

Celanese Corp  
Form 10-K  
February 05, 2016  
Table of Contents

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

---

Form 10-K

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

For the fiscal year ended December 31, 2015

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

(Commission File Number) 001-32410

CELANESE CORPORATION

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

98-0420726

(I.R.S. Employer Identification No.)

222 West Las Colinas Blvd., Suite 900N

Irving, TX

(Address of Principal Executive Offices)

(972) 443-4000

(Registrant's telephone number, including area code)

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

75039-5421

(Zip Code)

Title of Each Class

Series A Common Stock, par value \$0.0001 per share

3.250% Senior Notes due 2019

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

None

Name of Each Exchange  
on Which Registered

New York Stock Exchange

New York Stock Exchange

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

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

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

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

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

Edgar Filing: Celanese Corp - 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. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a smaller reporting company)

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

The aggregate market value of the registrant's Series A Common Stock held by non-affiliates as of June 30, 2015 (the last business day of the registrants' most recently completed second fiscal quarter) was \$8,461,210,679.

The number of outstanding shares of the registrant's Series A Common Stock, \$0.0001 par value, as of February 1, 2016 was 147,083,779.

**DOCUMENTS INCORPORATED BY REFERENCE**

Certain portions of the registrant's Definitive Proxy Statement relating to the 2016 annual meeting of stockholders, to be filed with the Securities and Exchange Commission, are incorporated by reference into Part III.

---

Table of Contents

## CELANESE CORPORATION

Form 10-K

For the Fiscal Year Ended December 31, 2015

## TABLE OF CONTENTS

	Page
<u>Special Note Regarding Forward-Looking Statements</u>	<u>3</u>
PART I	
<u>Item 1. Business</u>	<u>4</u>
<u>Item 1A. Risk Factors</u>	<u>16</u>
<u>Item 1B. Unresolved Staff Comments</u>	<u>25</u>
<u>Item 2. Properties</u>	<u>26</u>
<u>Item 3. Legal Proceedings</u>	<u>28</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>28</u>
<u>Executive Officers of the Registrant</u>	<u>28</u>
PART II	
<u>Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>29</u>
<u>Item 6. Selected Financial Data</u>	<u>32</u>
<u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>33</u>
<u>Item 7A. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>57</u>
<u>Item 8. Financial Statements and Supplementary Data</u>	<u>58</u>
<u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>60</u>
<u>Item 9A. Controls and Procedures</u>	<u>60</u>
<u>Item 9B. Other Information</u>	<u>62</u>
PART III	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	<u>62</u>
<u>Item 11. Executive Compensation</u>	<u>62</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>62</u>
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>	<u>63</u>
<u>Item 14. Principal Accounting Fees and Services</u>	<u>63</u>
PART IV	
<u>Item 15. Exhibits, Financial Statement Schedules</u>	<u>63</u>
<u>Signatures</u>	<u>64</u>

Table of Contents

Special Note Regarding Forward-Looking Statements

Certain statements in this Annual Report on Form 10-K ("Annual Report") or in other materials we have filed or will file with the Securities and Exchange Commission ("SEC"), and incorporated herein by reference, are forward-looking in nature as defined in Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. You can identify these statements by the fact that they do not relate to matters of a strictly factual or historical nature and generally discuss or relate to forecasts, estimates or other expectations regarding future events. Generally, the words "believe," "expect," "intend," "estimate," "anticipate," "project," "plan," "may," "can," "could," "might," "will" and similar expressions identify forward-looking statements, including statements that relate to such matters as planned and expected capacity increases and utilization rates; anticipated capital spending; environmental matters; legal proceedings; sources of raw materials and exposure to, and effects of hedging of raw material and energy costs and foreign currencies; interest rate fluctuations; global and regional economic, political, business and regulatory conditions; expectations, strategies, and plans for individual assets and products, business segments, as well as for the whole Company; cash requirements and uses of available cash; financing plans; pension expenses and funding; anticipated restructuring, divestiture, and consolidation activities; planned construction or operation of facilities; cost reduction and control efforts and targets and integration of acquired businesses.

