assets Control. Any changes in tariffs or trade barriers could make our products less competitive compared to other producers not subject to the same tariffs or trade barriers. Any decision to repatriate cash as dividends could subject us to foreign and U.S. federal and state income taxes without any offsetting foreign tax credit relief. Although we maintain an anti-corruption compliance program throughout our Company, violations of our compliance program may result in criminal or civil sanctions, including material monetary fines, penalties and other costs against us or our employees, and may have a material adverse effect on our business. Furthermore, in foreign jurisdictions where legal processes may vary from country to country, we may experience difficulty in enforcing agreements. In jurisdictions where bankruptcy laws and practices vary, we may experience difficulty collecting foreign receivables through foreign legal systems. The occurrence of these risks, among others, could disrupt the businesses of our international subsidiaries, which could significantly affect their ability to make distributions to us.

We operate in a significant number of jurisdictions, which contributes to the volatility of our effective tax rate. Changes in tax laws or the interpretation of tax laws in the jurisdictions in which we operate may affect our effective tax rate. In addition, generally accepted accounting principles in the U.S. ("GAAP" or "U.S. GAAP") have required us to place valuation allowances against our net operating losses and other deferred tax assets in a significant number of tax jurisdictions. These valuation allowances result from analysis of positive and negative evidence supporting the realization of tax benefits. Negative evidence includes a cumulative history of pre-tax operating losses in specific tax jurisdictions. Changes in valuation allowances have resulted in material fluctuations in our effective tax rate. Economic conditions may dictate the continued imposition of current valuation allowances and, potentially, the establishment of new valuation allowances. While significant valuation allowances remain, our effective tax rate will likely continue to experience significant fluctuations. Furthermore, certain foreign jurisdictions may take actions to delay our ability to collect value-added tax refunds.

***Our efforts to grow and transform our businesses may require significant investments; if our strategies are unsuccessful, our business, results of operations and/or financial condition may be materially adversely affected.***

We continuously evaluate opportunities for growth and change. These initiatives may involve making acquisitions, entering into partnerships and joint ventures, divesting assets, restructuring our existing operations and assets, creating new financial structures and building new facilities any of which could require a significant investment and subject us to new kinds of risks. We have incurred

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indebtedness to finance these opportunities, and we may incur additional indebtedness to finance future initiatives. We could also issue additional shares of stock of our Company or our subsidiaries to finance such initiatives. If our strategies for growth and change are not successful, we could face increased financial pressure, such as increased cash flow demands, reduced liquidity and diminished access to financial markets, and the equity value of our businesses could be diluted.

The implementation of strategies for growth and change may create additional risks, including:

- diversion of management time and attention away from existing operations;
- requiring capital investment that could otherwise be used for the operation and growth of our existing businesses;
- disruptions to important business relationships;
- increased operating costs;
- limitations imposed by various governmental entities;
- use of limited investment and other baskets under our debt covenants; and
- difficulties due to lack of or limited prior experience in any new markets we may enter.

Our inability to mitigate these risks or other problems encountered in connection with our strategies for growth and change could have a material adverse effect on our business, results of operations and financial condition. In addition, we may fail to fully achieve the savings or growth projected for current or future initiatives notwithstanding the expenditure of substantial resources in pursuit thereof. See "Risks Related to the Proposed Spin-Off" above for specific risks related to the proposed spin-off of our Pigments and Additives business.

***We may have difficulties integrating acquired businesses and as a result, our business, results of operations and/or financial condition may be materially adversely affected.***

We have completed a number of acquisitions and we will continue to acquire additional businesses and enter into joint ventures as part of our business strategy. Growth through acquisitions and joint ventures involves risks, including:

- inability to efficiently operate new businesses or to integrate acquired businesses and products;
- inability to accurately predict delays in realizing the costs and benefits of acquisitions, partnerships, or joint ventures;
- unexpected losses of customers or suppliers of an acquired or existing business;
- difficulties in retaining key employees of acquired businesses;
- difficulties in realizing projected synergies; and

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exposure to unanticipated liabilities, including unexpected environmental exposures, product liability or illegal activities conducted by an acquired company or a joint venture partner.

Our inability to address these risks could cause us to fail to realize the anticipated benefits of such acquisitions or joint ventures and could have a material adverse effect on our business, results of operations and financial condition.

***Significant price volatility or interruptions in supply of our raw materials may result in increased costs that we may be unable to pass on to our customers, which could reduce our profitability.***

We purchase a substantial portion of our raw materials from third-party suppliers and the cost of these raw materials represents a substantial portion of our operating expenses. The prices for a number



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of these raw materials generally follow price trends of, and vary with market conditions for, crude oil and natural gas feedstocks, which are highly volatile and cyclical. For example, the market for crude oil and natural gas feedstocks experienced depressed pricing throughout 2015 and 2016, leading to favorable prices for the raw materials that we purchase from third parties. Lower raw material prices, however, can lead to downward pressure on selling prices for certain of our products leading to reduced revenue. Any rebound in the pricing for such feedstocks could adversely affect our operating expenses. Our supply agreements typically provide for market-based pricing and provide us only limited protection against price volatility. While we attempt to match cost increases with corresponding product price increases, we are not always able to raise product prices immediately or at all. Timing differences between raw material prices, which may change daily, and contract product prices, which in many cases are negotiated only monthly or less often, have had and may continue to have a negative effect on our cash flow. Any cost increase that we are not able to pass on to our customers could have a material adverse effect on our business, results of operations, financial condition and liquidity.

In general, the feedstocks and other raw materials we consume are organic chemical commodity products that are readily available at market prices. There are, however, several raw materials for which there are only a limited number of suppliers or a single supplier. For example, titanium-containing feedstocks suitable for use in our titanium dioxide facilities are available from a limited number of suppliers around the world. To mitigate potential supply constraints, we frequently enter into supply agreements with particular suppliers, evaluate alternative sources of supply and evaluate alternative technologies to avoid reliance on limited or sole-source suppliers. In addition, where supply relationships are concentrated, particular attention is paid by the parties to ensure strategic intentions are aligned to facilitate long-term planning. If certain of our suppliers are unable to meet their obligations under present supply agreements, we may be forced to pay higher prices to obtain the necessary raw materials from other sources and we may not be able to increase prices for our finished products to recoup the higher raw materials costs. Any interruption in the supply of raw materials could increase our costs or decrease our revenues, which could reduce our cash flow. The inability of a supplier to meet our raw material needs could have a material adverse effect on our financial statements and results of operations.

The number of sources for and availability of certain raw materials is also specific to the particular geographical region in which a facility is located. Political and economic instability in the countries from which we purchase our raw material supplies could adversely affect their availability. In addition, if raw materials become unavailable within a geographic area from which they are now sourced, then we may not be able to obtain suitable or cost effective substitutes. We may also experience higher operating costs such as energy costs, which could affect our profitability. We may not always be able to increase our selling prices to offset the impact of any higher production costs or reduced production levels, which could reduce our earnings and decrease our liquidity.

***The industries in which we compete are highly competitive, and we may not be able to compete effectively with our competitors that have greater financial resources, which could have a material adverse effect on our business, results of operations and financial condition.***

The industries in which we operate are highly competitive. Among our competitors are some of the world's largest chemical companies and major integrated petroleum companies that have their own raw material resources. Changes in the competitive landscape could make it difficult for us to retain our competitive position in various products and markets throughout the world. Some of the companies with whom we compete may be able to produce products more economically than we can. Furthermore, some of our competitors have greater financial resources, which may enable them to invest significant capital into their businesses, including expenditures for research and development.

While we are engaged in a range of research and development programs to develop new products and processes, to improve and refine existing products and processes, and to develop new applications

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for existing products, the failure to develop new products, processes or applications could make us less competitive. Moreover, if any of our current or future competitors develops proprietary technology that enables them to produce products at a significantly lower cost, our technology could be rendered uneconomical or obsolete.

Further, it is possible that we could abandon certain products, processes, or applications due to potential infringement of third party intellectual property rights or that we could be named in future litigation for the infringement or misappropriation of a competitor's or other third party's intellectual property rights, which could include a claim for injunctive relief and damages, and, if so, such adverse results could have a material adverse effect on our business, results of operations and financial position. In addition, certain of our competitors in various countries in which we do business, including China, may be owned by or affiliated with members of local governments and political entities. These competitors may get special treatment with respect to regulatory compliance and product registration, while certain of our products, including those based on new technologies, may be delayed or even prevented from entering into the local market.

Certain of our businesses use technology that is widely available. Accordingly, barriers to entry, apart from capital availability, may be low in certain product segments of our business. The entrance of new competitors into any of our businesses may reduce our ability to maintain margins or capture improving margins in circumstances where capacity utilization in the industry is increasing. Further, petroleum-rich countries have become more significant participants in the petrochemical industry and may expand their roles significantly in the future. Increased competition in any of our businesses could compel us to reduce the prices of our products, which could result in reduced margins and loss of market share and have a material adverse effect on our business, results of operations, financial condition and liquidity.

***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, cause delays or cancellations of customer orders or impede 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. Current employees have, and former employees may have, access to a significant amount of information regarding our operations which could be disclosed to our competitors or otherwise used to harm us. Moreover, our operations in certain locations, such as China, 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.

In addition, we could be required to expend significant additional amounts to respond to information technology issues or to protect against threatened or actual security breaches. We may not be able to implement measures that will protect against all of the significant risks to our information technology systems.

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***Our significant debt level, a portion of which is subject to variable interest rates, makes us vulnerable to downturns and may limit our ability to respond to market conditions, to obtain additional financing or to refinance our debt.***

We have significant outstanding debt. As of December 31, 2016, our total consolidated outstanding debt was \$4,196 million (including current portion of debt); our debt to total capitalization ratio was approximately 74%; our combined outstanding variable rate borrowings were approximately \$2.2 billion; and our current portion of debt totaled \$60 million. Our debt level and the fact that a significant percentage of our cash flow is required to make payments on our debt could have important consequences for our business, including but not limited to the following:

we may be more vulnerable to business, industry or economic downturns, making it more difficult to respond to market conditions;

cash flow available for other purposes, including the growth of our business, may be reduced;

our ability to refinance or obtain additional financing may be constrained, particularly during periods when the capital markets are unsettled;

our competitors with lower debt levels may have a competitive advantage relative to us; and

part of our debt is subject to variable interest rates, which makes us more vulnerable to increases in interest rates (for example, a 1% increase in interest rates, without giving effect to interest rate hedges or other offsetting items, would increase our annual interest rate expense by approximately \$22 million).

Our debt level also impacts our credit ratings. Any decision by credit rating agencies to downgrade our debt ratings could restrict our ability to obtain additional financing and could result in increased interest and other costs.

***Agreements governing our debt may restrict our ability to engage in certain business activities or to obtain additional financing.***

The agreements governing our debt arrangements contain certain restrictive covenants. These covenants may limit or prohibit our ability to among other things, incur additional indebtedness; make certain prepayments of debt; pay dividends, redeem stock or make other distributions; issue stock; make investments; create liens; enter into transactions with affiliates; enter into sale and leaseback transactions; merge or consolidate; and transfer or sell assets. Some of our strategies may necessitate receiving consents or waivers under our debt arrangements, which could be withheld.

Our failure to comply with any of our debt covenants, or our failure to make payments of principal or interest on our debt, could result in a default, or trigger cross-default or acceleration provisions, under our debt agreements. An event of default could result in our debt obligations becoming immediately due and payable, cause our creditors to terminate their lending commitments, or force us or one or more of our subsidiaries into bankruptcy or liquidation. Any of the foregoing occurrences could have a material adverse effect on our business, results of operations and financial condition. For more information regarding our debt covenants, see "Note 15. Debt Compliance with Covenants" to our consolidated financial statements.

***Economic conditions and regulatory changes following the United Kingdom's likely exit from the EU could adversely impact our operations, operating results and financial condition.***

Following a referendum in June 2016 in which voters in the United Kingdom (the "U.K.") approved an exit from the EU, it is expected that the U.K. government will initiate a process to leave the EU (often referred to as Brexit). The referendum triggered short-term financial volatility, including a decline in the value of the pound sterling in comparison to both the U.S. dollar and euro. The future

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effects of Brexit will depend on any agreements the U.K. makes to retain access to the EU or other markets either during a transitional period or more permanently. Given the lack of comparable precedent and the uncertainty around when the U.K. government will initiate the process to leave the EU, it is unclear what financial, trade and legal implications the withdrawal of the U.K. from the EU would have and how such withdrawal would affect our Company.

We derive a significant portion of our revenues from sales outside the U.S., including 29% from Europe. The consequences of Brexit, together with what may be protracted negotiations around the terms of Brexit, could introduce significant uncertainties into global financial markets and adversely impact the markets in which we and our customers operate. Brexit could also create uncertainty with respect to the legal and regulatory requirements to which we and our customers in the U.K. are subject and lead to divergent national laws and regulations as the U.K. government determines which EU laws to replace or replicate.

While we are not experiencing any immediate adverse impact on our financial condition as a result of Brexit, adverse consequences such as deterioration in economic conditions, volatility in currency exchange rates or adverse changes in regulation could have a negative impact on our future operations, operating results and financial condition. All of these potential consequences could be further magnified if additional countries were to exit the EU.

***Our operations involve risks that may increase our operating costs, which could reduce our profitability.***

Although we take precautions to enhance the safety of our operations and minimize the risk of disruptions, our operations are subject to hazards inherent in the manufacturing and marketing of chemical and other products. These hazards include: chemical spills, pipeline leaks and ruptures, storage tank leaks, discharges or releases of toxic or hazardous substances or gases and other hazards incident to the manufacturing, processing, handling, transportation and storage of dangerous chemicals. We are also potentially subject to other hazards, including natural disasters and severe weather; explosions and fires; transportation problems, including interruptions, spills and leaks; mechanical failures; unscheduled downtimes; labor difficulties; remediation complications; and other risks. In addition, some equipment and operations at our facilities are owned or controlled by third parties who may not be fully integrated into our safety programs and over whom we are able to exercise limited control. Many potential hazards can cause bodily injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties and liabilities. Furthermore, we are subject to present and future claims with respect to workplace exposure, exposure of contractors on our premises as well as other persons located nearby, workers' compensation and other matters.

We maintain property, business interruption, products liability and casualty insurance policies which we believe are in accordance with customary industry practices, as well as insurance policies covering other types of risks, including pollution legal liability insurance, but we are not fully insured against all potential hazards and risks incident to our business. Each of these insurance policies is subject to customary exclusions, deductibles and coverage limits, in accordance with industry standards and practices. As a result of market conditions, premiums and deductibles for certain insurance policies can increase substantially and, in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage. If we were to incur a significant liability for which we were not fully insured, it could have a material adverse effect on our business, results of operations, financial condition and liquidity.

In addition, we are subject to various claims and litigation in the ordinary course of business. We are a party to various pending lawsuits and proceedings. For more information, see " Item 3. Legal Proceedings" below.

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***We are subject to many environmental, health and safety regulations that may result in unanticipated costs or liabilities, which could reduce our profitability.***

We are subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to pollution, protection of the environment and human health and safety, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. Actual or alleged violations of environmental, health and safety, or EHS, laws or permit requirements could result in restrictions or prohibitions on plant operations and substantial civil or criminal sanctions, as well as, under some EHS laws, the assessment of strict liability and/or joint and several liability.

Many of our products and operations are subject to the chemical control laws of the countries in which they are located. These laws include the regulation of chemical substances and inventories under the Toxic Substances Control Act ("TSCA") in the United States and the Registration, Evaluation and Authorization of Chemicals ("REACH") and the Classification, Labelling and Packaging of substances and mixtures ("CLP") regulations in Europe. Analogous regimes exist in other parts of the world, including China, South Korea, and Taiwan. In addition, a number of countries where we operate, including the United Kingdom, have adopted rules to conform chemical labeling in accordance with the globally harmonized system. Many of these foreign regulatory regimes are in the process of a multi-year implementation period for these rules.

Additional new laws and regulations may be enacted or adopted by various regulatory agencies globally. For example, in the U.S., the EPA finalized revisions to its Risk Management Program in January 2017. The revisions include new requirements for certain facilities to perform hazard analyses, third-party auditing, incident investigations and root cause analyses, emergency response exercises, and to publically share chemical and process information. Compliance for many of the rule's new requirements will be required beginning in 2021. In January 2017, the EPA temporarily delayed the rule's effect until March 21, 2017, and has indicated that it may further delay the rule's implementation. The U.S. Occupational Safety and Health Administration is likewise considering changes to its Process Safety Management standards. In addition, TSCA reform legislation was enacted in June 2016, and the EPA has begun the process of issuing new chemical control regulations. The costs of compliance with any new laws or regulations cannot be estimated until the manner in which they will be implemented has been more precisely defined.

Our international operations may also be impacted by new laws or regulations. For example, pursuant to the CLP, an EU Member State can propose a classification for a substance to the European Chemicals Agency ("ECHA"), which upon review by ECHA's Committee for Risk Assessment ("RAC"), can be submitted to the European Commission for adoption by regulation. On May 31, 2016, the French Agency for Food, Environmental and Occupational Health and Safety ("ANSES") submitted a proposal to ECHA that would classify titanium dioxide a Category 1B Carcinogen classification as presumed to have carcinogenic potential for humans by inhalation. Potential outcomes before both the RAC and the Commission is a final classification as a Category 1B Carcinogen (described by the EU regulation as "presumed to have carcinogenic potential for humans, classification is largely based on human evidence"), a Category 2 Carcinogen classification (described by the EU regulation as "suspected human carcinogens," classification on the basis of evidence obtained from human and/or animal studies, but which is not sufficiently convincing to place the substance in category 1A or 1B), or a decision of no classification, with the Commission making the final decision. Our Company, together with other companies, relevant trade associations and the European Chemical Industry Council ("Cefic") sector group, the Titanium Dioxide Manufacturers Association ("TDMA"), submitted comments opposing any classification of titanium dioxide as carcinogenic, based on evidence from multiple epidemiological studies covering more than 24,000 production workers at 18 titanium dioxide manufacturing sites over several decades that found no increased incidence of lung cancer as a result of workplace exposure to titanium dioxide and other

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scientific studies that concluded that the response to lung overload studies with poorly soluble particles upon which the ANSES proposed classification is based is unique to the rat and is not seen in other animal species or humans. If ECHA were to recommend, and the European Commission were to subsequently adopt, either a Category 1B or Category 2 Carcinogen classification, it could require that many end-use products manufactured would be classified as containing a potential carcinogenic component, which could negatively impact public perception of products containing titanium dioxide, limit the marketability of and demand for titanium dioxide or products containing titanium dioxide and potentially have spill-over, restrictive effects under other EU laws, e.g., those affecting medical and pharmaceutical applications, cosmetics, food packaging and food additives. Such classifications would also affect manufacturing operations by subjecting us to new work place requirements that could significantly increase costs. The resulting restrictions in the market place and impact on operations and profitability would be less significant in the event of a Category 2 classification for titanium dioxide compared to the Category 1B classification proposed by ANSES.

Furthermore, governmental, regulatory and societal demands for increasing levels of product safety and environmental protection could result in increased pressure for more stringent regulatory control with respect to the chemical industry. In addition, these concerns could influence public perceptions regarding our products and operations, the viability of certain products, our reputation, the cost to comply with regulations, and the ability to attract and retain employees. Moreover, changes in EHS regulations could inhibit or interrupt our operations, or require us to modify our facilities or operations. Accordingly, environmental or regulatory matters may cause us to incur significant unanticipated losses, costs or liabilities, which could reduce our profitability. For example, several of our products are being evaluated under REACH and CLP regulations and actions thereunder could negatively impact sales.

***Regulatory requirements to reduce GHG emissions could have an adverse effect on our results of operations.***

Our operations are increasingly subject to regulations that seek to reduce emissions of GHGs, such as carbon dioxide and methane, which may be contributing to changes in the Earth's climate. There are existing efforts to address GHG emissions at the international, national, and regional levels. For example, the 2015 Paris climate summit agreement resulted in voluntary commitments by numerous countries to reduce their GHG emissions. The agreement entered into force on November 4, 2016 and could result in additional firm commitments by various nations with respect to future GHG emissions. The EU also regulates GHGs under the EU ETS and China has begun pilot programs for carbon taxes and trading of GHG emissions in selected areas. Domestically, the EPA issued its final Clean Power Plan rules in 2015 that establish carbon pollution standards for power plants, called CO<sub>2</sub> emission performance rates. In February 2016, the U.S. Supreme Court granted a stay of the implementation of the Clean Power Plan. This stay will remain in effect until the conclusion of the appeals process. It is not yet clear how the courts will rule on the legality of the Clean Power Plan. If the rules are upheld at the conclusion of this appellate process, and depending on how states decide to implement these rules, they may result in national or regional credit trading schemes. Collectively, these rules and agreements may affect the long term price and supply of electricity and natural gas and demand for products that contribute to energy efficiency and renewable energy. These various regulations and agreements are likely to result in increased costs to purchased energy, additional capital costs for installation or modification of GHG emitting equipment, and additional costs associated directly with GHG emissions (such as cap and trade systems or carbon taxes), which are primarily related to energy use. Compliance with these regulations and any more stringent restrictions in the future may increase our operational costs.

In addition, some scientists have concluded that increasing concentrations of GHGs in the Earth's atmosphere may produce climate changes, such as increased frequency and severity of storms, droughts,

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floods and other climatic events. If any such effects were to occur in areas where we or our clients operate, they could have an adverse effect on our assets and operations.

We could incur significant expenditures in order to comply with existing or future EHS laws. Capital expenditures and costs relating to EHS matters will be subject to evolving regulatory requirements and will depend on the timing of the promulgation and enforcement of specific standards which impose requirements on our operations. Capital expenditures and costs beyond those currently anticipated may therefore be required under existing or future EHS laws.

Furthermore, we may be liable for the costs of investigating and cleaning up environmental contamination on or from our properties or at off-site locations where we disposed of or arranged for the disposal or treatment of hazardous materials or from disposal activities that pre-dated our purchase of our businesses. We may therefore incur additional costs and expenditures beyond those currently anticipated to address all such known and unknown situations under existing and future EHS laws.

***Our operations, financial condition and liquidity could be adversely affected by legal claims against us, including antitrust claims.***

We face risks arising from various legal actions, including matters relating to antitrust, product liability, intellectual property and environmental claims. It is possible that judgments could be rendered against us in these cases or others for which we could be uninsured or not covered by indemnity, or which may be beyond the amounts that we currently have reserved or anticipate incurring for such matters. Over the past few years, antitrust claims have been made against chemical companies, and we have been named as a defendant in the antitrust suits discussed in " Item 3. Legal Proceedings Antitrust Matters." In this type of litigation, the plaintiffs generally seek treble damages, which may be significant. An adverse outcome in any antitrust claim could be material and significantly impact our operations, financial condition and liquidity.

***Financial difficulties and related problems experienced by our customers, vendors, suppliers and other business partners could have a material adverse effect on our business.***

During periods of economic disruption, more of our customers than normal may experience financial difficulties, including bankruptcies, restructurings and liquidations, which could affect our business by reducing sales, increasing our risk in extending trade credit to customers and reducing our profitability. A significant adverse change in a customer relationship or in a customer's financial position could cause us to limit or discontinue business with that customer, require us to assume more credit risk relating to that customer's receivables or limit our ability to collect accounts receivable from that customer.

***Our business is dependent on our intellectual property. If our intellectual property rights cannot be enforced or our trade secrets become known to our competitors, our ability to compete may be adversely affected.***

Proprietary protection of our processes, apparatuses and other technology is important to our business. While a presumption of validity exists with respect to patents issued to us in the U.S., there can be no assurance that any of our patents will not be challenged, invalidated, circumvented or rendered unenforceable. Furthermore, if any pending patent application filed by us does not result in an issued patent, or if patents are issued to us, but such patents do not provide meaningful protection of our intellectual property, then our ability to compete may be adversely affected. Additionally, our competitors or other third parties may obtain patents that restrict or preclude our ability to lawfully produce or sell our products in a competitive manner, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

We also rely upon unpatented proprietary know-how and continuing technological innovation and other trade secrets to develop and maintain our competitive position. While it is our policy to enter

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into agreements imposing confidentiality obligations upon our employees and third parties to protect our intellectual property, these confidentiality obligations may be breached, may not provide meaningful protection for our trade secrets or proprietary know-how, or adequate remedies may not be available in the event of an unauthorized access, use or disclosure of our trade secrets and know-how. In addition, others could obtain knowledge of our trade secrets through independent development or other access by legal means.

We may have to rely on judicial enforcement of our patents and other proprietary rights. We may not be able to effectively protect our intellectual property rights from misappropriation or infringement in countries where effective patent, trademark, trade secret and other intellectual property laws and judicial systems may be unavailable, or may not protect our proprietary rights to the same extent as U.S. law.

The failure of our patents or confidentiality agreements to protect our processes, apparatuses, technology, trade secrets or proprietary know-how or the failure of adequate legal remedies for related actions could have a material adverse effect on our business, results of operations, financial condition and liquidity.

***Conflicts, military actions, terrorist attacks, political events and general instability, along with increased security regulations related to our industry, could adversely affect our business.***

Conflicts, military actions, terrorist attacks and political events have precipitated economic instability and turmoil in international commerce and the global economy. The uncertainty and economic disruption resulting from hostilities, military action or acts of terrorism may impact any or all of our facilities and operations or those of our suppliers or customers. Accordingly, any conflict, military action or terrorist attack that impacts us or any of our suppliers or customers, could have a material adverse effect on our business, results of operations, financial condition and liquidity. Furthermore, instability and turmoil, particularly in energy-producing nations, may result in raw material cost increases.

Changes in social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories and countries where we currently develop and sell products, could adversely affect our business. For example, a number of governments have instituted regulations attempting to increase the security of chemical plants and the transportation of hazardous chemicals, which could result in higher operating costs and could have a material adverse effect on our financial condition and liquidity.

***If our subsidiaries do not make sufficient distributions to us, then we will not be able to make payment on our debts.***

Our debt is generally the exclusive obligation of Huntsman International and our guarantor subsidiaries. Because a significant portion of our operations are conducted by nonguarantor subsidiaries, our cash flow and our ability to service indebtedness, including our ability to pay the interest on our debt when due and principal of such debt at maturity, are dependent to a large extent upon cash dividends and distributions or other transfers from such nonguarantor subsidiaries. Any payment of dividends, distributions, loans or advances by our nonguarantor subsidiaries to us could be subject to restrictions on dividends or repatriation of earnings under applicable local law, monetary transfer restrictions and foreign currency exchange regulations in the jurisdictions in which our subsidiaries operate, and any restrictions imposed by the current and future debt instruments of our nonguarantor subsidiaries. In addition, payments to us by our subsidiaries are contingent upon our subsidiaries' earnings.

Our subsidiaries are separate legal entities and, except for our guarantor subsidiaries, have no obligation, contingent or otherwise, to pay any amounts due on our debt or to make any funds



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available for those amounts, whether by dividends, loans, distributions or other payments, and do not guarantee the payment of interest on, or principal of, our debt. Any right that we have to receive any assets of any of our subsidiaries that are not guarantors upon the liquidation or reorganization of any such subsidiary, and the consequent right of holders of notes to realize proceeds from the sale of their assets, will be structurally subordinated to the claims of that subsidiary's creditors, including trade creditors and holders of debt issued by that subsidiary.

***Regulatory or market changes with respect to MTBE may materially reduce our sales and/or materially increase our costs.***

We produce MTBE, an oxygenate that is blended with gasoline to reduce vehicle air emissions and to enhance the octane rating of gasoline. Because of the allegations that MTBE has contaminated some water supplies, its use has become controversial in the U.S. and elsewhere, and its use has been effectively eliminated in the U.S. market. We currently market MTBE, either directly or through third parties, to gasoline additive customers located outside the U.S. This business has been profitable to us over time, and future legislative or regulatory initiatives or changing consumer opinion outside the U.S. restricting MTBE or changing consumer opinion could materially adversely affect our ability to market and sell MTBE and our profitability. Expansion of our PO/MTBE operations, including our joint venture with Sinopec in China, will further expose us to these risks.

While we could use all or a portion of our precursor TBA to produce saleable products other than MTBE, this would require significant capital expenditures to modify our facilities. Moreover, the sale of other products would produce a lower level of cash flow than that historically produced from the sale of MTBE.

***Our pension and postretirement benefit plan obligations are currently underfunded, and under certain circumstances we may have to significantly increase the level of cash funding to some or all of these plans, which would reduce the cash available for our business.***

We have unfunded and underfunded obligations under some of our domestic and foreign pension and postretirement benefit plans. The funded status of our pension plans is dependent upon many factors, including returns on invested assets, the level of certain market interest rates and the discount rates used to determine pension obligations. Unfavorable returns on the plan assets or unfavorable changes in applicable laws or regulations could materially change the timing and amount of required plan funding, which would reduce the cash available for our business. In addition, a decrease in the discount rate used to determine pension obligations could result in an increase in the valuation of pension obligations, which could affect the reported funding status of our pension plans and future contributions, as well as the periodic pension cost in subsequent fiscal years.

With respect to our domestic pension and postretirement benefit plans, the Pension Benefit Guaranty Corporation ("PBGC") has the authority to terminate an underfunded tax-qualified pension plan under limited circumstances in accordance with the Employee Retirement Income Security Act of 1974, as amended. In the event our tax-qualified pension plans are terminated by the PBGC, we could be liable to the PBGC for the entire amount of the underfunding and, under certain circumstances, the liability could be senior to our notes. With respect to our foreign pension and postretirement benefit plans, the effects of underfunding depend on the country in which the pension and postretirement benefit plan is established. For example, in the United Kingdom and Germany semi-public pension protection programs have the authority in certain circumstances to assume responsibility for underfunded pension schemes, including the right to recover the amount of the underfunding from us.

Table of Contents**RISKS RELATED TO OUR COMMON STOCK AND DEBT SECURITIES**

*Certain provisions contained in our certificate of incorporation and bylaws could discourage a takeover attempt, which may reduce or eliminate the likelihood of a change of control transaction and, therefore, limit your ability to sell our common stock at a price higher than the current market value.*

Certain provisions contained in our certificate of incorporation and bylaws, such as limitations on stockholder proposals at meetings of stockholders, the inability of stockholders to call special meetings and certain provisions of Delaware law, could make it more difficult for a third party to acquire control of our Company, even if some of our stockholders were to consider such a change of control to be beneficial. Our certificate of incorporation also authorizes our Board of Directors to issue preferred stock without stockholder approval. Therefore, our Board of Directors could elect to issue preferred stock that has special voting or other rights that could make it even more difficult for a third party to acquire us, which may reduce or eliminate your ability to sell our common stock at a price higher than the current market value.

*We have purchased, and may continue to purchase, a portion of our equity and debt securities, which could impact the market for our equity and debt securities and likely would negatively affect our liquidity.*

Consistent with past practices, we may from time to time seek to repurchase or redeem our equity and debt securities in open market purchases, accelerated repurchase programs, privately negotiated transactions, tender offers, partial or full calls for redemption or otherwise. Any such repurchases or redemptions and the timing and amount thereof would depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. Such transactions could negatively affect our liquidity.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

As of the date of this filing, we did not have any unresolved comments from the staff of the SEC.

**ITEM 2. PROPERTIES**

We own or lease chemical manufacturing and research facilities in the locations indicated in the list below which we believe are adequate for our short-term and anticipated long-term needs. We own or lease office space and storage facilities throughout the U.S. and in many foreign countries. Our principal executive offices are located at 10003 Woodloch Forest Drive, The Woodlands, Texas 77380. The following is a list of our principal owned or leased properties where manufacturing, research and main office facilities are located.

<b>Location</b>	<b>Business Segment</b>	<b>Description of Facility</b>
The Woodlands, Texas(1)	Various	Executive Offices, Operating Headquarters, Global Technology Center and Shared Services Center
Salt Lake City, Utah(1)	Corporate and other	Administrative Offices
Kuala Lumpur, Malaysia(1)	Various	Shared Services Center and Pigments and Additives Administrative Offices
Mumbai, India(1)	Various	Technology Center, Administrative Offices, Labs and Accounting Shared Services Center
Sao Paulo, Brazil(1)	Various	Administrative Offices, Labs and Accounting Shared Services Center
Geismar, Louisiana(2)	Polyurethanes and Performance Products	MDI, Nitrobenzene(2), Aniline(2), Polyols and Maleic Anhydride Manufacturing Facilities, Polyurethane Systems House
Rotterdam, The Netherlands(1)	Polyurethanes and other various	MDI Manufacturing Facility, Polyols Manufacturing Facilities, Polyurethanes Systems House and Accounting Shared Services Center

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Location	Business Segment	Description of Facility
Caojing, China	Polyurethanes	MDI Finishing Facilities
Caojing, China(3)	Polyurethanes	Precursor MDI Manufacturing Facility
Jinshan, China(1)	Polyurethanes	TPU Manufacturing Facility
Deer Park, Australia	Polyurethanes	Polyurethane Systems House
Cartagena, Colombia	Polyurethanes	Polyurethane Systems House
Deggendorf, Germany	Polyurethanes	Polyurethane Systems House and Technology Center
Ternate, Italy	Polyurethanes	Polyurethane Systems House and Technology Center
Shanghai, China(1)	Polyurethanes, Performance Products and Advanced Materials	Polyurethane Systems House, Global Technology Center and Performance Products Regional Headquarters
Azeglio, Italy	Polyurethanes	Polyurethane Systems House
Pune, India(1)	Polyurethanes	Polyurethane Systems House
Buenos Aires, Argentina(1)	Polyurethanes	Polyurethane Systems House
Samutprakarn, Thailand(1)	Polyurethanes	Polyurethane Systems House
Istanbul, Turkey	Polyurethanes	Polyurethane Systems House
Kuan Yin, Taiwan(1)	Polyurethanes	Polyurethane Systems House
Tlalnepantla, Mexico	Polyurethanes	Polyurethane Systems House
Mississauga, Canada	Polyurethanes	Polyurethane Systems House
Obninsk, Russia	Polyurethanes	Polyurethane Systems House
Dammam, Saudi Arabia(4)	Polyurethanes	Polyurethane Systems House
Georgsmarienhütte, Germany	Polyurethanes	Polyurethane Systems House
Castelfranco Emilia, Italy	Polyurethanes	Polyurethane Systems House
Auburn Hills, Michigan(1)	Polyurethanes	Polyurethane Research Facility
Everberg, Belgium	Polyurethanes and Performance Products	Polyurethane and Performance Products Regional Headquarters, Global Technology Center and Shared Service Center
Houston, Texas(1)	Polyurethanes	Polyols Manufacturing Facility
Derry, New Hampshire(1)	Polyurethanes	TPU Research Facility
Ringwood, Illinois(1)	Polyurethanes	TPU Manufacturing Facility
Osnabrück, Germany	Polyurethanes	TPU Manufacturing Facility
Wilton, U.K.	Polyurethanes and other various	Aniline and Nitrobenzene Manufacturing Facilities
Nanjing, China(5)	Polyurethanes	PO and MTBE Manufacturing Facilities
Port Neches, Texas	Polyurethanes and Performance Products	Olefins, EO, EG, Surfactants, Amines, PO and MTBE Manufacturing Facilities
Conroe, Texas	Performance Products	Amines Manufacturing Facility
Petfurdo, Hungary(1)	Performance Products	Amines Manufacturing Facility
Llanelli, U.K.	Performance Products	Amines Manufacturing Facility
Freepport, Texas(1)	Performance Products	Amines Manufacturing Facility
Jurong Island, Singapore(1)	Performance Products	Amines Manufacturing Facility
Jubail, Saudi Arabia(6)	Performance Products	Amines Manufacturing Facility
Chocolate Bayou, Texas(1)	Performance Products	LAB Manufacturing Facility
Pensacola, Florida(1)	Performance Products	Maleic Anhydride Manufacturing Facility
Moers, Germany(7)	Performance Products	Maleic Anhydride Manufacturing Facility
Dayton, Texas	Performance Products	Surfactant Manufacturing Facility
Botany, Australia	Performance Products	Surfactant/EG Manufacturing Facility
Ankleshwar, India(1)	Performance Products	Surfactant/Amines Manufacturing Facility
Melbourne, Australia	Performance Products	Research Facility
Bergkamen, Germany	Advanced Materials	Synthesis Facility
Monthey, Switzerland	Advanced Materials	Resins and Synthesis Facility
Pamplona, Spain	Advanced Materials	Synthesis Facility
McIntosh, Alabama	Advanced Materials	Resins and Synthesis Facility
Bad Saeckingen, Germany	Advanced Materials	Formulating Facility
Duxford, U.K.	Advanced Materials	Formulating Facility
Taboão da Serra, Brazil	Advanced Materials, Polyurethanes and Textile Effects	Formulating Facility, Polyurethane Systems House and Chemicals and Inks Formulations Facility
Panyu, China(1)(8)	Advanced Materials and Textile Effects	Formulating and Synthesis Facility, Technology Center and Accounting Shared Services Center
Nanjing, China(1)	Advanced Materials	Formulating Facility
East Lansing, Michigan	Advanced Materials	Formulating Facility
Los Angeles, California	Advanced Materials	Formulating Facility

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Location	Business Segment	Description of Facility
Basel, Switzerland	Advanced Materials and Textile Effects	Advanced Materials Regional Headquarters, Technology Center
Langweid am Leich, Germany	Textile Effects	Chemicals Synthesis and Chemicals and Inks Formulation Facility
Charlotte, North Carolina	Textile Effects	Chemicals Formulations Facility
Samutsakorn (Mahachai), Thailand	Textile Effects	Textiles Dyes Synthesis and Dyes and Inks Formulations Facility
Atotonilquillo, Mexico	Textile Effects	Textile Dyes and Chemicals Synthesis and Formulations Facility
Baroda, India	Textile Effects	Textile Dyes Synthesis and Dyes and Chemicals Formulations Facility
Gandaria, Jakarta, Indonesia	Textile Effects and Polyurethanes	Textile Dyes and Chemicals Formulations Facility and Polyurethane Systems House
Frajanes, Guatemala	Textile Effects	Chemicals Formulations Facility
Bogota, Colombia	Textile Effects	Chemicals Formulations Facility
Hangzhou, China(1)	Textile Effects	Chemicals Formulations Facility
Karachi, Pakistan(1)	Textile Effects	Chemicals Formulations Facility
Corlu, Turkey(1)	Textile Effects	Chemicals Formulations Facility
Singapore(1)	Textile Effects and Performance Products	Textile Effects Headquarters and Performance Products Administrative Offices
Wynyard, U.K.(1)	Pigments and Additives	Administrative Offices, Research Facility and Shared Services Center
Greatham, U.K.	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Birtley, U.K.	Pigments and Additives	Color Pigments Manufacturing Facility
Kidsgrove, U.K.	Pigments and Additives	Color Pigments Manufacturing Facility
Sudbury, U.K.	Pigments and Additives	Color Pigments Manufacturing Facility
Duisburg, Germany	Pigments and Additives	Titanium Dioxide, Functional Additives, Water Treatment Manufacturing and Research Facility and Administrative Offices
Ibbenbueren, Germany	Pigments and Additives	Water Treatment Manufacturing Facility
Uerdingen, Germany(1)	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Schwarzheide, Germany(1)	Pigments and Additives	Water Treatment Manufacturing Facility
Walluf, Germany(1)	Pigments and Additives	Color Pigments Manufacturing Facility
Calais, France	Pigments and Additives	Titanium Dioxide Finishing Facility
Comines, France	Pigments and Additives	Color Pigments Manufacturing Facility
Huelva, Spain	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Scarlino, Italy	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Turin, Italy	Pigments and Additives	Color Pigments Manufacturing Facility
Pori, Finland	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Taicang, China(1)	Pigments and Additives	Color Pigments Manufacturing Facility
Teluk Kalung, Malaysia	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Augusta, Georgia	Pigments and Additives	Color Pigments Manufacturing Facility
Lake Charles, Louisiana(9)	Pigments and Additives	Titanium Dioxide Manufacturing Facility
Beltsville, Maryland(1)	Pigments and Additives	Color Pigments Manufacturing Facility
Los Angeles, California	Pigments and Additives	Color Pigments Manufacturing Facility
St. Louis, Missouri(1)	Pigments and Additives	Color Pigments Manufacturing Facility
Harrisburg, North Carolina	Pigments and Additives	Timber Treatments Manufacturing Facility
Easton, Pennsylvania(1)	Pigments and Additives	Color Pigments Manufacturing Facility
Freeport, Texas	Pigments and Additives	Timber Treatments Manufacturing Facility

(1) Leased land and/or building.

(2) The Geismar facility is owned as follows: we own 100% of the MDI, polyol and maleic anhydride facilities, and Rubicon LLC, a consolidated manufacturing joint venture with Chemtura Corporation in which we own a 50% interest, owns the aniline and nitrobenzene facilities. Rubicon LLC is a separate legal entity that operates both the assets that we own jointly with Chemtura Corporation and our wholly owned assets at Geismar.

(3) 35% interest in SLIC, our unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies.

(4) 51%-owned consolidated manufacturing joint venture with Basic Chemicals Industries Ltd.

(5)

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49% interest in Nanjing Jinling Huntsman New Material Co., Ltd., our unconsolidated manufacturing joint venture with Sinopec. Beneficial commercial operations is expected in the second half of 2017.

(6)

50% interest in AAC, our consolidated manufacturing joint venture with the Zamil Group.

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- (7) 50% interest in Sasol-Huntsman, our consolidated manufacturing joint venture with Sasol.
- (8) 95%-owned consolidated manufacturing joint venture with Guangzhou Sheng'an Package Company Limited.
- (9) Owned by LPC, our 50%-owned unconsolidated manufacturing joint venture with Kronos.

**ITEM 3. LEGAL PROCEEDINGS**

**Antitrust Matters**

See "Note 20. Commitments and Contingencies Antitrust Matters" to our consolidated financial statements.

**Product Delivery Claim**

See "Note 20. Commitments and Contingencies Product Delivery Claim" to our consolidated financial statements.

**Indemnification Matters**

See "Note 20. Commitments and Contingencies Indemnification Matters" to our consolidated financial statements.

**Port Neches Flaring Matter**

See "Note 21. Environmental Health and Safety Matters Port Neches Flaring Matter" to our consolidated financial statements.

**ITEM 4. MINE SAFETY DISCLOSURES**

**Not applicable.**

**EXECUTIVE OFFICERS OF THE REGISTRANT**

The following is information concerning our executive officers and significant employees as of the date of this report.

*Jon M. Huntsman*, age 79, is the Executive Chairman of the Board of Directors of our Company. Prior to his appointment as Executive Chairman in February 2009, Mr. Huntsman served as Chairman of the Board of our company since its formation in 2004 and the predecessors to our company since 1970, when he founded his first plastics company. Mr. Huntsman served as Chief Executive Officer of our company and our affiliated companies from 1970 to 2000. Mr. Huntsman is a director or manager, as applicable, of Huntsman International and certain of our other subsidiaries. In addition, Mr. Huntsman serves or has served as Chairman or as a member of numerous corporate, philanthropic and industry boards, including the American Red Cross, The Wharton School, University of Pennsylvania, Primary Children's Medical Center Foundation, the Chemical Manufacturers Association and the American Plastics Council. Mr. Huntsman was selected in 1994 as the chemical industry's top Chief Executive Officer for all businesses in Europe and North America. Mr. Huntsman was awarded the American Chemical Society's Lifetime Achievement Award in 2013. Mr. Huntsman formerly served as Special Assistant to the President of the United States and as Vice Chairman of the U.S. Chamber of Commerce. He is the founding and principal benefactor of the Huntsman Cancer Institute. Mr. Huntsman is the father of our Chief Executive Officer, Peter R. Huntsman.

*Peter R. Huntsman*, age 53, is President, Chief Executive Officer and a Director of our Company. Mr. Huntsman also serves on our Litigation Committee. Prior to his appointment in July 2000 as Chief Executive Officer, Mr. Huntsman had served as President and Chief Operating Officer since 1994. In 1987, Mr. Huntsman joined Huntsman Polypropylene Corporation as Vice President before serving as

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Senior Vice President and General Manager. Mr. Huntsman has also served as President of Olympus Oil, as Senior Vice President of Huntsman Chemical Corporation and as a Senior Vice President of Huntsman Packaging Corporation, a former subsidiary of our Company. Mr. Huntsman is a director or manager, as applicable, of Huntsman International and certain of our other subsidiaries. Mr. Huntsman is the son of our Executive Chairman, Jon M. Huntsman.

*Sean Douglas*, age 52, is Executive Vice President and Chief Financial Officer. Mr. Douglas was appointed to this position in January 2017. Mr. Douglas was previously Vice President, Corporate Development and Treasurer from July 2015 to July 2016. Mr. Douglas left the Company in July 2012 to perform charitable services and rejoined the Company in July 2015. He previously served as our Vice President, Corporate Development from December 2009 until July 2012. Mr. Douglas served as Vice President and Treasurer from 2002 to December 2009, Vice President, Finance from July 2001 to 2002 and Vice President, Administration from January 1997 to July 2001. Mr. Douglas is a Certified Public Accountant and, prior to joining Huntsman in 1990, worked for the accounting firm of PricewaterhouseCoopers.

*J. Kimo Esplin*, age 54, is Executive Vice President, Strategy and Investment. Mr. Esplin was appointed to this position in January 2017. Prior to this appointment, Mr. Esplin served as Chief Financial Officer of all of the Huntsman companies from 1999 to December 2016. From 1994 to 1999, Mr. Esplin served as our Treasurer. Prior to joining Huntsman in 1994, Mr. Esplin was a Vice President in the Investment Banking Division of Bankers Trust Company, where he worked for seven years. Mr. Esplin also serves as a director of Nutraceutical International Corporation and Savage Services Corporation.

*David M. Stryker*, age 58, is Executive Vice President, General Counsel and Secretary. Mr. Stryker was appointed to this position in June 2013. Prior to joining Huntsman, Mr. Stryker served as Senior Vice President, General Counsel, Secretary and Chief Compliance Officer of the BASF Corporation since 2004. Previously, he was Associate General Counsel and Chief Compliance Officer at Siemens Corporation and, prior to that, a partner at the law firm of Kirkland & Ellis. Mr. Stryker started his legal career as a judicial clerk to the Honorable Robert H. Bork on the U.S. Court of Appeals for the D.C. Circuit.

*Anthony P. Hankins*, age 59, is Division President, Polyurethanes and Chief Executive Officer, Asia-Pacific. Mr. Hankins was appointed to these positions in March 2004 and February 2011, respectively. From May 2003 to February 2004, Mr. Hankins served as President, Performance Products, from January 2002 to April 2003, he served as Global Vice President, Rigids Division for our Polyurethanes segment, from October 2000 to December 2001, he served as Vice President Americas for our Polyurethanes segment, and from March 1998 to September 2000, he served as Vice President Asia-Pacific for our Polyurethanes segment. Mr. Hankins worked for ICI from 1980 to February 1998, when he joined our Company. At ICI, Mr. Hankins held numerous management positions in the plastics, fibers and polyurethanes businesses. He has extensive international experience, having held senior management positions in Europe, Asia and the U.S.

*Rohit Aggarwal*, age 49, is Division President, Textile Effects. Mr. Aggarwal was appointed to this position in July 2016. Mr. Aggarwal was previously Vice President and Managing Director of Indian Subcontinent for Huntsman from July 2015 to July 2016 and served in various positions within Huntsman's Advanced Materials and Textile Effects segments from 2005 to 2013. In 2013, Mr. Aggarwal left Huntsman to join Louis Dreyfus Commodities B.V. as Chief Executive Officer of Asia Region, a position he held until his return to our Company in 2015.

*Monte G. Edlund*, age 61, is Division President, Performance Products. Prior to his appointment to this position in July 2015, Mr. Edlund served as Vice President Americas, Advanced Materials since July 2011. From December 2007 to July 2011, Mr. Edlund served as Vice President Global Specialty Textiles, Textile Effects, from April 2002 to December 2007, he served as Vice President, Polymers and

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from June 1999 to April 2002, he served as Vice President, Marketing, Base Chemicals and Polymers. Prior to joining Huntsman in 1997 as Vice President Marketing, Rexene, Mr. Edlund held numerous positions with Rexene Corporation.

*Simon Turner*, age 53, is Division President, Pigments and Additives. Prior to his appointment to this position in November 2008, Mr. Turner served as Senior Vice President, Pigments and Additives since April 2008. From September 2004 to April 2008, Mr. Turner served as Vice President of Global Sales and from July 1999 to September 2004, he held positions including General Manager Co-Products and Director Supply Chain and Shared Services. Prior to joining Huntsman in July 1999, Mr. Turner held various positions with ICI.

*Scott J. Wright*, age 45, is Division President, Advanced Materials. Mr. Wright was appointed to this position in June 2016. Prior to that time, Mr. Wright served as Vice President of Huntsman Advanced Materials Europe, Middle East & Africa since 2011. Before joining Huntsman's Advanced Materials segment, Mr. Wright spent 15 years in Huntsman's Pigments and Additives segment in a number of roles of increasing responsibility including product development, business planning, marketing and sales. Prior to joining Huntsman in July 1999, Mr. Wright worked with ICI.

*Ronald W. Gerrard*, age 57, is Senior Vice President, Environmental, Health & Safety and Manufacturing Excellence. Mr. Gerrard was appointed to this position in June 2009. He also serves as our Corporate Sustainability Officer. From May 2004 to June 2009, Mr. Gerrard served as Vice President, Global Operations and Technology in our Polyurethanes segment. From 1999 to May 2004, Mr. Gerrard served as Vice President, Asia; Business Director, Flexible Foams; and Director, EHS and Engineering, also within our Polyurethanes segment. Prior to joining Huntsman in 1999, Mr. Gerrard had worked for ICI and for EVC, a joint venture between ICI and Enichem. Mr. Gerrard is a Chartered Engineer.

*Brian V. Ridd*, age 59, is Senior Vice President, Purchasing. Mr. Ridd has held this position since July 2000. Mr. Ridd served as Vice President, Purchasing from December 1995 until he was appointed to his current position. Mr. Ridd joined Huntsman in 1984.

*R. Wade Rogers*, age 51, is Senior Vice President, Global Human Resources. Mr. Rogers has held this position since August 2009. From May 2004 to August 2009, Mr. Rogers served as Vice President, Global Human Resources, from October 2003 to May 2004, Mr. Rogers served as Director, Human Resources Americas and from August 2000 to October 2003, he served as Director, Human Resources for our Polymers and Base Chemicals businesses. From the time he joined Huntsman in 1994 to August 2000, Mr. Rogers served as Area Manager, Human Resources Jefferson County Operations. Prior to joining Huntsman, Mr. Rogers held a variety of positions with Texaco Chemical Company.

*Russ R. Stolle*, age 54, is Senior Vice President and Deputy General Counsel. Mr. Stolle was appointed to this position in January 2010. From October 2006 to January 2010, Mr. Stolle served as our Senior Vice President, Global Public Affairs and Communications, from November 2002 to October 2006, he served as Vice President and Deputy General Counsel, from October 2000 to November 2002 he served as Vice President and Chief Technology Counsel and from April 1994 to October 2000 he served as Chief Patent and Licensing Counsel. Prior to joining Huntsman in 1994, Mr. Stolle had been an attorney with Texaco Inc. and an associate with the law firm of Baker & Botts.

*Randy W. Wright*, age 58, is Vice President and Controller. Prior to his appointment to this position in February 2012, Mr. Wright served as Assistant Controller and Director of Financial Reporting since July 2004. Prior to joining Huntsman in 2004, Mr. Wright held various positions with Georgia-Pacific Corporation, Riverwood International, Johns Manville and PricewaterhouseCoopers. Mr. Wright is a Certified Public Accountant.

*Delaney Bellinger*, age 58, is Vice President and Chief Information Officer. Ms. Bellinger was appointed to this position in July 2016. Prior to joining Huntsman, Ms. Bellinger served as Chief



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Information Officer for EP Energy (formerly El Paso Corporation) from May 2012 to May 2016 and as Vice President, Business Solutions from May 2011 to May 2012. Previously, Ms. Bellinger was Chief Information Officer at YUM Brands and held various positions at PEPSICO, Electronic Data Systems (EDS) and Exxon.

*Brandon M. Gray*, age 41, is Vice President and Treasurer. Prior to his appointment to this position in February 2017, Mr. Gray served as Assistant Treasurer since April 2007. Prior to joining Huntsman in 2004, Mr. Gray held various positions with Novell and PricewaterhouseCoopers. Mr. Gray is a Certified Public Accountant.

*Kevin C. Hardman*, age 53, is Vice President, Tax. Mr. Hardman served as Chief Tax Officer from 1999 until he was appointed to his current position in 2002. Prior to joining Huntsman in 1999, Mr. Hardman was a tax Senior Manager with the accounting firm of Deloitte & Touche LLP, where he worked for 10 years. Mr. Hardman is a Certified Public Accountant and holds a master's degree in tax accounting.

*Troy M. Keller*, age 46, is Vice President, Government Affairs and Associate General Counsel. He has held this position since August 2015. From 2008 to 2015, Mr. Keller served as Vice President, Associate General Counsel & Assistant Secretary and from 2005 to 2008 he served as Senior Corporate Counsel & Assistant Secretary. Prior to joining Huntsman, he had been an attorney at Qwest Communications International and an associate at the law firms of Brobeck, Phleger & Harrison LLP and Brown & Wood LLP.

*Kurt D. Ogden*, age 48, is Vice President, Investor Relations and Finance. Prior to his appointment to this position in February 2009, Mr. Ogden served as Director, Corporate Finance since October 2004. Prior to joining Huntsman in 2004, Mr. Ogden held various positions with Hillenbrand Industries, Pliant Corporation and Huntsman Chemical Corporation. Mr. Ogden is a Certified Public Accountant and holds a master's degree in business administration.

*Pierre Poukens*, age 54, is Vice President, Internal Audit, a position he has held since February 2012. Mr. Poukens was Director of Internal Audit from April 2005 to January 2012 and joined Huntsman as Internal Audit Manager in January 2000. Prior to joining Huntsman, Mr. Poukens held various accounting and auditing positions with European companies in Belgium. Mr. Poukens is a Certified Internal Auditor.

Table of Contents**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES****MARKET INFORMATION AND HOLDERS**

Our common stock is listed on the New York Stock Exchange under the symbol "HUN." As of February 8, 2017, there were approximately 62 stockholders of record and the closing price of our common stock on the New York Stock Exchange was \$20.05 per share.

The reported high and low sale prices of our common stock on the New York Stock Exchange for each of the periods set forth below are as follows:

<b>Period</b>	<b>High</b>	<b>Low</b>
<b>2016</b>		
First Quarter	\$ 13.83	\$ 7.46
Second Quarter	16.65	12.45
Third Quarter	18.11	12.40
Fourth Quarter	20.52	15.38

<b>Period</b>	<b>High</b>	<b>Low</b>
<b>2015</b>		
First Quarter	\$ 24.62	\$ 21.01
Second Quarter	23.83	21.46
Third Quarter	22.40	9.27
Fourth Quarter	14.02	9.84

**DIVIDENDS**

The following tables represent dividends on common stock for our Company for the years ended December 31, 2016 and 2015 (dollars in millions, except per share payment amounts):

<b>Quarter ended</b>	<b>2016</b>	
	<b>Per share payment amount</b>	<b>Approximate amount paid</b>
March 31, 2016	\$ 0.125	\$ 30
June 30, 2016	0.125	30
September 30, 2016	0.125	30
December 31, 2016	0.125	30

<b>Quarter ended</b>	<b>2015</b>	
	<b>Per share payment amount</b>	<b>Approximate amount paid</b>
March 31, 2015	\$ 0.125	\$ 31
June 30, 2015	0.125	31
September 30, 2015	0.125	31
December 31, 2015	0.125	30

The payment of dividends is a business decision made by our Board of Directors from time to time based on our earnings, financial position and prospects, and such other considerations as our Board of Directors considers relevant. Accordingly, while management currently expects that the Company will continue to pay the quarterly cash dividend, its dividend practice may change at any time.

Table of Contents**SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS**

See "Part III. Item 11. Executive Compensation" for information relating to our equity compensation plans.

**PURCHASES OF EQUITY SECURITIES BY THE COMPANY**

The following table provides information with respect to shares of restricted stock granted under our stock incentive plans that we withheld upon vesting to satisfy our tax withholding obligations during the three months ended December 31, 2016.

	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs(1)	Maximum number (or approximate dollar value) of shares that may yet be purchased under the plans or programs(1)
October		\$		\$ 50,000,000
November				50,000,000
December	2,227	19.08		50,000,000
Total	2,227	\$ 19.08		

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(1)

On September 29, 2015, our Board of Directors authorized our Company to repurchase up to \$150 million in shares of our common stock. No shares were repurchased under our publicly announced stock repurchase program during the three months ended December 31, 2016. For more information, see "Note 22. Huntsman Corporation Stockholders' Equity Share Repurchase Program" to our consolidated financial statements.

**ITEM 6. SELECTED FINANCIAL DATA**

The selected historical financial data set forth below presents our historical financial data as of and for the dates and periods indicated. You should read the selected financial data in conjunction with " Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and accompanying notes.

Table of Contents**Huntsman Corporation**

(in millions, except per share amounts)	Year ended December 31,				
	2016	2015	2014	2013	2012
<b>Statements of Operations Data:</b>					
Revenues	\$ 9,657	\$ 10,299	\$ 11,578	\$ 11,079	\$ 11,187
Gross profit	1,678	1,848	1,919	1,753	2,034
Restructuring, impairment and plant closing costs	81	302	158	151	92
Operating income	647	405	633	510	845
Income from continuing operations	361	130	353	154	378
Loss from discontinued operations, net of tax(a)	(4)	(4)	(8)	(5)	(7)
Extraordinary gain on the acquisition of a business, net of tax(b)					2
Net income	357	126	345	149	373
Net income attributable to Huntsman Corporation	326	93	323	128	363
<b>Basic income (loss) per common share:</b>					
Income from continuing operations attributable to Huntsman Corporation common stockholders	\$ 1.40	\$ 0.40	\$ 1.36	\$ 0.55	\$ 1.55
Loss from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax(a)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)
Extraordinary gain on the acquisition of a business attributable to Huntsman Corporation common stockholders, net of tax(b)					0.01
Net income attributable to Huntsman Corporation common stockholders	\$ 1.38	\$ 0.38	\$ 1.33	\$ 0.53	\$ 1.53
<b>Diluted income (loss) per common share:</b>					
Income from continuing operations attributable to Huntsman Corporation common stockholders	\$ 1.38	\$ 0.40	\$ 1.34	\$ 0.55	\$ 1.53
Loss from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax(a)	(0.02)	(0.02)	(0.03)	(0.02)	(0.03)
Extraordinary gain on the acquisition of a business attributable to Huntsman Corporation common stockholders, net of tax(b)					0.01
Net income attributable to Huntsman Corporation common stockholders	\$ 1.36	\$ 0.38	\$ 1.31	\$ 0.53	\$ 1.51
<b>Other Data:</b>					
Depreciation and amortization	\$ 432	\$ 399	\$ 445	\$ 448	\$ 432
Capital expenditures	421	663	601	471	412
Dividends per share	0.50	0.50	0.50	0.50	0.40
<b>Balance Sheet Data (at period end):</b>					
Total assets	\$ 9,189	\$ 9,820	\$ 10,923	\$ 9,159	\$ 8,862
Total debt	4,196	4,796	5,127	3,887	3,684
Total liabilities	7,722	8,191	8,972	7,030	6,966

(a)

Loss from discontinued operations represents the operating results and loss on disposal of our former Australian styrenics business, our former U.S. base chemicals business and our former North American polymers business. The U.S. base chemicals business was sold on November 5, 2007 and the North American polymers business was sold on August 1, 2007.

(b)

The extraordinary gain on the acquisition of a business relates to the June 30, 2006 acquisition of our Textile Effects segment.



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

**RECENT DEVELOPMENTS**

On January 30, 2017, our titanium dioxide manufacturing facility in Pori, Finland experienced fire damage and is currently not operational. The fire brigade responded quickly to extinguish the fire and there were no injuries. We have notified applicable customers and suppliers of this *force majeure* event. We do not currently have an estimated time frame for how long the facility will be off line, but we are committed to repairing the facility as quickly as possible. The Pori facility has a nameplate capacity of 130,000 metric tons, which represents approximately 15% of our total titanium dioxide capacity and approximately 10% of total European titanium dioxide demand. The site is insured for property damage as well as business interruption losses. According to our insurance policies, the respective retention levels (deductibles) for physical damage and business interruption are \$15 million and 60 days, respectively. On February 9, 2017, we received a €50 million (approximately \$52 million) payment from our insurer as an initial partial progress payment towards the overall pending claim.

On October 28, 2016, we filed an initial Form 10 registration statement with the SEC as part of the process to spin off our Pigments and Additives and Textile Effects businesses in a tax-free transaction. On January 17, 2017, we announced that we will retain our Textile Effects business and we amended the Form 10 registration statement. We also announced that the name of the spin-off entity will be Venator Materials Corporation. Venator shares are expected to trade on the New York Stock Exchange under the ticker VNTR after the distribution to our stockholders. The completion of the spin-off is subject to the satisfaction or waiver of a number of conditions, including the registration statement on Form 10 for Venator's common stock being declared effective by the SEC and certain other conditions described in the information statement included in the Form 10. The ongoing process to separate the Pigments and Additives business is proceeding and is targeted for the second quarter 2017. As noted above, there was fire damage sustained at our titanium dioxide facility in Pori, Finland. The potential impact of this interruption, if any, on the spin date is not yet known.

On December 30, 2016, our Performance Products segment completed the sale of its European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. Under the terms of the transaction, Innospec acquired our manufacturing facilities located in Saint-Mihiel, France; Castiglione delle Stiviere, Italy; and Barcelona, Spain. The purchase price is subject to the finalization of working capital adjustments. We remain committed to our global surfactants business, including in the U.S. and Australia, where our differentiated surfactants businesses are backward integrated into essential feedstocks. Upon closing the transaction, we entered into supply and long-term tolling arrangements with Innospec in order to continue marketing certain core products strategic to our global agrochemicals, lubes and certain other businesses. In connection with this sale, we recognized a pre-tax gain in the fourth quarter of 2016 of \$98 million.

On December 30, 2016, we made an early repayment of \$260 million on our 2015 Extended Term Loan B using proceeds from the sale of the European surfactants business and existing cash.

**OUTLOOK**

We expect the following factors to impact our operating segments:

**Polyurethanes:**

Continued focus on downstream MDI differentiation

Improving MDI demand growth

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Low MTBE margins

Planned maintenance at Rotterdam production facility

**Performance Products:**

Amines and maleic anhydride showing signs of recovery

Margins lower than historical norms

Planned ethylene oxide maintenance during second half of 2017

**Advanced Materials:**

Strong aerospace market more than one-third of earnings

**Pigments and Additives:**

Increasing TiO<sub>2</sub> selling prices

Impact of fire at Pori, Finland manufacturing facility

Lawsuit against Rockwood and Albemarle for fraud and breach of contract related to Augusta facility

In 2017, we expect to spend approximately \$400 million on capital expenditures.

In 2016, our adjusted effective tax rate was 22%. We expect our long term adjusted effective tax rate will be approximately 30%. We believe our 2017 adjusted effective tax rate will be slightly less than the long term rate.

**RESULTS OF OPERATIONS**

For each of our Company and Huntsman International, the following tables set forth our consolidated results of operations for the years ended December 31, 2016, 2015 and 2014 (dollars in millions, except per share amounts).

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**Huntsman Corporation**

	Year ended December 31,			Percent Change	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
	\$	\$	\$		
<b>Revenues</b>	\$ 9,657	\$ 10,299	\$ 11,578	(6)%	(11)%
<b>Cost of goods sold</b>	7,979	8,451	9,659	(6)%	(13)%
<b>Gross profit</b>	1,678	1,848	1,919	(9)%	(4)%
Operating expenses	1,072	1,142	1,132	(6)%	1%
Restructuring, impairment and plant closing costs	81	302	158	(73)%	91%
Spin-off separation expenses	18			NM	
Other operating income, net	(140)	(1)	(4)	NM	(75)%
<b>Operating income</b>	647	405	633	60%	(36)%
Interest expense	(202)	(205)	(205)	(1)%	
Equity in income of investment in unconsolidated affiliates	5	6	6	(17)%	
Loss on early extinguishment of debt	(3)	(31)	(28)	(90)%	11%
Other income (loss), net	1	1	(2)		NM
<b>Income from continuing operations before income taxes</b>	448	176	404	155%	(56)%
Income tax expense	(87)	(46)	(51)	89%	(10)%
<b>Income from continuing operations</b>	361	130	353	178%	(63)%
Loss from discontinued operations, net of tax	(4)	(4)	(8)		(50)%
<b>Net income</b>	357	126	345	183%	(63)%
<b>Reconciliation of net income to adjusted EBITDA:</b>					
Net income attributable to noncontrolling interests	(31)	(33)	(22)	(6)%	50%
Interest expense	202	205	205	(1)%	
Income tax expense from continuing operations	87	46	51	89%	(10)%
Income tax benefit from discontinued operations	(2)	(2)	(2)		
Depreciation and amortization	432	399	445	8%	(10)%
<b>Other adjustments:</b>					
Business acquisition and integration expenses and purchase accounting adjustments	23	53	67		
EBITDA from discontinued operations	6	6	10		
(Gain) loss on disposition of businesses/assets	(119)	2	(3)		
Loss on early extinguishment of debt	3	31	28		
Certain legal settlements and related expenses	3	4	3		
Amortization of pension and postretirement actuarial losses	65	74	51		
Net plant incident remediation costs	1	4			
Restructuring, impairment and plant closing and transition costs(4)	82	306	162		
Spin-off separation expenses	18				
<b>Adjusted EBITDA(1)</b>	\$ 1,127	\$ 1,221	\$ 1,340		
Net cash provided by operating activities	\$ 1,088	\$ 575	\$ 760	89%	(24)%
Net cash used in investing activities	(202)	(600)	(1,606)	(66)%	(63)%
Net cash (used in) provided by financing activities	(723)	(562)	1,197	29%	NM
Capital expenditures	(421)	(663)	(601)	(37)%	10%



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**Huntsman International**

	Year ended December 31,			Percent Change	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
<b>Revenues</b>	\$ 9,657	\$ 10,299	\$ 11,578	(6)%	(11)%
<b>Cost of goods sold</b>	7,975	8,447	9,651	(6)%	(12)%
<b>Gross profit</b>	1,682	1,852	1,927	(9)%	(4)%
Operating expenses	1,068	1,137	1,127	(6)%	1%
Restructuring, impairment and plant closing costs	81	302	158	(73)%	91%
Spin-off separation expenses	18			NM	
Other operating income, net	(140)		(4)	NM	(100)%
<b>Operating income</b>	655	413	646	59%	(36)%
Interest expense	(214)	(214)	(214)		
Equity in income of investment in unconsolidated affiliates	5	6	6	(17)%	
Loss on early extinguishment of debt	(3)	(31)	(28)	(90)%	11%
Other income (loss), net	1	2	(1)	(50)%	NM
<b>Income from continuing operations before income taxes</b>	444	176	409	152%	(57)%
Income tax expense	(86)	(45)	(43)	91%	5%
<b>Income from continuing operations</b>	358	131	366	173%	(64)%
Loss from discontinued operations, net of tax	(4)	(4)	(9)		(56)%
<b>Net income</b>	354	127	357	179%	(64)%
<b>Reconciliation of net income to adjusted EBITDA:</b>					
Net income attributable to noncontrolling interests	(31)	(33)	(22)	(6)%	50%
Interest expense	214	214	214		
Income tax expense from continuing operations	86	45	43	91%	5%
Income tax benefit from discontinued operations	(2)	(2)	(2)		
Depreciation and amortization	420	387	430	9%	(10)%
<b>Other adjustments:</b>					
Business acquisition and integration expenses and purchase accounting adjustments	23	53	67		
EBITDA from discontinued operations	6	6	10		
(Gain) loss on disposition of businesses/assets	(119)	2	(3)		
Loss on early extinguishment of debt	3	31	28		
Certain legal settlements and related expenses	3	4	3		
Amortization of pension and postretirement actuarial losses	73	82	59		
Net plant incident remediation costs	1	4			
Restructuring, impairment and plant closing and transition costs(4)	82	306	162		
Spin-off separation expenses	18				
<b>Adjusted EBITDA(1)</b>	\$ 1,131	\$ 1,226	\$ 1,346		
Net cash provided by operating activities	\$ 1,078	\$ 570	\$ 754	89%	(24)%
Net cash used in investing activities	(195)	(599)	(1,607)	(67)%	(63)%
Net cash (used in) provided by financing activities	(721)	(408)	1,059	77%	NM
Capital expenditures	(421)	(663)	(601)	(37)%	10%

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	Year ended ended December 31, 2016			Year ended ended December 31, 2015			Year ended ended December 31, 2014		
	Gross	Tax(3)	Net	Gross	Tax(3)	Net	Gross	Tax(3)	Net
<b>Reconciliation of net income to adjusted net income</b>									
<b>Net income</b>			\$ 357			\$ 126			\$ 345
Net income attributable to noncontrolling interests			(31)			(33)			(22)
Business acquisition and integration expenses and purchase accounting adjustments	\$ 23	\$ (7)	16	\$ 53	\$ (13)	40	\$ 67	\$ (10)	57
Impact of certain foreign tax credit elections								(94)	(94)
Loss from discontinued operations	6	(2)	4	6	(2)	4	10	(2)	8
(Gain) loss on disposition of businesses/assets	(119)	16	(103)	2		2	(3)	1	(2)
Loss on early extinguishment of debt	3	(1)	2	31	(11)	20	28	(10)	18
Certain legal settlements and related expenses	3	(1)	2	4	(1)	3	3		3
Amortization of pension and postretirement actuarial losses	65	(12)	53	74	(17)	57	51	(10)	41
Net plant incident remediation costs	1		1	4	(1)	3			
Restructuring, impairment and plant closing and transition costs(4)	82	(19)	63	306	(36)	270	162	(38)	124
Spin-off separation expenses	18	(5)	13						
<b>Adjusted net income(2)</b>			\$ 377			\$ 492			\$ 478
Weighted average shares-basic			236.3			242.8			242.1
Weighted average shares-diluted			239.6			245.4			246.0
Net income attributable to Huntsman Corporation per share:									
Basic			\$ 1.38			\$ 0.38			\$ 1.33
Diluted			1.36			0.38			1.31
<b>Other non-GAAP measures:</b>									
Adjusted net income per share(2):									
Basic			\$ 1.60			\$ 2.03			\$ 1.97
Diluted			1.57			2.00			1.94
Capital expenditures, net of reimbursements(5)			\$ (390)			\$ (648)			\$ (564)
Net cash provided by operating activities			\$ 1,088			\$ 575			\$ 760
Capital expenditures			(421)			(663)			(601)
All other investing activities, excluding acquisition and disposition activities			11			58			(60)
Spin-off separation costs			8						
<b>Free cash flow(6)</b>			\$ 686			\$ (30)			\$ 99

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	Year ended ended December 31, 2016			Year ended ended December 31, 2015			Year ended ended December 31, 2014		
	Gross	Tax(3)	Net	Gross	Tax(3)	Net	Gross	Tax(3)	Net
<b>Reconciliation of net income to adjusted net income</b>									
<b>Net income</b>			\$ 354			\$ 127			\$ 357
Net income attributable to noncontrolling interests			(31)			(33)			(22)
Business acquisition and integration expenses and purchase accounting adjustments	\$ 23	\$ (7)	16	\$ 53	\$ (13)	40	\$ 67	\$ (10)	57
Impact of certain foreign tax credit elections								(105)	(105)
Loss from discontinued operations	6	(2)	4	6	(2)	4	10	(2)	8
(Gain) loss on disposition of businesses/assets	(119)	16	(103)	2		2	(3)	1	(2)
Loss on early extinguishment of debt	3	(1)	2	31	(11)	20	28	(10)	18
Certain legal settlements and related expenses	3	(1)	2	4	(1)	3	3		3
Amortization of pension and postretirement actuarial losses	73	(13)	60	82	(18)	64	59	(11)	48
Net plant incident remediation costs	1		1	4	(1)	3			
Restructuring, impairment and plant closing and transition costs(4)	82	(19)	63	306	(36)	270	162	(38)	124
Spin-off separation expenses	18	(5)	13						
<b>Adjusted net income(2)</b>			\$ 381			\$ 500			\$ 486
<b>Other non-GAAP measures:</b>									
Capital expenditures, net of reimbursements(5)			\$ (390)			\$ (648)			\$ (564)

NM Not meaningful

- (1) Our management uses adjusted EBITDA to assess financial performance. Adjusted EBITDA is defined as net income of Huntsman Corporation or Huntsman International, as appropriate, before interest, income tax, depreciation and amortization, net income attributable to noncontrolling interests and certain Corporate and other items, as well as eliminating the following adjustments: (a) business acquisition and integration expenses and purchase accounting adjustments; (b) EBITDA from discontinued operations; (c) (gain) loss on disposition of businesses/assets; (d) loss on early extinguishment of debt; (e) certain legal settlements and related expenses; (f) amortization of pension and postretirement actuarial losses; (g) net plant incident remediation costs; (h) restructuring, impairment, plant closing and transition costs; and (i) spin-off separation expenses. We believe that net income of Huntsman Corporation or Huntsman International, as appropriate, is the performance measure calculated and presented in accordance with U.S. GAAP that is most directly comparable to adjusted EBITDA.

We believe adjusted EBITDA is useful to investors in assessing the businesses' ongoing financial performance and provides improved comparability between periods through the exclusion of certain items that management believes are not indicative of the businesses' operational profitability and that may obscure underlying business results and trends. However, this measure should not be considered in isolation or viewed as a substitute for net income of Huntsman

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Corporation or Huntsman International, as appropriate, or other measures of performance determined in accordance with U.S. GAAP. Moreover, adjusted EBITDA as used herein is not necessarily comparable to other similarly titled measures of other companies due to potential inconsistencies in the methods of calculation. Our management believes this measure is useful to compare general operating performance from period to period and to make certain related management decisions. Adjusted EBITDA is also used by securities analysts, lenders and others in their evaluation of different companies because it excludes certain items that can vary widely across different industries or among companies within the same industry. For example, interest expense can be highly dependent on a company's capital structure, debt levels and credit ratings. Therefore, the impact of interest expense on earnings can vary significantly among companies. In addition, the tax positions of companies can vary because of their differing abilities to take advantage of tax benefits and because of the tax policies of the various jurisdictions in which they operate. As a result, effective tax rates and tax expense can vary considerably among companies. Finally, companies employ productive assets of different ages and utilize different methods of acquiring and depreciating such assets. This can result in considerable variability in the relative costs of productive assets and the depreciation and amortization expense among companies.

Nevertheless, our management recognizes that there are material limitations associated with the use of adjusted EBITDA in the evaluation of our Company as compared to net income of Huntsman Corporation or Huntsman International, as appropriate, which reflects overall financial performance. For example, we have borrowed money in order to finance our operations and interest expense is a necessary element of our costs and ability to generate revenue. Our management compensates for the limitations of using adjusted EBITDA by using this measure to supplement U.S. GAAP results to provide a more complete understanding of the factors and trends affecting the business rather than U.S. GAAP results alone.

In addition to the limitations noted above, adjusted EBITDA excludes items that may be recurring in nature and should not be disregarded in the evaluation of performance. However, we believe it is useful to exclude such items to provide a supplemental analysis of current results and trends compared to other periods because certain excluded items can vary significantly depending on specific underlying transactions or events, and the variability of such items may not relate specifically to ongoing operating results or trends and certain excluded items, while potentially recurring in future periods, may not be indicative of future results. For example, while EBITDA from discontinued operations is a recurring item, it is not indicative of ongoing operating results and trends or future results.

(2)

Adjusted net income is computed by eliminating the after-tax amounts related to the following from net income attributable to Huntsman Corporation or Huntsman International, as appropriate: (a) business acquisition and integration expenses and purchase accounting adjustments; (b) impact of certain foreign tax credit elections; (c) loss from discontinued operations; (d) (gain) loss on disposition of businesses/assets; (e) loss on early extinguishment of debt; (f) certain legal settlements and related expenses; (g) amortization of pension and postretirement actuarial losses; (h) net plant incident remediation costs; and (i) restructuring, impairment and plant closing and transition costs; (j) spin-off separation expenses. Basic adjusted net income per share excludes dilution and is computed by dividing adjusted net income by the weighted average number of shares outstanding during the period. Adjusted diluted net income per share reflects all potential dilutive common shares outstanding during the period and is computed by dividing adjusted net income by the weighted average number of shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities. Adjusted net income and adjusted net income per share amounts are presented solely as supplemental information.

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- (3) The income tax impacts, if any, of each adjusting item represent a ratable allocation of the total difference between the unadjusted tax expense and the total adjusted tax expense, computed without consideration of any adjusting items using a with and without approach. We do not adjust for changes in tax valuation allowances because we do not believe it provides more meaningful information than is provided under GAAP.
- (4) Includes costs associated with transition activities relating to the migration of our information system data centers and the transition of our Textile Effects segment's production from Basel, Switzerland to a tolling facility. These transition costs were included in either selling, general and administrative expenses or cost of sales on our consolidated statements of operations.
- (5) Capital expenditures, net of reimbursements, represent cash paid for capital expenditures less payments received as reimbursements from customers and joint venture partners. During 2016, 2015 and 2014, capital expenditures of \$421 million, \$663 million and \$601 million, respectively, were reimbursed in part by \$31 million, \$15 million and \$37 million, respectively.
- (6) Management internally uses a free cash flow measure: (a) to evaluate the Company's liquidity, (b) to evaluate strategic investments, (c) to plan stock buyback and dividend levels, and (d) to evaluate the Company's ability to incur and service debt. Free cash flow is not a defined term under U.S. GAAP, and it should not be inferred that the entire free cash flow amount is available for discretionary expenditures. The Company defines free cash flow as cash flows provided by operating activities and used in investing activities, excluding acquisition and disposition activities. Free cash flow is typically derived directly from the Company's consolidated statement of cash flows; however, it may be adjusted for items that affect comparability between periods.

### **Year Ended December 31, 2016 Compared with Year Ended December 31, 2015**

For the year ended December 31, 2016, net income attributable to Huntsman Corporation was \$326 million on revenues of \$9,657 million, compared with net income attributable to Huntsman Corporation of \$93 million on revenues of \$10,299 million for the same period of 2015. For the year ended December 31, 2016, net income attributable to Huntsman International was \$323 million on revenues of \$9,657 million, compared with net income attributable to Huntsman International of \$94 million on revenues of \$10,299 million for the same period of 2015. The increase of \$233 million in net income attributable to Huntsman Corporation and the increase of \$229 million in net income attributable to Huntsman International was the result of the following items:

Revenues for the year ended December 31, 2016 decreased by \$642 million, or 6%, as compared with the 2015 period. The decrease was primarily due to lower average selling prices in all our segments and lower sales volumes in our Performance Products and Advanced Materials segments. See " Segment Analysis" below.

Our gross profit and the gross profit of Huntsman International for the year ended December 31, 2016 decreased by \$170 million each, or 9% each, as compared with the 2015 period. The decrease resulted from lower gross margins in our Polyurethanes, Performance Products and Advanced Materials segments. See " Segment Analysis" below.

Our operating expenses and the operating expenses of Huntsman International for the year ended December 31, 2016 decreased by \$70 million and \$69 million, respectively, or 6% each, as compared with the 2015 period, primarily related to the impact of translating foreign currency amounts to the U.S. dollar and a decrease in selling, general and administrative expenses as a result of cost savings from restructuring programs within our Pigments and Additives segment.

Restructuring, impairment and plant closing costs for the year ended December 31, 2016 decreased to \$81 million from \$302 million in the 2015 period. For more information concerning restructuring activities, see "Note 12. Restructuring, Impairment and Plant Closing Costs" to our consolidated financial statements.

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In connection with the proposed spin-off of our Pigments and Additives business, we recorded spin-off separation expenses of \$18 million during 2016. We expect to record additional spin-off separation expenses of approximately \$56 million in 2017.

Our other operating income, net and other operating income, net of Huntsman International increased by \$139 million and \$140 million, respectively, for the year ended December 31, 2016 as compared with 2015, primarily related to a gain on the sale of our European surfactants business in the fourth quarter of 2016. For more information concerning the sale of our European surfactants business, see "Note 3. Business Combinations and Dispositions Sale of European Surfactants Manufacturing Facilities" to our consolidated financial statements.

Loss on early extinguishment of debt for the year ended December 31, 2016 decreased to \$3 million from \$31 million in the 2015 period. During 2016, we recorded a loss on early extinguishment of debt of \$3 million primarily related to repayment of our term loan B facilities due 2017 and our term loan C facility due 2016 ("Term Loan C") as well as voluntary repayments on our 2015 Extended Term Loan B. During 2015, we recorded a loss on early extinguishment of debt of \$30 million primarily related to the redemption of our 8.625% senior subordinated notes due 2021 ("2021 Senior Subordinated Notes").

Our income tax expense for the year ended December 31, 2016 increased to \$87 million from \$46 million in the 2015 period. The income tax expense of Huntsman International for the year ended December 31, 2016 increased to \$86 million from \$45 million in 2015. Our tax expense is significantly affected by the mix of income and losses in the tax jurisdictions in which we operate, as impacted by the presence of valuation allowances in certain tax jurisdictions. For further information concerning taxes, see "Note 19. Income Taxes" to our consolidated financial statements.

Table of Contents**Segment Analysis****Year Ended December 31, 2016 Compared to Year Ended December 31, 2015**

	Year ended December 31,		Percent Change (Unfavorable) Favorable
	2016	2015	
<b>Revenues</b>			
Polyurethanes	\$ 3,667	\$ 3,811	(4)%
Performance Products	2,126	2,501	(15)%
Advanced Materials	1,020	1,103	(8)%
Textile Effects	751	804	(7)%
Pigments and Additives	2,139	2,160	(1)%
Corporate and eliminations	(46)	(80)	NM
Total	\$ 9,657	\$ 10,299	(6)%

**Huntsman Corporation****Segment adjusted EBITDA(1)**

Polyurethanes	\$ 569	\$ 573	(1)%
Performance Products	316	460	(31)%
Advanced Materials	223	220	1%
Textile Effects	73	63	16%
Pigments and Additives	130	61	113%
Corporate and other	(184)	(156)	(18)%
Total	\$ 1,127	\$ 1,221	(8)%

**Huntsman International****Segment adjusted EBITDA(1)**

Polyurethanes	\$ 569	\$ 573	(1)%
Performance Products	316	460	(31)%
Advanced Materials	223	220	1%
Textile Effects	73	63	16%
Pigments and Additives	130	61	113%
Corporate and other	(180)	(151)	(19)%
Total	\$ 1,131	\$ 1,226	(8)%

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NM Not  
meaningful

(1) For more information, including reconciliation of segment adjusted EBITDA to net income of Huntsman Corporation or Huntsman International, as appropriate, see "Note 26. Operating Segment Information" to our consolidated financial statements.





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## Year ended December 31, 2016 vs. 2015

	Average Selling Price(1)			Sales Volumes(2)
	Local Currency	Foreign Currency Translation Impact	Mix & Other	
<b>Period-Over-Period (Decrease) Increase</b>				
Polyurethanes	(9)%	(1)%	(5)%	11%
Performance Products	(8)%	(1)%	(4)%	(2)%
Advanced Materials	(2)%	(2)%	3%	(7)%
Textile Effects	(6)%	(3)%	(1)%	3%
Pigments and Additives	(4)%	(1)%		4%
Total Company	(7)%	(1)%	(3)%	5%

## Fourth Quarter 2016 vs. Third Quarter 2016

	Average Selling Price(1)			Sales Volumes(2)
	Local Currency	Foreign Currency Translation Impact	Mix & Other	
<b>Period-Over-Period Increase (Decrease)</b>				
Polyurethanes	7%	(1)%	(1)%	3%
Performance Products			1%	
Advanced Materials	1%	(1)%	(1)%	1%
Textile Effects	1%	(1)%	(1)%	1%
Pigments and Additives	3%	(1)%	(2)%	(8)%
Total Company	3%	(1)%		(1)%

(1) Excludes revenues from tolling arrangements, byproducts and raw materials.

(2) Excludes sales volumes of byproducts and raw materials.

***Polyurethanes***

The decrease in revenues in our Polyurethanes segment for 2016 compared to 2015 was primarily due to lower average selling prices, partially offset by higher sales volumes. MDI average selling prices decreased in response to lower raw material costs. MTBE average selling prices decreased primarily as a result of lower pricing for high octane gasoline. MDI sales volumes increased due to higher demand in the Americas and European regions. PO/MTBE sales volumes increased primarily due to the impact of the prior year planned maintenance outage. The decrease in segment adjusted EBITDA was primarily due to lower MTBE margins, partially offset by higher MDI margins and sales volumes and the prior year planned PO/MTBE maintenance outage of approximately \$90 million.

***Performance Products***

The decrease in revenues in our Performance Products segment for 2016 compared to 2015 was primarily due to lower average selling prices and lower sales volumes. Average selling prices decreased primarily in response to lower raw material costs and competitive market conditions. Sales volumes decreased primarily due to competitive market conditions, softer demand in China and oilfield applications as well as the impact of weather related and other production outages. The decrease in segment adjusted EBITDA was primarily due to lower sales volumes, lower margins in our amines, maleic anhydride and upstream intermediates businesses as well as the impact of weather related and other production outages estimated at approximately \$15 million.

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***Advanced Materials***

The decrease in revenues in our Advanced Materials segment for 2016 compared to 2015 was due to lower sales volumes and lower average selling prices. Sales volumes decreased primarily in the Americas region, due to competitive pressure and soft demand. Average selling prices decreased in our Asia Pacific and European regions primarily due to price concessions in our electrical, electronic and wind markets and the foreign currency exchange impact of a stronger U.S. dollar against major international currencies. The increase in segment adjusted EBITDA was primarily due to lower fixed costs, partially offset by lower margins as savings from lower raw material costs were offset by lower sales volumes and lower selling prices.

***Textile Effects***

The decrease in revenues in our Textile Effects segment for 2016 compared to 2015 was due to lower average selling prices, partially offset by higher sales volumes. Average selling prices decreased primarily due to lower raw material costs and the foreign currency exchange impact of a stronger U.S. dollar against major international currencies. Sales volumes increased in key target countries, mainly in South Asia. The increase in segment adjusted EBITDA was primarily due to higher margins from lower raw material costs and lower selling, general and administrative costs.

***Pigments and Additives***

The decrease in revenues in our Pigments and Additives segment for 2016 compared to 2015 was due to lower average selling prices, partially offset by higher sales volumes. Average selling prices decreased primarily as a result of competitive pressure and the foreign currency exchange impact of a stronger U.S. dollar primarily against the euro. Sales volumes increased primarily due to increased end use demand for our titanium dioxide, functional additives and timber treatment products. The increase in segment adjusted EBITDA was primarily due to higher margins resulting from restructuring savings.

***Corporate and other***

Corporate and other includes unallocated corporate overhead, unallocated foreign exchange gains and losses, LIFO inventory valuation reserve adjustments, loss on early extinguishment of debt, unallocated restructuring, impairment and plant closing costs, nonoperating income and expense, benzene sales and gains and losses on the disposition of corporate assets. For 2016, adjusted EBITDA from Corporate and other for Huntsman Corporation decreased by \$28 million to a loss of \$184 million from a loss of \$156 million for the same period in 2015. For 2016, adjusted EBITDA from Corporate and other for Huntsman International decreased by \$29 million to a loss of \$180 million from a loss of \$151 million for the same period in 2015. The decrease in adjusted EBITDA from Corporate and other resulted primarily from an increase in LIFO inventory valuation expense, partially offset by an increase in gain from benzene sales.

**Year Ended December 31, 2015 Compared with Year Ended December 31, 2014**

For the year ended December 31, 2015, net income attributable to Huntsman Corporation was \$93 million on revenues of \$10,299 million, compared with net income attributable to Huntsman Corporation of \$323 million on revenues of \$11,578 million for 2014. For the year ended December 31, 2015, net income attributable to Huntsman International was \$94 million on revenues of \$10,299 million, compared with net income attributable to Huntsman International of \$335 million on revenues of \$11,578 million for 2014. The decrease of \$230 million in net income attributable to

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Huntsman Corporation and the decrease of \$241 million in net income attributable to Huntsman International was the result of the following items:

Revenues for the year ended December 31, 2015 decreased by \$1,279 million, or 11%, as compared with 2014. The decrease was due principally to lower sales volumes and lower average selling prices in all our segments. See " Segment Analysis" below.

Our gross profit and the gross profit of Huntsman International for the year ended December 31, 2015 decreased by \$71 million and \$75 million, respectively, or 4% each, as compared with 2014. The impact on gross profit resulted from lower gross margins in all of our segments, except for our Advanced Materials segment. See " Segment Analysis" below.

Our operating expenses and the operating expenses of Huntsman International increased by \$10 million each or 1% each, for the year ended December 31, 2015 as compared with 2014, primarily related to the consolidated expenses of the acquired Rockwood businesses, offset in part by the foreign currency exchange impacts of the strengthening U.S. dollar against other major international currencies.

Restructuring, impairment and plant closing costs for the year ended December 31, 2015 increased to \$302 million from \$158 million in 2014. For more information concerning restructuring activities, see "Note 12. Restructuring, Impairment and Plant Closing Costs" to our consolidated financial statements.

Loss on early extinguishment of debt for the year ended December 31, 2015 increased to \$31 million from \$28 million in 2014. During 2015, we recorded a loss on early extinguishment of debt of \$30 million related to the redemption of our 2021 Senior Subordinated Notes. For more information, see "Note 15. Debt Direct and Subsidiary Debt Redemption of Notes and Loss on Early Extinguishment of Debt" to our consolidated financial statements.

Our income tax expense for the year ended December 31, 2015 decreased to \$46 million from \$51 million in 2014. The income tax expense of Huntsman International for the year ended December 31, 2015 increased to \$45 million from \$43 million in 2014. The change in income tax expense is impacted by the benefit in 2015 of generating \$14 million of excess U.S. foreign tax credits and in 2014 of utilizing U.S. foreign tax credits which had been subject to a valuation allowance. Excluding the impact of the U.S. foreign tax credits, our income tax expense and the income tax expense of Huntsman International decreased by \$97 million and \$101 million, respectively, as compared with 2014, primarily due to lower pre-tax income and tax impacts of tax only foreign currency exchange losses. Our tax expense is significantly affected by the mix of income and losses in the tax jurisdictions in which we operate, as impacted by the presence of valuation allowances in certain tax jurisdictions. For further information concerning taxes, see "Note 19. Income Taxes" to our consolidated financial statements.

Table of Contents**Segment Analysis****Year Ended December 31, 2015 Compared to Year Ended December 31, 2014**

	Year ended December 31,		Percent Change (Unfavorable) Favorable
	2015	2014	
<b>Revenues</b>			
Polyurethanes	\$ 3,811	\$ 5,032	(24)%
Performance Products	2,501	3,072	(19)%
Advanced Materials	1,103	1,248	(12)%
Textile Effects	804	896	(10)%
Pigments and Additives	2,160	1,549	39%
Corporate and eliminations	(80)	(219)	NM
Total	\$ 10,299	\$ 11,578	(11)%

**Huntsman Corporation****Segment adjusted EBITDA(1)**

Polyurethanes	\$ 573	\$ 722	(21)%
Performance Products	460	473	(3)%
Advanced Materials	220	199	11%
Textile Effects	63	58	9%
Pigments and Additives	61	76	(20)%
Corporate and other	(156)	(188)	17%
Total	\$ 1,221	\$ 1,340	(9)%

**Huntsman International****Segment adjusted EBITDA(1)**

Polyurethanes	\$ 573	\$ 722	(21)%
Performance Products	460	473	(3)%
Advanced Materials	220	199	11%
Textile Effects	63	58	9%
Pigments and Additives	61	76	(20)%
Corporate and other	(151)	(182)	17%
Total	\$ 1,226	\$ 1,346	(9)%

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NM Not meaningful

(1) For more information, including reconciliation of segment adjusted EBITDA to net income of Huntsman Corporation or Huntsman International, as appropriate, see "Note 26. Operating Segment Information" to our consolidated financial statements.



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## Year ended December 31, 2015 vs. 2014

Period-Over-Period Increase (Decrease)	Average Selling Price(1)			Sales Volumes(3)
	Local Currency	Foreign Currency Translation Impact	Mix & Other(2)	
Polyurethanes	(12)%	(5)%	3%	(10)%
Performance Products	(7)%	(5)%	(3)%	(4)%
Advanced Materials	2%	(8)%	(1)%	(5)%
Textile Effects	1%	(6)%	2%	(7)%
Pigments and Additives	(10)%	(8)%	62%	(5)%
Total Company	(8)%	(6)%	10%	(7)%

(1) Excludes revenues from tolling arrangements, byproducts and raw materials.

(2) Includes the impact from the Rockwood Acquisition.

(3) Excludes sales volumes of byproducts and raw materials.

***Polyurethanes***

The decrease in revenues in our Polyurethanes segment for 2015 compared to 2014 was primarily due to a planned maintenance outage at our PO/MTBE facility in Port Neches, Texas that commenced in the first quarter of 2015 and extended into the second quarter of 2015, lower MDI average selling prices and the foreign currency exchange impact of a stronger U.S. dollar against other key currencies. PO/MTBE sales volumes decreased due to the planned maintenance outage at our PO/MTBE facility in Port Neches, Texas. MDI sales volumes decreased slightly due to the market slowdown in China and lower sales into commercial construction in the U.S. PO/MTBE average selling prices decreased following lower pricing for high octane gasoline. MDI average selling prices decreased in response to lower raw material costs and the foreign currency exchange impact of a stronger U.S. dollar against major European currencies. The decrease in segment adjusted EBITDA was due to lower PO/MTBE earnings and the foreign currency exchange impact of a stronger U.S. dollar against the euro. We estimate the reduction to segment adjusted EBITDA resulting from the planned PO/MTBE maintenance outage was approximately \$90 million for 2015.

***Performance Products***

The decrease in revenues in our Performance Products segment for 2015 compared to 2014 was primarily due to lower average selling prices and lower sales volumes. Average selling prices decreased across all product lines primarily in response to lower raw material costs and the foreign currency exchange impact of a stronger U.S. dollar against major European currencies. Sales volumes decreased across most product lines, including the effect of the sale of our European commodity surfactants business in the second quarter of 2014 partially offset by higher toll volumes in our upstream intermediates business. The decrease in segment adjusted EBITDA was primarily due to lower margins on produced ethylene, partially offset by higher amines margins.

***Advanced Materials***

The decrease in revenues in our Advanced Materials segment for 2015 compared to 2014 was due to lower sales volumes and lower average selling prices. Sales volumes decreased globally primarily in our coatings and construction and transportation and industrial markets due to the de-selection of certain business and competitive pressure, partially offset by strong volume growth in our do-it-yourself and wind markets in the Asia Pacific region. Average selling prices increased, in most markets, on a local currency basis in the Americas and Asia Pacific regions due to certain price increase initiatives

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and our focus on higher value markets; overall this was more than offset by the foreign currency exchange impact of a stronger U.S. dollar against major international currencies. The increase in segment adjusted EBITDA was primarily due to higher margins, resulting from lower raw material costs, and our focus on higher value business as well as lower fixed costs.

*Textile Effects*

The decrease in revenues in our Textile Effects segment for 2015 compared to 2014 was due to lower average selling prices and lower sales volumes. Average selling prices decreased in response to lower raw material costs and the foreign currency exchange impact of a stronger U.S. dollar against major international currencies. Sales volumes decreased primarily due to the de-selection of certain less profitable business and challenging market conditions. The increase in segment adjusted EBITDA was primarily due to lower fixed costs, partially offset by lower margins.

*Pigments and Additives*

The increase in revenues in our Pigments and Additives segment for 2015 compared to 2014 was primarily due to the impact of the Rockwood Acquisition. Other than the impact of the Rockwood Acquisition, average selling prices decreased primarily as a result of high titanium dioxide industry inventory levels and the foreign currency exchange impact of a stronger U.S. dollar against major European currencies. Sales volumes decreased primarily as a result of lower end-use demand and the impact of a nitrogen tank explosion owned and operated by a third party at our Uerdingen, Germany facility, which disrupted our manufacturing during the third quarter of 2015. The decrease in segment adjusted EBITDA was primarily due to lower contribution margin for titanium dioxide and the negative impact from the manufacturing disruption at our Uerdingen, Germany facility.

*Corporate and other*

Corporate and other includes unallocated corporate overhead, unallocated foreign exchange gains and losses, LIFO inventory valuation reserve adjustments, nonoperating income and expense, benzene sales and gains and losses on the disposition of corporate assets. For 2015, adjusted EBITDA from Corporate and other for Huntsman Corporation increased by \$32 million to a loss of \$156 million from a loss of \$188 million for 2014. For 2015, adjusted EBITDA from Corporate and other for Huntsman International increased by \$31 million to a loss of \$151 million from a loss of \$182 million for 2014. The increase in adjusted EBITDA from Corporate and other resulted primarily from an increase in LIFO inventory valuation income and a decrease in unallocated corporate overhead, partially offset by an increase in loss from benzene sales.

**LIQUIDITY AND CAPITAL RESOURCES**

The following is a discussion of our liquidity and capital resources and generally does not include separate information with respect to Huntsman International in accordance with General Instruction I of Form 10-K.

**Cash Flows for Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015**

Net cash provided by operating activities for 2016 and 2015 was \$1,088 million and \$575 million, respectively. The increase in net cash provided by operating activities during 2016 compared with 2015 was primarily attributable to increased operating income as described in "Results of Operations" above as well as a \$473 million favorable variance in operating assets and liabilities for 2016 as compared with 2015.

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Net cash used in investing activities for 2016 and 2015 was \$202 million and \$600 million, respectively. During 2016 and 2015, we paid \$421 million and \$663 million, respectively, for capital expenditures. During 2016 and 2015, we made investments in LPC of \$29 million and \$42 million, respectively, and in our BASF Huntsman Shanghai Isocyanate Investment B.V. joint venture of nil and \$12 million, respectively, and received dividends from LPC of \$33 million and \$48 million, respectively. During 2016 and 2015, we paid nil and \$14 million, respectively, for the acquisition of businesses and received proceeds from a purchase price adjustment of nil and \$18 million, respectively, related to the Rockwood Acquisition. During 2016 and 2015, we received proceeds from the sale of businesses and assets of \$208 million and \$1 million, respectively, including proceeds of \$199 million from the sale of our European surfactants business during 2016. During 2015, we received \$66 million from the termination of cross-currency interest rate contracts.

Net cash used in financing activities for 2016 and 2015 was \$723 million and \$562 million, respectively. The increase in net cash used in financing activities was primarily due to an increase in repayments of long-term debt, partially offset by an increase in proceeds from the issuance of long-term debt during the 2016 period as compared to the 2015 period. On April 1, 2016, we entered into our 2016 term loan B facility due 2023 ("2016 Term Loan B") in an aggregate principal amount of \$550 million. Additionally, on April 1, 2016, we used the net proceeds of the 2016 Term Loan B to repay in full our extended term loan B due 2017, extended term loan B series 2 due 2017 and our Term Loan C. On both July 22, 2016 and September 30, 2016, we prepaid \$100 million of our 2015 Extended Term Loan B. On December 30, 2016, we made an early repayment of \$260 million on our 2015 Extended Term Loan B using proceeds from the sale of our European surfactants business and existing cash. On March 31, 2015, we issued €300 million (approximately \$326 million) aggregate principal amount of our 4.25% senior notes due April 1, 2025 ("2025 Senior Notes"). On April 17, 2015, we used the net proceeds of this offering to redeem \$289 million (\$294 million carrying value) of our 2021 Senior Subordinated Notes and redeemed the remaining \$195 million (\$198 million carrying value) of our 2021 Senior Subordinated Notes during the third quarter of 2015. During 2015, we repurchased \$100 million of our common stock.

Free cash flow for 2016 and 2015 were cash proceeds of \$686 million and use of cash of \$30 million, respectively. The improvement in free cash flow was attributable to the changes in cash flows from operating and investing activities, excluding merger and acquisition activities.

**Cash Flows for Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014**

Net cash provided by operating activities for 2015 and 2014 was \$575 million and \$760 million, respectively. The decrease in net cash provided by operating activities during 2015 compared with 2014 was primarily attributable to lower net income as described in "Results of Operations" above and a \$24 million unfavorable variance in operating assets and liabilities for 2015 as compared with 2014.

Net cash used in investing activities for 2015 and 2014 was \$600 million and \$1,606 million, respectively. During 2015 and 2014, we paid \$663 million and \$601 million, respectively, for capital expenditures. During 2014, we paid \$1.04 billion for the Rockwood Acquisition, and during 2015 and 2014, we received proceeds from a purchase price adjustment of \$18 million and nil, respectively, related to the Rockwood Acquisition. For further information, see "Note 3. Business Combinations and Dispositions" to our consolidated financial statements. During 2015 and 2014, we made investments in LPC of \$42 million and \$37 million, respectively, in Nanjing Jinling Huntsman New Materials Co., Ltd. of nil and \$62 million, respectively, and in our BASF Huntsman Shanghai Isocyanate Investment B.V. joint venture of \$12 million and \$9 million, respectively, and we received dividends from LPC of \$48 million each. During 2015 and 2014, we received \$1 million and \$15 million, respectively, from the sale of businesses and assets. During 2015 and 2014, we received \$66 million and nil, respectively, from the termination of cross-currency interest rate contracts.



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Net cash (used in) provided by financing activities for 2015 and 2014 was \$(562) million and \$1,197 million, respectively. The decrease in net cash provided by financing activities was primarily due to higher net borrowings during 2014, primarily used to fund the Rockwood Acquisition and an increase in repayments of long-term debt in 2015. On March 31, 2015, we issued €300 million (approximately \$326 million) aggregate principal amount of our 2025 Senior Notes. On April 17, 2015, we used the net proceeds of this offering to redeem \$289 million (\$294 million carrying value) of our 2021 Senior Subordinated Notes. In the third quarter of 2015, we redeemed the remaining \$195 million (\$198 million carrying value) of our 2021 Senior Subordinated Notes. During 2015, we repurchased \$100 million of our common stock.

Free cash flow for 2015 and 2014 were a use of cash of \$30 million and cash proceeds of \$99 million, respectively. The decrease in free cash flow was attributable to the changes in cash flows from operating and investing activities, excluding merger and acquisition activities.

### **Changes in Financial Condition**

The following information summarizes our working capital (dollars in millions):

	December 31, 2016	December 31, 2015	Increase (Decrease)	Percent Change
Cash and cash equivalents	\$ 414	\$ 257	\$ 157	61%
Restricted cash	11	12	(1)	(8)%
Accounts and notes receivable, net	1,435	1,449	(14)	(1)%
Inventories	1,344	1,692	(348)	(21)%
Prepaid expenses	60	112	(52)	(46)%
Other current assets	291	312	(21)	(7)%
<b>Total current assets</b>	<b>3,555</b>	<b>3,834</b>	<b>(279)</b>	<b>(7)%</b>
Accounts payable	1,102	1,061	41	4%
Accrued liabilities	616	686	(70)	(10)%
Current portion of debt	60	170	(110)	(65)%
<b>Total current liabilities</b>	<b>1,778</b>	<b>1,917</b>	<b>(139)</b>	<b>(7)%</b>
<b>Working capital</b>	<b>\$ 1,777</b>	<b>\$ 1,917</b>	<b>\$ (140)</b>	<b>(7)%</b>

Our working capital decreased by \$140 million as a result of the net impact of the following significant changes:

The increase in cash and cash equivalents of \$157 million resulted from the matters identified on our consolidated statements of cash flows.

Inventories decreased by \$348 million primarily due to lower inventory volumes and lower inventory costs.

Prepaid expenses decreased by \$52 million mainly due to the distribution of employee termination and other restructuring costs that were prefunded during the fourth quarter of 2015.

Accrued liabilities decreased by \$70 million primarily due to the distribution of prefunded restructuring costs.

Current portion of debt decreased by \$110 million primarily due to the repayment of \$50 million our Term Loan C during the second quarter of that was recorded as current debt as of December 31, 2015. On April 1, 2016, this debt was refinanced with the 2016 Term Loan B due 2023. In addition, the company has repaid \$47 million under its HPS working capital facility in 2016 that was classified as current as of December 31, 2015.



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**Direct and Subsidiary Debt**

See "Note 15. Debt Direct and Subsidiary Debt" to our consolidated financial statements.

**Debt Issuance Costs**

See "Note 15. Debt Debt Issuance Costs" to our consolidated financial statements.

**Senior Credit Facilities**

See "Note 15. Debt Senior Credit Facilities" to our consolidated financial statements.

**Amendment to Credit Agreement**

See "Note 15. Debt Amendment to Credit Agreement" to our consolidated financial statements.

**A/R Programs**

See "Note 15. Debt A/R Programs" to our consolidated financial statements.

**Notes**

See "Note 15. Debt Notes" to our consolidated financial statements.

**Redemption of Notes and Loss on Early Extinguishment of Debt**

See "Note 15. Debt Redemption of Notes and Loss on Early Extinguishment of Debt" to our consolidated financial statements.

**Variable Interest Entity Debt**

See "Note 15. Debt Variable Interest Entity Debt" to our consolidated financial statements.

**Note Payable from Huntsman International to Huntsman Corporation**

See "Note 15. Debt Note Payable from Huntsman International to Huntsman Corporation" to our consolidated financial statements.

**Compliance with Covenants**

See "Note 15. Debt Compliance with Covenants" to our consolidated financial statements.

**Maturities**

See "Note 15. Debt Maturities" to our consolidated financial statements.

**Short-Term and Long-Term Liquidity**

We depend upon our cash, senior credit facilities ("Senior Credit Facilities"), U.S. accounts receivable securitization program ("U.S. A/R Program"), European accounts receivable securitization program ("EU A/R Program" and collectively with the U.S. A/R Program, "A/R Programs") and other debt instruments to provide liquidity for our operations and working capital needs. As of December 31, 2016, we had \$1,208 million of combined cash and unused borrowing capacity, consisting of \$425 million in cash and restricted cash, \$628 million in availability under our revolving facility ("Revolving Facility"), and \$155 million in availability under our A/R Programs. Our liquidity can be

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significantly impacted by various factors. The following matters had, or are expected to have, a significant impact on our liquidity:

Cash from our accounts receivable and inventory, net of accounts payable, increased by approximately \$304 million for 2016, as reflected in our consolidated statements of cash flows. We expect volatility in our working capital components to continue.

During 2017, we expect to spend approximately \$400 million on capital expenditures. Our future expenditures include certain EHS maintenance and upgrades, and periodic maintenance and repairs applicable to major units of manufacturing facilities. We expect to fund this spending with cash provided by operations.

During 2016, we made contributions to our pension and postretirement benefit plans of \$74 million. During 2017, we expect to contribute an additional amount of approximately \$116 million to these plans.

We are involved in a number of cost reduction programs for which we have established restructuring accruals. As of December 31, 2016, we had \$89 million of accrued restructuring costs from continuing operations, of which \$43 million is classified as current. For further discussion of these plans and the costs involved, see "Note 12. Restructuring, Impairment and Plant Closing costs" to our consolidated financial statements.

Further, we expect to incur additional restructuring charges for recently identified plans for business improvements in our Pigments and Additives segment expected to be completed by the end of 2018. We expect these additional business improvements to provide additional contributions to adjusted EBITDA beginning in 2017.

The payment of dividends is a business decision made by our Board of Directors from time to time based on our earnings, financial position and prospects, and such other considerations as our Board of Directors considers relevant. Historically, our Board of Directors has declared quarterly cash dividends of \$0.125 per share of common stock. While management currently expects that the Company will continue to pay the quarterly cash dividend, its dividend practice may change at any time.

In connection with the sale of our European surfactants business, we recognized a pre-tax gain in the fourth quarter of 2016 of \$98 million which was reflected in other operating income, net on the accompanying consolidated statements of operations. For more information, see "Note 3. Business Combination and Dispositions Sale of European Surfactants Manufacturing Facilities" to our consolidated financial statements.

On December 30, 2016, we made an early repayment of \$260 million on our 2015 Extended Term Loan B using proceeds from the sale of the European surfactants business and existing cash. See "Note 15. Debt Direct and Subsidiary Debt Amendment to the Credit Agreement."

On both July 22, 2016 and September 30, 2016, Huntsman International prepaid \$100 million of the 2015 Extended Term Loan B. In connection with the \$200 million prepayments on our term loan, we recognized a loss on early extinguishment of debt of \$1 million in the third quarter of 2016. See "Note 15. Debt Direct and Subsidiary Debt Senior Credit Facilities" to our consolidated financial statements.

In connection with the proposed spin-off of our Pigments and Additives business into a separate, publicly traded company, Venator, we anticipate that Venator will enter into new financing arrangements in anticipation of the spin-off. After Venator has entered into its new financing arrangements but immediately prior to separation, it will make a cash distribution to Huntsman International and, at separation, Venator will assume various Huntsman International

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indebtedness. We anticipate that Venator will fund such cash distribution and will repay such assumed indebtedness with the proceeds of its new financing arrangement.

During 2017, we expect to spend approximately \$100 million of non-recurring costs related to the proposed spin-off of our Pigments and Additives business, including costs for capital expenditures and financing. For more information see "Note 4. Separation of Pigments and Additives Business" to our consolidated financial statements.

On November 18, 2016, we entered into a new \$350 million term loan B facility due 2021 ("2021 Term Loan B") and a new \$1,375 million term loan B facility due 2023 ("2023 Term Loan B"). Proceeds from the new term loans were used to repay in full our 2014 term loan B facility due 2021 ("2014 Term Loan B") and our 2016 Term Loan B. As a result of this refinancing, we extended \$829 million of term loan maturities from 2021 to 2023 and did not increase our overall indebtedness.

On January 30, 2017, our titanium dioxide manufacturing facility in Pori, Finland experienced fire damage and is currently not operational. We do not currently have an estimated time frame for how long the facility will be off line, but we are committed to repairing the facility as quickly as possible. The Pori facility has a nameplate capacity of 130,000 metric tons, which represents approximately 15% of our total titanium dioxide capacity and approximately 10% of total European titanium dioxide demand. The site is insured for property damage as well as business interruption losses. According to our insurance policies, the respective retention levels (deductibles) for physical damage and business interruption are \$15 million and 60 days, respectively. On February 9, 2017, we received a €50 million (approximately \$52 million) payment from our insurer as an initial partial progress payment towards the overall pending claim.

During 2017 we expect to receive a cash benefit of approximately \$90 million related to overpayments of prior year tax payments. We expect to receive this refund in the first half of 2017.

As of December 31, 2016, we had \$60 million classified as current portion of debt, scheduled Senior Credit Facilities amortization payments totaling \$18 million, debt at our variable interest entities of \$14 million, and certain other short-term facilities and scheduled amortization payments totaling \$28 million. Although we cannot provide assurances, we intend to renew, repay or extend the majority of these short-term facilities in the next twelve months.

As of December 31, 2016, we had approximately \$383 million of cash and cash equivalents, including restricted cash, held by our foreign subsidiaries, including our variable interest entities. Additionally, we have material intercompany debt obligations owed to us by our non-U.S. subsidiaries. We intend to use cash held in our foreign subsidiaries to fund our local operations. Nevertheless, we could repatriate cash as dividends or as repayments of intercompany debt. If foreign cash were repatriated as dividends, the dividends could be subject to U.S. federal and state income taxes without any offsetting foreign tax credit relief. At present, we estimate that we will generate sufficient cash in our U.S. operations, together with the payments of intercompany debt if necessary, to meet our cash needs in the U.S and we do not expect to repatriate cash to the U.S. as dividends. Cash held by certain foreign subsidiaries, including our variable interest entities, may also be subject to changing monetary policies of governments, legal restrictions, including those arising from the interests of our partners, which could limit the amounts available for repatriation.

### **CAPITAL RESOURCES**

We are now commissioning a new production facility in Augusta, Georgia for the synthesis of iron oxide pigments, which we purchased from Rockwood. During commissioning, the facility has

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experienced delays producing products at the expected specifications and quantities, causing us to question the capabilities of the Augusta technology. Based on the facility's performance during the commissioning process, we have concluded that production capacity at our Augusta facility will be substantially lower than originally anticipated. On February 6, 2017, we filed a lawsuit against Rockwood, Albemarle Corporation (as Rockwood's successor) and certain former Rockwood executives to recover damage for fraud and breach of contract involving the Augusta technology.

**Contractual Obligations and Commercial Commitments**

Our obligations under long-term debt (including the current portion), lease agreements and other contractual commitments as of December 31, 2016 are summarized below (dollars in millions):

	2017	2018 - 2019	2020 - 2021	After 2021	Total
Long-term debt, including current portion	\$ 60	\$ 611	\$ 1,538	\$ 1,986	\$ 4,195
Interest(1)	191	358	276	122	947
Operating leases(2)	82	138	113	177	510
Purchase commitments(3)	1,636	1,579	338	1,063	4,616
Total(4)(5)	\$ 1,969	\$ 2,686	\$ 2,265	\$ 3,348	\$ 10,268

- (1) Interest calculated using interest rates as of December 31, 2016 and contractual maturity dates assuming no refinancing or extension of debt instruments.
- (2) Future minimum lease payments have not been reduced by minimum sublease rentals of \$2 million due in the future under noncancelable subleases.
- (3) We have various purchase commitments extending through 2029 for materials, supplies and services entered into in the ordinary course of business. Included in the purchase commitments table above are contracts which require minimum volume purchases that extend beyond one year or are renewable annually and have been renewed for 2017. Certain contracts allow for changes in minimum required purchase volumes in the event of a temporary or permanent shutdown of a facility. To the extent the contract requires a minimum notice period, such notice period has been included in the above table. The contractual purchase price for substantially all of these contracts is variable based upon market prices, subject to annual negotiations. We have estimated our contractual obligations by using the terms of our current pricing for each contract. We also have a limited number of contracts which require a minimum payment even if no volume is purchased. We believe that all of our purchase obligations will be utilized in our normal operations. For the years ended December 31, 2016, 2015 and 2014, we made minimum payments of \$2 million, nil and nil, respectively, under such take or pay contracts without taking the product.
- (4) Totals do not include commitments pertaining to our pension and other postretirement obligations. Our estimated future contributions to our pension and postretirement plans are as follows (dollars in millions):

	2017	2018 - 2019	2020 - 2021	5-Year Average Annual
Pension plans	\$ 108	\$ 222	\$ 231	\$ 107
Other postretirement obligations	8	16	16	8

- (5) The above table does not reflect expected tax payments and unrecognized tax benefits due to the inability to make reasonably reliable estimates of the timing and amount of payments. For additional discussion on unrecognized tax benefits, see "Note 19. Income Taxes" to our consolidated financial statements.

**Off-Balance Sheet Arrangements**

No off-balance sheet arrangements exist at this time.

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**RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS**

Since the Rockwood Acquisition, our Pigments and Additives segment has been involved in a cost reduction program expected to reduce costs by approximately \$140 million and improve its global competitiveness. In addition, we have announced a capacity reduction at our titanium dioxide manufacturing facility in Calais, France expected to generate approximately \$35 million of annual savings. The cost savings from this cost reduction program were achieved during the first half of 2016. Further, we expect to incur additional restructuring charges for recently identified plans for business improvements in our Pigments and Additives segment expected to be completed by the end of 2018. We expect these additional business improvements to provide additional contributions to adjusted EBITDA beginning in 2017.

For further discussion of these and other restructuring plans and the costs involved, see "Note 12. Restructuring, Impairment and Plant Closing Costs" to our consolidated financial statements.

**LEGAL PROCEEDINGS**

For a discussion of legal proceedings, see "Note 20. Commitments and Contingencies Legal Matters" to our consolidated financial statements.

**ENVIRONMENTAL, HEALTH AND SAFETY MATTERS**

As noted above in "Part I. Item 1. Business Environmental, Health and Safety Matters" and "Part I. Item 1A. Risk Factors," we are subject to extensive environmental regulations, which may impose significant additional costs on our operations in the future. While we do not expect any of these enactments or proposals to have a material adverse effect on us in the near term, we cannot predict the longer-term effect of any of these regulations or proposals on our future financial condition. For a discussion of environmental, health and safety matters, see "Note 21. Environmental, Health and Safety Matters" to our consolidated financial statements.

**RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS**

For a discussion of recently issued accounting pronouncements, see "Note 2. Summary of Significant Accounting Policies Recently Issued Accounting Pronouncements" to our consolidated financial statements.

**CRITICAL ACCOUNTING POLICIES**

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts in our consolidated financial statements. Our significant accounting policies are summarized in "Note 2. Summary of Significant Accounting Policies" to our consolidated financial statements. Summarized below are our critical accounting policies:

**Employee Benefit Programs**

We sponsor several contributory and non-contributory defined benefit plans, covering employees primarily in the U.S., the U.K., The Netherlands, Belgium and Switzerland, but also covering employees in a number of other countries. We fund the material plans through trust arrangements (or local equivalents) where the assets are held separately from us. We also sponsor unfunded postretirement plans which provide medical and, in some cases, life insurance benefits covering certain employees in the U.S., Canada and South Africa. Amounts recorded in our consolidated financial statements are recorded based upon actuarial valuations performed by various independent actuaries. Inherent in these valuations are numerous assumptions regarding expected long-term rates of return on



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plan assets, discount rates, compensation increases, mortality rates and health care cost trends. These assumptions are described in "Note 18. Employee Benefit Plans" to our consolidated financial statements.

Management, with the advice of actuaries, uses judgment to make assumptions on which our employee pension and postretirement benefit plan obligations and expenses are based. The effect of a 1% change in three key assumptions is summarized as follows (dollars in millions):

Assumptions	Statement of Operations(1)	Balance Sheet Impact(2)
<b>Discount rate</b>		
1% increase	\$ (37)	\$ (588)
1% decrease	48	662
<b>Expected long-term rates of return on plan assets</b>		
1% increase	(37)	
1% decrease	37	
<b>Rate of compensation increase</b>		
1% increase	11	83
1% decrease	(11)	(72)

(1) Estimated increase (decrease) on 2016 net periodic benefit cost

(2) Estimated increase (decrease) on December 31, 2016 pension and postretirement liabilities and accumulated other comprehensive loss

### **Goodwill**

We test our goodwill for impairment at least annually (at the beginning of the third quarter) and when events and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Goodwill has been assigned to reporting units for purposes of impairment testing. Approximately 69% of our goodwill balance relates to our Advanced Materials reporting unit. The remaining goodwill relates to three other reporting units.

Fair value is estimated using the market approach, as well as the income approach based on discounted cash flow projections. The estimated fair values of our reporting units are dependent on several significant assumptions including, among others, market information, operating results, earnings projections and anticipated future cash flows.

We tested goodwill for impairment at the beginning of the third quarter of 2016 as part of the annual impairment testing procedures and determined that no goodwill impairment existed. Our most recent fair value determination resulted in an amount that exceeded the carrying amounts of all reporting units by a significant margin.

### **Income Taxes**

We use the asset and liability method of accounting for income taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial and tax reporting purposes. We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclical nature of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits our ability to consider other subjective

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evidence such as our projections for the future. Changes in expected future income in applicable jurisdictions could affect the realization of deferred tax assets in those jurisdictions. As of December 31, 2016, we had total valuation allowances of \$757 million. See "Note 19. Income Taxes" to our consolidated financial statements for more information regarding our valuation allowances.

For non-U.S. entities that were not treated as branches for U.S. tax purposes, we do not provide for income taxes on the undistributed earnings of these subsidiaries that are reinvested and, in the opinion of management, will continue to be reinvested indefinitely. We have material intercompany debt obligations owed by our non-U.S. subsidiaries to the U.S. We do not intend to repatriate earnings to the U.S. via dividend based on estimates of future domestic cash generation, combined with the ability to return cash to the U.S. through payments of intercompany debt owed by our non-U.S. subsidiaries to the U.S. To the extent that cash is required in the U.S., rather than repatriate earnings to the U.S. via dividend we will utilize our intercompany debt. If any earnings were repatriated via dividend, we may need to accrue and pay taxes on the distributions. As discussed in "Note 19. Income Taxes" to our consolidated financial statements, we made a distribution of a portion of our earnings in 2015 when the amount of foreign tax credits associated with the distribution was greater than the amount of tax otherwise due. The undistributed earnings of foreign subsidiaries with positive earnings that are deemed to be permanently invested were approximately \$390 million at December 31, 2016. It is not practicable to determine the unrecognized deferred tax liability on those earnings because of the significant assumptions necessary to compute the tax.

Accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The application of income tax law is inherently complex. We are required to determine if an income tax position meets the criteria of more-likely-than-not to be realized based on the merits of the position under tax law, in order to recognize an income tax benefit. This requires us to make significant judgments regarding the merits of income tax positions and the application of income tax law. Additionally, if a tax position meets the recognition criteria of more-likely-than-not we are required to make judgments and apply assumptions in order to measure the amount of the tax benefits to recognize. These judgments are based on the probability of the amount of tax benefits that would be realized if the tax position was challenged by the taxing authorities. Interpretations and guidance surrounding income tax laws and regulations change over time. As a consequence, changes in assumptions and judgments can materially affect amounts recognized in our consolidated financial statements.

**Long-Lived Assets**

The useful lives of our property, plant and equipment are estimated based upon our historical experience, engineering estimates and industry information and are reviewed when economic events indicate that we may not be able to recover the carrying value of the assets. The estimated lives of our property range from 3 to 50 years and depreciation is recorded on the straight-line method. Inherent in our estimates of useful lives is the assumption that periodic maintenance and an appropriate level of annual capital expenditures will be performed. Without on-going capital improvements and maintenance, the productivity and cost efficiency declines and the useful lives of our assets would be shorter.

Management uses judgment to estimate the useful lives of our long-lived assets. At December 31, 2016, if the estimated useful lives of our property, plant and equipment had either been one year greater or one year less than their recorded lives, then depreciation expense for 2016 would have been approximately \$35 million less or \$41 million greater, respectively.

We are required to evaluate the carrying value of our long-lived tangible and intangible assets whenever events indicate that such carrying value may not be recoverable in the future or when

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management's plans change regarding those assets, such as idling or closing a plant. We evaluate impairment by comparing undiscounted cash flows of the related asset groups that are largely independent of the cash flows of other asset groups to their carrying values. Key assumptions in determining the future cash flows include the useful life, technology, competitive pressures, raw material pricing and regulations. In connection with our asset evaluation policy, we reviewed all of our long-lived assets for indicators that the carrying value may not be recoverable. During 2016, we recorded an impairment charge of \$1 million related to the impairment of our Pigments and Additives South African asset group. See "Note 12. Restructuring, Impairment and Plant Closing Costs" to our consolidated financial statements.

**Restructuring and Plant Closing Costs**

We have recorded restructuring charges in recent periods in connection with closing certain plant locations, workforce reductions and other cost savings programs in each of our business segments. These charges are recorded when management has committed to a plan and incurred a liability related to the plan. Estimates for plant closing costs include the write-off of the carrying value of the plant, any necessary environmental and/or regulatory costs, contract termination and demolition costs. Estimates for workforce reductions and other costs savings are recorded based upon estimates of the number of positions to be terminated, termination benefits to be provided and other information, as necessary. Management evaluates the estimates on a quarterly basis and will adjust the reserve when information indicates that the estimate is above or below the currently recorded estimate. For further discussion of our restructuring activities, see "Note 12. Restructuring, Impairment and Plant Closing Costs" to our consolidated financial statements.

**Contingent Loss Accruals**

Environmental remediation costs for our facilities are accrued when it is probable that a liability has been incurred and the amount can be reasonably estimated. Estimates of environmental reserves require evaluating government regulation, available technology, site-specific information and remediation alternatives. We accrue an amount equal to our best estimate of the costs to remediate based upon the available information. The extent of environmental impacts may not be fully known and the processes and costs of remediation may change as new information is obtained or technology for remediation is improved. Our process for estimating the expected cost for remediation considers the information available, technology that can be utilized and estimates of the extent of environmental damage. Adjustments to our estimates are made periodically based upon additional information received as remediation progresses. For further information, see "Note 21. Environmental, Health and Safety Matters" to our consolidated financial statements.

We are subject to legal proceedings and claims arising out of our business operations. We routinely assess the likelihood of any adverse outcomes to these matters, as well as ranges of probable losses. A determination of the amount of the reserves required, if any, for these contingencies is made after analysis of each known claim. We have an active risk management program consisting of numerous insurance policies secured from many carriers. These policies often provide coverage that is intended to minimize the financial impact, if any, of the legal proceedings. The required reserves may change in the future due to new developments in each matter. For further information, see "Note 20. Commitments and Contingencies - Legal Matters" to our consolidated financial statements.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are exposed to market risks, such as changes in interest rates, foreign exchange rates and commodity prices. From time to time, we enter into transactions, including transactions involving derivative instruments, to manage certain of these exposures. We also hedge our net investment in

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certain European operations. Changes in the fair value of the hedge in the net investment of certain European operations are recorded in accumulated other comprehensive loss.

**INTEREST RATE RISKS**

Through our borrowing activities, we are exposed to interest rate risk. Such risk arises due to the structure of our debt portfolio, including the mix of fixed and floating interest rates. Actions taken to reduce interest rate risk include managing the mix and rate characteristics of various interest bearing liabilities, as well as entering into interest rate derivative instruments.

From time to time, we may purchase interest rate swaps and/or other derivative instruments to reduce the impact of changes in interest rates on our floating-rate long-term debt. Under interest rate swaps, we agree with other parties to exchange, at specified intervals, the difference between fixed-rate and floating-rate interest amounts calculated by reference to an agreed notional principal amount.

Huntsman International has entered into several interest rate contracts to hedge the variability caused by monthly changes in cash flow due to associated changes in LIBOR under our Senior Credit Facilities. As of December 31, 2016 and December 31, 2015, we had \$100 million notional value of interest rate hedges with a fixed rate of 2.5%. These swaps are designated as cash flow hedges and the effective portion of the changes in the fair value of the swaps are recorded in other comprehensive loss. The fair value of these hedges on December 31, 2016 and December 31, 2015 was \$1 million and \$2 million, respectively, and was recorded as other current liabilities on our consolidated balance sheets. These hedges will expire in April 2017. For the years ended December 31, 2016 and 2015, the changes in accumulated other comprehensive loss associated with these cash flow hedging activities were gains of approximately \$2 million and \$1 million, respectively.

Beginning in 2009, AAC entered into a 12-year floating to fixed interest rate contract providing for a receipt of LIBOR interest payments for a fixed payment of 5.02%. In connection with the consolidation of AAC as of July 1, 2010, the interest rate contract is now included in our consolidated results. See "Note 8. Variable Interest Entities" to our consolidated financial statements. The notional amount of the swap as of December 31, 2016 was \$18 million, and the interest rate contract is not designated as a cash flow hedge. As of December 31, 2016 and 2015, the fair value of the swap was \$1 million and \$2 million, respectively, and was recorded as other noncurrent liabilities on our consolidated balance sheets. For 2016 and 2015, we recorded a reduction of interest expense of \$1 million each due to changes in fair value of the swap.

During 2017, accumulated other comprehensive loss of nil is expected to be reclassified to earnings. The actual amount that will be reclassified to earnings over the next twelve months may vary from this amount due to changing market conditions. We would be exposed to credit losses in the event of nonperformance by a counterparty to our derivative financial instruments. We anticipate, however, that the counterparties will be able to fully satisfy their obligations under the contracts. Market risk arises from changes in interest rates.

**FOREIGN EXCHANGE RATE RISK**

Our cash flows and earnings are subject to fluctuations due to exchange rate variation. Our revenues and expenses are denominated in various currencies. We enter into foreign currency derivative instruments to minimize the short-term impact of movements in foreign currency rates. Where practicable, we generally net multicurrency cash balances among our subsidiaries to help reduce exposure to foreign currency exchange rates. Certain other exposures may be managed from time to time through financial market transactions, principally through the purchase of spot or forward foreign exchange contracts (generally with maturities of three months or less). We do not hedge our currency exposures in a manner that would eliminate the effect of changes in exchange rates on our cash flows and earnings. As of both December 31, 2016 and 2015, we had approximately \$176 million notional

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amount (in U.S. dollar equivalents) outstanding in foreign currency contracts with a term of approximately one month.

In November 2014, we entered into two five year cross-currency interest rate contracts and one eight year cross-currency interest rate contract to swap an aggregate notional \$200 million for an aggregate notional €161 million. The swap is designated as a hedge of net investment for financial reporting purposes. Under the cross-currency interest rate contract, we will receive fixed U.S. dollar payments of \$5 million semiannually on May 15 and November 15 (equivalent to an annual rate of 5.125%) and make interest payments of approximately €3 million (equivalent to an annual rate of approximately 3.6%). As of December 31, 2016, the fair value of this swap was \$29 million and was recorded in noncurrent assets.

In March 2010, we entered into three five year cross-currency interest rate contracts to swap an aggregate notional \$350 million for an aggregate notional €255 million. This swap was designated as a hedge of net investment for financial reporting purposes. During the three months ended March 31, 2015, we terminated these cross-currency interest rate contracts and received \$66 million in payments from the counterparties.

A portion of our debt is denominated in euros. We also finance certain of our non-U.S. subsidiaries with intercompany loans that are, in many cases, denominated in currencies other than the entities' functional currency. We manage the net foreign currency exposure created by this debt through various means, including cross-currency swaps, the designation of certain intercompany loans as permanent loans because they are not expected to be repaid in the foreseeable future and the designation of certain debt and swaps as net investment hedges.

Foreign currency transaction gains and losses on intercompany loans that are not designated as permanent loans are recorded in earnings. Foreign currency transaction gains and losses on intercompany loans that are designated as permanent loans are recorded in other comprehensive (loss) income. From time to time, we review such designation of intercompany loans.

We review our non-U.S. dollar denominated debt and derivative instruments to determine the appropriate amounts designated as hedges. As of December 31, 2016, we have designated approximately €651 million (approximately \$677 million) of euro-denominated debt and cross-currency interest rate contracts as a hedge of our net investment. For the years ended December 31, 2016, 2015 and 2014, the amount of gain recognized on the hedge of our net investment was \$27 million, \$68 million and \$97 million, respectively, and was recorded in other comprehensive (loss) income.

**COMMODITY PRICES RISK**

Inherent in our business is exposure to price changes for several commodities. However, our exposure to changing commodity prices is somewhat limited since the majority of our raw materials are acquired at posted or market related prices, and sales prices for many of our finished products are at market related prices which are largely set on a monthly or quarterly basis in line with industry practice. Consequently, we do not generally hedge our commodity exposures. For further information, see "Note 16. Derivative Instruments and Hedging Activities Commodity Prices Risk" to our consolidated financial statements.

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

Our consolidated financial statements required by this item are included on the pages immediately following the Index to Consolidated Financial Statements appearing on page F-1.

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

There have been no changes in our independent accountants, Deloitte & Touche LLP, or disagreements with them on matters of accounting or financial disclosure.

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**ITEM 9A. CONTROLS AND PROCEDURES**

**EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES**

Our management, with the participation of our chief executive officer and chief financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2016. Based on this evaluation, our chief executive officer and chief financial officer have concluded that, as of December 31, 2016, our disclosure controls and procedures were effective, in that they ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

**CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING**

No changes to our internal control over financial reporting occurred during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

**MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control framework and processes for our Company and Huntsman International are designed to provide reasonable assurance to management, Huntsman International's Board of Managers and our Board of Directors regarding the reliability of financial reporting and the preparation of our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting for our Company and Huntsman International includes those policies and procedures that:

pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of our Company and Huntsman International;

provide reasonable assurance that transactions are recorded properly to allow for the preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of our Company and Huntsman International are being made only in accordance with authorizations of management and Directors of our Company and Huntsman International;

provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements; and

provide reasonable assurance as to the detection of fraud.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changing conditions, effectiveness of internal control over financial reporting may vary over time.

Our management assessed the effectiveness of our internal control over financial reporting for our Company and Huntsman International and concluded that, as of December 31, 2016, such internal control is effective. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework (2013)* ("COSO").

Our independent registered public accountants, Deloitte & Touche LLP, with direct access to our Board of Directors through our Audit Committee, have audited our consolidated financial statements prepared by our Company and Huntsman International and have issued attestation reports on internal control over financial reporting for our Company and Huntsman International.



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**MANAGEMENT'S PROCESS TO ASSESS THE EFFECTIVENESS OF  
INTERNAL CONTROL OVER FINANCIAL REPORTING**

To comply with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, we completed a comprehensive compliance process to evaluate our internal control over financial reporting for our Company and Huntsman International. We involved employees at all levels of our Company during 2016 in training, performing and evaluating our internal controls.

Our management's conclusion on the effectiveness of internal control over financial reporting is based on a comprehensive evaluation and analysis of the five elements of COSO. Our management considered information from multiple sources as the basis its conclusion including self-assessments of the control activities within each work process, assessments of division-level and entity-level controls and internal control attestations from key external service providers, as well as from key management. In addition, our internal control processes contain self-monitoring mechanisms, and proactive steps are taken to correct deficiencies as they are identified. We also maintain an internal auditing program that independently assesses the effectiveness of internal control over financial reporting within each of the five COSO elements.

/s/ PETER R. HUNTSMAN

/s/ SEAN DOUGLAS

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Peter R. Huntsman  
*President and Chief Executive Officer*  
February 15, 2017

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Sean Douglas  
*Executive Vice President and Chief Financial Officer*



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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of  
Huntsman Corporation and subsidiaries

We have audited the internal control over financial reporting of Huntsman Corporation and subsidiaries (the "Company") as of December 31, 2016, based on criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedules as of and for the year ended December 31, 2016 of the Company and our report dated February 15, 2017 expressed an unqualified opinion on those financial statements and financial statement schedules.

/s/ DELOITTE & TOUCHE LLP  
Houston, Texas  
February 15, 2017

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Managers and Members of  
Huntsman International LLC and subsidiaries

We have audited the internal control over financial reporting of Huntsman International LLC and subsidiaries (the "Company") as of December 31, 2016, based on criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2016 of the Company and our report dated February 15, 2017 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ DELOITTE & TOUCHE LLP  
Houston, Texas  
February 15, 2017

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**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

Information relating to our Directors (including identification of our Audit Committee's financial expert(s)) and executive officers will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference. See also the information regarding executive officers of the registrant set forth in Part I under the caption "Executive Officers of the Registrant" in reliance on General Instruction G to Form 10-K.

**Code of Ethics**

Our Company has adopted a code of ethics, as defined by Item 406(b) of Regulation S-K under the Exchange Act, that applies to our principal executive officer, principal financial officer and principal accounting officer or controller. A copy of the code of ethics is posted on our website, at [www.huntsman.com](http://www.huntsman.com). We intend to disclose any amendments to, or waivers from, our code of ethics on our website.

**ITEM 11. EXECUTIVE COMPENSATION**

Information relating to executive compensation and our equity compensation plans will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

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

Information with respect to beneficial ownership of our common stock by each Director and all Directors and officers of our Company as a group will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

Information relating to any person who beneficially owns in excess of 5 percent of the total outstanding shares of our common stock will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

Information with respect to compensation plans under which equity securities are authorized for issuance will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

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

Information with respect to certain relationships and related transactions will be disclosed in the definitive Proxy Statement for our Annual Meeting of Stockholders and is incorporated herein by reference.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

Information with respect to principal accountant fees and services, and the disclosure of the Audit Committee's pre-approval policies and procedures are contained in the definitive Proxy Statement for our Annual Meeting of Stockholders and are incorporated herein by reference.

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**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) Documents filed with this report.

1. Consolidated Financial Statements:

See Index to Consolidated Financial Statements on page F-1

2. Financial Statement Schedules:

Other than as stated on the Index to Consolidated Financial Statements on page F-1 with respect to Schedule I and Schedule II, financial statement schedules are omitted because they are not required or are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

3. Exhibits:

The exhibits to this report are listed on the Exhibit Index below.

(b) Description of exhibits.

**EXHIBIT INDEX**

<b>Number</b>	<b>Description</b>
3.1	Amended and Restated Certificate of Incorporation of Huntsman Corporation (incorporated by reference to Exhibit 3.1 to our current report on Form 8-K filed on May 12, 2014)
3.2	Fifth Amended and Restated Bylaws of Huntsman Corporation dated as of December 21, 2016 (incorporated by reference to Exhibit 3.1 to our current report on Form 8-K filed on December 23, 2016)
4.1	Registration Rights Agreement dated as of February 10, 2005, by and among Huntsman Corporation and the stockholders signatory thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on February 16, 2005 (File No. 001-32427))
4.2	Form of stock certificate of Huntsman Corporation (incorporated by reference to Exhibit 4.68 to amendment No. 3 to our registration statement on Form S-1 filed on February 8, 2005)
4.3	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants prior to February 6, 2008 (incorporated by reference to Exhibit 4.8 of our registration statement on Form S-8 filed on February 10, 2006)
4.4	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants from February 6, 2008 to September 21, 2010 (incorporated by reference to Exhibit 4.32 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
4.5	Indenture, dated as of November 19, 2012, by and among Huntsman International LLC, the guarantors named therein and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed November 19, 2012)

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<b>Number</b>	<b>Description</b>
4.6	Form of 4.875% Senior Note due 2020 (included as Exhibit A to Exhibit 4.5) (incorporated by reference to Exhibit 4.2 to our current report on Form 8-K filed November 19, 2012)
4.7	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.5) (incorporated by reference to Exhibit 4.3 to our current report on Form 8-K filed November 19, 2012)
4.8	Indenture, dated as of December 23, 2013, by and among Huntsman International LLC, the guarantors named therein, Citibank, N.A., London Branch, as paying agent, registrar and transfer agent, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed December 23, 2013)
4.9	Form of 5 <sup>1</sup> / <sub>8</sub> % Senior Note (included as Exhibit A to Exhibit 4.8) (incorporated by reference to Exhibit 4.2 to our current report on Form 8-K filed December 23, 2013)
4.10	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.8) (incorporated by reference to Exhibit 4.3 to our current report on Form 8-K filed December 23, 2013)
4.11	Indenture, dated as of November 13, 2014, by and among Huntsman International LLC, the guarantors named therein, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
4.12	Form of 5 <sup>1</sup> / <sub>8</sub> % Senior Note (included as Exhibit A to Exhibit 4.11) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
4.13	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.11) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
4.14	Indenture, dated as of March 31, 2015, by and among Huntsman International LLC, the guarantors named therein, Citibank, N.A., London Branch, as paying agent, transfer agent, registrar and authenticating agent, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
4.15	Form of 4.25% Senior Notes due 2025 (included as Exhibit A to Exhibit 4.14) (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
4.16	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.14) (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
10.1	Employment Agreement with Anthony Hankins (incorporated by reference to Exhibit 10.27 to amendment No. 2 to our registration statement on Form S-1 filed on January 28, 2005)
10.2	Huntsman Corporation Stock Incentive Plan (incorporated by reference to Exhibit 10.19 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)
10.3	Form of Nonqualified Stock Option Agreement, effective for grants prior to February 21, 2011 (incorporated by reference to Exhibit 10.20 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)
10.4	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.25 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)

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<b>Number</b>	<b>Description</b>
10.5	Credit Agreement dated August 16, 2005 among Huntsman International LLC, Deutsche Bank AG New York Branch as Administrative Agent and the other financial institutions named therein (incorporated by reference to Exhibit 10.1 to Huntsman International LLC's current report on Form 8-K filed August 22, 2005 (File No. 333-85141))
10.6	Consent and First Amendment to Credit Agreement dated December 12, 2005 among Huntsman International LLC, Deutsche Bank AG New York Branch as Administrative Agent and the other financial institutions named therein (incorporated by reference to Exhibit 10.1 to Huntsman International LLC's current report on Form 8-K filed December 27, 2005 (File No. 333-85141))
10.7	Amended and Restated Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.8	Huntsman Supplemental Executive MPP Plan (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.9	Amended and Restated Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.10	Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.4 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.11	Consent and Second Amendment to Credit Agreement and Amendment to Security Documents, dated June 30, 2006, by and among Huntsman International LLC, as Borrower, Deutsche Bank AG New York Branch, as Administrative Agent and Collateral Agent, and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on July 7, 2006 (File No. 001-32427))
10.12	Third Amendment to Credit Agreement dated April 19, 2007 by and among Huntsman International LLC, as Borrower, Deutsche Bank AG New York Branch, as Administrative Agent and Collateral Agent, and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 24, 2007 (File No. 001-32427))
10.13	First Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.32 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.14	First Amendment to Huntsman Supplemental Executive MPP Plan (incorporated by reference to Exhibit 10.33 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.15	First Amendment to Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.34 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.16	Second Amendment to Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.35 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)

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<b>Number</b>	<b>Description</b>
10.17	First Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.36 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.18	Fourth Amendment to Credit Agreement, dated as of June 22, 2009, by and among Huntsman International LLC and Credit Suisse Securities (USA) LLC and Deutsche Bank Securities Inc. (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed on June 23, 2009) (File No. 001-32427)
10.19	U.S. Receivables Loan Agreement dated as of October 16, 2009 among Huntsman Receivables Finance II LLC, Huntsman (Europe) BVBA, the several entities party thereto as lenders, the several financial institutions party thereto as funding agents, the several commercial paper conduits party thereto as conduit lenders, the several financial institutions party thereto as committed lenders, Wachovia Bank National Association, as administrative agent, and Wachovia Bank National Association, as collateral Agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.20	U.S. Contribution Agreement dated as of October 16, 2009 between Huntsman International LLC and Huntsman Receivables Finance II LLC (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.21	European Receivables Loan Agreement dated as of October 16, 2009 between Huntsman Receivables Finance LLC, Huntsman (Europe) BVBA, the several entities party thereto as lenders, the several financial institutions party thereto as funding agents, Barclays Bank Plc, as administrative agent, and Barclays Bank Plc, as collateral agent (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.22	European Contribution Agreement dated as of October 16, 2009 between Huntsman International LLC and Huntsman Receivables Finance LLC (incorporated by reference to Exhibit 10.4 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.23	Fifth Amendment to Credit Agreement, dated as of March 9, 2010, by and among Huntsman International LLC, JPMorgan Chase Bank, N.A. and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 10-Q filed on May 7, 2010)
10.24	Certain exhibits and schedules to Exhibit A to the Fifth Amendment to Credit Agreement, dated as of March 9, 2010, which was previously filed as Exhibit 10.1 to our quarterly report on Form 10-Q filed May 7, 2010 (incorporated by reference to Exhibit 10.2 to our current report on Form 10-Q filed on November 4, 2010) (File No. 001-32427)
10.25	Second Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.38 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.26	Third Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.39 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)

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<b>Number</b>	<b>Description</b>
10.27	Form of Restricted Stock Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.40 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.28	Form of Phantom Share Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.41 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.29	Form of Nonqualified Stock Option Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.42 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.30	Form of Restricted Stock Unit Agreement for Outside Directors effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.43 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.31	Sixth Amendment, dated as of March 7, 2011, to the Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 9, 2011) (File No. 001-32427)
10.32	Master Amendment No. 2 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 18, 2011 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 20, 2011) (File No. 001-32427)
10.33	Master Amendment No. 2 to the European Receivables Loan Agreement, European Servicing Agreement and Transaction Documents dated as of April 15, 2011 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on April 20, 2011) (File No. 001-32427)
10.34	Second Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.5 to our current report on Form 10-Q filed on May 5, 2011) (File No. 001-32427)
10.35	Third Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.6 to our current report on Form 10-Q filed on May 5, 2011) (File No. 001-32427)
10.36	Huntsman Corporation Stock Incentive Plan (amended and restated) (incorporated by reference to Exhibit 4.1 to our registration statement on Form S-8 filed on May 10, 2011) (File No. 001-32427)
10.37	Seventh Amendment, dated as of March 6, 2012, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 6, 2012)
10.38	Severance Agreement dated January 1, 2013 between Huntsman Corporation and Jon M. Huntsman (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on January 4, 2013)
10.39	Severance Agreement dated January 1, 2013 between Huntsman Corporation and Peter R. Huntsman (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on January 4, 2013)



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<b>Number</b>	<b>Description</b>
10.40	First Amendment to the Huntsman Corporation Stock Incentive Plan (as amended and restated) (incorporated by reference to Exhibit 10.56 to our annual report on Form 10-K filed on February 12, 2013)
10.41	Eighth Amendment, dated as of March 11, 2013, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 12, 2013)
10.42	Master Amendment No. 3 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 29, 2013 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 2, 2013)
10.43	Master Amendment No. 3 to the European Receivables Loan Agreement dated as of April 29, 2013 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on May 2, 2013)
10.44	Form of Notice of Award of Common Stock effective for grants from June 10, 2013 to May 5, 2016 (incorporated by reference to Exhibit 10.3 to our quarterly report on Form 10-Q for the quarter ended June 30, 2013)
10.45	Ninth Amendment, dated as of August 22, 2013, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 26, 2013)
10.46	Stock Purchase Agreement dated as of September 17, 2013 by and between Rockwood Specialties Group, Inc. and Huntsman International LLC (incorporated by reference to Exhibit 2.1 to our current report on Form 8-K filed on September 20, 2013) as amended by Amendment to Stock Purchase Agreement dated as of March 20, 2014 (incorporated by reference to Exhibit 2.1 to our quarterly report on Form 10-Q filed on April 29, 2014) as amended by Amendment No. 2 to Stock Purchase Agreement dated as of July 24, 2014 (incorporated by reference to Exhibit 10.2 to our quarterly report on Form 10-Q filed on July 30, 2014) as amended by Amendment No. 3 to Stock Purchase Agreement dated as of September 30, 2014 (incorporated by reference to Exhibit 2.2 to our quarterly report on Form 10-Q filed on October 27, 2014)
10.47	Tenth Amendment to Credit Agreement, Second Amendment to Collateral Security Agreement, Second Amendment to Pledge Agreement and Second Amendment to Subsidiary Guaranty, dated as of October 15, 2013, among Huntsman International LLC, the subsidiary guarantors party thereto, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 18, 2013)
10.48	Huntsman Executive Severance Plan (as amended and restated) (incorporated by reference to Exhibit 10.3 to our quarterly report on Form 10-Q for the quarter ended September 30, 2013)
10.49	Huntsman Corporation Stock Incentive Plan (amended and restated) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 12, 2014)
10.50	Eleventh Amendment, dated as of August 12, 2014, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 15, 2014)

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<b>Number</b>	<b>Description</b>
10.51	Twelfth Amendment, dated as of August 13, 2014, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 15, 2014)
10.52	Thirteenth Amendment to Credit Agreement, dated as of October 1, 2014, among Huntsman International LLC, the subsidiary guarantors party thereto, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 7, 2014)
10.53	Registration Rights Agreement, dated as of November 13, 2014, by and among Huntsman International LLC, the guarantors named therein and J.P. Morgan Securities LLC, as representative of the several purchasers (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
10.54	Form of Performance Share Unit Award Agreement effective for grants from February 4, 2015 to May 5, 2016 (incorporated by reference to Exhibit 10.65 to our annual report on Form 10-K filed on February 18, 2015)
10.55	Amendment to the Huntsman Corporation Stock Incentive Plan Nonqualified Stock Option Agreement effective for grants through May 5, 2016 (incorporated by reference to Exhibit 10.66 to our annual report on Form 10-K filed on February 18, 2015)
10.56	Registration Rights Agreement, dated as of March 31, 2015, by and among Huntsman International LLC, the guarantors named therein and the several initial purchasers (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 2, 2015)
10.57	Master Amendment No. 4 to the European Receivables Loan Agreement, the Servicing Agreement, the Liquidation Servicer Agreement and the Transaction Documents, dated as of March 5, 2015 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 9, 2015)
10.58	Master Amendment No. 4 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents and Waiver, dated as of March 30, 2015 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on April 2, 2015)
10.59	Fourteenth Amendment to Credit Agreement, dated as of August 10, 2015, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 10, 2015)
10.60	Fifteenth Amendment to Credit Agreement, dated as of April 1, 2016, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 6, 2016)
10.61	Huntsman Corporation 2016 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 11, 2016)
10.62	Form of Nonqualified Stock Option Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.1 to our registration statement on Form S-8 filed on May 31, 2016)

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<b>Number</b>	<b>Description</b>
10.63	Form of Restricted Stock Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.2 to our registration statement on Form S-8 filed on May 31, 2016)
10.64	Form of Phantom Share Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.3 to our registration statement on Form S-8 filed on May 31, 2016)
10.65	Sixteenth Amendment to Credit Agreement, dated as of November 15, 2016, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 16, 2016)
10.66*	Form of Phantom Share Agreement
10.67*	Form of Performance Share Unit Award Agreement
10.68*	Form of Nonqualified Stock Option Agreement
10.69*	Form of Restricted Stock Agreement
10.70*	Form of Stock Unit Agreement for Outside Directors
10.71*	Form of Notice of Award of Common Stock
21.1*	Subsidiaries of Huntsman Corporation
23.1*	Consent of Independent Registered Public Accounting Firm
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	XBRL Instance Document
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
101.DEF*	XBRL Taxonomy Extension Definition Linkbase

\*

Filed herewith.



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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 Huntsman International in the capacities indicated on the 15<sup>th</sup> day of February 2017.

/s/ JON M. HUNTSMAN

/s/ PETER R. HUNTSMAN

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Jon M. Huntsman  
*Chairman of the Board of Managers and Manager*

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Peter R. Huntsman  
*President, Chief Executive Officer and Manager (Principal Executive Officer)*

/s/ SEAN DOUGLAS

/s/ RANDY W. WRIGHT

---

Sean Douglas  
*Executive Vice President, Chief Financial Officer and Manager (Principal Financial Officer)*

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Randy W. Wright  
*Vice President and Controller (Authorized Signatory and Principal Accounting Officer)*

/s/ DAVID M. STRYKER

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David M. Stryker  
*Executive Vice President, General Counsel Chief Compliance Officer and Secretary and Manager*

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of  
Huntsman Corporation and subsidiaries

We have audited the accompanying consolidated balance sheets of Huntsman Corporation and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, equity, and cash flows for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedules listed in the Index on page F-1. These financial statements and financial statement schedules are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedules based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Huntsman Corporation and subsidiaries as of 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. Also, in our opinion, such financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 15, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP  
Houston, Texas  
February 15, 2017

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	December 31, 2016	December 31, 2015
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents(a)	\$ 414	\$ 257
Restricted cash(a)	11	12
Accounts and notes receivable (net of allowance for doubtful accounts of \$27 and \$26, respectively), (\$437 and \$438 pledged as collateral, respectively)(a)	1,402	1,420
Accounts receivable from affiliates	33	29
Inventories(a)	1,344	1,692
Prepaid expenses	60	112
Other current assets(a)	291	312
<b>Total current assets</b>	<b>3,555</b>	<b>3,834</b>
Property, plant and equipment, net(a)	4,212	4,446
Investment in unconsolidated affiliates	332	347
Intangible assets, net(a)	66	86
Goodwill	121	116
Deferred income taxes	396	418
Other noncurrent assets(a)	507	573
<b>Total assets</b>	<b>\$ 9,189</b>	<b>\$ 9,820</b>
<b>LIABILITIES AND EQUITY</b>		
<b>Current liabilities:</b>		
Accounts payable(a)	\$ 1,071	\$ 1,034
Accounts payable to affiliates	31	27
Accrued liabilities(a)	616	686
Current portion of debt(a)	60	170
<b>Total current liabilities</b>	<b>1,778</b>	<b>1,917</b>
Long-term debt(a)	4,135	4,625
Notes payable to affiliates	1	1
Deferred income taxes	427	422
Other noncurrent liabilities(a)	1,381	1,226
<b>Total liabilities</b>	<b>7,722</b>	<b>8,191</b>
<b>Commitments and contingencies (Notes 20 and 21)</b>		
<b>Equity</b>		
<b>Huntsman Corporation stockholders' equity:</b>		
Common stock \$0.01 par value, 1,200,000,000 shares authorized, 250,802,175 and 249,483,541 issued and 236,370,347 and 237,080,026 outstanding in 2016 and 2015, respectively	3	3
Additional paid-in capital	3,447	3,407
Treasury stock, 12,607,223 and 11,162,454 shares in 2016 and 2015, respectively	(150)	(135)
Unearned stock-based compensation	(17)	(17)
Accumulated deficit	(325)	(528)
Accumulated other comprehensive loss	(1,671)	(1,288)
<b>Total Huntsman Corporation stockholders' equity</b>	<b>1,287</b>	<b>1,442</b>
Noncontrolling interests in subsidiaries	180	187
<b>Total equity</b>	<b>1,467</b>	<b>1,629</b>



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<b>Total liabilities and equity</b>	\$	9,189	\$	9,820
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(a) At December 31, 2016 and December 31, 2015, respectively, \$25 and \$34 of cash and cash equivalents, \$10 and \$12 of restricted cash, \$27 and \$26 of accounts and notes receivable (net), \$46 and \$54 of inventories, \$5 each of other current assets, \$284 and \$307 of property, plant and equipment (net), \$31 and \$36 of intangible assets (net), \$37 and \$38 of other noncurrent assets, \$90 and \$82 of accounts payable, \$34 and \$27 of accrued liabilities, \$14 and \$15 of current portion of debt, \$114 and \$137 of long-term debt, and \$76 and \$54 of other noncurrent liabilities from consolidated variable interest entities are included in the respective Balance Sheet captions above. See "Note 8. Variable Interest Entities."

See accompanying notes to consolidated financial statements.

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS**

(In Millions, Except Per Share Amounts)

	Year ended December 31,		
	2016	2015	2014
<b>Revenues:</b>			
Trade sales, services and fees, net	\$ 9,526	\$ 10,168	\$ 11,317
Related party sales	131	131	261
<b>Total revenues</b>	<b>9,657</b>	<b>10,299</b>	<b>11,578</b>
<b>Cost of goods sold</b>	<b>7,979</b>	<b>8,451</b>	<b>9,659</b>
<b>Gross profit</b>	<b>1,678</b>	<b>1,848</b>	<b>1,919</b>
<b>Operating expenses:</b>			
Selling, general and administrative	920	982	974
Research and development	152	160	158
Restructuring, impairment and plant closing costs	81	302	158
Spin-off separation expenses	18		
Other operating income, net	(140)	(1)	(4)
<b>Total expenses</b>	<b>1,031</b>	<b>1,443</b>	<b>1,286</b>
<b>Operating income</b>	<b>647</b>	<b>405</b>	<b>633</b>
Interest expense	(202)	(205)	(205)
Equity in income of investment in unconsolidated affiliates	5	6	6
Loss on early extinguishment of debt	(3)	(31)	(28)
Other income (loss), net	1	1	(2)
<b>Income from continuing operations before income taxes</b>	<b>448</b>	<b>176</b>	<b>404</b>
Income tax expense	(87)	(46)	(51)
<b>Income from continuing operations</b>	<b>361</b>	<b>130</b>	<b>353</b>
Loss from discontinued operations	(4)	(4)	(8)
<b>Net income</b>	<b>357</b>	<b>126</b>	<b>345</b>
Net income attributable to noncontrolling interests	(31)	(33)	(22)
<b>Net income attributable to Huntsman Corporation</b>	<b>\$ 326</b>	<b>\$ 93</b>	<b>\$ 323</b>

(continued)

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS (Continued)**

(In Millions, Except Per Share Amounts)

	Year ended December 31,		
	2016	2015	2014
<b>Basic income (loss) per share:</b>			
Income from continuing operations attributable to Huntsman Corporation common stockholders	\$ 1.40	\$ 0.40	\$ 1.36
Loss from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax	(0.02)	(0.02)	(0.03)
Net income attributable to Huntsman Corporation common stockholders	\$ 1.38	\$ 0.38	\$ 1.33
Weighted average shares	236.3	242.8	242.1
<b>Diluted income (loss) per share:</b>			
Income from continuing operations attributable to Huntsman Corporation common stockholders	\$ 1.38	\$ 0.40	\$ 1.34
Loss from discontinued operations attributable to Huntsman Corporation common stockholders, net of tax	(0.02)	(0.02)	(0.03)
Net income attributable to Huntsman Corporation common stockholders	\$ 1.36	\$ 0.38	\$ 1.31
Weighted average shares	239.6	245.4	246.0
<b>Amounts attributable to Huntsman Corporation common stockholders:</b>			
Income from continuing operations	\$ 330	\$ 97	\$ 331
Loss from discontinued operations, net of tax	(4)	(4)	(8)
Net income	\$ 326	\$ 93	\$ 323
<b>Dividends per share</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>	<b>\$ 0.50</b>

See accompanying notes to consolidated financial statements.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Net income</b>	\$ 357	\$ 126	\$ 345
<b>Other comprehensive loss, net of tax:</b>			
Foreign currency translations adjustments	(171)	(313)	(221)
Pension and other postretirement benefits adjustments	(219)	66	(271)
Other, net	(1)	7	1
<b>Other comprehensive loss, net of tax</b>	(391)	(240)	(491)
<b>Comprehensive loss</b>	(34)	(114)	(146)
Comprehensive income attributable to noncontrolling interests	(23)	(28)	(7)
<b>Comprehensive loss attributable to Huntsman Corporation</b>	\$ (57)	\$ (142)	\$ (153)

See accompanying notes to consolidated financial statements.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF EQUITY**  
(In Millions, Except Share Amounts)

**Huntsman Corporation Stockholders' Equity**

	Shares			Treasury stock	Unearned stock-based compensation	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests in subsidiaries	Total equity
	Common stock	Common stock	Additional paid-in capital						
Beginning balance, January 1, 2014	240,401,442	2	3,305	(50)	(13)	(687)	(577)	149	2,129
Net income						323		22	345
Other comprehensive loss							(476)	(15)	(491)
Issuance of nonvested stock awards			15		(15)				
Vesting of stock awards	1,018,050		7						7
Recognition of stock-based compensation			10		14				24
Repurchase and cancellation of stock awards	(302,200)					(7)			(7)
Stock options exercised	2,299,687	1	47						48
Dividends paid to noncontrolling interests								(4)	(4)
Excess tax benefit related to stock-based compensation			1						1
Accrued and unpaid dividends						(1)			(1)
Cash received for a noncontrolling interest of a subsidiary								5	5
Acquisition of a business								16	16
Dividends declared on common stock						(121)			(121)
Balance, December 31, 2014	243,416,979	3	3,385	(50)	(14)	(493)	(1,053)	173	1,951
Net income						93		33	126
Other comprehensive loss							(235)	(5)	(240)
Issuance of nonvested stock awards			19		(19)				
Vesting of stock awards	1,037,743		7						7
Recognition of stock-based compensation			10		16				26
Repurchase and cancellation of stock awards	(304,340)					(7)			(7)
Stock options exercised	48,572		1						1
Dividends paid to noncontrolling interests								(14)	(14)
Excess tax benefit related to stock-based compensation			1						1
Cash paid for noncontrolling interest			(1)						(1)
Treasury stock repurchased	(7,118,928)		(15)	(85)					(100)
Dividends declared on common stock						(121)			(121)
Balance, December 31, 2015	237,080,026	3	3,407	(135)	(17)	(528)	(1,288)	187	1,629
Net income						326		31	357
Other comprehensive income							(383)	(8)	(391)
Issuance of nonvested stock awards			16		(16)				
Vesting of stock awards	914,081		2						2
Recognition of stock-based compensation			9		16				25
Repurchase and cancellation of stock awards	(256,468)					(3)			(3)
Stock options exercised	77,477		1						1
Dividends paid to noncontrolling interests								(30)	(30)
			(3)						(3)

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Excess tax benefit related to stock-based compensation										
Treasury stock repurchased	(1,444,769)		15	(15)						
Dividends declared on common stock						(120)			(120)	
Balance, December 31, 2016	236,370,347	\$ 3	\$ 3,447	\$ (150)	\$ (17)	\$ (325)	\$ (1,671)	\$ 180	\$ 1,467	

See accompanying notes to consolidated financial statements.

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Operating Activities:</b>			
Net income	\$ 357	\$ 126	\$ 345
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in income of investment in unconsolidated affiliates	(5)	(6)	(6)
Depreciation and amortization	432	399	445
Provision for losses on accounts receivable	2	1	
(Gain) loss on disposal of businesses/assets, net	(117)	4	4
Loss on early extinguishment of debt	3	31	28
Noncash interest expense	15	11	11
Noncash restructuring and impairment charges	5	112	37
Deferred income taxes	15	(25)	(51)
Noncash (gain) loss on foreign currency transactions	(5)	7	15
Stock-based compensation	34	30	28
Portion of insurance proceeds representing cash provided by investing activities	(8)		
Other, net	5	3	(2)
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts and notes receivable	(35)	121	2
Inventories	283	179	(20)
Prepaid expenses	6	(52)	(2)
Other current assets	8	(64)	(44)
Other noncurrent assets	35	(98)	(44)
Accounts payable	56	(157)	86
Accrued liabilities	65	(9)	11
Other noncurrent liabilities	(63)	(38)	(83)
<b>Net cash provided by operating activities</b>	<b>1,088</b>	<b>575</b>	<b>760</b>
<b>Investing Activities:</b>			
Capital expenditures	(421)	(663)	(601)
Insurance proceeds for recovery of property damage	8		
Cash received from unconsolidated affiliates	33	48	51
Investment in unconsolidated affiliates	(30)	(54)	(108)
Acquisition of businesses, net of cash acquired		(14)	(960)
Cash received from purchase price adjustment for business acquired		18	
Proceeds from sale of businesses/assets	208	1	15
Cash received from termination of cross-currency interest rate contracts		66	
Change in restricted cash	1	(3)	
Other, net	(1)	1	(3)
<b>Net cash used in investing activities</b>	<b>(202)</b>	<b>(600)</b>	<b>(1,606)</b>

(continued)

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Financing Activities:</b>			
Net repayments under revolving loan facilities	\$	\$ (1)	\$ (1)
Net repayments on overdraft facilities	(1)	(8)	(5)
Repayments of short-term debt	(56)		(8)
Borrowings on short-term debt	10	12	15
Repayments of long-term debt	(1,070)	(604)	(418)
Proceeds from issuance of long-term debt	559	326	1,792
Repayments of notes payable	(33)	(33)	(34)
Borrowings on notes payable	31	34	33
Debt issuance costs paid	(9)	(8)	(67)
Call premiums related to early extinguishment of debt	(1)	(35)	(24)
Contingent consideration paid for acquisition		(4)	(6)
Dividends paid to common stockholders	(120)	(121)	(121)
Dividends paid to noncontrolling interests	(30)	(14)	(4)
Repurchase and cancellation of stock awards	(3)	(7)	(7)
Proceeds from issuance of common stock	1	1	47
Repurchase of common stock		(100)	
Excess tax benefit related to stock-based compensation		1	1
Other, net	(1)	(1)	4
<b>Net cash (used in) provided by financing activities</b>	<b>(723)</b>	<b>(562)</b>	<b>1,197</b>
Effect of exchange rate changes on cash	(6)	(16)	(11)
Increase (decrease) in cash and cash equivalents	157	(603)	340
Cash and cash equivalents at beginning of period	257	860	520
Cash and cash equivalents at end of period	\$ 414	\$ 257	\$ 860

**Supplemental cash flow information:**

Cash paid for interest	\$ 205	\$ 225	\$ 208
Cash paid for income taxes	40	126	165

As of December 31, 2016, 2015 and 2014, the amount of capital expenditures in accounts payable was \$81 million, \$79 million and \$88 million, respectively.

See accompanying notes to consolidated financial statements.



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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Managers and Members of  
Huntsman International LLC and subsidiaries

We have audited the accompanying consolidated balance sheets of Huntsman International LLC and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, equity, and cash flows for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedule listed in the Index on page F-1. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Huntsman International LLC and subsidiaries as of 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. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 15, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP  
Houston, Texas  
February 15, 2017

Table of Contents**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

(In Millions, Except Unit Amounts)

	December 31, 2016	December 31, 2015
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents(a)	\$ 413	\$ 257
Restricted cash(a)	11	12
Accounts and notes receivable (net of allowance for doubtful accounts of \$27 and \$26, respectively), (\$437 and \$438 pledged as collateral, respectively)(a)	1,402	1,420
Accounts receivable from affiliates	347	340
Inventories(a)	1,344	1,692
Prepaid expenses	60	111
Other current assets(a)	286	306
<b>Total current assets</b>	<b>3,863</b>	<b>4,138</b>
Property, plant and equipment, net(a)	4,190	4,410
Investment in unconsolidated affiliates	332	347
Intangible assets, net(a)	66	86
Goodwill	121	116
Deferred income taxes	396	418
Other noncurrent assets(a)	507	573
<b>Total assets</b>	<b>\$ 9,475</b>	<b>\$ 10,088</b>
<b>LIABILITIES AND EQUITY</b>		
<b>Current liabilities:</b>		
Accounts payable(a)	\$ 1,070	\$ 1,034
Accounts payable to affiliates	66	52
Accrued liabilities(a)	613	683
Notes payable to affiliates	100	100
Current portion of debt(a)	60	170
<b>Total current liabilities</b>	<b>1,909</b>	<b>2,039</b>
Long-term debt(a)	4,135	4,625
Notes payable to affiliates	697	698
Deferred income taxes	423	418
Other noncurrent liabilities(a)	1,375	1,224
<b>Total liabilities</b>	<b>8,539</b>	<b>9,004</b>
<b>Commitments and contingencies (Notes 20 and 21)</b>		
<b>Equity</b>		
<b>Huntsman International LLC members' equity:</b>		
Members' equity, 2,728 units issued and outstanding	3,226	3,196
Accumulated deficit	(779)	(983)
Accumulated other comprehensive loss	(1,691)	(1,316)
<b>Total Huntsman International LLC members' equity</b>	<b>756</b>	<b>897</b>
Noncontrolling interests in subsidiaries	180	187
<b>Total equity</b>	<b>936</b>	<b>1,084</b>
<b>Total liabilities and equity</b>	<b>\$ 9,475</b>	<b>\$ 10,088</b>

(a)

At December 31, 2016 and December 31, 2015, respectively, \$25 and \$34 of cash and cash equivalents, \$10 and \$12 of restricted cash, \$27 and \$26 of accounts and notes receivable (net), \$46 and \$54 of inventories, \$5 each of other current assets, \$284 and \$307 of property, plant and equipment (net), \$31 and \$36 of intangible assets (net), \$37 and \$38 of other noncurrent assets, \$90 and \$82 of accounts payable, \$34 and \$27 of accrued liabilities, \$14 and \$15 of current portion of debt, \$114 and \$137 of long-term debt, and \$76 and \$54 of other noncurrent liabilities from consolidated variable interest entities are included in the respective Balance Sheet captions above. See "Note 8. Variable Interest Entities."

See accompanying notes to consolidated financial statements.

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Table of Contents**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Revenues:</b>			
Trade sales, services and fees, net	\$ 9,526	\$ 10,168	\$ 11,317
Related party sales	131	131	261
<b>Total revenues</b>	<b>9,657</b>	<b>10,299</b>	<b>11,578</b>
<b>Cost of goods sold</b>	<b>7,975</b>	<b>8,447</b>	<b>9,651</b>
<b>Gross profit</b>	<b>1,682</b>	<b>1,852</b>	<b>1,927</b>
<b>Operating expenses:</b>			
Selling, general and administrative	916	977	969
Research and development	152	160	158
Restructuring, impairment and plant closing costs	81	302	158
Spin-off separation expenses	18		
Other operating income, net	(140)		(4)
<b>Total expenses</b>	<b>1,027</b>	<b>1,439</b>	<b>1,281</b>
<b>Operating income</b>	<b>655</b>	<b>413</b>	<b>646</b>
Interest expense	(214)	(214)	(214)
Equity in income of investment in unconsolidated affiliates	5	6	6
Loss on early extinguishment of debt	(3)	(31)	(28)
Other income (loss), net	1	2	(1)
<b>Income from continuing operations before income taxes</b>	<b>444</b>	<b>176</b>	<b>409</b>
Income tax expense	(86)	(45)	(43)
<b>Income from continuing operations</b>	<b>358</b>	<b>131</b>	<b>366</b>
Loss from discontinued operations, net of tax	(4)	(4)	(9)
<b>Net income</b>	<b>354</b>	<b>127</b>	<b>357</b>
Net income attributable to noncontrolling interests	(31)	(33)	(22)
<b>Net income attributable to Huntsman International LLC</b>	<b>\$ 323</b>	<b>\$ 94</b>	<b>\$ 335</b>

See accompanying notes to consolidated financial statements.

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**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Net income</b>	\$ 354	\$ 127	\$ 357
<b>Other comprehensive loss, net of tax:</b>			
Foreign currency translations adjustment	(170)	(314)	(221)
Pension and other postretirement benefits adjustments	(212)	73	(264)
Other, net	(1)	7	1
<b>Other comprehensive loss, net of tax</b>	(383)	(234)	(484)
<b>Comprehensive loss</b>	(29)	(107)	(127)
Comprehensive income attributable to noncontrolling interests	(23)	(28)	(7)
<b>Comprehensive loss attributable to Huntsman International LLC</b>	\$ (52)	\$ (135)	\$ (134)

See accompanying notes to consolidated financial statements.

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**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF EQUITY**

(In Millions, Except Unit Amounts)

	Huntsman International LLC Members					
	Members' equity		Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests in subsidiaries	Total equity
	Units	Amount				
Balance, January 1, 2014	2,728	3,138	(1,194)	(618)	149	1,475
Net income			335		22	357
Dividends paid to parent			(97)			(97)
Other comprehensive income				(469)	(15)	(484)
Contribution from parent		27				27
Dividends paid to noncontrolling interests					(4)	(4)
Excess tax benefit related to stock-based compensation		1				1
Cash received for a noncontrolling interest of a subsidiary					5	5
Acquisition of a business					16	16
Balance, December 31, 2014	2,728	3,166	(956)	(1,087)	173	1,296
Net income			94		33	127
Dividends paid to parent			(121)			(121)
Other comprehensive income				(229)	(5)	(234)
Contribution from parent		29				29
Dividends paid to noncontrolling interests					(14)	(14)
Excess tax benefit related to stock-based compensation		1				1
Balance, December 31, 2015	2,728	3,196	(983)	(1,316)	187	1,084
Net income			323		31	354
Dividends paid to parent			(119)			(119)
Other comprehensive income				(375)	(8)	(383)
Contribution from parent		33				33
Dividends paid to noncontrolling interests					(30)	(30)
Excess tax benefit related to stock-based compensation		(3)				(3)
Balance, December 31, 2016	2,728	\$ 3,226	\$ (779)	\$ (1,691)	180	\$ 936

See accompanying notes to consolidated financial statements.

Table of Contents**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Operating Activities:</b>			
Net income	\$ 354	\$ 127	\$ 357
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in income of investment in unconsolidated affiliates	(5)	(6)	(6)
Depreciation and amortization	420	387	430
Provision for losses on accounts receivable	2	1	
(Gain) loss on disposal of businesses/assets, net	(117)	4	4
Loss on early extinguishment of debt	3	31	28
Noncash interest expense	26	20	21
Noncash restructuring and impairment charges	5	112	37
Deferred income taxes	14	(24)	(48)
Noncash (gain) loss on foreign currency transactions	(5)	7	15
Noncash compensation	33	29	27
Portion of insurance proceeds representing cash provided by investing activities	(8)		
Other, net	4	4	(3)
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accounts and notes receivable	(35)	121	2
Inventories	283	179	(20)
Prepaid expenses	6	(52)	(2)
Other current assets	8	(66)	(37)
Other noncurrent assets	35	(98)	(44)
Accounts payable	45	(166)	76
Accrued liabilities	65	(9)	(8)
Other noncurrent liabilities	(55)	(31)	(75)
<b>Net cash provided by operating activities</b>	<b>1,078</b>	<b>570</b>	<b>754</b>
<b>Investing Activities:</b>			
Capital expenditures	(421)	(663)	(601)
Insurance proceeds for recovery of property damage	8		
Cash received from unconsolidated affiliates	33	48	51
Investment in unconsolidated affiliates	(30)	(54)	(108)
Acquisition of businesses, net of cash acquired		(14)	(960)
Cash received from purchase price adjustment for business acquired		18	
Proceeds from sale of businesses/assets	208	1	15
Decrease (increase) in receivable from affiliate	6	1	(2)
Cash received from termination of cross-currency interest rate contracts		66	
Change in restricted cash	1	(3)	
Other, net		1	(2)
<b>Net cash used in investing activities</b>	<b>(195)</b>	<b>(599)</b>	<b>(1,607)</b>

(continued)

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**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)**

(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Financing Activities:</b>			
Net repayments under revolving loan facilities	\$	\$ (1)	\$ (1)
Net repayments on overdraft facilities	(1)	(8)	(5)
Repayments of short-term debt	(56)		(8)
Borrowings on short-term debt	10	12	15
Repayments of long-term debt	(1,070)	(604)	(418)
Proceeds from issuance of long-term debt	559	326	1,792
Repayments of notes payable to affiliate	(1)	(148)	(122)
Proceeds from notes payable to affiliate		195	
Repayments of notes payable	(33)	(33)	(34)
Borrowings on notes payable	31	34	33
Debt issuance costs paid	(9)	(8)	(67)
Call premiums related to early extinguishment of debt	(1)	(35)	(24)
Contingent consideration paid for acquisition		(4)	(6)
Dividends paid to noncontrolling interests	(30)	(14)	(4)
Dividends paid to parent	(119)	(121)	(97)
Excess tax benefit related to stock-based compensation		1	1
Other, net	(1)		4
<b>Net cash (used in) provided by financing activities</b>	<b>(721)</b>	<b>(408)</b>	<b>1,059</b>
Effect of exchange rate changes on cash	(6)	(16)	(11)
Increase (decrease) in cash and cash equivalents	156	(453)	195
Cash and cash equivalents at beginning of period	257	710	515
Cash and cash equivalents at end of period	\$ 413	\$ 257	\$ 710

**Supplemental cash flow information:**

Cash paid for interest	\$ 205	\$ 225	\$ 208
Cash paid for income taxes	40	126	165

As of December 31, 2016, 2015 and 2014, the amount of capital expenditures in accounts payable was \$81 million, \$79 million and \$88 million, respectively. During the years ended 2016, 2015 and 2014, Huntsman Corporation contributed \$33 million, \$29 million and \$27 million, respectively to stock-based compensation.

See accompanying notes to consolidated financial statements.



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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. GENERAL**

**DEFINITIONS**

For convenience in this report, the terms "Company," "our" or "we" may be used to refer to Huntsman Corporation and, unless the context otherwise requires, its subsidiaries and predecessors. Any references to our "Company" "we" "us" or "our" as of a date prior to October 19, 2004 (the date of our Company's formation) are to Huntsman Holdings, LLC and its subsidiaries (including their respective predecessors). In this report, "Huntsman International" refers to Huntsman International LLC (our 100% owned subsidiary) and, unless the context otherwise requires, its subsidiaries; "AAC" refers to Arabian Amines Company, our consolidated manufacturing joint venture with the Zamil Group; "HPS" refers to Huntsman Polyurethanes Shanghai Ltd. (our consolidated splitting joint venture with Shanghai Chlor-Alkali Chemical Company, Ltd); "Sasol-Huntsman" refers to Sasol-Huntsman GmbH and Co. KG (our consolidated joint venture with Sasol that owns and operates a maleic anhydride facility in Moers, Germany); and "SLIC" refers to Shanghai Liengheng Isocyanate Company (our unconsolidated manufacturing joint venture with BASF and three Chinese chemical companies).

In this report, we may use, without definition, the common names of competitors or other industry participants. We may also use the common names or abbreviations for certain chemicals or products.

**DESCRIPTION OF BUSINESS**

We are a global manufacturer of differentiated organic chemical products and of inorganic chemical products. Our products comprise a broad range of chemicals and formulations, which we market globally to a diversified group of consumer and industrial customers. Our products are used in a wide range of applications, including those in the adhesives, aerospace, automotive, construction products, personal care and hygiene, durable and non-durable consumer products, digital inks, electronics, medical, packaging, paints and coatings, power generation, refining, synthetic fiber, textile chemicals and dye industries. We are a leading global producer in many of our key product lines, including MDI, amines, surfactants, maleic anhydride, epoxy-based polymer formulations, textile chemicals, dyes, titanium dioxide and color pigments.

We operate in five segments: Polyurethanes, Performance Products, Advanced Materials, Textile Effects and Pigments and Additives. Our Polyurethanes, Performance Products, Advanced Materials and Textile Effects segments produce differentiated organic chemical products and our Pigments and Additives segment produces inorganic chemical products. In a series of transactions beginning in 2006, we sold or shutdown substantially all of our Australian styrenics operations and our North American polymers and base chemicals operations. We report the results of these businesses as discontinued operations.

**COMPANY**

Our Company, a Delaware corporation, was formed in 2004 to hold the Huntsman businesses. Jon M. Huntsman founded the predecessor to our Company in 1970 as a small packaging company. Since then, we have grown through a series of acquisitions and now own a global portfolio of businesses.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**1. GENERAL (Continued)**

Currently, we operate all of our businesses through Huntsman International, our 100% owned subsidiary. Huntsman International is a Delaware limited liability company and was formed in 1999.

**RECENT DEVELOPMENTS**

On January 30, 2017, our titanium dioxide manufacturing facility in Pori, Finland experienced fire damage and is currently not operational. The fire brigade responded quickly to extinguish the fire and there were no injuries. We have notified applicable customers and suppliers of this *force majeure* event. We do not currently have an estimated time frame for how long the facility will be off line, but we are committed to repairing the facility as quickly as possible. The Pori facility has a nameplate capacity of 130,000 metric tons, which represents approximately 15% of our total titanium dioxide capacity and approximately 10% of total European titanium dioxide demand. The site is insured for property damage as well as business interruption losses. According to our insurance policies, the respective retention levels (deductibles) for physical damage and business interruption are \$15 million and 60 days, respectively. On February 9, 2017, we received a €50 million (approximately \$52 million) payment from our insurer as an initial partial progress payment towards the overall pending claim.

On October 28, 2016, we filed an initial Form 10 registration statement with the SEC as part of the process to spin off our Pigments and Additives and Textile Effects businesses in a tax-free transaction. On January 17, 2017, we announced that we will retain our Textile Effects business and we amended the Form 10 registration statement. For further information, see "Note 4. Separation of Pigments and Additives Business."

On December 30, 2016, our Performance Products segment completed the sale of its European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. For further information, see "Note 3. Business Combinations and Dispositions Sale of European Surfactants Manufacturing Facilities."

On December 30, 2016, we made an early repayment of \$260 million on our 2015 Extended Term Loan B using proceeds from the sale of the European surfactants business and existing cash. For further information, see "Note 15. Direct and Subsidiary Debt Senior Credit Facilities."

**HUNTSMAN CORPORATION AND HUNTSMAN INTERNATIONAL FINANCIAL STATEMENTS**

Except where otherwise indicated, these notes relate to the consolidated financial statements for both our Company and Huntsman International. The differences between our consolidated financial statements and Huntsman International's consolidated financial statements relate primarily to the following:

purchase accounting recorded at our Company for the 2003 step-acquisition of Huntsman International Holdings LLC, the former parent company of Huntsman International that was merged into Huntsman International in 2005;

the different capital structures; and

a note payable from Huntsman International to us.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**ASSET RETIREMENT OBLIGATIONS**

We accrue for asset retirement obligations, which consist primarily of landfill capping, closure and post-closure costs, asbestos abatement costs, demolition and removal costs and leasehold remediation costs, in the period in which the obligations are incurred. Asset retirement obligations are accrued at estimated fair value. When the liability is initially recorded, we capitalize the cost by increasing the carrying amount of the related long-lived asset. Over time, the liability is accreted to its estimated settlement value and the capitalized cost is depreciated over the useful life of the related asset. Upon settlement of the liability, we will recognize a gain or loss for any difference between the settlement amount and the liability recorded.

**CARRYING VALUE OF LONG-LIVED ASSETS**

We review long-lived assets and all amortizable intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Recoverability is based upon current and anticipated undiscounted cash flows, and we recognize an impairment when such estimated cash flows are less than the carrying value of the asset. Measurement of the amount of impairment, if any, is based upon the difference between carrying value and fair value. Fair value is generally estimated by discounting estimated future cash flows using a discount rate commensurate with the risks involved or selling price of assets held for sale. See "Note 12. Restructuring, Impairment and Plant Closing Costs."

**CASH AND CASH EQUIVALENTS**

We consider cash in checking accounts and cash in short-term highly liquid investments with remaining maturities of three months or less at the date of purchase, to be cash and cash equivalents. Cash flows from discontinued operations are not presented separately in our consolidated statements of cash flows.

**COST OF GOODS SOLD**

We classify the costs of manufacturing and distributing our products as cost of goods sold. Manufacturing costs include variable costs, primarily raw materials and energy, and fixed expenses directly associated with production. Manufacturing costs also include, among other things, plant site operating costs and overhead (including depreciation), production planning and logistics costs, repair and maintenance costs, plant site purchasing costs, and engineering and technical support costs. Distribution, freight and warehousing costs are also included in cost of goods sold.

**DERIVATIVES AND HEDGING ACTIVITIES**

All derivatives, whether designated in hedging relationships or not, are recorded on our balance sheet at fair value. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and the hedged items are recognized in earnings. If the derivative is designated as a cash flow hedge, changes in the fair value of the derivative are recorded in accumulated other comprehensive loss, to the extent effective, and will be recognized in the income statement when the hedged item affects earnings. Changes in the fair value of the hedge in the net investment of certain

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

international operations are recorded in other comprehensive income (loss), to the extent effective. The effectiveness of a cash flow hedging relationship is established at the inception of the hedge, and after inception we perform effectiveness assessments at least every three months. A derivative designated as a cash flow hedge is determined to be effective if the change in value of the hedge divided by the change in value of the hedged item is within a range of 80% to 125%. Hedge ineffectiveness in a cash flow hedge occurs only if the cumulative gain or loss on the derivative hedging instrument exceeds the cumulative change in the expected future cash flows on the hedged transaction. For a derivative that does not qualify or has not been designated as a hedge, changes in fair value are recognized in earnings.

**ENVIRONMENTAL EXPENDITURES**

Environmental related restoration and remediation costs are recorded as liabilities when site restoration and environmental remediation and clean-up obligations are either known or considered probable and the related costs can be reasonably estimated. Other environmental expenditures that are principally maintenance or preventative in nature are recorded when expended and incurred and are expensed or capitalized as appropriate. See "Note 21. Environmental, Health and Safety Matters."

**FOREIGN CURRENCY TRANSLATION**

The accounts of our operating subsidiaries outside of the U.S., unless they are operating in highly inflationary economic environments, consider the functional currency to be the currency of the economic environment in which they operate. Accordingly, assets and liabilities are translated at rates prevailing at the balance sheet date. Revenues, expenses, gains and losses are translated at a weighted average rate for the period. Cumulative translation adjustments are recorded to equity as a component of accumulated other comprehensive loss.

If a subsidiary operates in an economic environment that is considered to be highly inflationary (100% cumulative inflation over a three-year period), the U.S. dollar is considered to be the functional currency and gains and losses from remeasurement to the U.S. dollar from the local currency are included in the statement of operations. Where a subsidiary's operations are effectively run, managed, financed and contracted in U.S. dollars, such as certain finance subsidiaries outside of the U.S., the U.S. dollar is considered to be the functional currency.

Foreign currency transaction gains and losses are recorded in other operating income, net in our consolidated statements of operations and were net (gains) losses of \$(5) million, \$7 million and \$15 million for the years ended December 31, 2016, 2015 and 2014, respectively.

**INCOME TAXES**

We use the asset and liability method of accounting for income taxes. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial and tax reporting purposes. We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed on a tax jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets for each jurisdiction. These

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclical nature of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits our ability to consider other subjective evidence such as our projections for the future. Changes in expected future income in applicable jurisdictions could affect the realization of deferred tax assets in those jurisdictions.

We do not provide for income taxes or benefits on the undistributed earnings of our non-U.S. subsidiaries that are reinvested and, in the opinion of management, will continue to be reinvested indefinitely.

Accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The application of income tax law is inherently complex. We are required to determine if an income tax position meets the criteria of more-likely-than-not to be realized based on the merits of the position under tax law, in order to recognize an income tax benefit. This requires us to make significant judgments regarding the merits of income tax positions and the application of income tax law. Additionally, if a tax position meets the recognition criteria of more-likely-than-not we are required to make judgments and apply assumptions to measure the amount of the tax benefits to recognize. These judgments are based on the probability of the amount of tax benefits that would be realized if the tax position was challenged by the taxing authorities. Interpretations and guidance surrounding income tax laws and regulations change over time. As a consequence, changes in assumptions and judgments can materially affect amounts recognized in our consolidated financial statements.

**INTANGIBLE ASSETS AND GOODWILL**

Intangible assets are stated at cost (fair value at the time of acquisition) and are amortized using the straight-line method over the estimated useful lives or the life of the related agreement as follows:

Patents and technology	5 - 30 years
Trademarks	9 - 30 years
Licenses and other agreements	5 - 15 years
Other intangibles	5 - 15 years

Goodwill represents costs in excess of fair values assigned to the underlying net assets of acquired businesses. Goodwill is not subject to any method of amortization, but is tested for impairment annually (at the beginning of the third quarter) and when events and circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. When the fair value is less than the carrying value of the related reporting unit, we are required to reduce the amount of goodwill through a charge to earnings. Fair value is estimated using the market approach, as well as the income approach based on discounted cash flow projections. Goodwill has been assigned to reporting units for purposes of impairment testing. The net change in goodwill during 2016 of \$5 million was due to the addition of goodwill of approximately \$5 million from the finalization of the accounting for an acquisition, partially offset by less than \$1 million of changes in foreign currency exchange rates.

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)****INVENTORIES**

Inventories are stated at the lower of cost or market, with cost determined using LIFO, first-in first-out, and average costs methods for different components of inventory.

**LEGAL COSTS**

We expense legal costs, including those legal costs incurred in connection with a loss contingency, as incurred.

**NET INCOME PER SHARE ATTRIBUTABLE TO HUNTSMAN CORPORATION**

Basic income per share excludes dilution and is computed by dividing net income attributable to Huntsman Corporation common stockholders by the weighted average number of shares outstanding during the period. Diluted income per share reflects all potential dilutive common shares outstanding during the period and is computed by dividing net income available to Huntsman Corporation common stockholders by the weighted average number of shares outstanding during the period increased by the number of additional shares that would have been outstanding as dilutive securities.

Basic and diluted income per share is determined using the following information (in millions):

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>Numerator:</b>			
<b>Basic and diluted income from continuing operations:</b>			
Income from continuing operations attributable to Huntsman Corporation	\$ 330	\$ 97	\$ 331
<b>Basic and diluted net income:</b>			
Net income attributable to Huntsman Corporation	\$ 326	\$ 93	\$ 323
<b>Shares (denominator):</b>			
Weighted average shares outstanding	236.3	242.8	242.1
Dilutive securities:			
Stock-based awards	3.3	2.6	3.9
Total weighted average shares outstanding, including dilutive shares	239.6	245.4	246.0

Additional stock-based awards of 5.7 million, 6.1 million and 1.0 million weighted average equivalent shares of stock were outstanding during the years ended December 31, 2016, 2015 and 2014, respectively. However, these stock-based awards were not included in the computation of diluted earnings per share for the respective periods mentioned because the effect would be anti-dilutive.

**OTHER NONCURRENT ASSETS**

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Other noncurrent assets consist primarily of capitalized turnover costs, spare parts, deposits, catalyst assets and investments in available-for-sale securities.

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Our consolidated financial statements include the accounts of our wholly owned and majority owned subsidiaries and any variable interest entities for which we are the primary beneficiary. All intercompany accounts and transactions have been eliminated.

**PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives or lease term as follows:

Buildings and equipment	5 - 50 years
Plant and equipment	3 - 30 years
Furniture, fixtures and leasehold improvements	5 - 20 years

Interest expense capitalized as part of plant and equipment was \$18 million, \$22 million and \$16 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Periodic maintenance and repairs applicable to major units of manufacturing facilities (a "turnaround") are accounted for on the deferral basis by capitalizing the costs of the turnaround within noncurrent assets and amortizing the costs over the estimated period until the next turnaround. Normal maintenance and repairs of plant and equipment are charged to expense as incurred. Renewals, betterments and major repairs that materially extend the useful life of the assets are capitalized, and the assets replaced, if any, are retired.

**REVENUE RECOGNITION**

We generate substantially all of our revenues through sales in the open market and long-term supply agreements. We recognize revenue when it is realized or realizable and earned. Revenue for product sales is recognized when a sales arrangement exists, risk and title to the product transfer to the customer, collectability is reasonably assured and pricing is fixed or determinable. The transfer of risk and title to the product to the customer usually occurs at the time shipment is made.

**SECURITIZATION OF ACCOUNTS RECEIVABLE**

Under our A/R Programs, we grant an undivided interest in certain of our trade receivables to a U.S. special purpose entity ("U.S. SPE") and a European special purpose entity ("EU SPE"). This undivided interest serves as security for the issuance of debt. The A/R Programs provide for financing in both U.S. dollars and euros. The amounts outstanding under our A/R Programs are accounted for as secured borrowings. See "Note 15. Debt Direct and Subsidiary Debt A/R Programs."

**STOCK-BASED COMPENSATION**

We measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost will be recognized over the period during which the employee is required to provide services in exchange for the award. See "Note 23. Stock-Based Compensation Plan."



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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

**USE OF ESTIMATES**

The preparation of financial statements in conformity with GAAP 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 from those estimates.

**RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS**

**Accounting Pronouncements Adopted During 2016**

In January 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-01, *Income Statement Extraordinary and Unusual Items (Subtopic 225-20): Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items*, eliminating from U.S. GAAP the concept of extraordinary items. Reporting entities will no longer have to assess whether a particular event or transaction event is extraordinary. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. We adopted the amendments in this ASU effective January 1, 2016, and the initial adoption of the amendments in this ASU did not have a significant impact on our consolidated financial statements.

In February 2015, the FASB issued ASU No. 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis*. The amendments in this ASU change the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities by placing more emphasis on risk of loss when determining a controlling financial interest. These amendments affect areas specific to limited partnerships and similar legal entities, evaluating fees paid to a decision maker or service provider as a variable interest, the effects of both fee arrangements and related parties on the primary beneficiary determination and certain investment funds. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. We adopted the amendments in this ASU effective January 1, 2016, and the initial adoption of the amendments in this ASU did not have a significant impact on our consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-05, *Intangibles Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*. The amendments in this ASU provide guidance that will help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement, including whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license consistent with the acquisition of other software licenses; otherwise, the customer should account for the arrangement as a service contract. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. We adopted the amendments in this ASU effective January 1, 2016, and the initial adoption of the amendments in this ASU did not have a significant impact on our consolidated financial statements.

**Accounting Pronouncements Pending Adoption in Future Periods**

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, outlining a single comprehensive model for entities to use in accounting for revenues

**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

arising from contracts with customers and supersedes most current revenue recognition guidance. In August 2015, the FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, deferring the effective date of ASU No. 2014-09 for all entities by one year. Further, in March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*, clarifying the implementation guidance on principal versus agent considerations, in April 2016, the FASB issued ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*, clarifying the implementation guidance on identifying performance obligations in a contract and determining whether an entity's promise to grant a license provides a customer with either a right to use the entity's intellectual property (which is satisfied at a point in time) or a right to access the entity's intellectual property (which is satisfied over time), in May 2016, the FASB issued ASU No. 2016-12, *Revenue from Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*, providing clarifications and practical expedients for certain narrow aspects in Topic 606, and in December 2016, the FASB issued ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*. The amendments in these ASUs are effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The amendments in ASU No. 2014-09, ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 should be applied retrospectively, and early application is permitted. We are currently performing the analysis identifying areas that will be impacted by the adoption of the amendments in ASU No. 2014-09, ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 on our consolidated financial statements. At this time, we believe the key impact of the standard will be on our accounting for revenues from intellectual property licensing contracts which is not a material revenue stream to our consolidated financial statements. The standard will be adopted in our fiscal year 2018 and we have not yet determined the transition method.

In July 2015, the FASB issued ASU No. 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory*. The amendments in this ASU do not apply to inventory that is measured using last-in first-out ("LIFO") or the retail inventory method, but rather does apply to all other inventory, which includes inventory that is measured using first-in first-out or average cost. An entity should measure in scope inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Subsequent measurement is unchanged for inventory measured using LIFO or the retail inventory method. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. The amendments in this ASU should be applied prospectively with earlier application permitted as of the beginning of an interim or annual reporting period. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The amendments in this ASU will increase transparency and comparability among entities by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The amendments in this ASU will require lessees to recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. The amendments in this ASU are effective for fiscal years, and

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

interim periods within those fiscal years, beginning after December 15, 2018. Early application of the amendments in this ASU is permitted for all entities. Reporting entities are required to recognize and measure leases under these amendments at the beginning of the earliest period presented using a modified retrospective approach. We are currently evaluating the impact of the adoption of the amendments in this ASU on our consolidated financial statements and believe, based on our preliminary assessment, that we will record significant additional right-to-use assets and lease obligations.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. The amendments in this ASU simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2016. Early adoption of the amendments in this ASU is permitted in any interim or annual period. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*. The amendments in this ASU clarify and include specific guidance to address diversity in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. The amendments in this ASU should be applied using a retrospective transition method to each period presented. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*. The amendments in this ASU require entities to recognize the current and deferred income taxes for an intra-entity transfer of an asset other than inventory when the transfer occurs, as opposed to deferring the recognition of the income tax consequences until the asset has been sold to an outside party. The amendments in this ASU are effective for annual reporting periods beginning after December 31, 2017, including interim reporting periods within those annual reporting periods. Early adoption is permitted for all entities as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued or made available for issuance. The amendments in this ASU should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The amendments in this ASU require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017, and interim period within those fiscal years. Early adoption is permitted, including adoption in an interim period. The amendments in this ASU should be applied using a retrospective transition method to each period presented. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements. In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. The amendments in this ASU clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions or disposals of assets or businesses. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early application is permitted. The amendments in this ASU should be applied prospectively on or after the effective date. No disclosures are required at transition. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The amendments in this ASU simplify the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the amendments in this ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying value, which eliminates the current requirement to calculate a goodwill impairment charge by comparing the implied fair value of goodwill with its carrying amount. The amendments in this ASU are effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The amendments in this ASU should be applied on a prospective basis. We do not expect the adoption of the amendments in this ASU to have a significant impact on our consolidated financial statements.

**3. BUSINESS COMBINATIONS AND DISPOSITIONS**

**SALE OF EUROPEAN SURFACTANTS MANUFACTURING FACILITIES**

On December 30, 2016, our Performance Products segment completed the sale of its European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. Under the terms of the transaction, Innospec acquired our manufacturing facilities located in Saint-Mihiel, France; Castiglione delle Stiviere, Italy; and Barcelona, Spain. The purchase price is subject to the finalization of working capital adjustments. We remain committed to our global surfactants business, including in the U.S. and Australia, where our differentiated surfactants businesses are backward integrated into essential feedstocks. Upon closing the transaction, we entered into supply and long-term tolling arrangements with Innospec in order to continue marketing certain core products strategic to our global agrochemicals, lubes and certain other

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. BUSINESS COMBINATIONS AND DISPOSITIONS (Continued)**

businesses. In connection with this sale, we recognized a pre-tax gain in the fourth quarter of 2016 of \$98 million which was reflected in other operating income, net on the accompanying consolidated statements of operations.

**ROCKWOOD ACQUISITION**

On October 1, 2014, we completed the Rockwood Acquisition. We paid \$1.02 billion in cash and assumed certain unfunded pension liabilities in connection with the Rockwood Acquisition. The acquisition was financed using a bank term loan. The majority of the acquired businesses have been integrated into our Pigments and Additives segment. Transaction costs charged to expense related to this acquisition were approximately nil, nil and \$24 million for the years ended December 31, 2016, 2015 and 2014, respectively, and were recorded in selling, general and administrative expenses in our consolidated statements of operations.

The following businesses were acquired from Rockwood:

titanium dioxide, a white pigment derived from titanium bearing ores with strong specialty business in fibers, inks, pharmaceuticals, food and cosmetics;

functional additives made from barium and zinc based inorganics used to make colors more brilliant, primarily in plastics, coatings, films, food, cosmetics, pharmaceuticals and paper;

color pigments made from synthetic iron-oxide and other non-TiO<sub>2</sub> inorganic pigments used by manufacturers of coatings and colorants;

timber treatment wood protection chemicals used primarily in residential and commercial applications;

water treatment products used to improve water purity in industrial, commercial and municipal applications; and

specialty automotive molded components.

In connection with securing certain regulatory approvals required to complete the Rockwood Acquisition, we sold our TiO<sub>2</sub> TR52 product line used in printing inks to Henan in December 2014. The sale did not include any manufacturing assets but does include an agreement to supply TR52 product to Henan during a transitional period.

We have accounted for the Rockwood Acquisition using the acquisition method. As such, we analyzed the fair value of tangible and intangible assets acquired and liabilities assumed. The allocation

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of acquisition cost to the assets acquired and liabilities assumed is summarized as follows (dollars in millions):

Cash paid for Rockwood Acquisition in 2014	\$ 1,038
Purchase price adjustment received in 2015	(18)
<b>Net acquisition cost</b>	<b>\$ 1,020</b>

Fair value of assets acquired and liabilities assumed:

Cash	\$ 77
Accounts receivable	220
Inventories	401
Prepaid expenses and other current assets	55
Property, plant and equipment	665
Intangible assets	31
Deferred income taxes, non-current	106
Other assets	8
Accounts payable	(146)
Accrued expenses and other current liabilities	(106)
Long-term debt, non-current	(3)
Pension and related liabilities	(233)
Deferred income taxes, non-current	(9)
Other liabilities	(30)
<b>Total fair value of net assets acquired</b>	<b>1,036</b>
 Noncontrolling interest	 (16)
<b>Total</b>	<b>\$ 1,020</b>

During the second quarter of 2015, we received \$18 million related to the settlement of certain purchase price adjustments. As a result of the finalization of the valuation of the assets and liabilities, reallocations were made in certain property, plant and equipment, deferred tax, accrued liability and other long-term liability balances. None of the fair value of this acquisition was allocated to goodwill. Intangible assets acquired consist primarily of developed technology, trademarks and customer relationships, all of which are being amortized over nine years. The noncontrolling interest primarily relates to Viance, a 50%-owned joint venture with Dow Chemical acquired as part of the Rockwood Acquisition. The noncontrolling interest was valued at 50% of the fair value of the net assets of Viance as of October 1, 2014, as dictated by the ownership interest percentages. If the Rockwood Acquisition were to have occurred on January 1, 2014, the following estimated pro forma revenues and net income

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****3. BUSINESS COMBINATIONS AND DISPOSITIONS (Continued)**

attributable to Huntsman Corporation and Huntsman International would have been reported (dollars in millions, except per share amounts):

**Huntsman Corporation**

	<b>Pro Forma</b>	
	<b>Year ended December 31,</b>	
	<b>2014 (Unaudited)</b>	
Revenues	\$	12,724
Net income attributable to Huntsman Corporation		398
Income per share:		
Basic	\$	1.64
Diluted		1.62

**Huntsman International**

	<b>Pro Forma</b>	
	<b>Year ended December 31,</b>	
	<b>2014 (Unaudited)</b>	
Revenues	\$	12,724
Net income attributable to Huntsman International		410

**4. SEPARATION OF PIGMENTS AND ADDITIVES BUSINESS**

On October 28, 2016, we filed an initial Form 10 registration statement with the SEC as part of the process to spin off our Pigments and Additives and Textile Effects businesses in a tax-free transaction. On January 17, 2017, we announced that we will retain our Textile Effects business and we amended the Form 10 registration statement. We also announced that the name of the spin-off entity will be Venator Materials Corporation. Venator shares are expected to trade on the New York Stock Exchange under the ticker VNTR after the distribution to our stockholders. The completion of the spin-off is subject to the satisfaction or waiver of a number of conditions, including the registration statement on Form 10 for Venator's common stock being declared effective by the SEC and certain other conditions described in the information statement included in the Form 10. The ongoing process to separate the Pigments and Additives business is proceeding and is targeted for the second quarter 2017. As noted in "Note 1. General Recent Developments" above, there was fire damage sustained at our titanium dioxide facility in Pori, Finland. The potential impact of this interruption, if any, on the spin date is not yet known.

In connection with this spin-off, we recorded spin-off separation costs of \$18 million during 2016, within Corporate and other, including \$7 million of accrued employee termination benefit costs and \$11 million of other separation costs, of which \$8 million was paid during 2016 and \$3 million was recorded in accounts payable as of December 31, 2016 in the accompanying consolidated balance sheets.

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****5. INVENTORIES**

Inventories consisted of the following (dollars in millions):

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Raw materials and supplies	\$ 291	\$ 389
Work in progress	91	125
Finished goods	1,017	1,221
<b>Total</b>	1,399	1,735
LIFO reserves	(55)	(43)
<b>Net inventories</b>	<b>\$ 1,344</b>	<b>\$ 1,692</b>

For both December 31, 2016 and 2015, approximately 9% of inventories were recorded using the LIFO cost method.

**6. PROPERTY, PLANT AND EQUIPMENT**

The cost and accumulated depreciation of property, plant and equipment were as follows (dollars in millions):

**Huntsman Corporation**

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Land	\$ 229	\$ 208
Buildings	822	793
Plant and equipment	7,244	6,981
Construction in progress	483	935
<b>Total</b>	8,778	8,917
Less accumulated depreciation	(4,566)	(4,471)
<b>Net</b>	<b>\$ 4,212</b>	<b>\$ 4,446</b>

Depreciation expense for 2016, 2015 and 2014 was \$400 million, \$377 million and \$413 million, respectively.



Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****6. PROPERTY, PLANT AND EQUIPMENT (Continued)****Huntsman International**

	December 31,	
	2016	2015
Land	\$ 229	\$ 208
Buildings	822	793
Plant and equipment	7,286	7,009
Construction in progress	483	935
<b>Total</b>	<b>8,820</b>	<b>8,945</b>
Less accumulated depreciation	(4,630)	(4,535)
<b>Net</b>	<b>\$ 4,190</b>	<b>\$ 4,410</b>

Depreciation expense for 2016, 2015 and 2014 was \$388 million, \$365 million and \$398 million, respectively.

**7. INVESTMENT IN UNCONSOLIDATED AFFILIATES**

Investments in companies in which we exercise significant influence, but do not control, are accounted for using the equity method. Investments in companies in which we do not exercise significant influence are accounted for using the cost method.

Our ownership percentage and investment in unconsolidated affiliates were as follows (dollars in millions):

	December 31,	
	2016	2015
<b>Equity Method:</b>		
Louisiana Pigment Company, L.P. (50%)	\$ 81	\$ 84
BASF Huntsman Shanghai Isocyanate Investment BV (50%)(1)	112	116
Nanjing Jinling Huntsman New Material Co., Ltd. (49%)	112	120
Jurong Ningwu New Materials Development Co., Ltd. (30%)	19	18
Total equity method investments	324	338
<b>Cost Method:</b>		
International Diol Company (4%)	5	5
White Mountain Titanium Corporation (3%)	3	3
Others		1
<b>Total investments</b>	<b>\$ 332</b>	<b>\$ 347</b>

(1)

We own 50% of BASF Huntsman Shanghai Isocyanate Investment BV. BASF Huntsman Shanghai Isocyanate Investment BV owns a 70% interest in SLIC, thus giving us an indirect 35% interest in SLIC.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. INVESTMENT IN UNCONSOLIDATED AFFILIATES (Continued)**

In November 2012, we entered into an agreement to form a joint venture with Sinopec (Nanjing Jingling). The joint venture involves the construction and operation of a PO/MTBE facility in China. Under the joint venture agreement, we hold a 49% interest in the joint venture and Sinopec holds a 51% interest. Our total equity investment is anticipated to be approximately \$85 million, net of license fees from the joint venture. At the end of 2016, cumulative capital contributions were approximately \$85 million, net of license fees from the joint venture. The facility is expected to be mechanically complete in early 2017 with beneficial commercial operations expected in the second half of 2017.

**8. VARIABLE INTEREST ENTITIES**

We evaluate our investments and transactions to identify variable interest entities for which we are the primary beneficiary. We hold a variable interest in the following joint ventures for which we are the primary beneficiary:

Rubicon LLC is our 50%-owned joint venture with Chemtura that manufactures products for our Polyurethanes and Performance Products segments. The structure of the joint venture is such that the total equity investment at risk is not sufficient to permit the joint venture to finance its activities without additional financial support. By virtue of the operating agreement with this joint venture, we purchase a majority of the output, absorb a majority of the operating costs and provide a majority of the additional funding.

Pacific Iron Products Sdn Bhd is our 50%-owned joint venture with Coogee Chemicals that manufactures products for our Pigments and Additives segment. In this joint venture we supply all the raw materials through a fixed cost supply contract, operate the manufacturing facility and market the products of the joint venture to customers. Through a fixed price raw materials supply contract with the joint venture we are exposed to the risk related to the fluctuation of raw material pricing.

AAC is our 50%-owned joint venture with Zamil group that manufactures products for our Performance Products segment. As required in the operating agreement governing this joint venture, we purchase all of AAC's production and sell it to our customers. Substantially all of the joint venture's activities are conducted on our behalf.

Sasol-Huntsman is our 50%-owned joint venture with Sasol that owns and operates a maleic anhydride facility in Moers, Germany. This joint venture manufactures products for our Performance Products segment. The joint venture uses our technology and expertise, and we bear a disproportionate amount of risk of loss due to a related-party loan to Sasol-Huntsman for which we bear the default risk.

Viance is our 50%-owned joint venture with Dow Chemical. Viance markets timber treatment products for our Pigments and Additives segment. Our joint venture interest in Viance was acquired as part of the Rockwood Acquisition on October 1, 2014. The joint venture sources all of its products through a contract manufacturing arrangement at our Harrisburg, North Carolina facility, and we bear a disproportionate amount of working capital risk of loss due to the supply arrangement whereby we control manufacturing on Viance's behalf. As a result, we concluded that we are the primary beneficiary and began consolidating Viance upon the Rockwood Acquisition on October 1, 2014.

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****8. VARIABLE INTEREST ENTITIES (Continued)**

Creditors of these entities have no recourse to our general credit. See "Note 15. Debt - Direct and Subsidiary Debt." As the primary beneficiary of these variable interest entities at December 31, 2016, the joint ventures' assets, liabilities and results of operations are included in our consolidated financial statements.

The following table summarizes the carrying amount of our variable interest entities' assets and liabilities included in our consolidated balance sheets, before intercompany eliminations, as of December 31, 2016 and 2015 (dollars in millions):

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Current assets	\$ 117	\$ 121
Property, plant and equipment, net	284	307
Other noncurrent assets	98	95
Deferred income taxes	43	35
Intangible assets	31	36
Goodwill	12	13
<b>Total assets</b>	<b>\$ 585</b>	<b>\$ 607</b>
Current liabilities	\$ 172	\$ 159
Long-term debt	116	140
Deferred income taxes	10	11
Other noncurrent liabilities	76	54
<b>Total liabilities</b>	<b>\$ 374</b>	<b>\$ 364</b>

The revenues, income from continuing operations before income taxes and net cash provided by operating activities for our variable interest entities are as follows (dollars in millions):

	<b>Year ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Revenues	\$ 213	\$ 230	\$ 219
Income from continuing operations before income taxes	35	49	39
Net cash provided by operating activities	76	84	59

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****9. INTANGIBLE ASSETS**

The gross carrying amount and accumulated amortization of intangible assets were as follows (dollars in millions):

**Huntsman Corporation**

	December 31, 2016			December 31, 2015		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Patents, trademarks and technology	\$ 368	\$ 329	\$ 39	\$ 369	\$ 327	\$ 42
Licenses and other agreements	37	23	14	38	22	16
Non-compete agreements	3	2	1	3	2	1
Other intangibles	76	64	12	82	55	27
<b>Total</b>	<b>\$ 484</b>	<b>\$ 418</b>	<b>\$ 66</b>	<b>\$ 492</b>	<b>\$ 406</b>	<b>\$ 86</b>

Amortization expense was \$15 million, \$8 million and \$19 million for the years ended December 31, 2016, 2015 and 2014, respectively.

**Huntsman International**

	December 31, 2016			December 31, 2015		
	Carrying Amount	Accumulated Amortization	Net	Carrying Amount	Accumulated Amortization	Net
Patents, trademarks and technology	\$ 368	\$ 329	\$ 39	\$ 369	\$ 327	\$ 42
Licenses and other agreements	37	23	14	38	22	16
Non-compete agreements	3	2	1	3	2	1
Other intangibles	83	71	12	89	62	27
<b>Total</b>	<b>\$ 491</b>	<b>\$ 425</b>	<b>\$ 66</b>	<b>\$ 499</b>	<b>\$ 413</b>	<b>\$ 86</b>

Amortization expense was \$15 million, \$8 million and \$19 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Our and Huntsman International's estimated future amortization expense for intangible assets over the next five years is as follows (dollars in millions):

Year ending December 31,	
2017	\$ 9
2018	9
2019	9
2020	9
2021	8

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Other noncurrent assets consisted of the following (dollars in millions):

	December 31,	
	2016	2015
Capitalized turnaround costs, net	\$ 214	\$ 248
Spare parts inventory	92	95
Deposits	46	45
Catalyst assets, net	43	44
Investment in available-for-sale securities	18	18
Pension assets	6	35
Other	88	88
<b>Total</b>	<b>\$ 507</b>	<b>\$ 573</b>

Amortization expense of catalyst assets for the years ended December 31, 2016, 2015 and 2014 was \$17 million, \$14 million and \$13 million, respectively.

**11. ACCRUED LIABILITIES**

Accrued liabilities consisted of the following (dollars in millions):

**Huntsman Corporation**

	December 31,	
	2016	2015
Payroll and related accruals	\$ 185	\$ 183
Volume and rebate accruals	73	72
Taxes other than income taxes	62	65
Income taxes	32	18
Restructuring and plant closing reserves	45	117
Interest	22	22
Asset retirement obligations	13	18
Pension liabilities	11	11
Other postretirement benefits	8	9
Environmental accruals	7	6
Spin-off separation accruals	7	
Other miscellaneous accruals	151	165
<b>Total</b>	<b>\$ 616</b>	<b>\$ 686</b>

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	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
Payroll and related accruals	\$ 185	\$ 183
Volume and rebate accruals	73	72
Taxes other than income taxes	62	65
Income taxes	32	18
Restructuring and plant closing reserves	45	117
Interest	22	22
Asset retirement obligations	13	18
Pension liabilities	11	11
Other postretirement benefits	8	9
Environmental accruals	7	6
Spin-off separation accruals	7	
Other miscellaneous accruals	148	162
<b>Total</b>	<b>\$ 613</b>	<b>\$ 683</b>

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****12. RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS**

As of December 31, 2016, 2015 and 2014, accrued restructuring, impairment and plant closing costs by type of cost and initiative consisted of the following (dollars in millions):

	Workforce reductions <sup>(1)</sup>	Demolition and decommissioning	Non-cancelable lease costs and contract termination costs	Other restructuring costs	Total <sup>(2)</sup>
Accrued liabilities as of January 1, 2014	\$ 52	\$	\$ 60	\$ 1	\$ 113
Adjustment to Pigments and Additives opening balance sheet liabilities	1				1
2014 charges for 2013 and prior initiatives	37	7	4	17	65
2014 charges for 2014 initiatives	64				64
Reversal of reserves no longer required	(4)			(1)	(5)
2014 payments for 2013 and prior initiatives	(58)	(7)	(8)	(13)	(86)
2014 payments for 2014 initiatives	(1)			(1)	(2)
Net activity of discontinued operations			(2)		(2)
Foreign currency effect on liability balance	(4)		(6)		(10)
Accrued liabilities as of December 31, 2014	87		48	3	138
Adjustment to Pigments and Additives opening balance sheet liabilities	1				1
2015 charges for 2014 and prior initiatives	71	24	15	23	133
2015 charges for 2015 initiatives	58	1		8	67
Reversal of reserves no longer required	(7)		(6)		(13)
2015 payments for 2014 and prior initiatives	(68)	(8)	(17)	(21)	(114)
2015 payments for 2015 initiatives	(26)	(1)		(8)	(35)
Foreign currency effect on liability balance	(7)		(2)		(9)
Accrued liabilities as of December 31, 2015	109	16	38	5	168
2016 charges for 2015 and prior initiatives	4	24	9	29	66
2016 charges for 2016 initiatives	7			5	12
Reversal of reserves no longer required	(2)				(2)
Distribution of prefunded restructuring costs	(41)	(5)		(1)	(47)
2016 payments for 2015 and prior initiatives	(43)	(16)	(4)	(29)	(92)
2016 payments for 2016 initiatives	(7)			(4)	(11)
Net activity of discontinued operations			1		1
Foreign currency effect on liability balance	(1)	(1)	(2)		(4)
Accrued liabilities as of December 31, 2016	\$ 26	\$ 18	\$ 42	\$ 5	\$ 91

(1) The total workforce reduction reserves of \$26 million relate to the termination of 375 positions, of which 339 positions had not been terminated as of December 31, 2016.

(2) In December 2015, we prepaid \$49 million of severance and other restructuring costs related to restructuring programs in our Pigments and Additives, Textile Effects and Performance Products segments. Certain of the severance costs were prepaid to a third party who distributed the severance payments to affected employees when they were terminated in 2016.



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(3) Accrued liabilities remaining at December 31, 2016 and 2015 by year of initiatives were as follows (dollars in millions):

	<b>December 31,</b>	
	<b>2016</b>	<b>2015</b>
2014 initiatives and prior	\$ 84	\$ 143
2015 initiatives	4	25
2016 initiatives	3	
Total	\$ 91	\$ 168

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 12. RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS (Continued)

Details with respect to our reserves for restructuring, impairment and plant closing costs are provided below by segment and initiative (dollars in millions):

	Polyurethanes	Performance Products	Advanced Materials	Textile Effects	Pigments and Additives	Discontinued Operations	Corporate and other	Total
Accrued liabilities as of January 1, 2014	\$ 9	\$ 10	\$ 12	\$ 68	\$ 2	\$ 3	\$ 9	\$ 113
Adjustment to Pigments and Additives opening balance sheet liabilities					1			1
2014 charges for 2013 and prior initiatives	2	23	10	13	3		14	65
2014 charges for 2014 initiatives			1	6	57			64
Reversal of reserves no longer required	(1)		(2)	(1)			(1)	(5)
2014 payments for 2013 and prior initiatives	(3)	(22)	(14)	(25)	(4)		(18)	(86)
2014 payments for 2014 initiatives			(1)	(1)				(2)
Net activity of discontinued operations						(2)		(2)
Foreign currency effect on liability balance	(1)	(2)	(1)	(6)				(10)
Accrued liabilities as of December 31, 2014	6	9	5	54	59	1	4	138
Adjustment to Pigments & Additives opening balance sheet liabilities					1			1
2015 charges for 2014 and prior initiatives	2	3	1	42	77		8	133
2015 charges for 2015 initiatives	17	8	5	2	34		1	67
Reversal of reserves no longer required	(4)	(1)		(7)			(1)	(13)
2015 payments for 2014 and prior initiatives	(4)	(8)	(2)	(34)	(59)		(7)	(114)
2015 payments for 2015 initiatives	(11)	(1)	(5)	(1)	(16)		(1)	(35)
Foreign currency effect on liability balance	(1)	(1)		(1)	(6)			(9)
Accrued liabilities as of December 31, 2015	5	9	4	55	90	1	4	168
2016 charges for 2015 and prior initiatives		16		28	19		3	66
2016 charges for 2016 initiatives	4			1	6		1	12
Reversal of reserves no longer required	(1)						(1)	(2)
Distribution of prefunded restructuring costs		(6)		(5)	(36)			(47)
2016 payments for 2015 and prior initiatives	(3)	(19)		(14)	(52)		(4)	(92)
2016 payments for 2016 initiatives	(3)			(1)	(6)		(1)	(11)
Net activity of discontinued operations						1		1
Foreign currency effect on liability balance			(1)	(3)				(4)
Accrued liabilities as of December 31, 2016	\$ 2	\$ 3	\$ 61	\$ 21	\$ 2	\$ 2	\$ 2	\$ 91
Current portion of restructuring reserves	\$ 2	\$ 1	\$ 24	\$ 14	\$ 2	\$ 2	\$ 2	\$ 45
Long-term portion of restructuring reserves			2	37	7			46

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Details with respect to cash and noncash restructuring charges for the years ended December 31, 2016, 2015 and 2014 by initiative are provided below (dollars in millions):

Cash charges:	
2016 charges for 2015 and prior initiatives	\$ 66
2016 charges for 2016 initiatives	12
Reversal of reserves no longer required	(2)
Accelerated depreciation	8
Non-cash credits, net	(3)
<b>Total 2016 restructuring, impairment and plant closing costs</b>	<b>\$ 81</b>

Cash charges:	
2015 charges for 2014 and prior initiatives	\$ 133
2015 charges for 2015 initiatives	67
Reversal of reserves no longer required	(13)
Pension-related charges	3
Accelerated depreciation	74
Non-cash charges	38
<b>Total 2015 restructuring, impairment and plant closing costs</b>	<b>\$ 302</b>

Cash charges:	
2014 charges for 2013 and prior initiatives	\$ 65
2014 charges for 2014 initiatives	64
Reversal of reserves no longer required	(5)
Pension-related charges	2
Non-cash charges	32
<b>Total 2014 restructuring, impairment and plant closing costs</b>	<b>\$ 158</b>

**2016 RESTRUCTURING ACTIVITIES**

In December 2015, our Performance Products segment announced plans for a reorganization of its commercial and technical functions and a refocused divisional business strategy to better position the segment for growth in coming years. In addition, a program was launched to capture growth opportunities, improve manufacturing cost efficiency and reduce inventories. In connection with this restructuring program, we recorded restructuring expense of \$16 million in 2016. All expected charges have been incurred as of the end of 2016.

In September 2011, we announced plans to implement a significant restructuring of our Textile Effects segment, including the closure of our production facilities and business support offices in Basel, Switzerland, as part of an ongoing strategic program aimed at improving the Textile Effects segment's long-term global competitiveness (the "Textile Effects Restructuring Plan"). In connection with the Textile Effects

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Restructuring Plan and in connection with revised estimates of site closure costs, during 2016, our Textile Effects segment recorded charges of \$9 million for non-cancelable long-term contract termination costs and \$20 million for decommissioning associated with this initiative.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**12. RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS (Continued)**

In December 2014, we announced a comprehensive restructuring program to improve the global competitiveness of our Pigments and Additives segment (the "Pigments and Additives Restructuring Plan"). As part of the Pigments and Additives Restructuring Plan, we are reducing our workforce by approximately 900 positions. In connection with the Pigments and Additives Restructuring Plan, we recorded restructuring expense of \$3 million in 2016. We expect to incur additional charges of approximately \$4 million through the end of 2017.

In March 2015, we announced plans to restructure our color pigments business (the "Color Pigments Restructuring Plan"), another step in our Pigments and Additives Restructuring Plan, and recorded restructuring expense of approximately \$15 million in 2016. We expect to incur additional charges of approximately \$10 million through the end of 2017.

In July 2016, we announced plans to close our Pigments and Additives segment's South African titanium dioxide manufacturing facility. As part of the program, we recorded restructuring expense of approximately \$6 million in 2016. Additionally, we recorded an impairment charge of \$1 million during the second quarter of 2016. The majority of the long-lived assets associated with this manufacturing facility were impaired in the fourth quarter of 2015. We expect to incur additional charges of approximately \$5 million through the third quarter of 2018.

In connection with planned restructuring activities, our Pigments and Additives segment recorded accelerated depreciation as restructuring expense of \$8 million during 2016.

**2015 RESTRUCTURING ACTIVITIES**

In June 2015, our Polyurethanes segment initiated a restructuring program in Europe. In connection with this restructuring program, we recorded restructuring expense of \$13 million during 2015 related primarily to workforce reductions. All expected charges have been incurred as of the end of 2015.

During 2013, our Performance Products segment initiated a restructuring program to refocus its surfactants business in Europe (the "Performance Products Restructuring Plan"). As part of our Performance Products Restructuring Plan, we recorded cash charges of \$8 million primarily related to workforce reductions in 2015.

In June 2015, our Advanced Materials segment initiated a restructuring program in Europe. In connection with this restructuring program, we recorded restructuring expense of \$11 million during 2015 related primarily to workforce reductions and accelerated depreciation recorded as restructuring, impairment and plant closing costs.

In connection with the Textile Effects Restructuring Plan, during 2015, we recorded charges of \$9 million for non-cancelable long-term contract termination costs, \$21 million for decommissioning and \$1 million of other restructuring charges associated with this initiative. During the fourth quarter of 2015, we settled certain of our obligations under these long-term contracts and recorded a restructuring charge of \$14 million. In addition, we recorded charges of \$6 million associated with other initiatives.

In February 2015, we announced a plan to close the 'black end' manufacturing operations and ancillary activities at our Calais, France site, which will reduce our titanium dioxide capacity by

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**12. RESTRUCTURING, IMPAIRMENT AND PLANT CLOSING COSTS (Continued)**

approximately 100 kilotons, or 13% of our European titanium dioxide capacity. In connection with this announcement, we began to accelerate depreciation on the affected assets and recorded accelerated depreciation in 2015 of \$68 million as restructuring, impairment and plant closing costs. In addition, during 2015, we recorded charges of \$30 million primarily for workforce reductions and non-cash charges of \$17 million.

In connection with the Pigments and Additives Restructuring Plan, during 2015, our Pigments and Additives segment recorded charges of \$61 million for workforce reductions, \$3 million for pension related charges and \$15 million in other restructuring costs.

In connection with our Color Pigments Restructuring Plan, we recorded restructuring expense of approximately \$4 million during 2015 primarily related to workforce reductions.

During the fourth quarter of 2015, we determined that the South African asset group of our Pigments and Additives segment was impaired and recorded an impairment charge of \$19 million.

During 2015, our Corporate and other segment recorded charges of \$8 million primarily related to a reorganization of our global information technology organization.

**2014 RESTRUCTURING ACTIVITIES**

In connection with a September 2014 announcement of a feasibility study into a MDI production expansion at our Geismar, Louisiana facility, we concluded that certain capitalized engineering costs associated with a previously planned MDI production expansion at our Rotterdam, The Netherlands facility were impaired and our Polyurethanes segment recorded a noncash impairment charge of \$16 million during 2014.

In connection with the Performance Products Restructuring Plan, in 2014 we completed the sale of our European commodity surfactants business, including the ethoxylation facility in Lavera, France to Wilmar. In addition, Wilmar has entered into a multi-year arrangement to purchase certain sulfated surfactant products from our facilities in St. Mihiel, France and Castiglione delle Stiviere, Italy. Additionally, in 2014 we ceased production at our Patrica, Italy surfactants facility. During 2014, we recorded charges of \$23 million primarily related to workforce reductions.

During 2014, our Advanced Materials segment recorded charges of \$11 million primarily related to workforce reductions with our global transformational change program designed to improve the segment's manufacturing efficiencies, enhance its commercial excellence and improve its long-term global competitiveness.

In connection with the Textile Effects Restructuring Plan, during 2014, our Textile Effects segment recorded charges of \$19 million, including a \$9 million noncash charge for a pension settlement loss. In June 2014, we announced plans for the closure of our Qingdao, China plant, which was completed in 2015. During 2014, we recorded charges of \$6 million primarily related to workforce reductions related to this initiative.

As part of the Pigments and Additives Restructuring Program, we recorded restructuring expense of \$57 million in the fourth quarter of 2014 related primarily to workforce reductions.

During 2014, our Corporate and other segment recorded charges of \$13 million primarily related to the reorganization of our global information technology organization.

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Asset retirement obligations consist primarily of landfill capping, closure and post-closure costs, asbestos abatement costs, demolition and removal costs and leasehold remediation costs. We are legally required to perform capping and closure and post-closure care on the landfills and asbestos abatement on certain of our premises. For each asset retirement obligation we recognized the estimated fair value of a liability and capitalized the cost as part of the cost basis of the related asset.

The following table describes changes to our asset retirement obligation liabilities (dollars in millions):

	December 31,	
	2016	2015
Asset retirement obligations at beginning of year	\$ 52	\$ 26
Accretion expense	2	3
Liabilities assumed in connection with the Rockwood Acquisition		30
Liabilities settled	(4)	(1)
Foreign currency effect on reserve balance	(2)	(6)
Asset retirement obligations at end of year	\$ 48	\$ 52

**14. OTHER NONCURRENT LIABILITIES**

Other noncurrent liabilities consisted of the following (dollars in millions):

**Huntsman Corporation**

	December 31,	
	2016	2015
Pension liabilities	\$ 1,010	\$ 842
Other postretirement benefits	88	84
Environmental accruals	27	32
Restructuring and plant closing reserves	46	51
Employee benefit accrual	32	36
Asset retirement obligations	35	34
Other	143	147
<b>Total</b>	<b>\$ 1,381</b>	<b>\$ 1,226</b>

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	December 31,	
	2016	2015
Pension liabilities	\$ 1,010	\$ 842
Other postretirement benefits	88	84
Environmental accruals	27	32
Restructuring and plant closing reserves	46	51
Employee benefit accrual	32	36
Asset retirement obligations	35	34
Other	137	145
<b>Total</b>	<b>\$ 1,375</b>	<b>\$ 1,224</b>

**15. DEBT**

Outstanding debt, net of debt issuance costs, of consolidated entities consisted of the following (dollars in millions):

**Huntsman Corporation**

	December 31,		December 31,	
	2016		2015	
<b>Senior Credit Facilities:</b>				
Term loans	\$	1,967	\$	2,454
Amounts outstanding under A/R programs		208		215
Senior notes		1,812		1,850
Variable interest entities		128		151
Other		80		125
<b>Total debt excluding debt to affiliates</b>	<b>\$</b>	<b>4,195</b>	<b>\$</b>	<b>4,795</b>
Total current portion of debt	\$	60	\$	170
Long-term portion		4,135		4,625
Total debt excluding debt to affiliates	\$	4,195	\$	4,795
Total debt excluding debt to affiliates	\$	4,195	\$	4,795
Notes payable to affiliates-noncurrent		1		1
<b>Total debt</b>	<b>\$</b>	<b>4,196</b>	<b>\$</b>	<b>4,796</b>





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	December 31, 2016	December 31, 2015
<b>Senior Credit Facilities:</b>		
Term loans	\$ 1,967	\$ 2,454
Amounts outstanding under A/R programs	208	215
Senior notes	1,812	1,850
Variable interest entities	128	151
Other	80	125
<b>Total debt excluding debt to affiliates</b>	<b>\$ 4,195</b>	<b>\$ 4,795</b>
Total current portion of debt	\$ 60	\$ 170
Long-term portion	4,135	4,625
Total debt excluding debt to affiliates	\$ 4,195	\$ 4,795
Total debt excluding debt to affiliates	\$ 4,195	\$ 4,795
Notes payable to affiliates-current	100	100
Notes payable to affiliates-noncurrent	697	698
Total debt	\$ 4,992	\$ 5,593

**DIRECT AND SUBSIDIARY DEBT**

Huntsman Corporation's direct debt and guarantee obligations consist of a guarantee of certain indebtedness incurred from time to time to finance certain insurance premiums. Substantially all of our other debt, including the facilities described below, has been incurred by our subsidiaries (primarily Huntsman International); Huntsman Corporation is not a guarantor of such subsidiary debt.

Certain of our subsidiaries are designated as nonguarantor subsidiaries and have third-party debt agreements. These debt agreements contain certain restrictions with regard to dividends, distributions, loans or advances. In certain circumstances, the consent of a third party would be required prior to the transfer of any cash or assets from these subsidiaries to us.

**Debt Issuance Costs**

We record debt issuance costs related to a debt liability on the balance sheet as a reduction in the face amount of that debt liability. As of December 31, 2016 and 2015, the amount of debt issuance costs directly reducing the debt liability was \$57 million and \$67 million, respectively. We record the amortization of debt issuance costs as interest expense.



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As of December 31, 2016, our Senior Credit Facilities consisted of our Revolving Facility, our 2015 Extended Term Loan B, our 2021 Term Loan B, and our 2023 Term Loan B as follows (dollars in millions):

Facility	Committed Amount	Principal Outstanding	Unamortized Discounts and Debt Issuance Costs	Carrying Value	Interest Rate(3)	Maturity
Revolving Facility	\$ 650	\$ (1)	(1)	(1)	USD LIBOR plus 3.00%	2021
2015 Extended Term Loan B	NA	306	(1)	305	USD LIBOR plus 3.00%	2019
2021 Term Loan B	NA	349	(12)	337	USD LIBOR plus 2.75%(2)	2021
2023 Term Loan B	NA	1,372	(47)	1,325	USD LIBOR plus 3.00%(2)	2023

- (1) We had no borrowings outstanding under our Revolving Facility; we had approximately \$22 million (U.S. dollar equivalents) of letters of credit and bank guarantees issued and outstanding under our Revolving Facility.
- (2) The 2021 Term Loan B and the 2023 Term Loan B are subject to a 0.75% LIBOR floor.
- (3) The applicable interest rate of the Revolving Facility is subject to certain secured leverage ratio thresholds. As of December 31, 2016, the weighted average interest rate on our outstanding balances under the Senior Credit Facilities was approximately 4%.

On both July 22, 2016 and September 30, 2016, Huntsman International prepaid \$100 million of its 2015 Extended Term Loan B. In connection with the \$200 million prepayments on our term loan, we recognized a loss on early extinguishment of debt of \$1 million. On December 30, 2016, Huntsman International made an early repayment of \$260 million on its 2015 Extended Term Loan B using proceeds from the sale of the European surfactants business and existing cash.

Our obligations under the Senior Credit Facilities are guaranteed by substantially all of our domestic subsidiaries and certain of our foreign subsidiaries (collectively, the "Guarantors"), and are secured by a first priority lien on substantially all of our domestic property, plant and equipment, the stock of all of our material domestic subsidiaries and certain foreign subsidiaries, and pledges of intercompany notes between certain of our subsidiaries.

**Amendment to the Credit Agreement**

On November 15, 2016 Huntsman International entered into a sixteenth amendment to the agreement governing the Senior Credit Facilities ("Credit Agreement"). The amendment provides for a new term loan facility in an aggregate principal amount of \$350 million, the 2021 Term Loan B, and a new term loan facility in an aggregate principal amount of \$1,375 million, the 2023 Term Loan B. Proceeds of these loans, along with cash on hand, were used to repay in full our 2014 Term Loan B and our 2016 Term Loan B.

The 2021 Term Loan B matures on October 1, 2021 and the 2023 Term Loan B matures on April 1, 2023, provided that the maturity date will accelerate if we do not repay, refinance or have a minimum level of liquidity available to enable us to repay certain of our senior notes upon

maturity.

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The 2021 Term Loan B and 2023 Term Loan B are subject to the same terms and conditions as our existing senior secured term loan facilities.

The margin for borrowing under the 2021 Term Loan B is LIBOR plus 2.75% and the margin for borrowing under the 2023 Term Loan B is LIBOR plus 3.00% and both loans are subject to a 0.75% LIBOR floor. The 2021 Term Loan B and 2023 Term Loan B amortize in amounts equal to 1% of the principal amount, payable quarterly commencing on December 31, 2016.

On April 1, 2016, Huntsman International entered into a fifteenth amendment to the Credit Agreement. The amendment provided for a new term loan facility, the 2016 Term Loan B, to refinance existing term loans pursuant to the Credit Agreement in an aggregate principal amount of \$550 million. The net proceeds of the 2016 Term Loan B were used to repay in full Huntsman International's extended term loan B due 2017, our extended term loan B series 2 due 2017 and our Term Loan C. In connection with these repayments, we recorded a loss on early extinguishment of debt of approximately \$2 million in the second quarter of 2016. The 2016 Term Loan B was repaid in full in conjunction with the sixteenth amendment on November 15, 2016.

The fifteenth amendment also extends the stated termination date of our Revolving Facility from March 20, 2017 to March 20, 2021, provided that the maturity date will accelerate if we do not repay, refinance or have a minimum level of liquidity available to enable us to repay our 2015 Extended Term Loan B due 2019 or our senior notes upon their maturity. The amendment further increased the committed amount of our Revolving Facility by \$25 million (from \$625 million to \$650 million). Borrowings under the Revolving Facility bear interest at the same rate as the existing revolving commitments. As of December 31, 2016, we had no borrowings under our Revolving Facility.

On August 10, 2015 we entered into a fourteenth amendment to the Credit Agreement. The amendment increased the interest rate margin with respect to the 2015 Extended Term Loan B to LIBOR plus 3.00%.

**A/R Programs**

Our A/R Programs are structured so that we grant a participating undivided interest in certain of our trade receivables to the U.S. SPE and the EU SPE. We retain the servicing rights and a retained interest in the securitized receivables. Information regarding our A/R Programs as of December 31, 2016 was as follows (monetary amounts in millions):

Facility	Maturity	Maximum Funding Availability(1)	Amount Outstanding	Interest Rate(2)
U.S. A/R Program	March 2018	\$250	\$90(3)	Applicable rate plus 0.95%
EU A/R Program	March 2018	€225 (approximately \$234)	€114 (approximately \$118)	Applicable rate plus 1.10%

(1) The amount of actual availability under our A/R Programs may be lower based on the level of eligible receivables sold, changes in the credit ratings of our customers, customer concentration levels and certain characteristics of the accounts receivable being transferred, as defined in the applicable agreements.

(2) Applicable rate for our U.S. A/R Program is defined by the lender as USD LIBOR. Applicable rate for our EU A/R Program is either GBP LIBOR, USD LIBOR or EURIBOR.

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(3)

As of December 31, 2016, we had approximately \$7 million (U.S. dollar equivalents) of letters of credit issued and outstanding under our U.S. A/R Program.

As of December 31, 2016 and 2015, \$437 million and \$438 million, respectively, of accounts receivable were pledged as collateral under our A/R Programs.

**Notes**

As of December 31, 2016, we had outstanding the following notes (monetary amounts in millions):

Notes	Maturity	Interest Rate	Amount Outstanding	Unamortized Discounts and Debt Issuance Costs
2020 Senior Notes	November 2020	4.875%	\$650 (\$646 carrying value)	\$ (4)
2021 Senior Notes	April 2021	5.125%	€445 (€444 carrying value (\$461))	\$ (1)
2022 Senior Notes	November 2022	5.125%	\$400 (\$396 carrying value)	\$ (4)
2025 Senior Notes	April 2025	4.25%	€300 (€297 carrying value (\$309))	\$ (3)

On March 31, 2015, Huntsman International completed a €300 million (approximately \$326 million) offering of 2025 Senior Notes. On April 17, 2015, Huntsman International applied the net proceeds of this offering to redeem \$289 million (\$294 million carrying value) of its 2021 Senior Subordinated Notes.

The 2025 Senior Notes bear interest at 4.25% per year, payable semi-annually on April 1 and October 1, and are due on April 1, 2025. Huntsman International may redeem the 2025 Senior Notes in whole or in part at any time prior to January 1, 2025 at a price equal to 100% of the principal amount thereof plus a "make-whole" premium and accrued and unpaid interest.

The 2020, 2021, 2022 and 2025 Senior Notes are general unsecured senior obligations of Huntsman International and are guaranteed on a general unsecured senior basis by the Guarantors. The indentures impose certain limitations on the ability of Huntsman International and its subsidiaries to, among other things, incur additional indebtedness secured by any principal properties, incur indebtedness of nonguarantor subsidiaries, enter into sale and leaseback transactions with respect to any principal properties and consolidate or merge with or into any other person or lease, sell or transfer all or substantially all of its properties and assets. Upon the occurrence of certain change of control events, holders of the 2020, 2021, 2022 and 2025 Senior Notes will have the right to require that Huntsman International purchase all or a portion of such holder's notes in cash at a purchase price equal to 101% of the principal amount thereof plus accrued and unpaid interest to the date of repurchase.

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During the year ended December 31, 2015, we redeemed or repurchased the following notes (dollars in millions):

<b>Date of Redemption</b>	<b>Notes</b>	<b>Principal Amount of Notes Redeemed</b>	<b>Amount Paid (Excluding Accrued Interest)</b>	<b>Loss on Early Extinguishment of Debt</b>
September 2015	2021 Senior Subordinated Notes	\$ 195	\$ 204	\$ 7
April 2015	2021 Senior Subordinated Notes	289	311	20
January 2015	2021 Senior Subordinated Notes	37	40	3

**Variable Interest Entity Debt**

As of December 31, 2016, AAC, our consolidated 50%-owned joint venture, had \$126 million outstanding under its loan commitments and debt financing arrangements. As of December 31, 2016, we have \$12 million classified as current debt and \$114 million as long-term debt on our consolidated balance sheets. We do not guarantee these loan commitments, and AAC is not a guarantor of any of our other debt obligations.

**Other Debt**

On July 24, 2015, HPS entered into a financing arrangement to fund the construction of our MDI plant in China. As part of the financing, HPS has secured commitments of a RMB 669 million (approximately \$96 million) term loan and a RMB 423 million (approximately \$61 million) working capital facility. These facilities are unsecured, and we do not provide a guarantee of these loan commitments. As of December 31, 2016, we had term loan borrowings of RMB111 million (approximately \$16 million) and no borrowings under the working capital facility. The interest rate on the facilities is 90% of the Peoples Bank of China rate. As of December 31, 2016, the interest rate was approximately 4%.

HPS also has a loan facility for working capital loans and discounting of commercial drafts. During the year 2016, HPS has repaid RMB 325 million (approximately \$47 million) of borrowings under this facility. As of December 31, 2016 HPS had no borrowings outstanding under this facility. Interest is calculated using the Peoples Bank of China rate plus the applicable margin. The average all in rate as of December 31, 2016 was approximately 4%.

**Note Payable from Huntsman International to Huntsman Corporation**

As of December 31, 2016, we have a loan of \$796 million to our subsidiary, Huntsman International. The Intercompany Note is unsecured and \$100 million of the outstanding amount is classified as current as of December 31, 2016 on our consolidated balance sheets. As of December 31, 2016, under the terms of the Intercompany Note, Huntsman International promises to pay us interest on the unpaid principal amount at a rate per annum based on the previous monthly average borrowing rate obtained under our U.S. A/R Program, less 10 basis points (provided that the rate shall not exceed



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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**15. DEBT (Continued)**

an amount that is 25 basis points less than the monthly average borrowing rate obtained for the U.S. LIBOR-based borrowings under our Revolving Facility).

**COMPLIANCE WITH COVENANTS**

We believe that we are in compliance with the covenants contained in the agreements governing our material debt instruments, including our Senior Credit Facilities, our A/R Programs and our notes.

Our material financing arrangements contain certain covenants with which we must comply. A failure to comply with a covenant could result in a default under a financing arrangement unless we obtained an appropriate waiver or forbearance (as to which we can provide no assurance). A default under these material financing arrangements generally allows debt holders the option to declare the underlying debt obligations immediately due and payable. Furthermore, certain of our material financing arrangements contain cross-default and cross-acceleration provisions under which a failure to comply with the covenants in one financing arrangement may result in an event of default under another financing arrangement.

Our Senior Credit Facilities are the Leverage Covenant which applies only to the Revolving Facility and is calculated at the Huntsman International level. The Leverage Covenant is applicable only if borrowings, letters of credit or guarantees are outstanding under the Revolving Facility (cash collateralized letters of credit or guarantees are not deemed outstanding). The Leverage Covenant is a net senior secured leverage ratio covenant which requires that Huntsman International's ratio of senior secured debt to EBITDA (as defined in the applicable agreement) is not more than 3.75 to 1.

If in the future Huntsman International fails to comply with the Leverage Covenant, then we may not have access to liquidity under our Revolving Facility. If Huntsman International failed to comply with the Leverage Covenant at a time when we had uncollateralized loans or letters of credit outstanding under the Revolving Facility, Huntsman International would be in default under the Senior Credit Facilities, and, unless Huntsman International obtained a waiver or forbearance with respect to such default (as to which we can provide no assurance), Huntsman International could be required to pay off the balance of the Senior Credit Facilities in full, and we may not have further access to such facilities.

The agreements governing our A/R Programs also contain certain receivable performance metrics. Any material failure to meet the applicable A/R Programs' metrics in the future could lead to an early termination event under the A/R Programs, which could require us to cease our use of such facilities, prohibiting us from additional borrowings against our receivables or, at the discretion of the lenders, requiring that we repay the A/R Programs in full. An early termination event under the A/R Programs would also constitute an event of default under our Senior Credit Facilities, which could require us to pay off the balance of the Senior Credit Facilities in full and could result in the loss of our Senior Credit Facilities.

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The scheduled maturities of our debt (excluding debt to affiliates) by year as of December 31, 2016 are as follows (dollars in millions):

<b>Year ending December 31,</b>	
2017	\$ 60
2018	261
2019	350
2020	700
2021	838
Thereafter	1,986
	\$ 4,195

**16. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES**

We are exposed to market risks, such as changes in interest rates, foreign exchange rates and commodity prices. From time to time, we enter into transactions, including transactions involving derivative instruments, to manage certain of these exposures. We also hedge our net investment in certain European operations. Changes in the fair value of the hedge in the net investment of certain European operations are recorded in accumulated other comprehensive loss.

**INTEREST RATE RISKS**

Through our borrowing activities, we are exposed to interest rate risk. Such risk arises due to the structure of our debt portfolio, including the mix of fixed and floating interest rates. Actions taken to reduce interest rate risk include managing the mix and rate characteristics of various interest bearing liabilities, as well as entering into interest rate derivative instruments.

From time to time, we may purchase interest rate swaps and/or other derivative instruments to reduce the impact of changes in interest rates on our floating-rate long-term debt. Under interest rate swaps, we agree with other parties to exchange, at specified intervals, the difference between fixed-rate and floating-rate interest amounts calculated by reference to an agreed notional principal amount.

Huntsman International has entered into several interest rate contracts to hedge the variability caused by monthly changes in cash flow due to associated changes in LIBOR under our Senior Credit Facilities. As of December 31, 2016 and December 31, 2015, we had \$100 million notional value of interest rate hedges with a fixed rate of 2.5%. These swaps are designated as cash flow hedges and the effective portion of the changes in the fair value of the swaps are recorded in other comprehensive loss. The fair value of these hedges on December 31, 2016 and December 31, 2015 was \$1 million and \$2 million, respectively, and was recorded as other current liabilities on our consolidated balance sheets. These hedges will expire in April 2017. For the years ended December 31, 2016 and 2015, the changes in accumulated other comprehensive loss associated with these cash flow hedging activities were gains of approximately \$2 million and \$1 million, respectively.

**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**16. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)**

Beginning in 2009, AAC entered into a 12-year floating to fixed interest rate contract providing for a receipt of LIBOR interest payments for a fixed payment of 5.02%. In connection with the consolidation of AAC as of July 1, 2010, the interest rate contract is now included in our consolidated results. See "Note 8. Variable Interest Entities." The notional amount of the swap as of December 31, 2016 was \$18 million, and the interest rate contract is not designated as a cash flow hedge. As of December 31, 2016 and 2015, the fair value of the swap was \$1 million and \$2 million, respectively, and was recorded as other noncurrent liabilities on our consolidated balance sheets. For 2016 and 2015, we recorded a reduction of interest expense of \$1 million each due to changes in fair value of the swap.

During 2017, accumulated other comprehensive loss of nil is expected to be reclassified to earnings. The actual amount that will be reclassified to earnings over the next twelve months may vary from this amount due to changing market conditions. We would be exposed to credit losses in the event of nonperformance by a counterparty to our derivative financial instruments. We anticipate, however, that the counterparties will be able to fully satisfy their obligations under the contracts. Market risk arises from changes in interest rates.

**FOREIGN EXCHANGE RATE RISK**

Our cash flows and earnings are subject to fluctuations due to exchange rate variation. Our revenues and expenses are denominated in various currencies. We enter into foreign currency derivative instruments to minimize the short-term impact of movements in foreign currency rates. Where practicable, we generally net multicurrency cash balances among our subsidiaries to help reduce exposure to foreign currency exchange rates. Certain other exposures may be managed from time to time through financial market transactions, principally through the purchase of spot or forward foreign exchange contracts (generally with maturities of three months or less). We do not hedge our currency exposures in a manner that would eliminate the effect of changes in exchange rates on our cash flows and earnings. As of both December 31, 2016 and 2015, we had approximately \$176 million notional amount (in U.S. dollar equivalents) outstanding in foreign currency contracts with a term of approximately one month.

In November 2014, we entered into two five year cross-currency interest rate contracts and one eight year cross-currency interest rate contract to swap an aggregate notional \$200 million for an aggregate notional €161 million. The swap is designated as a hedge of net investment for financial reporting purposes. Under the cross-currency interest rate contract, we will receive fixed U.S. dollar payments of \$5 million semiannually on May 15 and November 15 (equivalent to an annual rate of 5.125%) and make interest payments of approximately €3 million (equivalent to an annual rate of approximately 3.6%). As of December 31, 2016, the fair value of this swap was \$29 million and was recorded in noncurrent assets.

In March 2010, we entered into three five year cross-currency interest rate contracts to swap an aggregate notional \$350 million for an aggregate notional €255 million. This swap was designated as a hedge of net investment for financial reporting purposes. During the three months ended March 31, 2015, we terminated these cross-currency interest rate contracts and received \$66 million in payments from the counterparties.

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A portion of our debt is denominated in euros. We also finance certain of our non-U.S. subsidiaries with intercompany loans that are, in many cases, denominated in currencies other than the entities' functional currency. We manage the net foreign currency exposure created by this debt through various means, including cross-currency swaps, the designation of certain intercompany loans as permanent loans because they are not expected to be repaid in the foreseeable future and the designation of certain debt and swaps as net investment hedges.

Foreign currency transaction gains and losses on intercompany loans that are not designated as permanent loans are recorded in earnings. Foreign currency transaction gains and losses on intercompany loans that are designated as permanent loans are recorded in other comprehensive (loss) income. From time to time, we review such designation of intercompany loans.

We review our non-U.S. dollar denominated debt and derivative instruments to determine the appropriate amounts designated as hedges. As of December 31, 2016, we have designated approximately €651 million (approximately \$677 million) of euro-denominated debt and cross-currency interest rate contracts as a hedge of our net investment. For the years ended December 31, 2016, 2015 and 2014, the amount of gain recognized on the hedge of our net investment was \$27 million, \$68 million and \$97 million, respectively, and was recorded in other comprehensive (loss) income.

**COMMODITY PRICES RISK**

Inherent in our business is exposure to price changes for several commodities. However, our exposure to changing commodity prices is somewhat limited since the majority of our raw materials are acquired at posted or market related prices, and sales prices for many of our finished products are at market related prices which are largely set on a monthly or quarterly basis in line with industry practice. Consequently, we do not generally hedge our commodity exposures.

**17. FAIR VALUE**

The fair values of our financial instruments were as follows (dollars in millions):

	December 31,			
	2016		2015	
	Carrying Value	Estimated Fair Value	Carrying Value	Estimated Fair Value
Non-qualified employee benefit plan investments	\$ 27	\$ 27	\$ 26	\$ 26
Investments in equity securities	18	18	18	18
Cross-currency interest rate contacts	29	29	28	28
Interest rate contracts	(2)	(2)	(4)	(4)
Long-term debt (including current portion)	(4,195)	(4,368)	(4,795)	(4,647)

The carrying amounts reported in the balance sheets of cash and cash equivalents, accounts receivable and accounts payable approximate fair value because of the immediate or short-term maturity of these financial instruments. The fair values of non-qualified employee benefit plan investments and investments in equity securities are obtained through market observable pricing using

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prevailing market prices. The estimated fair values of our long-term debt are based on quoted market prices for the identical liability when traded as an asset in an active market (Level 1).

The fair value estimates presented herein are based on pertinent information available to management as of December 31, 2016 and 2015. Although management is not aware of any factors that would significantly affect the estimated fair value amounts, such amounts have not been comprehensively revalued for purposes of these financial statements since December 31, 2016, and current estimates of fair value may differ significantly from the amounts presented herein.

The following assets and liabilities are measured at fair value on a recurring basis (dollars in millions):

Description	December 31, 2016	Fair Value Amounts Using		
		Quoted prices in active markets for identical assets (Level 1)(3)	Significant other observable inputs (Level 2)(3)	Significant unobservable inputs (Level 3)
<b>Assets:</b>				
Available-for-sale equity securities:				
Non-qualified employee benefit plan investments	\$ 27	\$ 27	\$	\$
Investments in equity securities	18	18		
Derivatives:				
Cross-currency interest rate contracts(1)	29			29
<b>Total assets</b>	<b>\$ 74</b>	<b>\$ 45</b>	<b>\$</b>	<b>\$ 29</b>
<b>Liabilities:</b>				
Derivatives:				
Interest rate contracts(2)	\$ (2)	\$	\$ (2)	\$

Description	December 31, 2015	Fair Value Amounts Using		
		Quoted prices in active markets for identical assets (Level 1)(3)	Significant other observable inputs (Level 2)(3)	Significant unobservable inputs (Level 3)
<b>Assets:</b>				
Available-for-sale equity securities:				
Non-qualified employee benefit plan investments	\$ 26	\$ 26	\$	\$
Investments in equity securities	18	18		
Derivatives:				
Cross-currency interest rate contracts(1)	28			28

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<b>Total assets</b>	\$	72	\$	44	\$	28
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**Liabilities:**

Derivatives:

Interest rate contracts(2)	\$	(4)	\$	(4)	\$
----------------------------	----	-----	----	-----	----

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(1)

The income approach is used to calculate the fair value of these instruments. Fair value represents the present value of estimated future cash flows, calculated using relevant interest rates, exchange rates, and yield curves at stated intervals. There were no material changes to the valuation methods or assumptions used to determine the fair value during the current period.

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****17. FAIR VALUE (Continued)**

In November 2014, we entered into two five year cross-currency interest rate contracts and one eight year cross-currency interest rate contract. These instruments have been categorized by us as Level 3 within the fair value hierarchy due to unobservable inputs associated with the credit valuation adjustment, which we deemed to be significant inputs to the overall measurement of fair value at inception.

- (2) The income approach is used to calculate the fair value of these instruments. Fair value represents the present value of estimated future cash flows, calculated using relevant interest rates and yield curves at stated intervals. There were no material changes to the valuation methods or assumptions used to determine the fair value during the current period.
- (3) There were no transfers between Levels 1 and 2 within the fair value hierarchy for the years ended December 31, 2016 and 2015.

The following tables show reconciliations of beginning and ending balances for the years ended December 31, 2016 and 2015 for instruments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) (dollars in millions).

	<b>Cross-Currency Interest Rate Contracts</b>	
<b>Fair Value Measurements Using Significant Unobservable Inputs (Level 3)</b>		
Beginning balance, January 1, 2016	\$	28
Transfers into Level 3		
Transfers out of Level 3(1)		
Total gains (losses):		
Included in earnings		
Included in other comprehensive income (loss)		1
Purchases, sales, issuances and settlements		
Ending balance, December 31, 2016	\$	29

The amount of total gains (losses) for the period included in earnings attributable to the change in unrealized gains (losses) relating to assets still held at December 31, 2016

\$

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****17. FAIR VALUE (Continued)**

	<b>Cross-Currency Interest Rate Contracts</b>
<b>Fair Value Measurements Using Significant Unobservable Inputs (Level 3)</b>	
Beginning balance, January 1, 2015	\$ 5
Transfers into Level 3	
Transfers out of Level 3(1)	
Total gains (losses):	
Included in earnings	
Included in other comprehensive income (loss)	23
Purchases, sales, issuances and settlements	
Ending balance, December 31, 2015	\$ 28

The amount of total gains (losses) for the period included in earnings attributable to the change in unrealized gains (losses) relating to assets still held at December 31, 2015

\$

Gains and losses (realized and unrealized) included in earnings for instruments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) are reported in interest expense and other comprehensive income (loss) as follows (dollars in millions):

	<b>Interest expense</b>	<b>Other comprehensive income (loss)</b>
<b>2016</b>		
Total net gains included in earnings	\$	\$
Changes in unrealized gains relating to assets still held at December 31, 2016		1

	<b>Interest expense</b>	<b>Other comprehensive income (loss)</b>
<b>2015</b>		
Total net gains included in earnings	\$	\$
Changes in unrealized gains relating to assets still held at December 31, 2015		23

We also have assets that under certain conditions are subject to measurement at fair value on a non-recurring basis. These assets include property, plant and equipment and those associated with acquired businesses, including goodwill and intangible assets. For these assets, measurement at fair value in periods subsequent to their initial recognition is applicable if one or more is determined to be impaired. During 2016 and 2015, we recorded charges of \$1 million and \$19 million, respectively, for the impairment of long-lived assets. See "Note 12. Restructuring, Impairment and Plant Closing Costs."



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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**18. EMPLOYEE BENEFIT PLANS**

**DEFINED BENEFIT AND OTHER POSTRETIREMENT BENEFIT PLANS**

Our employees participate in a trustee, non-contributory defined benefit pension plan (the "Plan") that covers substantially all of our full-time U.S. employees. Effective July 1, 2004, the Plan formula for employees not covered by a collective bargaining agreement was converted to a cash balance design. For represented employees, participation in the cash balance design is subject to the terms of negotiated contracts. For participating employees, benefits accrued under the prior formula were converted to opening cash balance accounts. The new cash balance benefit formula provides annual pay credits from 4% to 12% of eligible pay, depending on age and service, plus accrued interest. Participants in the plan on July 1, 2004 may be eligible for additional annual pay credits from 1% to 8%, depending on their age and service as of that date, for up to five years. The conversion to the cash balance plan did not have a significant impact on the accrued benefit liability, the funded status or ongoing pension expense.

We sponsor defined benefit plans in a number of countries outside of the U.S. The availability of these plans, and their specific design provisions, are consistent with local competitive practices and regulations.

We also sponsor unfunded postretirement benefit plans other than pensions, which provide medical and life insurance benefits.

Our postretirement benefit plans provide a fully insured Medicare Part D plan including prescription drug benefits affected by the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the "Act"). We cannot determine whether the medical benefits provided by our postretirement benefit plans are actuarially equivalent to those provided by the Act. We do not collect a subsidy and our net periodic postretirement benefits cost, and related benefit obligation, do not reflect an amount associated with the subsidy.

Beginning July 1, 2014, the Huntsman Defined Benefit Pension Plan was closed to new non-union entrants and as of April 1, 2015, it was closed to new union entrants. In addition, as of January 1, 2015, Rubicon LLC also closed its defined benefit plan to new entrants. Following the closure of these plans, new hires have been provided with a defined contribution plan with a non-discretionary employer contribution of 6% of pay and a company match of up to 4% of pay, for a total company contribution of up to 10% of pay.

In connection with the Rockwood Acquisition, we assumed certain pension and other postretirement benefit liabilities in the amount of approximately \$233 million as of October 1, 2014.

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The following table sets forth the funded status of the plans for us and Huntsman International and the amounts recognized in our consolidated balance sheets at December 31, 2016 and 2015 (dollars in millions):

	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2016		2015		2016		2015	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
<b>Change in benefit obligation</b>								
Benefit obligation at beginning of year	\$ 961	\$ 3,010	\$ 1,001	\$ 3,317	\$ 88	\$ 5	\$ 137	\$ 6
Service cost	30	34	32	40	2		4	
Interest cost	48	72	43	79	4		5	
Participant contributions		5		6	2		3	
Plan amendments				(31)		(3)	(40)	
Foreign currency exchange rate changes		(322)		(210)				(1)
Settlements/transfers/divestitures		(2)						
Curtailments		(2)		(4)				
Special termination benefits				3				
Actuarial (gain) loss	73	427	(65)	(65)	9		(9)	
Benefits paid	(54)	(119)	(50)	(125)	(11)		(12)	
Benefit obligation at end of year	\$ 1,058	\$ 3,103	\$ 961	\$ 3,010	\$ 94	\$ 2	\$ 88	\$ 5
<b>Change in plan assets</b>								
Fair value of plan assets at beginning of year	\$ 722	\$ 2,431	\$ 761	\$ 2,587	\$	\$	\$	\$
Actual return on plan assets	55	322	(10)	40				
Foreign currency exchange rate changes		(281)		(153)				
Participant contributions		5		6	2		3	
Company contributions	5	60	21	76	9		9	
Benefits paid	(54)	(119)	(50)	(125)	(11)		(12)	
Fair value of plan assets at end of year	\$ 728	\$ 2,418	\$ 722	\$ 2,431	\$	\$	\$	\$
<b>Funded status</b>								
Fair value of plan assets	\$ 728	\$ 2,418	\$ 722	\$ 2,431	\$	\$	\$	\$
Benefit obligation	1,058	3,103	961	3,010	94	2	88	5
Accrued benefit cost	\$ (330)	\$ (685)	\$ (239)	\$ (579)	\$ (94)	\$ (2)	\$ (88)	\$ (5)
<b>Amounts recognized in balance sheet:</b>								
Noncurrent asset	\$	\$ 6	\$	\$ 35	\$	\$	\$	\$
Current liability	(6)	(5)	(6)	(5)	(8)		(9)	
Noncurrent liability	(324)	(686)	(233)	(609)	(86)	(2)	(79)	(5)

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\$ (330) \$ (685) \$ (239) \$ (579) \$ (94) \$ (2) \$ (88) \$ (5)

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	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2016		2015		2016		2015	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
<b>Amounts recognized in accumulated other comprehensive loss:</b>								
Net actuarial loss	\$ 407	\$ 1,100	\$ 359	\$ 906	\$ 45	\$ 1	\$ 38	\$ 1
Prior service credit	(17)	(31)	(22)	(34)	(51)	(2)	(58)	
	\$ 390	\$ 1,069	\$ 337	\$ 872	\$ (6)	\$ (1)	\$ (20)	\$ 1

**Huntsman International**

	Defined Benefit Plans				Other Postretirement Benefit Plans			
	2016		2015		2016		2015	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
<b>Amounts recognized in accumulated other comprehensive loss:</b>								
Net actuarial loss	\$ 408	\$ 1,137	\$ 361	\$ 952	\$ 45	\$ 1	\$ 38	\$ 1
Prior service credit	(17)	(31)	(22)	(35)	(51)	(2)	(58)	
	\$ 391	\$ 1,106	\$ 339	\$ 917	\$ (6)	\$ (1)	\$ (20)	\$ 1

The amounts in accumulated other comprehensive loss that are expected to be recognized as components of net periodic benefit cost during the next fiscal year are as follows (dollars in millions):

**Huntsman Corporation**

	Defined Benefit Plans		Other Postretirement Benefit Plans	
	Non-U.S. Plans		Non-U.S. Plans	
	U.S. Plans	Non-U.S. Plans	U.S. Plans	Non-U.S. Plans
Actuarial loss	\$ 29	\$ 58	\$ 3	\$ 1
Prior service credit	(2)	(4)	(6)	(3)
Total	\$ 27	\$ 54	\$ (3)	\$ (2)



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	Defined Benefit Plans		Other Postretirement Benefit Plans	
	Non-U.S. Plans		Non-U.S. Plans	
	U.S. Plans	Plans	U.S. Plans	Plans
Actuarial loss	\$ 29	\$ 65	\$ 3	\$ 1
Prior service credit	(2)	(4)	(6)	(3)
<b>Total</b>	<b>\$ 27</b>	<b>\$ 61</b>	<b>\$ (3)</b>	<b>\$ (2)</b>

Components of net periodic benefit costs for the years ended December 31, 2016, 2015 and 2014 were as follows (dollars in millions):

**Huntsman Corporation**

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 30	\$ 32	\$ 27	\$ 34	\$ 40	\$ 32
Interest cost	48	43	45	72	79	102
Expected return on plan assets	(55)	(57)	(56)	(132)	(143)	(138)
Amortization of prior service credit	(5)	(6)	(6)	(4)		
Amortization of actuarial loss	25	32	19	42	43	34
Settlement loss						13
Special termination benefits					3	3
<b>Net periodic benefit cost</b>	<b>\$ 43</b>	<b>\$ 44</b>	<b>\$ 29</b>	<b>\$ 12</b>	<b>\$ 22</b>	<b>\$ 46</b>

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 2	\$ 4	\$ 3	\$	\$	\$
Interest cost	4	5	5			
Amortization of prior service credit	(7)	(5)	(4)			
Amortization of actuarial loss	2	3	1			
<b>Net periodic benefit cost</b>	<b>\$ 1</b>	<b>\$ 7</b>	<b>\$ 5</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>



Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****18. EMPLOYEE BENEFIT PLANS (Continued)****Huntsman International**

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 30	\$ 32	\$ 27	\$ 34	\$ 40	\$ 32
Interest cost	48	43	45	72	79	102
Expected return on plan assets	(55)	(57)	(56)	(131)	(143)	(138)
Amortization of prior service credit	(5)	(6)	(6)	(4)		
Amortization of actuarial loss	25	32	19	49	51	41
Settlement loss						13
Special termination benefits					3	3
Net periodic benefit cost	\$ 43	\$ 44	\$ 29	\$ 20	\$ 30	\$ 53

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 2	\$ 4	\$ 3	\$	\$	\$
Interest cost	4	5	5			
Amortization of prior service credit	(7)	(5)	(4)			
Amortization of actuarial loss	2	3	1			
Net periodic benefit cost	\$ 1	\$ 7	\$ 5	\$	\$	\$

The amounts recognized in net periodic benefit cost and other comprehensive (loss) income as of December 31, 2016, 2015 and 2014 were as follows (dollars in millions):

**Huntsman Corporation**

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Current year actuarial loss	\$ 74	\$ 2	\$ 144	\$ 235	\$ 33	\$ 257
Amortization of actuarial loss	(25)	(32)	(19)	(42)	(43)	(34)
Current year prior service credit					(32)	(6)
Amortization of prior service credit	5	6	6	4		
Settlements						(13)



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Total recognized in other comprehensive loss (income)	54	(24)	131	197	(42)	204
Net periodic benefit cost	43	44	29	12	22	46
Total recognized in net periodic benefit cost and other comprehensive (loss) income	\$ 97	\$ 20	\$ 160	\$ 209	\$ (20)	\$ 250

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	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Current year actuarial loss (gain)	\$ 9	\$ (9)	\$ 30	\$	\$	\$ 1
Amortization of actuarial loss	(2)	(3)	(1)			
Current year prior service credit		(40)		(2)		
Amortization of prior service credit	7	5	4			
Total recognized in other comprehensive loss (income)	14	(47)	33	(2)		1
Net periodic benefit cost	1	7	5			
Total recognized in net periodic benefit cost and other comprehensive (loss) income	\$ 15	\$ (40)	\$ 38	\$ (2)	\$	\$ 1

**Huntsman International**

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Current year actuarial loss	\$ 74	\$ 2	\$ 144	\$ 235	\$ 33	\$ 257
Amortization of actuarial loss	(25)	(32)	(19)	(49)	(51)	(41)
Current year prior service credit					(32)	(6)
Amortization of prior service credit	5	6	6	4		
Settlements						(13)
Total recognized in other comprehensive loss (income)	54	(24)	131	190	(50)	197
Net periodic benefit cost	43	44	29	20	30	53
Total recognized in net periodic benefit cost and other comprehensive (loss) income	\$ 97	\$ 20	\$ 160	\$ 210	\$ (20)	\$ 250

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
Current year actuarial loss (gain)	\$ 9	\$ (9)	\$ 30	\$	\$	\$ 1
Amortization of actuarial loss	(2)	(3)	(1)			
Current year prior service credit		(40)		(2)		

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Amortization of prior service credit	7	5	4		
Total recognized in other comprehensive loss (income)	14	(47)	33	(2)	1
Net periodic benefit cost	1	7	5		
Total recognized in net periodic benefit cost and other comprehensive (loss) income	\$ 15	\$ (40)	\$ 38	\$ (2)	\$ 1

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The following weighted-average assumptions were used to determine the projected benefit obligation at the measurement date and the net periodic pension cost for the year:

	Defined Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
<b>Projected benefit obligation</b>						
Discount rate	4.24%	4.90%	4.25%	1.82%	2.53%	2.48%
Rate of compensation increase	4.17%	4.17%	4.16%	3.51%	3.23%	3.23%
<b>Net periodic pension cost</b>						
Discount rate	4.90%	4.25%	5.13%	2.53%	2.48%	3.62%
Rate of compensation increase	4.17%	4.16%	4.17%	3.42%	3.23%	3.37%
Expected return on plan assets	7.56%	7.74%	7.75%	5.68%	5.79%	5.82%

	Other Postretirement Benefit Plans					
	U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014
<b>Projected benefit obligation</b>						
Discount rate	4.03%	4.68%	4.17%	3.50%	7.25%	6.44%
<b>Net periodic pension cost</b>						
Discount rate	4.68%	4.20%	4.79%	7.25%	6.44%	6.49%

At both December 31, 2016 and 2015, the health care trend rate used to measure the expected increase in the cost of benefits was assumed to be 7.0%, decreasing to 5% after 2025. Assumed health care cost trend rates can have a significant effect on the amounts reported for the postretirement benefit plans. A one-percent point change in assumed health care cost trend rates would have the following effects (dollars in millions):

Asset category	Increase	Decrease
	Effect on total of service and interest cost	\$
Effect on postretirement benefit obligation	1	(1)

The projected benefit obligation and fair value of plan assets for the defined benefit plans with projected benefit obligations in excess of plan assets as of December 31, 2016 and 2015 were as follows (dollars in millions):

	U.S. plans		Non-U.S. plans	
	2016	2015	2016	2015
<b>Projected benefit obligation in excess of plan assets</b>				
Projected benefit obligation	\$ 1,058	\$ 961	\$ 3,074	\$ 2,129
Fair value of plan assets	728	722	2,389	1,514

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****18. EMPLOYEE BENEFIT PLANS (Continued)**

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for the defined benefit plans with an accumulated benefit obligation in excess of plan assets as of December 31, 2016 and 2015 were as follows (dollars in millions):

	U.S. plans		Non-U.S. plans	
	2016	2015	2016	2015
<b>Accumulated benefit obligation in excess of plan assets</b>				
Projected benefit obligation	\$ 1,058	\$ 961	\$ 2,145	\$ 1,403
Accumulated benefit obligation	1,031	941	2,020	1,312
Fair value of plan assets	728	722	1,487	823

Expected future contributions and benefit payments are as follows (dollars in millions):

	U.S. Plans		Non-U.S. Plans	
	Defined Benefit Plans	Other Postretirement Benefit Plans	Defined Benefit Plans	Other Postretirement Benefit Plans
<b>2017 expected employer contributions</b>				
To plan trusts	\$ 54	\$ 8	\$ 54	\$
<b>Expected benefit payments</b>				
2017	66	8	97	
2018	90	8	102	
2019	66	8	102	
2020	65	8	107	
2021	67	8	111	
2022 - 2026	369	37	588	1

Our investment strategy with respect to pension assets is to pursue an investment plan that, over the long term, is expected to protect the funded status of the plan, enhance the real purchasing power of plan assets, and not threaten the plan's ability to meet currently committed obligations. Additionally, our investment strategy is to achieve returns on plan assets, subject to a prudent level of portfolio risk. Plan assets are invested in a broad range of investments. These investments are diversified in terms of domestic and international equities, both growth and value funds, including small, mid and large capitalization equities; short-term and long-term debt securities; real estate; and cash and cash equivalents. The investments are further diversified within each asset category. The portfolio diversification provides protection against a single investment or asset category having a disproportionate impact on the aggregate performance of the plan assets.

Our pension plan assets are managed by outside investment managers. The investment managers value our plan assets using quoted market prices, other observable inputs or unobservable inputs. For certain assets, the investment managers obtain third-party appraisals at least annually, which use valuation techniques and inputs specific to the applicable property, market, or geographic location. During 2016, there were no transfers into or out of Level 3 assets.

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 18. EMPLOYEE BENEFIT PLANS (Continued)

We have established target allocations for each asset category. Our pension plan assets are periodically rebalanced based upon our target allocations.

The fair value of plan assets for the pension plans was \$3.1 billion and \$3.2 billion at December 31, 2016 and 2015, respectively. The following plan assets are measured at fair value on a recurring basis (dollars in millions):

Asset category	December 31, 2016	Fair Value Amounts Using		
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
U.S. pension plans:				
Equities	\$ 387	\$ 276	\$ 111	\$
Fixed income	277	212	65	
Real estate/other	64			64
Cash				
Total U.S. pension plan assets	\$ 728	\$ 488	\$ 176	\$ 64
Non-U.S. pension plans:				
Equities	\$ 803	\$ 447	\$ 356	\$
Fixed income	1,137	548	583	6
Real estate/other	458	64	326	68
Cash	20	20		
Total Non-U.S. pension plan assets	\$ 2,418	\$ 1,079	\$ 1,265	\$ 74

Asset category	December 31, 2015	Fair Value Amounts Using		
		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
U.S. pension plans:				
Equities	\$ 387	\$ 279	\$ 108	\$
Fixed income	277	211	66	
Real estate/other	58			58
Cash				
Total U.S. pension plan assets	\$ 722	\$ 490	\$ 174	\$ 58

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Non-U.S. pension plans:													
Equities	\$	830	\$	446	\$	384	\$						
Fixed income		1,113		514		599							
Real estate/other		477		84		339	54						
Cash		11		10		1							
Total Non-U.S. pension plan assets						\$	2,431	\$	1,054	\$	1,323	\$	54

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 18. EMPLOYEE BENEFIT PLANS (Continued)

The following table reconciles the beginning and ending balances of plan assets measured at fair value using unobservable inputs (Level 3) (dollars in millions):

	Real Estate/Other	
	Year ended December 31, 2016	Year ended December 31, 2015
<b>Fair Value Measurements of Plan Assets Using Significant Unobservable Inputs (Level 3)</b>		
Balance at beginning of period	\$ 112	\$ 96
Return on pension plan assets	4	4
Purchases, sales and settlements	16	12
Transfers into (out of) Level 3		
Balance at end of period	\$ 132	\$ 112

	Fixed Income	
	Year ended December 31, 2016	Year ended December 31, 2015
<b>Fair Value Measurements of Plan Assets Using Significant Unobservable Inputs (Level 3)</b>		
Balance at beginning of period	\$	\$
Return on pension plan assets		
Purchases, sales and settlements	6	
Transfers into (out of) Level 3		
Balance at end of period	\$ 6	\$

Based upon historical returns, the expectations of our investment committee and outside advisors, the expected long-term rate of return on the pension assets is estimated to be between 5.68% and



Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****18. EMPLOYEE BENEFIT PLANS (Continued)**

7.75%. The asset allocation for our pension plans at December 31, 2016 and 2015 and the target allocation for 2017, by asset category are as follows:

Asset category	Target Allocation 2017	Allocation at December 31, 2016	Allocation at December 31, 2015
<b>U.S. pension plans:</b>			
Equities	53%	53%	54%
Fixed income	39%	38%	38%
Real estate/other	4%	9%	8%
Cash	4%		
<b>Total U.S. pension plans</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Non-U.S. pension plans:</b>			
Equities	36%	33%	34%
Fixed income	44%	47%	46%
Real estate/other	19%	19%	20%
Cash	1%	1%	
<b>Total non-U.S. pension plans</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Equity securities in our pension plans did not include any direct investments in equity securities of our Company or our affiliates at the end of 2016.

**DEFINED CONTRIBUTION PLANS U.S.**

We have a money purchase pension plan covering substantially all of our domestic employees who were hired prior to January 1, 2004. Employer contributions are made based on a percentage of employees' earnings (ranging up to 8%). During 2014, we closed this plan to non-union participants, continuing to provide equivalent benefits to those covered under this plan into their salary deferral account.

We also have a salary deferral plan covering substantially all U.S. employees. Plan participants may elect to make voluntary contributions to this plan up to a specified amount of their compensation. We contribute an amount equal to one-half of the participant's contribution, not to exceed 2% of the participant's compensation.

Along with the introduction of the cash balance formula within our defined benefit pension plan, the money purchase pension plan was closed to new hires. At the same time, our match in the salary deferral plan was increased, for new hires, to a 100% match, not to exceed 4% of the participant's compensation, once the participant has achieved six years of service with our Company.

Our total combined expense for the above defined contribution plans for each of the years ended December 31, 2016, 2015 and 2014 was \$23 million, \$23 million and \$15 million, respectively.



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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**18. EMPLOYEE BENEFIT PLANS (Continued)**

**DEFINED CONTRIBUTION PLANS NON-U.S.**

We have defined contribution plans in a variety of non-U.S. locations.

Our total combined expense for these defined contribution plans for the years ended December 31, 2016, 2015 and 2014 was \$12 million, \$13 million and \$14 million, respectively, primarily related to the Huntsman UK Pension Plan.

All UK associates are eligible to participate in the Huntsman UK Pension Plan, a contract-based arrangement with a third party. Company contributions vary by business during a five year transition period. Plan participants elect to make voluntary contributions to this plan up to a specified amount of their compensation. We contribute a matching amount not to exceed 12% of the participant's salary for new hires and 15% of the participant's salary for all other participants.

**SUPPLEMENTAL SALARY DEFERRAL PLAN AND SUPPLEMENTAL EXECUTIVE RETIREMENT PLAN**

The Huntsman Supplemental Savings Plan (the "SSP") is a non-qualified plan covering key management employees and allows participants to defer amounts that would otherwise be paid as compensation. The participant can defer up to 75% of their salary and bonus each year. This plan also provides benefits that would be provided under the Huntsman Salary Deferral Plan if that plan were not subject to legal limits on the amount of contributions that can be allocated to an individual in a single year. The SSP was amended and restated effective as of January 1, 2005 to allow eligible executive employees to comply with Section 409A of the Internal Revenue Code of 1986.

The Huntsman Supplemental Executive Retirement Plan (the "SERP") is an unfunded non-qualified pension plan established to provide certain executive employees with benefits that could not be provided, due to legal limitations, under the Huntsman Defined Benefit Pension Plan, a qualified defined benefit pension plan, and the Huntsman Money Purchase Pension Plan, a qualified money purchase pension plan.

Assets of these plans are included in other noncurrent assets and as of December 31, 2016 and 2015 were \$27 million and \$26 million, respectively. During each of the years ended December 31, 2016, 2015 and 2014, we expensed a total of \$1 million as contributions to the SSP and the SERP.

**STOCK-BASED INCENTIVE PLAN**

On May 5, 2016, our stockholders approved a new Huntsman Corporation 2016 Stock Incentive Plan (the "2016 Stock Incentive Plan"), which reserved 8.2 million shares for issuance. The Huntsman Corporation Stock Incentive Plan, as amended and restated (the "Prior Plan"), remains in effect for outstanding awards granted pursuant to the Prior Plan, but no further awards may be granted under the Prior Plan. Under the 2016 Stock Incentive Plan, we may grant nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, phantom stock, performance share units and other stock-based awards to our employees, directors and consultants and to employees and consultants of our subsidiaries, provided that incentive stock options may be granted solely to employees. The terms of the grants under both the 2016 Stock Incentive Plan and the Prior Plan are fixed at the grant date. As of December 31, 2016, we had approximately 8 million shares remaining under the 2016 Stock Incentive Plan available for grant. See "Note 23. Stock-Based Compensation Plan."

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International employees are covered by various post-employment arrangements consistent with local practices and regulations. Such obligations are included in other long-term liabilities in our consolidated balance sheets.

**19. INCOME TAXES**

The following is a summary of U.S. and non-U.S. provisions for current and deferred income taxes (dollars in millions):

**Huntsman Corporation**

	Year ended December 31,		
	2016	2015	2014
Income tax (benefit) expense:			
U.S.			
Current	\$ (4)	\$ 48	\$ 55
Deferred	25	21	(4)
Non-U.S.			
Current	75	24	48
Deferred	(9)	(47)	(48)
Total	\$ 87	\$ 46	\$ 51

**Huntsman International**

	Year ended December 31,		
	2016	2015	2014
Income tax (benefit) expense:			
U.S.			
Current	\$ (4)	\$ 46	\$ 43
Deferred	24	21	(1)
Non-U.S.			
Current	75	24	48
Deferred	(9)	(46)	(47)
Total	\$ 86	\$ 45	\$ 43

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The following schedule reconciles the differences between the U.S. federal income taxes at the U.S. statutory rate to our provision for income taxes (dollars in millions):

**Huntsman Corporation**

	<b>Year ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Income from continuing operations before income taxes	\$ 448	\$ 176	\$ 404
Expected tax expense at U.S. statutory rate of 35%	\$ 157	\$ 62	\$ 142
Change resulting from:			
State tax expense net of federal benefit	(1)	(3)	10
Non-U.S. tax rate differentials	(47)	4	(7)
Non-taxable portion of gain on sale of European surfactants business	(23)		
U.S. domestic manufacturing deduction		(7)	(14)
Currency exchange gains and losses	(4)	(58)	(7)
Effect of tax holidays		(6)	
U.S. foreign tax credits, net of associated income and taxes		(22)	(2)
Tax benefit of losses with valuation allowances as a result of other comprehensive income	(1)	(3)	(7)
Tax authority audits and dispute resolutions	(6)	10	3
Change in valuation allowance	(13)	75	(76)
Other non-U.S. tax effects, including nondeductible expenses, tax effect of rate changes, transfer pricing adjustments and various withholding taxes	19	(6)	3
Other U.S. tax effects, including nondeductible expenses and other credits	6		6
Total income tax expense	\$ 87	\$ 46	\$ 51

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	Year ended December 31,		
	2016	2015	2014
Income from continuing operations before income taxes	\$ 444	\$ 176	\$ 409
Expected tax expense at U.S. statutory rate of 35%	\$ 156	\$ 62	\$ 143
Change resulting from:			
State tax expense net of federal benefit	(1)	(3)	10
Non-U.S. tax rate differentials	(47)	4	(7)
Non-taxable portion of gain on sale of European surfactants business	(23)		
U.S. domestic manufacturing deduction		(7)	(13)
Currency exchange gains and losses	(4)	(58)	(7)
Effect of tax holidays		(6)	
U.S. foreign tax credits, net of associated income and taxes		(22)	(2)
Tax benefit of losses with valuation allowances as a result of other comprehensive income	(1)	(3)	(7)
Tax authority audits and dispute resolutions	(6)	10	3
Change in valuation allowance	(15)	74	(88)
Other non-U.S. tax effects, including nondeductible expenses, tax effect of rate changes, transfer pricing adjustments and various withholding taxes	21	(5)	4
Other U.S. tax effects, including nondeductible expenses and other credits	6	(1)	7
Total income tax expense	\$ 86	\$ 45	\$ 43

After extensive research and analysis, in 2014, we made certain elections and filed amended U.S. tax returns for tax years 2008 through 2012, along with our original U.S. tax return for tax year 2013. These new tax elections and amended tax returns allowed us to utilize U.S. foreign tax credits. The net result was \$104 million of income tax benefit recognized during 2014 for the release of the associated valuation allowance.

During 2015, we declared a dividend from our non-U.S. operations to the U.S. which included bringing onshore certain U.S. foreign tax credits. The foreign tax credits brought onshore exceeded the amount needed to offset the cash tax impact of the dividend, as well as enough to allow us to carry \$14 million of foreign tax credits back to a prior year and claim a refund.

Included in the non-U.S. deferred tax expense are income tax benefits of \$1 million in 2016, \$3 million in 2015 and \$7 million in 2014 for losses from continuing operations for certain jurisdictions with valuation allowances to the extent that income was recorded in other comprehensive income in that same jurisdiction. The benefits in 2016 were largely attributable to South Africa, and the benefits in 2015 and 2014 were largely attributable to the U.K. In all years, foreign currency gains and changes in pension related items resulted in income in other comprehensive income where we have a full valuation allowance against the net deferred tax asset. An offsetting income tax expense was recognized in accumulated other comprehensive loss.

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****19. INCOME TAXES (Continued)**

We operate in many non-U.S. tax jurisdictions with no specific country earning a predominant amount of our off-shore earnings. The vast majority of these countries have income tax rates that are lower than the U.S. statutory rate. During 2016 and 2014, the average statutory rate for countries with pre-tax income was lower than the average statutory rate for countries with pre-tax losses, resulting in net benefits as compared to the U.S. statutory rate of \$47 million and \$7 million, respectively, reflected in the reconciliation above. In 2016, the \$47 million net benefit relates primarily to our Polyurethanes operations in The Netherlands and China and our Advanced Materials operations in Switzerland. During 2015, the average statutory rate for countries with pre-tax losses was lower than the average statutory rate for countries with pre-tax income, resulting in net expenses as compared to the U.S. statutory rate of \$4 million, reflected in the reconciliation above.

In certain non-U.S. tax jurisdictions, our U.S. GAAP functional currency is different than the local tax currency. As a result, foreign exchange gains and losses will impact our effective tax rate. For 2016, this resulted in a \$4 million tax benefit, for 2015, this resulted in a \$33 million tax benefit (\$58 million, net of \$25 million of contingent liabilities and valuation allowances) and for 2014, this resulted in a \$7 million tax benefit. A number of our intercompany liabilities that were denominated in U.S. dollars were owed by entities whose tax currency was the euro. As a result of the depreciation in the euro opposite the U.S. dollar, these entities recorded a tax only foreign exchange loss. Most of the intercompany receivables associated with these same U.S. dollar denominated intercompany debts were held by entities with a tax currency of the U.S. dollar which, therefore, resulted in no taxable gain.

During 2015, we were granted an extension of a tax holiday from 2015 to 2022 on certain of our manufacturing operations in Singapore. During 2015, pursuant to the Singapore tax holiday, we recorded a benefit of \$6 million. We will continue to enjoy this benefit to the extent of continuing profits in this manufacturing endeavor. There were no net tax benefits recorded in 2016.

We calculate deferred tax assets and liabilities related to U.S. state income taxes based on projected apportionment factors. During 2015, we experienced a decrease in our projected apportionment factors, which decreased our deferred tax liability for U.S. state income taxes. The amount of our deferred tax liability for U.S. state income taxes is significant, and therefore, the change in apportionment factors for 2015 decreased our net deferred tax liabilities by \$5 million. Also during 2015, we changed the legal entity location of certain of our U.S. operations. These changes had the effect of reducing our state tax expense by approximately \$3 million.

The components of income (loss) from continuing operations before income taxes were as follows (dollars in millions):

**Huntsman Corporation**

	Year ended December 31,		
	2016	2015	2014
U.S.	\$ 66	\$ 243	\$ 435
Non-U.S.	382	(67)	(31)
<b>Total</b>	<b>\$ 448</b>	<b>\$ 176</b>	<b>\$ 404</b>

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	Year ended December 31,		
	2016	2015	2014
U.S.	\$ 62	\$ 243	\$ 436
Non-U.S.	382	(67)	(27)
Total	\$ 444	\$ 176	\$ 409

Components of deferred income tax assets and liabilities were as follows (dollars in millions):

**Huntsman Corporation**

	December 31,	
	2016	2015
Deferred income tax assets:		
Net operating loss carryforwards	\$ 848	\$ 871
Pension and other employee compensation	329	280
Property, plant and equipment	85	97
Intangible assets	118	131
Foreign tax credits	5	14
Other, net	87	100
Total	\$ 1,472	\$ 1,493

Deferred income tax liabilities:		
Property, plant and equipment	\$ (611)	\$ (577)
Pension and other employee compensation	(1)	(8)
Other, net	(134)	(128)
Total	\$ (746)	\$ (713)

Net deferred tax asset before valuation allowance	\$ 726	\$ 780
Valuation allowance net operating losses and other	(757)	(784)
Net deferred tax liability	\$ (31)	\$ (4)



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Non-current deferred tax asset	396	418
Non-current deferred tax liability	(427)	(422)
Net deferred tax liability	\$ (31)	\$ (4)

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	December 31,	
	2016	2015
Deferred income tax assets:		
Net operating loss and AMT credit carryforwards	\$ 851	\$ 871
Pension and other employee compensation	327	278
Property, plant and equipment	88	103
Intangible assets	117	131
Foreign tax credits	5	14
Other, net	87	100
<b>Total</b>	<b>\$ 1,475</b>	<b>\$ 1,497</b>
Deferred income tax liabilities:		
Property, plant and equipment	\$ (608)	\$ (573)
Pension and other employee compensation	(1)	(8)
Other, net	(134)	(128)
<b>Total</b>	<b>\$ (743)</b>	<b>\$ (709)</b>
Net deferred tax asset before valuation allowance	\$ 732	\$ 788
Valuation allowance net operating losses and other	(759)	(788)
Net deferred tax liability	\$ (27)	\$
Non-current deferred tax asset	396	418
Non-current deferred tax liability	(423)	(418)
Net deferred tax liability	\$ (27)	\$

We have gross NOLs of \$3,407 million in various non-U.S. jurisdictions. While the majority of the non-U.S. NOLs have no expiration date, \$475 million have a limited life (of which \$448 million are subject to a valuation allowance) and \$3 million are scheduled to expire in 2017 (all of which are subject to a valuation allowance). We had no NOLs expire unused in 2016.

Included in the \$3,407 million of gross non-U.S. NOLs is \$940 million attributable to our Luxembourg entities. As of December 31, 2016, due to the uncertainty surrounding the realization of the benefits of these losses, there is a valuation allowance of \$211 million against these net tax-effected NOLs of \$255 million.

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We evaluate deferred tax assets to determine whether it is more likely than not that they will be realized. Valuation allowances are reviewed each period on a tax jurisdiction by jurisdiction basis to analyze whether there is sufficient positive or negative evidence to support a change in judgment about the realizability of the related deferred tax assets. These conclusions require significant judgment. In evaluating the objective evidence that historical results provide, we consider the cyclical nature of businesses and cumulative income or losses during the applicable period. Cumulative losses incurred over the period limits our ability to consider other subjective evidence such as our projections for the future.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**19. INCOME TAXES (Continued)**

Our judgments regarding valuation allowances are also influenced by the costs and risks associated with any tax planning idea.

During 2016, we established valuation allowances of \$12 million and released valuation allowances of \$25 million. In Italy we established \$9 million of valuation allowances on certain net deferred tax assets as a result of the sale of our European surfactants business, and in China we established \$3 million of valuation allowances as a result of the closure of our Qingdao, China plant. We released valuation allowances of \$12 million in Spain as a result of cumulative profitability, \$7 million in The Netherlands as a result of tax planning to utilize losses that would have otherwise expired, and \$6 million in France as a result of a tax combination allowing deferred tax liabilities to be offset by deferred tax assets which previously had a valuation allowance.

During 2015, we established valuation allowances of \$35 million and released valuation allowances of \$3 million. In the U.S., we established \$14 million of valuation allowance on U.S. foreign tax credits due to the application of specific foreign tax credit limitations, in The Netherlands we established \$7 million of valuation allowance on losses which are scheduled to expire after 2016, and in Italy we established \$12 million of valuation allowances on certain net deferred tax assets as a result of cumulative losses.

During 2014, we released valuation allowances of \$111 million and established valuation allowances of \$3 million. In the U.S., we released \$94 million of valuation allowance on U.S. foreign tax credits as a result of making certain tax elections and filing amended U.S. tax returns and in Luxembourg we released a valuation allowance on \$6 million of certain net deferred tax assets as a result of significant changes in estimated future taxable income resulting from increased intercompany receivables and, therefore, increased interest income in Luxembourg, our primary treasury center outside of the U.S.

Uncertainties regarding expected future income in certain jurisdictions could affect the realization of deferred tax assets in those jurisdictions and result in additional valuation allowances in future periods, or, in the case of unexpected pre-tax earnings, the release of valuation allowances in future periods.

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The following is a summary of changes in the valuation allowance (dollars in millions):

**Huntsman Corporation**

	2016	2015	2014
Valuation allowance as of January 1	\$ 784	\$ 702	\$ 814
Valuation allowance as of December 31	757	784	702
Net (increase) decrease	27	(82)	112
Foreign currency movements	(35)	(22)	(49)
(Decrease) increase to deferred tax assets with no impact on operating tax expense, including an offsetting (decrease) increase to valuation allowances	21	29	13
Change in valuation allowance per rate reconciliation	\$ 13	\$ (75)	\$ 76
Components of change in valuation allowance affecting tax expense:			
Pre-tax losses in jurisdictions with valuation allowances resulting in no tax expense or benefit	\$	\$ (43)	\$ (32)
Releases of valuation allowances in various jurisdictions	25	3	111
Establishments of valuation allowances in various jurisdictions	(12)	(35)	(3)
Change in valuation allowance per rate reconciliation	\$ 13	\$ (75)	\$ 76

**Huntsman International**

	2016	2015	2014
Valuation allowance as of January 1	\$ 788	\$ 707	\$ 832
Valuation allowance as of December 31	759	788	707
Net (increase) decrease	29	(81)	125
Foreign currency movements	(35)	(22)	(49)
(Decrease) increase to deferred tax assets with no impact on operating tax expense, including an offsetting (decrease) increase to valuation allowances	21	29	12
Change in valuation allowance per rate reconciliation	\$ 15	\$ (74)	\$ 88
Components of change in valuation allowance affecting tax expense:			
Pre-tax losses in jurisdictions with valuation allowances resulting in no tax expense or benefit	\$ 2	\$ (41)	\$ (31)
Releases of valuation allowances in various jurisdictions	25	3	122
Establishments of valuation allowances in various jurisdictions	(12)	(36)	(3)

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Change in valuation allowance per rate reconciliation	\$	15	\$	(74)	\$	88
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The following is a reconciliation of our unrecognized tax benefits (dollars in millions):

	2016	2015
Unrecognized tax benefits as of January 1	\$ 62	\$ 68
Gross increases and decreases tax positions taken during a prior period	1	3
Gross increases and decreases tax positions taken during the current period	2	5
Decreases related to settlements of amounts due to tax authorities	(22)	(2)
Reductions resulting from the lapse of statutes of limitation	(4)	(8)
Foreign currency movements	(2)	(4)
Unrecognized tax benefits as of December 31	\$ 37	\$ 62

As of December 31, 2016 and 2015, the amount of unrecognized tax benefits which, if recognized, would affect the effective tax rate is \$21 million and \$50 million, respectively.

During 2016, we concluded and settled tax examinations on various non-U.S. jurisdictions including, but not limited to, China, Germany, Indonesia, The Netherlands, Spain and the U.K. During 2015, we concluded and effectively settled tax examinations in the U.S. (both federal and various states) and various non-U.S. jurisdictions including, but not limited to China and France. During 2014, we concluded and settled tax examinations in the U.S. (both federal and various states) and various non-U.S. jurisdictions including, but not limited to, China, France and Spain.

During 2016, for unrecognized tax benefits that impact tax expense, we recorded a net decrease in unrecognized tax benefits with a corresponding income tax benefit (not including interest and penalty expense) of \$5 million. During 2015 and 2014, we recorded a net increase in unrecognized tax benefits with a corresponding income tax expense (not including interest and penalty expense) of \$19 million and \$1 million, respectively. Additional decreases in unrecognized tax benefits were offset by cash settlements or by a decrease in net deferred tax assets and, therefore, did not affect income tax expense.

In accordance with our accounting policy, we continue to recognize interest and penalties accrued related to unrecognized tax benefits in income tax expense.

	Year ended December 31,		
	2016	2015	2014
Interest expense included in tax expense	\$ (1)	\$ (9)	\$ 2
Penalties expense included in tax expense			

	December 31,	
	2016	2015
Accrued liability for interest	\$ 3	\$ 4
Accrued liability for penalties		

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We conduct business globally and, as a result, we file income tax returns in U.S. federal, various U.S. state and various non-U.S. jurisdictions. The following table summarizes the tax years that remain subject to examination by major tax jurisdictions:

<b>Tax Jurisdiction</b>	<b>Open Tax Years</b>
China	2012 and later
France	2002 and later
Germany	2011 and later
India	2004 and later
Italy	2012 and later
Malaysia	2012 and later
Switzerland	2010 and later
The Netherlands	2013 and later
United Kingdom	2015 and later
United States federal	2009 and later

Certain of our U.S. and non-U.S. income tax returns are currently under various stages of audit by applicable tax authorities and the amounts ultimately agreed upon in resolution of the issues raised may differ materially from the amounts accrued.

We estimate that it is reasonably possible that certain of our non-U.S. unrecognized tax benefits could change within 12 months of the reporting date with a resulting decrease in the unrecognized tax benefits within a reasonably possible range of nil to \$6 million. For the 12-month period from the reporting date, we would expect that a substantial portion of the decrease in our unrecognized tax benefits would result in a corresponding benefit to our income tax expense.

For non-U.S. entities that were not treated as branches for U.S. tax purposes, we do not provide for income taxes on the undistributed earnings of these subsidiaries that are reinvested and, in the opinion of management, will continue to be reinvested indefinitely. We have material intercompany debt obligations owed by our non-U.S. subsidiaries to the U.S. We do not intend to repatriate earnings to the U.S. via dividend based on estimates of future domestic cash generation and our ability to return cash to the U.S. through payments of intercompany debt owned by our non-U.S. subsidiaries to the U.S. To the extent that cash is required in the U.S., rather than repatriate earnings to the U.S. via dividend, we expect to utilize our intercompany debt. If any earnings were repatriated via dividend, we may need to accrue and pay taxes on the distributions.

As discussed, we made a distribution of a portion of our earnings in 2015 when the amount of foreign tax credits associated with the distribution was greater than the amount of tax otherwise due. The undistributed earnings of foreign subsidiaries with positive earnings that are deemed to be permanently invested were approximately \$390 million at December 31, 2016. It is not practicable to determine the unrecognized deferred tax liability on those earnings because of the significant assumptions necessary to compute the tax.



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We have various purchase commitments extending through 2029 for materials, supplies and services entered into in the ordinary course of business. Included in the purchase commitments table below are contracts which require minimum volume purchases that extend beyond one year or are renewable annually and have been renewed for 2017. Certain contracts allow for changes in minimum required purchase volumes in the event of a temporary or permanent shutdown of a facility. To the extent the contract requires a minimum notice period, such notice period has been included in the table below. The contractual purchase prices for substantially all of these contracts are variable based upon market prices, subject to annual negotiations. We have estimated our contractual obligations by using the terms of our current pricing for each contract. We also have a limited number of contracts which require a minimum payment even if no volume is purchased. We believe that all of our purchase obligations will be utilized in our normal operations. For the years ended December 31, 2016, 2015 and 2014, we made minimum payments of \$2 million, nil and nil, respectively, under such take or pay contracts without taking the product.

Total purchase commitments as of December 31, 2016 are as follows (dollars in millions):

<b>Year ending December 31,</b>	
2017	\$ 1,636
2018	1,164
2019	415
2020	170
2021	168
Thereafter	1,063
	\$ 4,616

**OPERATING LEASES**

We lease certain railcars, aircraft, equipment and facilities under long-term lease agreements. The total expense recorded under operating lease agreements in our consolidated statements of operations is approximately \$89 million, \$94 million and \$97 million for 2016, 2015 and 2014, respectively, net of sublease rentals of approximately \$2 million, \$3 million and \$3 million for the years ended December 31, 2016, 2015 and 2014, respectively.

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Future minimum lease payments under operating leases as of December 31, 2016 are as follows (dollars in millions):

<b>Year ending December 31,</b>	
2017	\$ 82
2018	73
2019	65
2020	59
2021	54
Thereafter	177
	\$ 510

Future minimum lease payments have not been reduced by minimum sublease rentals of \$2 million due in the future under noncancelable subleases.

**LEGAL MATTERS****Antitrust Matters**

We were named as a defendant in consolidated class action civil antitrust suits filed on February 9 and 12, 2010 in the U.S. District Court for the District of Maryland alleging that we, our co-defendants and other alleged co-conspirators conspired to fix prices of titanium dioxide sold in the U.S. between at least March 1, 2002 and the present. The other defendants named in this matter were DuPont, Kronos and Cristal (formerly Millennium). On August 28, 2012, the court certified a class consisting of all U.S. customers who purchased titanium dioxide directly from the defendants since February 1, 2003 (the "Direct Purchasers"). On December 13, 2013, we and all other defendants settled the Direct Purchasers litigation and the court approved the settlement. We paid the settlement in an amount immaterial to our consolidated financial statements.

On November 22, 2013, we were named as a defendant in a civil antitrust suit filed in the U.S. District Court for the District of Minnesota brought by a Direct Purchaser who opted out of the Direct Purchasers class litigation (the "Opt-Out Litigation"). On April 21, 2014, the court severed the claims against us from the other defendants sued and ordered our case transferred to the U.S. District Court for the Southern District of Texas. Subsequently, Kronos, another defendant, was also severed from the Minnesota case and claims against it were transferred and consolidated for trial with our case in the Southern District of Texas. On February 26, 2016, we reached an agreement to settle the Opt-Out Litigation and subsequently paid the settlement in an amount immaterial to our financial statements.

We were also named as a defendant in a class action civil antitrust suit filed on March 15, 2013 in the U.S. District Court for the Northern District of California by the purchasers of products made from titanium dioxide (the "Indirect Purchasers") making essentially the same allegations as did the Direct Purchasers. On October 14, 2014, plaintiffs filed their Second Amended Class Action Complaint narrowing the class of plaintiffs to those merchants and consumers of architectural coatings containing titanium dioxide. On August 11, 2015, the court granted our motion to dismiss the Indirect Purchasers litigation with leave to amend the complaint. A Third Amended Class Action Complaint was filed on

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. COMMITMENTS AND CONTINGENCIES (Continued)**

September 29, 2015 further limiting the class to consumers of architectural paints. Plaintiffs have raised state antitrust claims under the laws of 15 states, consumer protection claims under the laws of nine states and unjust enrichment claims under the laws of 16 states. On November 4, 2015, we and our co-defendants filed another motion to dismiss. On June 13, 2016, the court substantially denied the motion to dismiss except as to consumer protection claims in one state. The parties are presently negotiating a settlement for an amount immaterial to our consolidated financial statements.

On August 23, 2016, we were named as a defendant in a fourth civil antitrust suit filed in the U.S. District Court for the Northern District of California by an Indirect Purchaser, Home Depot. Home Depot is an Indirect Purchaser primarily through paints it purchases from various manufacturers. Home Depot makes the same claims as the Direct and Indirect Purchasers.

The plaintiffs in the Indirect Purchasers claims seek to recover injunctive relief, treble damages or the maximum damages allowed by state law, costs of suit and attorneys' fees. We are not aware of any illegal conduct by us or any of our employees. Nevertheless, we have incurred costs relating to these claims and could incur additional costs in amounts which in the aggregate could be material to us. Because of the overall complexity of these cases, we are unable to reasonably estimate any possible loss or range of loss and we have made no accrual with respect to the Home Depot claims.

**Product Delivery Claim**

We have been notified by a customer of potential claims related to our alleged delivery of a different product than the one the customer had ordered. Our customer claims that it was unaware that the different product had been delivered until after that product had been used to manufacture materials which were subsequently sold. Originally, the customer stated that it had been notified of claims by its customers of up to an aggregate of €153 million (approximately \$159 million) relating to this matter and claimed that we may be responsible for all or a portion of these potential claims. Our customer has since resolved some of these claims and the aggregate amount of the current claims is now approximately €113 million (approximately \$117 million). Based on the facts currently available, we believe that we are insured for any liability we may ultimately have in excess of \$10 million. However, no assurance can be given regarding our ultimate liability or costs. We believe our range of possible loss in this matter is between €0 and €113 million (approximately \$117 million), and we have made no accrual with respect to this matter.

**Indemnification Matters**

On July 3, 2012, Deutsche Bank Securities Inc. and Credit Suisse Securities (USA) LLC (the "Banks") demanded that we indemnify them for claims brought against them by certain MatlinPatterson entities that were formerly our stockholders ("MatlinPatterson") in litigation filed by MatlinPatterson on June 19, 2012 in the 9th District Court in Montgomery County, Texas (the "Texas Litigation"). These claims allegedly arose from the failed acquisition by and merger with Hexion. The Texas Litigation was dismissed, which was upheld by the Ninth Court of Appeals and the Texas Supreme Court denied review by final order entered January 7, 2016.

On July 14, 2014, the Banks demanded that we indemnify them for additional claims brought against them by certain other former Company stockholders in litigation filed June 14, 2014 in the

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**20. COMMITMENTS AND CONTINGENCIES (Continued)**

United States District Court for the Eastern District of Wisconsin (the "Wisconsin Litigation"). The stockholders in the Wisconsin Litigation have made essentially the same factual allegations as MatlinPatterson made in the Texas Litigation and, additionally, have named Apollo Global Management LLC and Apollo Management Holdings, L.P. as defendants. Stockholder plaintiffs in the Wisconsin Litigation assert claims for misrepresentation and conspiracy to defraud. On June 30, 2016, the plaintiffs voluntarily dismissed the Apollo defendants and on December 5, 2016, the court dismissed Deutsche Bank for lack of personal jurisdiction, but denied Credit Suisse's motion to dismiss. Subsequently, Credit Suisse asked the court to reconsider its decision or certify its judgment to the Seventh Circuit Court of Appeals for an immediate appeal, which remains pending. We denied the Banks' indemnification demand for both the Texas Litigation and the Wisconsin Litigation.

**Other Proceedings**

We are a party to various other proceedings instituted by private plaintiffs, governmental authorities and others arising under provisions of applicable laws, including various environmental, products liability and other laws. Except as otherwise disclosed in this report, we do not believe that the outcome of any of these matters will have a material effect on our financial condition, results of operations or liquidity.

**21. ENVIRONMENTAL, HEALTH AND SAFETY MATTERS**

**EHS CAPITAL EXPENDITURES**

We may incur future costs for capital improvements and general compliance under EHS laws, including costs to acquire, maintain and repair pollution control equipment. For the years ended December 31, 2016, 2015 and 2014, our capital expenditures for EHS matters totaled \$66 million, \$141 million, and \$125 million, respectively. Because capital expenditures for these matters are subject to evolving regulatory requirements and depend, in part, on the timing, promulgation and enforcement of specific requirements, our capital expenditures for EHS matters have varied significantly from year to year and we cannot provide assurance that our recent expenditures are indicative of future amounts we may spend related to EHS and other applicable laws.

**ENVIRONMENTAL RESERVES**

We have accrued liabilities relating to anticipated environmental cleanup obligations, site reclamation and closure costs and known penalties. Liabilities are recorded when potential liabilities are either known or considered probable and can be reasonably estimated. Our liability estimates are calculated using present value techniques as appropriate and are based upon requirements placed upon us by regulators, available facts, existing technology and past experience. The environmental liabilities do not include amounts recorded as asset retirement obligations. We had accrued \$34 million and \$38 million for environmental liabilities as of December 31, 2016 and 2015, respectively. Of these amounts, \$7 million and \$6 million were classified as accrued liabilities in our consolidated balance sheets as of December 31, 2016 and 2015, respectively, and \$27 million and \$32 million were classified as other noncurrent liabilities in our consolidated balance sheets as of December 31, 2016 and 2015, respectively. In certain cases, our remediation liabilities may be payable over periods of up to 30 years.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**21. ENVIRONMENTAL, HEALTH AND SAFETY MATTERS (Continued)**

We may incur losses for environmental remediation in excess of the amounts accrued; however, we are not able to estimate the amount or range of such potential excess.

**ENVIRONMENTAL MATTERS**

Under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and similar state laws, a current or former owner or operator of real property in the U.S. may be liable for remediation costs regardless of whether the release or disposal of hazardous substances was in compliance with law at the time it occurred, and a current owner or operator may be liable regardless of whether it owned or operated the facility at the time of the release. Outside the U.S., analogous contaminated property laws, such as those in effect in France and Australia, can hold past owners and/or operators liable for remediation at former facilities. Currently, there are approximately six former facilities or third-party sites in the U.S. for which we have been notified of potential claims against us for cleanup liabilities, including, but not limited to, sites listed under CERCLA. Based on current information and past experiences at other CERCLA sites, we do not expect these third-party claims to have a material impact on our consolidated financial statements.

Under the Resource Conservation and Recovery Act ("RCRA") in the U.S. and similar state laws, we may be required to remediate contamination originating from our properties as a condition to our hazardous waste permit. Some of our manufacturing sites have an extended history of industrial chemical manufacturing and use, including on-site waste disposal. We are aware of soil, groundwater or surface contamination from past operations at some of our sites, and we may find contamination at other sites in the future. For example, our Port Neches, Texas, and Geismar, Louisiana, facilities are the subject of ongoing remediation requirements imposed under RCRA. Similar laws exist in a number of locations in which we currently operate, or previously operated, manufacturing facilities, such as Australia, India, France, Hungary and Italy.

**West Footscray Remediation**

By letter dated March 7, 2006, our former Base Chemicals and Polymers facility in West Footscray, Australia was issued a cleanup notice by the Environmental Protection Authority Victoria ("EPA Victoria") due to concerns about soil and groundwater contamination emanating from the site. On August 23, 2010, EPA Victoria revoked a second cleanup notice and issued a revised notice that included a requirement for financial assurance for the remediation. As of December 31, 2016, we had an accrued liability of approximately \$15 million related to estimated environmental remediation costs at this site. We can provide no assurance that the authority will not seek to institute additional requirements for the site or that additional costs will not be required for the cleanup.

**North Maybe Mine Remediation**

The North Maybe Canyon Mine site is a CERCLA site and involves a former phosphorous mine near Soda Springs, Idaho, which is believed to have been operated by several companies, including a predecessor company to us. In 2004, the U.S. Forest Service notified us that we are a CERCLA potentially responsible party ("PRP") for contamination originating from the site. In February 2010, we and Wells Cargo (another PRP) agreed to conduct a Remedial Investigation/Feasibility Study of a

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**21. ENVIRONMENTAL, HEALTH AND SAFETY MATTERS (Continued)**

portion of the site and are currently engaged in that process. At this time, we are unable to reasonably estimate our potential liabilities at this site.

**Port Neches Flaring Matter**

As part of the EPA's national enforcement initiative on flaring operations and by letter dated October 12, 2012, the U.S. Department of Justice (the "DOJ") notified us that we were in violation of the CAA based on our response to a 2010 CAA Section 114 Information Request. The EPA has used the enforcement initiative to bring similar actions against refiners and other chemical manufacturers and has sought to collect civil penalties in excess of \$100,000. Specifically, the EPA alleged violations at our Port Neches, Texas facility from 2007-2012 for flare operations not consistent with good pollution control practice and not in compliance with certain flare-related regulations. As a result of these findings, the EPA referred this matter to the DOJ. We provided a formal response to the DOJ and the EPA with a supplemental data submission on April 29, 2013. We have been engaged in discussions with the DOJ and the EPA regarding these alleged violations and conducted field trials on an alternate flare monitoring method beginning in September 2014. We are currently unable to determine the likelihood or magnitude of any potential penalty or injunctive relief that may be incurred in resolving this matter.

**22. HUNTSMAN CORPORATION STOCKHOLDERS' EQUITY**

**SHARE REPURCHASE PROGRAM**

On September 29, 2015, our Board of Directors authorized our Company to repurchase up to \$150 million in shares of our common stock. Repurchases under this program may be made through open market transactions, in privately negotiated transactions, accelerated share repurchase programs or by other means. The timing and actual number of any shares repurchased depends on a variety of factors, including market conditions. The share repurchase authorization does not have an expiration date and repurchases may be commenced, suspended or discontinued from time to time without prior notice. On October 27, 2015, we entered into and funded an accelerated share repurchase agreement with Citibank, N.A. to repurchase \$100 million of our common stock. Citibank, N.A. made an initial delivery of approximately 7.1 million shares of Huntsman Corporation common stock based on the closing price of \$11.94 on October 27, 2015. The accelerated share repurchase agreement was completed in January 2016 with the delivery of an additional approximately 1.5 million shares of Huntsman Corporation common stock. The final number of shares repurchased and the aggregate cost per share was based on the Company's daily volume-weighted average stock price during the term of the transaction, less a discount. We have \$50 million remaining that is available under this authorization to be used to purchase additional shares.

Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****22. HUNTSMAN CORPORATION STOCKHOLDERS' EQUITY (Continued)****DIVIDENDS ON COMMON STOCK**

The following tables represent dividends on common stock for our Company for the years ended December 31, 2016 and 2015 (dollars in millions, except per share payment amounts):

Quarter ended	2016	
	Per share payment amount	Approximate amount paid
March 31, 2016	\$ 0.125	\$ 30
June 30, 2016	0.125	30
September 30, 2016	0.125	30
December 31, 2016	0.125	30

Quarter ended	2015	
	Per share payment amount	Approximate amount paid
March 31, 2015	\$ 0.125	\$ 31
June 30, 2015	0.125	31
September 30, 2015	0.125	31
December 31, 2015	0.125	30

**23. STOCK-BASED COMPENSATION PLAN**

Under the 2016 Stock Incentive Plan, we may grant nonqualified stock options, incentive stock options, stock appreciation rights, restricted stock, phantom stock, performance share units and other stock-based awards to our employees, directors and consultants and to employees and consultants of our subsidiaries, provided that incentive stock options may be granted solely to employees. The terms of the grants under both the 2016 Stock Incentive Plan and the Prior Plan are fixed at the grant date. As of December 31, 2016, we were authorized to grant up to 8.2 million shares under the 2016 Stock Incentive Plan. As of December 31, 2016, we had approximately 8 million shares remaining under the 2016 Stock Incentive Plan available for grant. Option awards have a maximum contractual term of 10 years and generally must have an exercise price at least equal to the market price of our common stock on the date the option award is granted. Outstanding stock-based awards generally vest over a three-year period; certain performance share unit awards vest over a two-year period.

The compensation cost from continuing operations under the 2016 Stock Incentive Plan and the Prior Plan for our Company and Huntsman International were as follows (dollars in millions):

	Year ended December 31,		
	2016	2015	2014
Huntsman Corporation compensation cost	\$ 34	\$ 30	\$ 28
Huntsman International compensation cost	33	29	27

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****23. STOCK-BASED COMPENSATION PLAN (Continued)**

The total income tax benefit recognized in the statement of operations for stock-based compensation arrangements was \$7 million, \$6 million and \$6 million for the years ended December 31, 2016, 2015 and 2014, respectively.

**STOCK OPTIONS**

The fair value of each stock option award is estimated on the date of grant using the Black-Scholes valuation model that uses the assumptions noted in the following table. Expected volatilities are based on the historical volatility of our common stock through the grant date. The expected term of options granted was estimated based on the contractual term of the instruments and employees' expected exercise and post-vesting employment termination behavior. The risk-free rate for periods within the contractual life of the option was based on the U.S. Treasury yield curve in effect at the time of grant. The assumptions noted below represent the weighted averages of the assumptions utilized for all stock options granted during the year.

	Year ended December 31,		
	2016	2015	2014
Dividend yield	5.6%	2.3%	2.4%
Expected volatility	57.9%	57.6%	60.3%
Risk-free interest rate	1.4%	1.4%	1.7%
Expected life of stock options granted during the period	5.9 years	5.9 years	5.7 years

A summary of stock option activity under the 2016 Stock Incentive Plan and the Prior Plan as of December 31, 2016 and changes during the year then ended is presented below:

Option Awards	Shares (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in millions)
Outstanding at January 1, 2016	9,544	\$ 15.51		
Granted	3,024	9.04		
Exercised	(148)	12.65		
Forfeited	(1,175)	19.70		
Outstanding at December 31, 2016	11,245	13.37	5.5	\$ 71
Exercisable at December 31, 2016	7,339	14.02	3.7	42

The weighted-average grant-date fair value of stock options granted during 2016, 2015 and 2014 was \$3.15, \$9.81 and \$9.63 per option, respectively. As of December 31, 2016, there was \$10 million of total unrecognized compensation cost related to nonvested stock option arrangements granted under the 2016 Stock Incentive Plan and the Prior Plan. That cost is expected to be recognized over a weighted-average period of approximately 1.8 years.



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During the years ended December 31, 2016, 2015 and 2014, the total intrinsic value of stock options exercised was approximately \$1 million, nil and \$14 million, respectively.

**NONVESTED SHARES**

Nonvested shares granted under the 2016 Stock Incentive Plan and the Prior Plan consist of restricted stock and performance share unit awards, which are accounted for as equity awards, and phantom stock, which is accounted for as a liability award because it can be settled in either stock or cash.

The fair value of each performance share unit award is estimated using a Monte Carlo simulation model that uses various assumptions, including an expected volatility rate and a risk-free interest rate. For the years ended December 31, 2016 and 2015, the weighted-average expected volatility rate was 39.3% and 30.0%, respectively and the weighted average risk-free interest rate was 0.9% and 0.7%, respectively. For the performance share unit awards granted during the years ended December 31, 2016 and 2015 the number of shares earned varies based upon the Company achieving certain performance criteria over two-year and three-year performance periods. The performance criteria are total stockholder return of our common stock relative to the total stockholder return of a specified industry peer group for the two-year and three-year performance periods. No performance share unit awards were granted during the year ended December 31, 2014.

A summary of the status of our nonvested shares as of December 31, 2016 and changes during the year then ended is presented below:

	Equity Awards		Liability Awards	
	Shares	Weighted Average Grant-Date Fair Value	Shares	Weighted Average Grant-Date Fair Value
	(in thousands)		(in thousands)	
Nonvested at January 1, 2016	1,854	\$ 19.97	475	\$ 21.37
Granted	1,889	9.28	715	9.09
Vested	(671)(1)	19.74	(243)	20.18
Forfeited	(76)	16.42	(35)	15.74
Nonvested at December 31, 2016	2,996	13.36	912	12.27

(1)

As of December 31, 2016, a total of 454,900 restricted stock units were vested but not yet issued, of which 60,948 vested during 2016. These shares have not been reflected as vested shares in this table because, in accordance with the restricted stock unit agreements, shares of common stock are not issued for vested restricted stock units until termination of employment.

As of December 31, 2016, there was \$28 million of total unrecognized compensation cost related to nonvested share compensation arrangements granted under the Stock Incentive Plan and the Prior Plan. That cost is expected to be recognized over a weighted-average period of approximately 1.9 years. The value of share awards that vested during the years ended December 31, 2016, 2015 and 2014 was \$16 million, \$20 million and \$19 million, respectively.



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Other comprehensive loss consisted of the following (dollars in millions):

**Huntsman Corporation**

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman Corporation
Beginning balance, January 1, 2016	\$ (288)	\$ (1,056)	\$ 11	\$ 17	\$ (1,316)	\$ 28	\$ (1,288)
Other comprehensive (loss) income before reclassifications, gross	(162)	(315)	(7)	5	(479)	8	(471)
Tax (expense) benefit	(10)	58		1	49		49
Amounts reclassified from accumulated other comprehensive loss, gross(c)	1	53			54		54
Tax expense		(15)			(15)		(15)
Net current-period other comprehensive (loss) income	(171)	(219)	(7)	6	(391)	8	(383)
Ending balance, December 31, 2016	\$ (459)	\$ (1,275)	\$ 4	\$ 23	\$ (1,707)	\$ 36	\$ (1,671)

(a) Amounts are net of tax of \$100 and \$90 as of December 31, 2016 and January 1, 2016, respectively.

(b) Amounts are net of tax of \$177 and \$135 as of December 31, 2016 and January 1, 2016, respectively.

(c) See table below for details about these reclassifications.

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 24. OTHER COMPREHENSIVE LOSS (Continued)

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman Corporation
Beginning balance, January 1, 2015	\$ 25	\$ (1,122)	\$ 10	\$ 11	\$ (1,076)	\$ 23	\$ (1,053)
Other comprehensive (loss) income before reclassifications, gross	(271)	44	1	6	(220)	5	(215)
Tax expense	(42)	(33)			(75)		(75)
Amounts reclassified from accumulated other comprehensive loss, gross(c)		69			69		69
Tax expense		(14)			(14)		(14)
Net current-period other comprehensive (loss) income	(313)	66	1	6	(240)	5	(235)
Ending balance, December 31, 2015	\$ (288)	\$ (1,056)	\$ 11	\$ 17	\$ (1,316)	\$ 28	\$ (1,288)

(a) Amounts are net of tax of \$90 and \$47 as of December 31, 2015 and January 1, 2015, respectively.

(b) Amounts are net of tax of \$135 and \$182 as of December 31, 2015 and January 1, 2015, respectively.

(c) See table below for details about these reclassifications.

	Year ended December 31, 2016 Amount reclassified from accumulated other comprehensive loss	Year ended December 31, 2015 Amount reclassified from accumulated other comprehensive loss	Year ended December 31, 2014 Amount reclassified from accumulated other comprehensive loss	Affected line item in the statement where net income is presented
<b>Details about Accumulated Other Comprehensive Loss Components(a):</b>				
Amortization of pension and other postretirement benefits:				
Prior service credit	\$ 16	\$ 10	\$ 9	(b)
Actuarial loss	(69)	(79)	(55)	(b)(c)
Settlement loss			(13)	(b)
	(53)	(69)	(59)	Total before tax
	15	14	11	Income tax expense
<b>Total reclassifications for the period</b>	<b>\$ (38)</b>	<b>\$ (55)</b>	<b>\$ (48)</b>	<b>Net of tax</b>

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- (a) Pension and other postretirement benefits amounts in parentheses indicate credits on our consolidated statements of operations.
- (b) These accumulated other comprehensive loss components are included in the computation of net periodic pension costs. See "Note 18. Employee Benefit Plans."
- (c) Amounts contain approximately \$4 million, \$6 million and \$4 million of actuarial losses related to discontinued operations for the years ended December 31, 2016, 2015 and 2014, respectively.

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	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman International
Beginning balance, January 1, 2016	\$ (292)	\$ (1,074)	\$ 11	\$ 11	\$ (1,344)	\$ 28	\$ (1,316)
Other comprehensive (loss) income before reclassifications, gross	(161)	(315)	(7)	5	(478)	8	(470)
Tax (expense) benefit	(10)	58		1	49		49
Amounts reclassified from accumulated other comprehensive loss, gross(c)	1	61			62		62
Tax expense		(16)			(16)		(16)
Net current-period other comprehensive (loss) income	(170)	(212)	(7)	6	(383)	8	(375)
Ending balance, December 31, 2016	\$ (462)	\$ (1,286)	\$ 4	\$ 17	\$ (1,727)	\$ 36	\$ (1,691)

(a) Amounts are net of tax of \$86 and \$76 as of December 31, 2016 and January 1, 2016, respectively.

(b) Amounts are net of tax of \$205 and \$163 as of December 31, 2016 and January 1, 2016, respectively.

(c) See table below for details about these reclassifications.

	Foreign currency translation adjustment(a)	Pension and other postretirement benefits adjustments(b)	Other comprehensive income of unconsolidated affiliates	Other, net	Total	Amounts attributable to noncontrolling interests	Amounts attributable to Huntsman International
Beginning balance, January 1, 2015	\$ 22	\$ (1,147)	\$ 10	\$ 5	\$ (1,110)	\$ 23	\$ (1,087)
Other comprehensive (loss) income before reclassifications, gross	(272)	44	1	6	(221)	5	(216)
Tax expense	(42)	(33)			(75)		(75)
Amounts reclassified from accumulated other comprehensive loss, gross(c)		77			77		77
Tax expense		(15)			(15)		(15)
Net current-period other comprehensive (loss) income	(314)	73	1	6	(234)	5	(229)

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Ending balance, December 31, 2015	\$	(292)	\$	(1,074)	\$	11	\$	11	\$	(1,344)	\$	28	\$	(1,316)
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(a)

Amounts are net of tax of \$76 and \$34 as of December 31, 2015 and January 1, 2015, respectively.

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(b) Amounts are net of tax of \$163 and \$211 as of December 31, 2015 and January 1, 2015, respectively.

(c) See table below for details about these reclassifications.

	Year ended December 31, 2016 Amount reclassified from accumulated other comprehensive loss	Year ended December 31, 2015 Amount reclassified from accumulated other comprehensive loss	Year ended December 31, 2014 Amount reclassified from accumulated other comprehensive loss	Affected line item in the statement where net income is presented
<b>Details about Accumulated Other Comprehensive Loss Components(a):</b>				
Amortization of pension and other postretirement benefits:				
Prior service credit	\$ 16	\$ 10	\$ 9	(b)
Actuarial loss	(77)	(87)	(62)	(b)(c)
Settlement loss			(13)	(b)
	(61)	(77)	(66)	Total before tax
	16	15	12	Income tax expense
<b>Total reclassifications for the period</b>	<b>\$ (45)</b>	<b>\$ (62)</b>	<b>\$ (54)</b>	Net of tax

(a) Pension and other postretirement benefits amounts in parentheses indicate credits on our consolidated statements of operations.

(b) These accumulated other comprehensive loss components are included in the computation of net periodic pension costs. See "Note 18. Employee Benefit Plans."

(c) Amounts contain approximately \$4 million and \$6 million and \$4 million of actuarial losses related to discontinued operations for the years ended December 31, 2016, 2015 and 2014, respectively.

Items of other comprehensive income (loss) of our Company and our consolidated affiliates have been recorded net of tax, with the exception of the foreign currency translation adjustments related to subsidiaries with earnings permanently reinvested. The tax effect is determined based upon the jurisdiction where the income or loss was recognized and is net of valuation allowances.

**25. RELATED PARTY TRANSACTIONS**

Our consolidated financial statements include the following transactions with our affiliates not otherwise disclosed (dollars in millions):



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	Year ended December 31,		
	2016	2015	2014
Sales to:			
Unconsolidated affiliates	\$ 131	\$ 131	\$ 261
Inventory purchases from:			
Unconsolidated affiliates	397	487	614

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**25. RELATED PARTY TRANSACTIONS (Continued)**

Our subsidiary Airstar Corporation ("Airstar") subleases a Gulfstream IV-SP Aircraft (the "Aircraft") from Jstar Corporation ("Jstar"), a corporation wholly owned by Jon M. Huntsman pursuant to a lease arrangement that expires in 2021. Jon M. Huntsman is the Executive Chairman and the father of our Chief Executive Officer, Peter R. Huntsman. Under this arrangement, monthly sublease payments from Airstar to Jstar are approximately \$120,000, and an aggregate of \$7 million is payable through the end of the remaining five year lease term. These monthly sublease payments are equal to the financing costs paid by Jstar to a leasing company and the arrangement does not result in a financial benefit to Jstar.

We occupy and use a portion of an office building owned by the Huntsman Foundation, a private charitable foundation established by Jon M. and Karen H. Huntsman to further the charitable interests of the Huntsman family, under a lease pursuant to which we make annual lease payments. With the scheduled transition of employees to The Woodlands, Texas the original lease rate was reduced by 50% effective February 1, 2016. During 2016, we made payments of approximately \$1 million to the Huntsman Foundation under the lease, which includes a contractual 2% increase from 2015. The lease expires on December 31, 2018, subject to a five-year extension, at our option.

Through May 2002, we paid the premiums on various life insurance policies for Jon M. Huntsman. These policies have been liquidated, and the cash values have been paid to Mr. Huntsman. Mr. Huntsman is indebted to us in the amount of approximately \$2 million with accrued interest, which represents the insurance premiums paid on his behalf through May 2002. This amount is included in other noncurrent assets in our consolidated balance sheets.

Effective August 31, 2015, we entered into a Consulting Agreement with Jon M. Huntsman, Jr., one of our former directors and the former governor of Utah and U.S. Ambassador to Singapore and China. Pursuant to the Consulting Agreement, Jon M. Huntsman, Jr. agreed to: provide strategic advice to senior management and the Board of Directors of the Company on political, economic and business matters; support development and continued maintenance of the Company's high value customers and significant business relationships across all regions; support development and continued maintenance of governmental and business relationships in developing economic regions, particularly in connection with markets and opportunities in India, China and Southeast Asia; participate in negotiations and discussions with business executives and leaders, government officials and/or dignitaries; and participate in such other meetings or discussions as may be requested by senior management of the Company upon reasonable notice. In exchange for these services, we agree to pay Jon M. Huntsman, Jr. \$50,000 per month and up to \$200,000 in additional compensation based on achievement of designated results as determined by the Board of Directors. The Consulting Agreement was renewed for one year effective August 31, 2016, subject to our right to extend the agreement for additional one year terms. Jon M. Huntsman, Jr. is the son of our Executive Chairman, Jon M. Huntsman and the brother of our Chief Executive Officer, Peter R. Huntsman.

**26. OPERATING SEGMENT INFORMATION**

We derive our revenues, earnings and cash flows from the manufacture and sale of a wide variety of differentiated and commodity chemical products. We have reported our operations through five segments: Polyurethanes, Performance Products, Advanced Materials, Textile Effects and Pigments and

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**26. OPERATING SEGMENT INFORMATION (Continued)**

Additives. We have organized our business and derived our operating segments around differences in product lines.

The major products of each reportable operating segment are as follows:

<b>Segment</b>	<b>Products</b>
Polyurethanes	MDI, PO, polyols, PG, TPU, aniline and MTBE
Performance Products	amines, surfactants, LAB, maleic anhydride, other performance chemicals, EG, olefins and technology licenses
Advanced Materials	basic liquid and solid epoxy resins; specialty resin compounds; cross-linking, matting and curing agents; epoxy, acrylic and polyurethane-based formulations
Textile Effects	textile chemicals, dyes and digital inks
Pigments and Additives	titanium dioxide, functional additives, color pigments, timber treatment and water treatment chemicals

Sales between segments are generally recognized at external market prices and are eliminated in consolidation. We use adjusted EBITDA to measure the financial performance of our global business units and for reporting the results of our operating segments. This measure includes all operating items relating to the businesses. The adjusted EBITDA of operating segments excludes items that principally

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. OPERATING SEGMENT INFORMATION (Continued)

apply to our Company as a whole. The revenues and adjusted EBITDA for each of our reportable operating segments are as follows (dollars in millions):

	Year ended December 31,		
	2016	2015	2014
<b>Revenues:</b>			
Polyurethanes	\$ 3,667	\$ 3,811	\$ 5,032
Performance Products	2,126	2,501	3,072
Advanced Materials	1,020	1,103	1,248
Textile Effects	751	804	896
Pigments and Additives	2,139	2,160	1,549
Eliminations	(46)	(80)	(219)
Total	\$ 9,657	\$ 10,299	\$ 11,578
<b>Segment adjusted EBITDA(1):</b>			
<b>Huntsman Corporation:</b>			
Polyurethanes	\$ 569	\$ 573	\$ 722
Performance Products	316	460	473
Advanced Materials	223	220	199
Textile Effects	73	63	58
Pigments and Additives	130	61	76
Corporate and other(2)	(184)	(156)	(188)
Total	1,127	1,221	1,340
<b>Reconciliation of adjusted EBITDA to net income:</b>			
Interest expense	(202)	(205)	(205)
Income tax expense continuing operations	(87)	(46)	(51)
Income tax benefit discontinued operations	2	2	2
Depreciation and amortization	(432)	(399)	(445)
Net income attributable to noncontrolling interests	31	33	22
Other adjustments:			
Business acquisition and integration expenses and purchase accounting adjustments	(23)	(53)	(67)
EBITDA from discontinued operations	(6)	(6)	(10)
Gain (loss) on disposition of business/assets	119	(2)	3
Loss on early extinguishment of debt	(3)	(31)	(28)
Certain legal settlements and related expenses	(3)	(4)	(3)
Amortization of pension and postretirement actuarial losses	(65)	(74)	(51)
Net plant incident remediation costs	(1)	(4)	
Restructuring, impairment and plant closing and transition costs	(82)	(306)	(162)
Spin-off separation expenses	(18)		
Net income	\$ 357	\$ 126	\$ 345



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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. OPERATING SEGMENT INFORMATION (Continued)

	Year ended December 31,		
	2016	2015	2014
<b>Depreciation and Amortization:</b>			
Polyurethanes	\$ 114	\$ 100	\$ 131
Performance Products	132	119	138
Advanced Materials	35	38	42
Textile Effects	15	17	16
Pigments and Additives	106	93	78
Corporate and other	30	32	40
Total	\$ 432	\$ 399	\$ 445

	Year ended December 31,		
	2016	2015	2014
<b>Capital Expenditures:</b>			
Polyurethanes	\$ 143	\$ 181	\$ 174
Performance Products	131	205	181
Advanced Materials	16	25	46
Textile Effects	19	24	38
Pigments and Additives	103	202	136
Corporate and other	9	26	26
Total	\$ 421	\$ 663	\$ 601

	December 31,		
	2016	2015	2014
<b>Total Assets:</b>			
Polyurethanes	\$ 2,677	\$ 2,779	\$ 2,859
Performance Products	2,046	2,264	2,326
Advanced Materials	728	822	828
Textile Effects	523	562	574
Pigments and Additives	2,155	2,494	2,640
Corporate and other	1,060	899	1,696
Total	\$ 9,189	\$ 9,820	\$ 10,923



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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 26. OPERATING SEGMENT INFORMATION (Continued)

	Year ended December 31,		
	2016	2015	2014
<b>Huntsman International:</b>			
<b>Segment adjusted EBITDA(1):</b>			
Polyurethanes	\$ 569	\$ 573	\$ 722
Performance Products	316	460	473
Advanced Materials	223	220	199
Textile Effects	73	63	58
Pigments and Additives	130	61	76
Corporate and other(2)	(180)	(151)	(182)
<b>Total</b>	<b>1,131</b>	<b>1,226</b>	<b>1,346</b>
<b>Reconciliation of adjusted EBITDA to net income:</b>			
Interest expense	(214)	(214)	(214)
Income tax expense continuing operations	(86)	(45)	(43)
Income tax benefit discontinued operations	2	2	2
Depreciation and amortization	(420)	(387)	(430)
Net income attributable to noncontrolling interests	31	33	22
Other adjustments:			
Business acquisition and integration expenses and purchase accounting adjustments	(23)	(53)	(67)
EBITDA from discontinued operations	(6)	(6)	(10)
Gain (loss) on disposition of business/assets	119	(2)	3
Loss on early extinguishment of debt	(3)	(31)	(28)
Certain legal settlements and related expenses	(3)	(4)	(3)
Amortization of pension and postretirement actuarial losses	(73)	(82)	(59)
Net plant incident remediation costs	(1)	(4)	
Restructuring, impairment and plant closing and transition costs	(82)	(306)	(162)
Spin-off separation expenses	(18)		
<b>Net income</b>	<b>\$ 354</b>	<b>\$ 127</b>	<b>\$ 357</b>

	Year ended December 31,		
	2016	2015	2014
<b>Depreciation and Amortization:</b>			
Polyurethanes	\$ 114	\$ 100	\$ 131
Performance Products	132	119	138
Advanced Materials	35	38	42
Textile Effects	15	17	16
Pigments and Additives	106	93	78
Corporate and other	18	20	25



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Total                                   \$ 420   \$ 387   \$ 430

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	Year ended December 31,		
	2016	2015	2014
<b>Capital Expenditures:</b>			
Polyurethanes	\$ 143	\$ 181	\$ 174
Performance Products	131	205	181
Advanced Materials	16	25	46
Textile Effects	19	24	38
Pigments and Additives	103	202	136
Corporate and other	9	26	26
 Total	 \$ 421	 \$ 663	 \$ 601

	December 31,		
	2016	2015	2014
<b>Total Assets:</b>			
Polyurethanes	\$ 2,665	\$ 2,760	\$ 2,833
Performance Products	2,045	2,262	2,323
Advanced Materials	728	822	828
Textile Effects	523	562	574
Pigments and Additives	2,146	2,480	2,621
Corporate and other	1,368	1,202	1,843
 Total	 \$ 9,475	 \$ 10,088	 \$ 11,022

(1)

Beginning in the second quarter of 2016, we use segment adjusted EBITDA as the measure of each segment's profit or loss. We believe that segment adjusted EBITDA more accurately reflects what management uses to make decisions about resources to be allocated to the segments and assess their financial performance. We have recast the measure of each segment's profit or loss in the prior periods disclosed to reflect segment adjusted EBITDA.

Segment adjusted EBITDA is defined as net income of Huntsman Corporation or Huntsman International, as appropriate, before interest, income tax, depreciation and amortization, net income attributable to noncontrolling interests and certain Corporate and other items, as well as eliminating the following adjustments: (a) business acquisition and integration expenses and purchase accounting adjustments; (b) EBITDA from discontinued operations; (c) gain (loss) on disposition of businesses/assets; (d) loss on early

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extinguishment of debt; (e) certain legal settlements and related expenses; (f) amortization of pension and postretirement actuarial losses; (g) net plant incident remediation costs; (h) restructuring, impairment, plant closing and transition costs; and (i) spin-off separation expenses.

(2)

Corporate and other includes unallocated corporate overhead, unallocated foreign exchange gains and losses, LIFO inventory valuation reserve adjustments, nonoperating income and expense, benzene sales and gains and losses on the disposition of corporate assets.

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****26. OPERATING SEGMENT INFORMATION (Continued)**

(3)

The operating results of our former polymers, base chemicals and Australian styrenics businesses are classified as discontinued operations, and, accordingly, the revenues of these businesses are excluded for all periods presented. The EBITDA of our former polymers, base chemicals and Australian styrenics businesses are included in discontinued operations for all periods presented.

	Year ended December 31,		
	2016	2015	2014
<b>By Geographic Area</b>			
<b>Revenues(1):</b>			
United States	\$ 3,005	\$ 3,228	\$ 3,540
China	1,021	1,110	1,200
Germany	676	714	677
Mexico	453	475	825
Other nations	4,502	4,772	5,336
<b>Total</b>	<b>\$ 9,657</b>	<b>\$ 10,299</b>	<b>\$ 11,578</b>

	December 31,		
	2016	2015	2014
<b>Long-lived assets(2):</b>			
<b>Huntsman Corporation</b>			
United States	\$ 1,841	\$ 1,938	\$ 1,748
Germany	350	362	381
The Netherlands	294	304	314
United Kingdom	254	320	311
China	243	217	221
Italy	203	229	211
Other nations	1,027	1,076	1,237
<b>Total</b>	<b>\$ 4,212</b>	<b>\$ 4,446</b>	<b>\$ 4,423</b>

<b>Huntsman International</b>			
United States	\$ 1,819	\$ 1,902	\$ 1,700
Germany	350	362	381
The Netherlands	294	304	314
United Kingdom	254	320	311
China	243	217	221

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Italy	203	229	211
Other nations	1,027	1,076	1,237
<b>Total</b>	<b>\$ 4,190</b>	<b>\$ 4,410</b>	<b>\$ 4,375</b>

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- (1) Geographic information for revenues is based upon countries into which product is sold.
- (2) Long-lived assets consist of property, plant and equipment, net.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL**

The following condensed consolidating financial statements present, in separate columns, financial information for the following: Huntsman International (on a parent only basis), with its investment in subsidiaries recorded under the equity method; the Guarantors on a combined, and where appropriate, consolidated basis; and the nonguarantors on a combined, and where appropriate, consolidated basis. Additional columns present eliminating adjustments and consolidated totals as of December 31, 2016 and 2015 and for the years ended December 31, 2016, 2015 and 2014. There are no contractual restrictions limiting transfers of cash from Guarantor subsidiaries to Huntsman International. Each of the Guarantors is 100% owned by Huntsman International and has fully and unconditionally guaranteed Huntsman International's outstanding notes on a joint and several basis. In connection with the financing of the Rockwood Acquisition, we added four new guarantor entities.

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
 CONDENSED CONSOLIDATING BALANCE SHEETS  
 AS OF DECEMBER 31, 2016  
 (In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>ASSETS</b>					
<b>Current assets:</b>					
Cash and cash equivalents	\$ 37	\$	\$ 376	\$	\$ 413
Restricted cash			11		11
Accounts and notes receivable, net	22	106	1,269	5	1,402
Accounts receivable from affiliates	1,351	4,672	315	(5,991)	347
Inventories	85	285	976	(2)	1,344
Prepaid expenses	68	144	43	(195)	60
Other current assets	820	5	185	(724)	286
<b>Total current assets</b>	2,383	5,212	3,175	(6,907)	3,863
Property, plant and equipment, net	463	1,422	2,305		4,190
Investment in unconsolidated affiliates	5,870	1,533	248	(7,319)	332
Intangible assets, net	28	3	35		66
Goodwill	(12)	82	51		121
Deferred income taxes	515		408	(527)	396
Notes receivable from affiliates	37	530		(567)	
Other noncurrent assets	74	188	245		507
<b>Total assets</b>	\$ 9,358	\$ 8,970	\$ 6,467	\$ (15,320)	\$ 9,475
<b>LIABILITIES AND EQUITY</b>					
<b>Current liabilities:</b>					
Accounts payable	\$ 63	\$ 186	\$ 816	\$ 5	\$ 1,070
Accounts payable to affiliates	3,667	912	1,478	(5,991)	66
Accrued liabilities	87	807	640	(921)	613
Note payable to affiliate	100				100
Current portion of debt	30		30		60
<b>Total current liabilities</b>	3,947	1,905	2,964	(6,907)	1,909
Long-term debt	3,763		372		4,135
Notes payable to affiliates	696		568	(567)	697
Deferred income taxes	22	311	21	69	423
Other noncurrent liabilities	174	314	887		1,375
<b>Total liabilities</b>	8,602	2,530	4,812	(7,405)	8,539
<b>Equity</b>					
<b>Huntsman International LLC members' equity</b>					
Members' equity	3,226	4,568	3,390	(7,958)	3,226
Accumulated (deficit) income	(779)	872	(239)	(633)	(779)

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Accumulated other comprehensive (loss) income	(1,691)	1,000	(1,654)	654	(1,691)
<b>Total Huntsman International LLC members' equity</b>	756	6,440	1,497	(7,937)	756
Noncontrolling interests in subsidiaries			158	22	180
<b>Total equity</b>	756	6,440	1,655	(7,915)	936
<b>Total liabilities and equity</b>	\$ 9,358	\$ 8,970	\$ 6,467	\$ (15,320)	\$ 9,475

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**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATING BALANCE SHEETS**  
**AS OF DECEMBER 31, 2015**  
(In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>ASSETS</b>					
<b>Current assets:</b>					
Cash and cash equivalents	\$ 44	\$ 1	\$ 212	\$	\$ 257
Restricted cash			12		12
Accounts and notes receivable, net	21	96	1,298	5	1,420
Accounts receivable from affiliates	2,163	4,730	163	(6,716)	340
Inventories	101	322	1,275	(6)	1,692
Prepaid expenses	49	31	91	(60)	111
Other current assets	790	8	212	(704)	306
<b>Total current assets</b>	3,168	5,188	3,263	(7,481)	4,138
Property, plant and equipment, net	473	1,433	2,503	1	4,410
Investment in unconsolidated affiliates	5,991	1,558	263	(7,465)	347
Intangible assets, net	32	3	51		86
Goodwill	(13)	82	47		116
Deferred income taxes	473		430	(485)	418
Notes receivable from affiliates	36	539	6	(581)	
Other noncurrent assets	71	223	279		573
<b>Total assets</b>	\$ 10,231	\$ 9,026	\$ 6,842	\$ (16,011)	\$ 10,088
<b>LIABILITIES AND EQUITY</b>					
<b>Current liabilities:</b>					
Accounts payable	\$ 50	\$ 207	\$ 772	\$ 5	\$ 1,034
Accounts payable to affiliates	3,905	973	1,891	(6,717)	52
Accrued liabilities	74	793	581	(765)	683
Note payable to affiliate	100				100
Current portion of debt	89		81		170
<b>Total current liabilities</b>	4,218	1,973	3,325	(7,477)	2,039
Long-term debt	4,229		396		4,625
Notes payable to affiliates	703		576	(581)	698
Deferred income taxes	24	276	36	82	418
Other noncurrent liabilities	160	241	819	4	1,224
<b>Total liabilities</b>	9,334	2,490	5,152	(7,972)	9,004
<b>Equity</b>					
<b>Huntsman International LLC members' equity</b>					
Members' equity	3,196	4,517	3,394	(7,911)	3,196
Accumulated (deficit) income	(983)	652	(557)	(95)	(983)

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Accumulated other comprehensive (loss) income	(1,316)	1,367	(1,311)	(56)	(1,316)
<b>Total Huntsman International LLC members' equity</b>	897	6,536	1,526	(8,062)	897
Noncontrolling interests in subsidiaries			164	23	187
<b>Total equity</b>	897	6,536	1,690	(8,039)	1,084
<b>Total liabilities and equity</b>	\$ 10,231	\$ 9,026	\$ 6,842	\$ (16,011)	\$ 10,088

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS  
AND COMPREHENSIVE LOSS  
YEAR ENDED DECEMBER 31, 2016  
(In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Revenues:</b>					
Trade sales, services and fees, net	\$ 1,048	\$ 2,272	\$ 6,206	\$	\$ 9,526
Related party sales	201	386	1,094	(1,550)	131
<b>Total revenues</b>	1,249	2,658	7,300	(1,550)	9,657
<b>Cost of goods sold</b>	984	2,292	6,251	(1,552)	7,975
<b>Gross profit</b>	265	366	1,049	2	1,682
Selling, general and administrative	156	163	597		916
Research and development	48	43	61		152
Restructuring, impairment and plant closing costs	6	33	42		81
Spin-off separation expenses	16		2		18
Other operating income, net	(24)	(28)	(88)		(140)
<b>Operating income</b>	63	155	435	2	655
Interest (expense) income	(218)	29	(25)		(214)
Equity in income of investment in affiliates and subsidiaries	183	321	5	(504)	5
Loss on early extinguishment of debt	(4)		1		(3)
Dividend income	217			(217)	
Other income (loss), net		8	(7)		1
<b>Income from continuing operations before income taxes</b>	241	513	409	(719)	444
Income tax benefit (expense)	81	(70)	(69)	(28)	(86)
<b>Income from continuing operations</b>	322	443	340	(747)	358
Income (loss) from discontinued operations, net of tax	1	(2)	(3)		(4)
<b>Net income</b>	323	441	337	(747)	354
Net income attributable to noncontrolling interests			(17)	(14)	(31)
<b>Net income attributable to Huntsman International LLC</b>	\$ 323	\$ 441	\$ 320	\$ (761)	\$ 323
<b>Net income</b>	\$ 323	\$ 441	\$ 337	\$ (747)	\$ 354
Other comprehensive loss	(374)	(366)	(347)	704	(383)
			(11)	(12)	(23)

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Comprehensive income attributable to noncontrolling interests

Comprehensive (loss) income attributable to Huntsman International LLC	\$	(51)	\$	75	\$	(21)	\$	(55)	\$	(52)
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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
 CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS  
 AND COMPREHENSIVE LOSS  
 YEAR ENDED DECEMBER 31, 2015  
 (In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Revenues:</b>					
Trade sales, services and fees, net	\$ 1,054	\$ 2,478	\$ 6,636	\$	\$ 10,168
Related party sales	238	470	1,062	(1,639)	131
<b>Total revenues</b>	1,292	2,948	7,698	(1,639)	10,299
<b>Cost of goods sold</b>	1,026	2,341	6,717	(1,637)	8,447
<b>Gross profit</b>	266	607	981	(2)	1,852
Selling, general and administrative	172	174	631		977
Research and development	54	45	61		160
Restructuring, impairment and plant closing costs	7	12	283		302
Other operating (income) expense, net	(27)	(29)	56		
<b>Operating income (loss)</b>	60	405	(50)	(2)	413
Interest (expense) income	(220)	35	(29)		(214)
Equity in income (loss) of investment in affiliates and subsidiaries	169	(57)	5	(111)	6
Loss on early extinguishment of debt	(31)				(31)
Other income (loss), net	2	(12)	13	(1)	2
<b>(Loss) income from continuing operations before income taxes</b>	(20)	371	(61)	(114)	176
Income tax benefit (expense)	113	(123)	24	(59)	(45)
<b>Income (loss) from continuing operations</b>	93	248	(37)	(173)	131
Income (loss) from discontinued operations, net of tax	1	(2)	(3)		(4)
<b>Net income (loss)</b>	94	246	(40)	(173)	127
Net income attributable to noncontrolling interests			(22)	(11)	(33)
<b>Net income (loss) attributable to Huntsman International LLC</b>	\$ 94	\$ 246	\$ (62)	\$ (184)	\$ 94
<b>Net income (loss)</b>	\$ 94	\$ 246	\$ (40)	\$ (173)	\$ 127
Other comprehensive loss	(229)	(35)	(248)	278	(234)
Comprehensive income attributable to noncontrolling interests			(13)	(15)	(28)
Comprehensive (loss) income attributable to Huntsman International LLC	\$ (135)	\$ 211	\$ (301)	\$ 90	\$ (135)



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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATING STATEMENTS OF OPERATIONS**  
**AND COMPREHENSIVE LOSS**  
**YEAR ENDED DECEMBER 31, 2014**  
(In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Revenues:</b>					
Trade sales, services and fees, net	\$ 1,194	\$ 3,164	\$ 6,959	\$	\$ 11,317
Related party sales	299	511	1,377	(1,926)	261
<b>Total revenues</b>	<b>1,493</b>	<b>3,675</b>	<b>8,336</b>	<b>(1,926)</b>	<b>11,578</b>
<b>Cost of goods sold</b>	<b>1,222</b>	<b>2,909</b>	<b>7,451</b>	<b>(1,931)</b>	<b>9,651</b>
<b>Gross profit</b>	<b>271</b>	<b>766</b>	<b>885</b>	<b>5</b>	<b>1,927</b>
Selling, general and administrative	164	163	642		969
Research and development	48	40	70		158
Restructuring, impairment and plant closing costs	7	5	146		158
Other operating (income) expense, net	(7)	(8)	11		(4)
<b>Operating income</b>	<b>59</b>	<b>566</b>	<b>16</b>	<b>5</b>	<b>646</b>
Interest (expense) income	(204)	37	(47)		(214)
Equity in income (loss) of investment in affiliates and subsidiaries	186	(51)	6	(135)	6
Loss on early extinguishment of debt	(28)				(28)
Other income (loss), net	3	(5)	3	(2)	(1)
<b>Income (loss) from continuing operations before income taxes</b>	<b>16</b>	<b>547</b>	<b>(22)</b>	<b>(132)</b>	<b>409</b>
Income tax benefit (expense)	318	(202)	(2)	(157)	(43)
<b>Income from continuing operations</b>	<b>334</b>	<b>345</b>	<b>(24)</b>	<b>(289)</b>	<b>366</b>
Income (loss) from discontinued operations, net of tax	1		(10)		(9)
<b>Net income (loss)</b>	<b>335</b>	<b>345</b>	<b>(34)</b>	<b>(289)</b>	<b>357</b>
Net income attributable to noncontrolling interests			(18)	(4)	(22)
<b>Net income (loss) attributable to Huntsman International LLC</b>	<b>\$ 335</b>	<b>\$ 345</b>	<b>\$ (52)</b>	<b>\$ (293)</b>	<b>\$ 335</b>
<b>Net income (loss)</b>	<b>\$ 335</b>	<b>\$ 345</b>	<b>\$ (34)</b>	<b>\$ (289)</b>	<b>\$ 357</b>
Other comprehensive (loss) income	(469)	115	(440)	310	(484)
Comprehensive income attributable to noncontrolling interests			(8)	1	(7)
Comprehensive (loss) income attributable to Huntsman International LLC	\$ (134)	\$ 460	\$ (482)	\$ 22	\$ (134)





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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
YEAR ENDED DECEMBER 31, 2016  
(In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Net cash provided by operating activities</b>	\$ 446	\$ 122	\$ 510	\$	\$ 1,078
<b>Investing activities:</b>					
Capital expenditures	(42)	(112)	(267)		(421)
Insurance proceeds for recovery of property damage			8		8
Cash received from unconsolidated affiliates		33			33
Cash received from consolidated affiliates	203	10	7	(220)	
Investment in unconsolidated affiliates		(29)	(1)		(30)
Proceeds from sale of businesses/assets	12		196		208
Decrease in receivable from affiliate	6				6
Change in restricted cash			1		1
<b>Net cash used in investing activities</b>	179	(98)	(56)	(220)	(195)
<b>Financing activities:</b>					
Net repayments on overdraft facilities			(1)		(1)
Repayments of short-term debt			(56)		(56)
Borrowings on short-term debt			10		10
Repayments of long-term debt	(1,039)		(31)		(1,070)
Proceeds from issuance of long-term debt	543		16		559
Repayments of notes payable to affiliate	(7)			6	(1)
Repayments of notes payable	(31)		(2)		(33)
Borrowings on notes payable	29		2		31
Debt issuance costs paid	(9)				(9)
Call premiums related to early extinguishment of debt	(1)				(1)
Dividends paid to noncontrolling interests			(30)		(30)
Contribution from parent		3	11	(14)	
Distribution to parent		(27)	(200)	227	
Dividends paid to parent	(119)	(1)		1	(119)
Other, net	2		(3)		(1)
<b>Net cash used in financing activities</b>	(632)	(25)	(284)	220	(721)
Effect of exchange rate changes on cash			(6)		(6)
Increase in cash and cash equivalents	(7)	(1)	164		156
Cash and cash equivalents at beginning of period	44	1	212		257
Cash and cash equivalents at end of period	\$ 37	\$	\$ 376	\$	\$ 413

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During the second quarter of 2016 and the fourth quarter of 2016, we made noncash capital contributions of approximately \$215 million and approximately \$75 million, respectively, between Parent Company and Guarantor entities.

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
 CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
 YEAR ENDED DECEMBER 31, 2015  
 (In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Net cash (used in) provided by operating activities</b>	\$ (23)	\$ 277	\$ 318	\$ (2)	\$ 570
<b>Investing activities:</b>					
Capital expenditures	(70)	(267)	(326)		(663)
Cash received from unconsolidated affiliates		48			48
Investment in affiliate	34	3	(6)	(31)	
Investment in unconsolidated affiliates		(42)	(12)		(54)
Acquisition of businesses, net of cash acquired			(14)		(14)
Cash received from purchase price adjustment for business acquired	18				18
Proceeds from sale of businesses/assets			1		1
Increase in receivable from affiliate	1				1
Cash received from termination of cross-currency interest rate contracts	66				66
Change in restricted cash			(3)		(3)
Other, net	1				1
<b>Net cash provided by (used in) investing activities</b>	50	(258)	(360)	(31)	(599)
<b>Financing activities:</b>					
Net repayments under revolving loan facilities			(1)		(1)
Net repayments on overdraft facilities			(8)		(8)
Borrowings on short-term debt			12		12
Repayments of long-term debt	(548)		(56)		(604)
Proceeds from issuance of long-term debt	326				326
Repayments of notes payable to affiliate	(148)				(148)
Proceeds from notes payable to affiliate	201			(6)	195
Repayments of notes payable	(32)		(1)		(33)
Borrowings on notes payable	32		2		34
Debt issuance costs paid	(8)				(8)
Call premiums related to early extinguishment of debt	(35)				(35)
Contingent consideration paid for acquisition	(4)				(4)
Dividends paid to noncontrolling interests			(14)		(14)
Contribution from parent		5	(7)	2	
Distribution to parent		(27)	(8)	35	
Dividends paid to parent	(121)	(2)		2	(121)
Excess tax benefit related to stock-based compensation	1				1
<b>Net cash used in financing activities</b>	(336)	(24)	(81)	33	(408)
Effect of exchange rate changes on cash			(16)		(16)
Decrease in cash and cash equivalents	(309)	(5)	(139)		(453)
Cash and cash equivalents at beginning of period	353	6	351		710
Cash and cash equivalents at end of period	\$ 44	\$ 1	\$ 212	\$	\$ 257

During the first quarter of 2015, we made a noncash capital contribution of approximately \$284 million between Guarantor entities and Nonguarantor entities and a noncash capital contribution of approximately \$123 million between Parent Company and Guarantor entities.

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## HUNTSMAN CORPORATION AND SUBSIDIARIES

## HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 27. CONDENSED CONSOLIDATING FINANCIAL INFORMATION HUNTSMAN INTERNATIONAL (Continued)

HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES  
 CONDENSED CONSOLIDATING STATEMENTS OF CASH FLOWS  
 YEAR ENDED DECEMBER 31, 2014  
 (In Millions)

	Parent Company	Guarantors	Nonguarantors	Eliminations	Consolidated Huntsman International LLC
<b>Net cash provided by operating activities</b>	\$ 25	\$ 252	\$ 480	\$ (3)	\$ 754
<b>Investing activities:</b>					
Capital expenditures	(85)	(223)	(293)		(601)
Cash received from unconsolidated affiliates		48	3		51
Investment in affiliate	38	(10)		(28)	
Investment in unconsolidated affiliates		(37)	(71)		(108)
Acquisition of businesses, net of cash acquired	(1,038)		78		(960)
Proceeds from sale of businesses/assets	3		12		15
Increase in receivable from affiliate	(2)				(2)
Other, net			(2)		(2)
<b>Net cash used in investing activities</b>	(1,084)	(222)	(273)	(28)	(1,607)
<b>Financing activities:</b>					
Net repayments under revolving loan facilities			(1)		(1)
Net repayments on overdraft facilities			(5)		(5)
Repayments of short-term debt			(8)		(8)
Borrowings on short-term debt			15		15
Repayments of long-term debt	(372)		(46)		(418)
Proceeds from issuance of long-term debt	1,792				1,792
Repayments of notes payable to affiliate	(122)				(122)
Repayments of notes payable	(32)		(2)		(34)
Borrowings on notes payable	31		2		33
Debt issuance costs paid	(67)				(67)
Call premiums related to early extinguishment of debt	(24)				(24)
Contingent consideration paid for acquisition	(6)				(6)
Contribution from parent		11	(4)	(7)	
Dividends paid to noncontrolling interests			(4)		(4)
Distribution to parent		(34)	(1)	35	
Dividends paid to parent	(97)	(2)		2	(97)
Excess tax benefit related to stock-based compensation	1				1
Other, net		1	2	1	4
<b>Net cash provided by (used in) financing activities</b>	1,104	(24)	(52)	31	1,059
Effect of exchange rate changes on cash			(11)		(11)
<b>Increase in cash and cash equivalents</b>	45	6	144		195
Cash and cash equivalents at beginning of period	308		207		515
<b>Cash and cash equivalents at end of period</b>	\$ 353	\$ 6	\$ 351	\$	\$ 710

During the third quarter of 2014, we made a noncash capital contribution of \$116 million between Guarantor entities and Nonguarantor entities.

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Table of Contents**HUNTSMAN CORPORATION AND SUBSIDIARIES****HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****28. SELECTED UNAUDITED QUARTERLY FINANCIAL DATA**

A summary of selected unaudited quarterly financial data for the years ended December 31, 2016 and 2015 is as follows (dollars in millions, except per share amounts):

**Huntsman Corporation**

	March 31, 2016	Three months ended June 30, 2016	September 30, 2016	December 31, 2016(1)
Revenues	\$ 2,355	\$ 2,544	\$ 2,363	\$ 2,395
Gross profit	416	457	398	407
Restructuring, impairment and plant closing costs (credits)	13	29	45	(6)
Income from continuing operations	63	95	65	138
Net income	62	94	64	137
Net income attributable to Huntsman Corporation	56	87	55	128
Basic income per share(2):				
Income from continuing operations attributable to Huntsman Corporation common stockholders	0.24	0.37	0.23	0.54
Net income attributable to Huntsman Corporation common stockholders	0.24	0.37	0.23	0.54
Diluted income per share(2):				
Income from continuing operations attributable to Huntsman Corporation common stockholders	0.24	0.36	0.23	0.53
Net income attributable to Huntsman Corporation common stockholders	0.24	0.36	0.23	0.53

	March 31, 2015	Three months ended June 30, 2015	September 30, 2015	December 31, 2015(3)
Revenues	\$ 2,589	\$ 2,740	\$ 2,638	\$ 2,332
Gross profit	450	549	473	376
Restructuring, impairment and plant closing costs	93	114	14	81
Income from continuing operations	17	41	63	9
Net income	15	39	63	9
Net income attributable to Huntsman Corporation	5	29	55	4
Basic income per share(2):				
Income from continuing operations attributable to Huntsman Corporation common stockholders	0.03	0.13	0.23	0.02
Net income attributable to Huntsman Corporation common stockholders	0.02	0.12	0.23	0.02
Diluted income per share(2):				
Income from continuing operations attributable to Huntsman Corporation common stockholders	0.03	0.13	0.22	0.02
Net income attributable to Huntsman Corporation common stockholders	0.02	0.12	0.22	0.02

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	Three months ended			
	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016(1)
Revenues	\$ 2,355	\$ 2,544	\$ 2,363	\$ 2,395
Gross profit	417	458	399	408
Restructuring, impairment and plant closing costs (credits)	13	29	45	(6)
Income from continuing operations	63	94	64	137
Net income	62	93	63	136
Net income attributable to Huntsman International	56	86	54	127

	Three months ended			
	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015(3)
Revenues	\$ 2,589	\$ 2,740	\$ 2,638	\$ 2,332
Gross profit	452	549	474	377
Restructuring, impairment and plant closing costs	93	114	14	81
Income from continuing operations	17	41	64	9
Net income	15	39	64	9
Net income attributable to Huntsman International	5	29	56	4

- (1) On December 30, 2016, our Performance Products segment completed the sale of its European surfactants business to Innospec Inc. for \$199 million in cash plus our retention of trade receivables and payables for an enterprise value of \$225 million. For further information, see "Note 3. Business Combinations and Dispositions Sale of European Surfactants Manufacturing Facilities."
- (2) Basic and diluted income per share are computed independently for each of the quarters presented based on the weighted average number of common shares outstanding during that period. Therefore, the sum of quarterly basic and diluted per share information may not equal annual basic and diluted earnings per share.
- (3) During the three months ended December 31, 2015, we declared a dividend from our non-U.S. operations to the U.S., which included bringing onshore certain U.S. foreign tax credits. The foreign tax credits brought onshore exceeded the amount needed to offset the cash tax impact of the dividend, as well as enough to allow us to carry \$14 million of foreign tax credits back to a prior year and claim a refund. During 2015, a number of our intercompany liabilities that were denominated in U.S. dollars were owed by entities whose tax currency was the euro. As a result of the depreciation in the euro opposite the U.S. dollar, these entities recorded a tax only foreign exchange loss. Most of the intercompany receivables associated with these same U.S. dollar denominated intercompany debts were held by entities with a tax currency of the U.S. dollar which, therefore, resulted in no taxable gain. This resulted in a \$33 million tax benefit (\$58 million, net of \$25 million of contingent liabilities and valuation allowances) in the fourth quarter of 2015.



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**HUNTSMAN CORPORATION (PARENT ONLY)**  
**Schedule I Condensed Financial Information of Registrant**  
**HUNTSMAN CORPORATION (Parent Only)**  
**BALANCE SHEETS**  
(In Millions, Except Share and Per Share Amounts)

	December 31,	
	2016	2015
<b>ASSETS</b>		
Cash and cash equivalents	\$ 1	\$
Receivable from affiliate	36	26
Note receivable from affiliate	100	100
<b>Total current assets</b>	<b>137</b>	<b>126</b>
Note receivable from affiliate-long-term	696	697
Investment in and advances to affiliates	781	938
<b>Total assets</b>	<b>\$ 1,614</b>	<b>\$ 1,761</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Payable to affiliate	\$ 315	\$ 312
Accrued liabilities	2	2
<b>Total current liabilities</b>	<b>317</b>	<b>314</b>
Other long-term liabilities	10	5
<b>Total liabilities</b>	<b>327</b>	<b>319</b>
<b>STOCKHOLDERS' EQUITY</b>		
Common stock \$0.01 par value, 1,200,000,000 shares authorized, 250,802,175 and 249,483,541 issued and 236,370,347 and 237,080,026 outstanding in 2016 and 2015, respectively	3	3
Additional paid-in capital	3,447	3,407
Treasury stock, 12,607,223 and 11,162,454 shares in 2016 and 2015, respectively	(150)	(135)
Unearned stock-based compensation	(17)	(17)
Accumulated deficit	(325)	(528)
Accumulated other comprehensive loss	(1,671)	(1,288)
<b>Total stockholders' equity</b>	<b>1,287</b>	<b>1,442</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 1,614</b>	<b>\$ 1,761</b>

This statement should be read in conjunction with the notes to the consolidated financial statements.

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**HUNTSMAN CORPORATION (Parent Only)**  
**STATEMENTS OF OPERATIONS**  
(In Millions)

	Year ended December 31,		
	2016	2015	2014
Selling, general and administrative expenses	\$ (4)	\$ (5)	\$ (5)
Interest income	12	9	9
Equity in income (loss) of subsidiaries	199	(32)	222
Dividend income affiliate	119	121	97
<b>Net income</b>	<b>\$ 326</b>	<b>\$ 93</b>	<b>\$ 323</b>

This statement should be read in conjunction with the notes to the consolidated financial statements.

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**HUNTSMAN CORPORATION (Parent Only)**  
**STATEMENTS OF COMPREHENSIVE LOSS**  
(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Net income</b>	\$ 326	\$ 93	\$ 323
<b>Other comprehensive loss, net of tax:</b>			
Foreign currency translations adjustments	(171)	(313)	(221)
Pension and other postretirement benefits adjustments	(219)	66	(271)
Other, net	30	40	23
<b>Other comprehensive loss, net of tax</b>	(360)	(207)	(469)
<b>Comprehensive loss</b>	(34)	(114)	(146)
Comprehensive income attributable to noncontrolling interests	(23)	(28)	(7)
<b>Comprehensive loss attributable to Huntsman Corporation</b>	\$ (57)	\$ (142)	\$ (153)

This statement should be read in conjunction with the notes to the consolidated financial statements.

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**HUNTSMAN CORPORATION (Parent Only)**  
**STATEMENTS OF STOCKHOLDERS' EQUITY**  
(In Millions, Except Share Amounts)

**Huntsman Corporation Stockholders' Equity**

	Shares		Additional	Treasury	Unearned	Accumulated	Accumulated	Total
	Common	Common	paid-in	stock	stock-based	deficit	other	equity
	stock	stock	capital	compensation	compensation	loss	comprehensive	
Beginning balance, January 1, 2014	240,401,442	2	3,305	(50)	(13)	(687)	(577)	1,980
Net income						323		323
Other comprehensive loss							(476)	(476)
Issuance of nonvested stock awards			15		(15)			
Vesting of stock awards	1,018,050		7					7
Recognition of stock-based compensation			10		14			24
Repurchase and cancellation of stock awards	(302,200)					(7)		(7)
Stock options exercised	2,299,687	1	47					48
Excess tax benefit related to stock-based compensation			1					1
Accrued and unpaid dividends						(1)		(1)
Dividends declared on common stock						(121)		(121)
Balance, December 31, 2014	243,416,979	3	3,385	(50)	(14)	(493)	(1,053)	1,778
Net income						93		93
Other comprehensive loss							(235)	(235)
Issuance of nonvested stock awards			19		(19)			
Vesting of stock awards	1,037,743		7					7
Recognition of stock-based compensation			10		16			26
Repurchase and cancellation of stock awards	(304,340)					(7)		(7)
Stock options exercised	48,572		1					1
Excess tax benefit related to stock-based compensation			1					1
Cash paid for noncontrolling interest			(1)					(1)
Treasury stock repurchased	(7,118,928)		(15)	(85)				(100)
Dividends declared on common stock						(121)		(121)
Balance, December 31, 2015	237,080,026	3	3,407	(135)	(17)	(528)	(1,288)	1,442
Net income						326		326
Other comprehensive loss							(383)	(383)
Issuance of nonvested stock awards			16		(16)			
Vesting of stock awards	914,081		2					2
Recognition of stock-based compensation			9		16			25
Repurchase and cancellation of stock awards	(256,468)					(3)		(3)
Stock options exercised	77,477		1					1
Excess tax benefit related to stock-based compensation			(3)					(3)
Treasury stock repurchased	(1,444,769)		15	(15)				
Dividends declared on common stock						(120)		(120)
Dividends declared on common stock	236,370,347	\$ 3	\$ 3,447	\$ (150)	\$ (17)	\$ (325)	\$ (1,671)	\$ 1,287

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Balance, December 31, 2016

This statement should be read in conjunction with the notes to the consolidated financial statements.

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**HUNTSMAN CORPORATION (Parent Only)**  
**STATEMENTS OF CASH FLOWS**  
(In Millions)

	Year ended December 31,		
	2016	2015	2014
<b>Operating Activities:</b>			
Net income	\$ 326	\$ 93	\$ 323
Equity in (income) loss of subsidiaries	(199)	32	(222)
Stock-based compensation	1	1	1
Noncash interest income	(12)	(9)	(9)
Changes in operating assets and liabilities	12	8	9
<b>Net cash provided by operating activities</b>	<b>128</b>	<b>125</b>	<b>102</b>
<b>Investing Activities:</b>			
Loan to affiliate		(195)	
Repayments of loan by affiliate	1	148	122
<b>Net cash provided by (used in) investing activities</b>	<b>1</b>	<b>(47)</b>	<b>122</b>
<b>Financing Activities:</b>			
Dividends paid to common stockholders	(120)	(121)	(121)
Repurchase and cancellation of stock awards	(3)	(7)	(7)
Proceeds from issuance of common stock	1	1	47
Repurchase of common stock		(100)	
(Decrease) increase in payable to affiliates	(6)	(1)	2
<b>Net cash used in financing activities</b>	<b>(128)</b>	<b>(228)</b>	<b>(79)</b>
Increase (decrease) in cash and cash equivalents	1	(150)	145
Cash and cash equivalents at beginning of period		150	5
<b>Cash and cash equivalents at end of period</b>	<b>\$ 1</b>	<b>\$</b>	<b>\$ 150</b>

This statement should be read in conjunction with the notes to the consolidated financial statements.

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**HUNTSMAN CORPORATION AND SUBSIDIARIES**  
**Schedule II Valuation and Qualifying Accounts**  
(In Millions)

Column A	Column B	Column C	Column D	Column E	
Description	Balance at Beginning of Period	Additions Charges (credits) to cost and expenses	Charged to other accounts	Deductions	Balance at End of Period
Allowance for doubtful accounts:					
Year ended December 31, 2016	\$ 26	\$ 2	\$ (1)		\$ 27
Year ended December 31, 2015	34	1	(9)		\$ 26
Year ended December 31, 2014	42		(8)		34

**HUNTSMAN INTERNATIONAL LLC AND SUBSIDIARIES**  
**Schedule II Valuation and Qualifying Accounts**  
(In Millions)

Column A	Column B	Column C	Column D	Column E	
Description	Balance at Beginning of Period	Additions Charges (credits) to cost and expenses	Charged to other accounts	Deductions	Balance at End of Period
Allowance for doubtful accounts:					
Year ended December 31, 2016	\$ 26	\$ 2	\$ (1)		\$ 27
Year ended December 31, 2015	34	1	(9)		\$ 26
Year ended December 31, 2014	42		(8)		34

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### EXHIBIT INDEX

<b>Number</b>	<b>Description</b>
3.1	Amended and Restated Certificate of Incorporation of Huntsman Corporation (incorporated by reference to Exhibit 3.1 to our current report on Form 8-K filed on May 12, 2014)
3.2	Fifth Amended and Restated Bylaws of Huntsman Corporation dated as of December 21, 2016 (incorporated by reference to Exhibit 3.1 to our current report on Form 8-K filed on December 23, 2016)
4.1	Registration Rights Agreement dated as of February 10, 2005, by and among Huntsman Corporation and the stockholders signatory thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on February 16, 2005 (File No. 001-32427))
4.2	Form of stock certificate of Huntsman Corporation (incorporated by reference to Exhibit 4.68 to amendment No. 3 to our registration statement on Form S-1 filed on February 8, 2005)
4.3	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants prior to February 6, 2008 (incorporated by reference to Exhibit 4.8 of our registration statement on Form S-8 filed on February 10, 2006)
4.4	Form of Restricted Stock Unit Agreement for Outside Directors, effective for grants from February 6, 2008 to September 21, 2010 (incorporated by reference to Exhibit 4.32 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
4.5	Indenture, dated as of November 19, 2012, by and among Huntsman International LLC, the guarantors named therein and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed November 19, 2012)
4.6	Form of 4.875% Senior Note due 2020 (included as Exhibit A to Exhibit 4.5) (incorporated by reference to Exhibit 4.2 to our current report on Form 8-K filed November 19, 2012)
4.7	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.5) (incorporated by reference to Exhibit 4.3 to our current report on Form 8-K filed November 19, 2012)
4.8	Indenture, dated as of December 23, 2013, by and among Huntsman International LLC, the guarantors named therein, Citibank, N.A., London Branch, as paying agent, registrar and transfer agent, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed December 23, 2013)
4.9	Form of 5 <sup>1</sup> / <sub>8</sub> % Senior Note (included as Exhibit A to Exhibit 4.8) (incorporated by reference to Exhibit 4.2 to our current report on Form 8-K filed December 23, 2013)
4.10	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.8) (incorporated by reference to Exhibit 4.3 to our current report on Form 8-K filed December 23, 2013)
4.11	Indenture, dated as of November 13, 2014, by and among Huntsman International LLC, the guarantors named therein, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
4.12	Form of 5 <sup>1</sup> / <sub>8</sub> % Senior Note (included as Exhibit A to Exhibit 4.11) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
4.13	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.11) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)

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<b>Number</b>	<b>Description</b>
4.14	Indenture, dated as of March 31, 2015, by and among Huntsman International LLC, the guarantors named therein, Citibank, N.A., London Branch, as paying agent, transfer agent, registrar and authenticating agent, and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
4.15	Form of 4.25% Senior Notes due 2025 (included as Exhibit A to Exhibit 4.14) (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
4.16	Form of Notation of Guarantee (included as Exhibit D to Exhibit 4.14) (incorporated by reference to Exhibit 4.1 to our current report on Form 8-K filed on April 2, 2015)
10.1	Employment Agreement with Anthony Hankins (incorporated by reference to Exhibit 10.27 to amendment No. 2 to our registration statement on Form S-1 filed on January 28, 2005)
10.2	Huntsman Corporation Stock Incentive Plan (incorporated by reference to Exhibit 10.19 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)
10.3	Form of Nonqualified Stock Option Agreement, effective for grants prior to February 21, 2011 (incorporated by reference to Exhibit 10.20 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)
10.4	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.25 to amendment No. 4 to our registration statement on Form S-1 filed on February 8, 2005)
10.5	Credit Agreement dated August 16, 2005 among Huntsman International LLC, Deutsche Bank AG New York Branch as Administrative Agent and the other financial institutions named therein (incorporated by reference to Exhibit 10.1 to Huntsman International LLC's current report on Form 8-K filed August 22, 2005 (File No. 333-85141))
10.6	Consent and First Amendment to Credit Agreement dated December 12, 2005 among Huntsman International LLC, Deutsche Bank AG New York Branch as Administrative Agent and the other financial institutions named therein (incorporated by reference to Exhibit 10.1 to Huntsman International LLC's current report on Form 8-K filed December 27, 2005 (File No. 333-85141))
10.7	Amended and Restated Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.8	Huntsman Supplemental Executive MPP Plan (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.9	Amended and Restated Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.10	Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.4 to our current report on Form 8-K filed December 30, 2005 (File No. 001-32427))
10.11	Consent and Second Amendment to Credit Agreement and Amendment to Security Documents, dated June 30, 2006, by and among Huntsman International LLC, as Borrower, Deutsche Bank AG New York Branch, as Administrative Agent and Collateral Agent, and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on July 7, 2006 (File No. 001-32427))

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<b>Number</b>	<b>Description</b>
10.12	Third Amendment to Credit Agreement dated April 19, 2007 by and among Huntsman International LLC, as Borrower, Deutsche Bank AG New York Branch, as Administrative Agent and Collateral Agent, and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 24, 2007 (File No. 001-32427))
10.13	First Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.32 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.14	First Amendment to Huntsman Supplemental Executive MPP Plan (incorporated by reference to Exhibit 10.33 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.15	First Amendment to Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.34 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.16	Second Amendment to Huntsman Supplemental Savings Plan (incorporated by reference to Exhibit 10.35 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.17	First Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.36 to our annual report on Form 10-K filed on February 22, 2008) (File No. 001-32427)
10.18	Fourth Amendment to Credit Agreement, dated as of June 22, 2009, by and among Huntsman International LLC and Credit Suisse Securities (USA) LLC and Deutsche Bank Securities Inc. (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed on June 23, 2009) (File No. 001-32427)
10.19	U.S. Receivables Loan Agreement dated as of October 16, 2009 among Huntsman Receivables Finance II LLC, Huntsman (Europe) BVBA, the several entities party thereto as lenders, the several financial institutions party thereto as funding agents, the several commercial paper conduits party thereto as conduit lenders, the several financial institutions party thereto as committed lenders, Wachovia Bank National Association, as administrative agent, and Wachovia Bank National Association, as collateral Agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.20	U.S. Contribution Agreement dated as of October 16, 2009 between Huntsman International LLC and Huntsman Receivables Finance II LLC (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.21	European Receivables Loan Agreement dated as of October 16, 2009 between Huntsman Receivables Finance LLC, Huntsman (Europe) BVBA, the several entities party thereto as lenders, the several financial institutions party thereto as funding agents, Barclays Bank Plc, as administrative agent, and Barclays Bank Plc, as collateral agent (incorporated by reference to Exhibit 10.3 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)
10.22	European Contribution Agreement dated as of October 16, 2009 between Huntsman International LLC and Huntsman Receivables Finance LLC (incorporated by reference to Exhibit 10.4 to our current report on Form 8-K filed on October 22, 2009) (File No. 001-32427)

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<b>Number</b>	<b>Description</b>
10.23	Fifth Amendment to Credit Agreement, dated as of March 9, 2010, by and among Huntsman International LLC, JPMorgan Chase Bank, N.A. and the other financial institutions party thereto (incorporated by reference to Exhibit 10.1 to our current report on Form 10-Q filed on May 7, 2010)
10.24	Certain exhibits and schedules to Exhibit A to the Fifth Amendment to Credit Agreement, dated as of March 9, 2010, which was previously filed as Exhibit 10.1 to our quarterly report on Form 10-Q filed May 7, 2010 (incorporated by reference to Exhibit 10.2 to our current report on Form 10-Q filed on November 4, 2010) (File No. 001-32427)
10.25	Second Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.38 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.26	Third Amendment to Huntsman Supplemental Executive Retirement Plan (incorporated by reference to Exhibit 10.39 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.27	Form of Restricted Stock Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.40 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.28	Form of Phantom Share Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.41 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.29	Form of Nonqualified Stock Option Agreement effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.42 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.30	Form of Restricted Stock Unit Agreement for Outside Directors effective for grants from February 2, 2011 to May 5, 2016 (incorporated by reference to Exhibit 10.43 to our annual report on Form 10-K filed on February 17, 2011) (File No. 001-32427)
10.31	Sixth Amendment, dated as of March 7, 2011, to the Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 9, 2011) (File No. 001-32427)
10.32	Master Amendment No. 2 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 18, 2011 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 20, 2011) (File No. 001-32427)
10.33	Master Amendment No. 2 to the European Receivables Loan Agreement, European Servicing Agreement and Transaction Documents dated as of April 15, 2011 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on April 20, 2011) (File No. 001-32427)
10.34	Second Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.5 to our current report on Form 10-Q filed on May 5, 2011) (File No. 001-32427)
10.35	Third Amendment to Huntsman Outside Directors Elective Deferral Plan (incorporated by reference to Exhibit 10.6 to our current report on Form 10-Q filed on May 5, 2011) (File No. 001-32427)

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<b>Number</b>	<b>Description</b>
10.36	Huntsman Corporation Stock Incentive Plan (amended and restated) (incorporated by reference to Exhibit 4.1 to our registration statement on Form S-8 filed on May 10, 2011) (File No. 001-32427)
10.37	Seventh Amendment, dated as of March 6, 2012, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 6, 2012)
10.38	Severance Agreement dated January 1, 2013 between Huntsman Corporation and Jon M. Huntsman (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on January 4, 2013)
10.39	Severance Agreement dated January 1, 2013 between Huntsman Corporation and Peter R. Huntsman (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on January 4, 2013)
10.40	First Amendment to the Huntsman Corporation Stock Incentive Plan (as amended and restated) (incorporated by reference to Exhibit 10.56 to our annual report on Form 10-K filed on February 12, 2013)
10.41	Eighth Amendment, dated as of March 11, 2013, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 12, 2013)
10.42	Master Amendment No. 3 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents dated as of April 29, 2013 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 2, 2013)
10.43	Master Amendment No. 3 to the European Receivables Loan Agreement dated as of April 29, 2013 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on May 2, 2013)
10.44	Form of Notice of Award of Common Stock effective for grants from June 10, 2013 to May 5, 2016 (incorporated by reference to Exhibit 10.3 to our quarterly report on Form 10-Q for the quarter ended June 30, 2013)
10.45	Ninth Amendment, dated as of August 22, 2013, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 26, 2013)
10.46	Stock Purchase Agreement dated as of September 17, 2013 by and between Rockwood Specialties Group, Inc. and Huntsman International LLC (incorporated by reference to Exhibit 2.1 to our current report on Form 8-K filed on September 20, 2013) as amended by Amendment to Stock Purchase Agreement dated as of March 20, 2014 (incorporated by reference to Exhibit 2.1 to our quarterly report on Form 10-Q filed on April 29, 2014) as amended by Amendment No. 2 to Stock Purchase Agreement dated as of July 24, 2014 (incorporated by reference to Exhibit 10.2 to our quarterly report on Form 10-Q filed on July 30, 2014) as amended by Amendment No. 3 to Stock Purchase Agreement dated as of September 30, 2014 (incorporated by reference to Exhibit 2.2 to our quarterly report on Form 10-Q filed on October 27, 2014)

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<b>Number</b>	<b>Description</b>
10.47	Tenth Amendment to Credit Agreement, Second Amendment to Collateral Security Agreement, Second Amendment to Pledge Agreement and Second Amendment to Subsidiary Guaranty, dated as of October 15, 2013, among Huntsman International LLC, the subsidiary guarantors party thereto, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 18, 2013)
10.48	Huntsman Executive Severance Plan (as amended and restated) (incorporated by reference to Exhibit 10.3 to our quarterly report on Form 10-Q for the quarter ended September 30, 2013)
10.49	Huntsman Corporation Stock Incentive Plan (amended and restated) (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 12, 2014)
10.50	Eleventh Amendment, dated as of August 12, 2014, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 15, 2014)
10.51	Twelfth Amendment, dated as of August 13, 2014, to Credit Agreement, dated as of August 16, 2005, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 15, 2014)
10.52	Thirteenth Amendment to Credit Agreement, dated as of October 1, 2014, among Huntsman International LLC, the subsidiary guarantors party thereto, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on October 7, 2014)
10.53	Registration Rights Agreement, dated as of November 13, 2014, by and among Huntsman International LLC, the guarantors named therein and J.P. Morgan Securities LLC, as representative of the several purchasers (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 17, 2014)
10.54	Form of Performance Share Unit Award Agreement effective for grants from February 4, 2015 to May 5, 2016 (incorporated by reference to Exhibit 10.65 to our annual report on Form 10-K filed on February 18, 2015)
10.55	Amendment to the Huntsman Corporation Stock Incentive Plan Nonqualified Stock Option Agreement effective for grants through May 5, 2016 (incorporated by reference to Exhibit 10.66 to our annual report on Form 10-K filed on February 18, 2015)
10.56	Registration Rights Agreement, dated as of March 31, 2015, by and among Huntsman International LLC, the guarantors named therein and the several initial purchasers (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 2, 2015)
10.57	Master Amendment No. 4 to the European Receivables Loan Agreement, the Servicing Agreement, the Liquidation Servicer Agreement and the Transaction Documents, dated as of March 5, 2015 (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on March 9, 2015)
10.58	Master Amendment No. 4 to the U.S. Receivables Loan Agreement, U.S. Servicing Agreement and Transaction Documents and Waiver, dated as of March 30, 2015 (incorporated by reference to Exhibit 10.2 to our current report on Form 8-K filed on April 2, 2015)

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<b>Number</b>	<b>Description</b>
10.59	Fourteenth Amendment to Credit Agreement, dated as of August 10, 2015, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on August 10, 2015)
10.60	Fifteenth Amendment to Credit Agreement, dated as of April 1, 2016, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on April 6, 2016)
10.61	Huntsman Corporation 2016 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on May 11, 2016)
10.62	Form of Nonqualified Stock Option Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.1 to our registration statement on Form S-8 filed on May 31, 2016)
10.63	Form of Restricted Stock Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.2 to our registration statement on Form S-8 filed on May 31, 2016)
10.64	Form of Phantom Share Agreement effective for grants from May 5, 2016 to January 31, 2017 (incorporated by reference to Exhibit 99.3 to our registration statement on Form S-8 filed on May 31, 2016)
10.65	Sixteenth Amendment to Credit Agreement, dated as of November 15, 2016, among Huntsman International LLC, the lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our current report on Form 8-K filed on November 16, 2016)
10.66*	Form of Phantom Share Agreement
10.67*	Form of Performance Share Unit Award Agreement
10.68*	Form of Nonqualified Stock Option Agreement
10.69*	Form of Restricted Stock Agreement
10.70*	Form of Stock Unit Agreement for Outside Directors
10.71*	Form of Notice of Award of Common Stock
21.1*	Subsidiaries of Huntsman Corporation
23.1*	Consent of Independent Registered Public Accounting Firm
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase

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<b>Number</b>	<b>Description</b>
101.LAB*	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase

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Filed herewith.

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