Forward-looking statements are not historical facts or guarantees of future performance but instead represent only our beliefs at the time the statements were made regarding future events, which are subject to significant risks, uncertainties, and other factors, many of which are outside of our control and certain of which are listed above. Any or all of the forward-looking statements included in this Annual Report and in any other materials incorporated by reference herein may turn out to be materially inaccurate. This can occur as a result of incorrect assumptions, in some cases based upon internal estimates and analyses of current market conditions and trends, management plans and strategies, economic conditions, or as a consequence of known or unknown risks and uncertainties. Many of the risks and uncertainties mentioned in this Annual Report, such as those discussed in Item 1A. Risk Factors, Item 3. Legal Proceedings and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations will be important in determining whether these forward-looking statements prove to be accurate. Consequently, neither our stockholders nor any other person should place undue reliance on our forward-looking statements and should recognize that actual results may differ materially from those anticipated by us.

All forward-looking statements made in this Annual Report are made as of the date hereof, and the risk that actual results will differ materially from expectations expressed in this Annual Report will increase with the passage of time. We undertake no obligation, and disclaim any duty, to publicly update or revise any forward-looking statements, whether as a result of new information, future events, changes in our expectations or otherwise. However, we may make further disclosures regarding future events, trends and uncertainties in our subsequent reports on Forms 10-K, 10-Q and 8-K to the extent required under the Exchange Act. The above cautionary discussion of risks, uncertainties and possible inaccurate assumptions relevant to our business includes factors we believe could cause our actual results to differ materially from expected and historical results. Other factors beyond those listed above or in Item 1A. Risk Factors, Item 3. Legal Proceedings and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations below, including factors unknown to us and factors known to us which we have determined not to be material, could also adversely affect us.

Table of Contents

Item 1. Business

Basis of Presentation

In this Annual Report on Form 10-K, the term "Celanese" refers to Celanese Corporation, a Delaware corporation, and not its subsidiaries. The terms "Company," "we," "our" and "us" refer to Celanese and its subsidiaries on a consolidated basis. The term "Celanese US" refers to the Company's subsidiary, Celanese US Holdings LLC, a Delaware limited liability company, and not its subsidiaries.

Industry

This Annual Report on Form 10-K includes industry data obtained from industry publications and surveys as well as our own internal company surveys. Third-party industry publications, surveys and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable.

Overview

We are a global technology and specialty materials company. We are one of the world's largest producers of acetyl products, which are intermediate chemicals, for nearly all major industries, as well as a leading global producer of high performance engineered polymers that are used in a variety of high-value applications. As a recognized innovator in the chemicals industry, we engineer and manufacture a wide variety of products essential to everyday living. Our broad product portfolio serves a diverse set of end-use applications including paints and coatings, textiles, automotive applications, consumer and medical applications, performance industrial applications, filtration applications, paper and packaging, chemical additives, construction, consumer and industrial adhesives, and food and beverage applications. Our products enjoy leading global positions due to our differentiated business models, large global production capacity, operating efficiencies, proprietary technology and competitive cost structures.

Our large and diverse global customer base primarily consists of major companies in a broad array of industries. We hold geographically balanced global positions and participate in diversified end-use applications. We combine a demonstrated track record of execution, strong performance built on shared principles and objectives, and a clear focus on growth and value creation. Known for operational excellence and execution of our business strategies, we deliver value to customers around the globe with best-in-class technologies and solutions.

Celanese's history began in 1918, the year that its predecessor company, The American Cellulose & Chemical Manufacturing Company, was incorporated. The company, which manufactured cellulose acetate, was founded by Swiss brothers Drs. Camille and Henri Dreyfus. Since that time, the Company has transformed into a leading global technology and specialty materials company. The current Celanese was incorporated in 2004 under the laws of the State of Delaware and is a US-based public company traded on the New York Stock Exchange under the ticker symbol CE.

Headquartered in Irving, Texas, our operations are primarily located in North America, Europe and Asia and consist of 23 global production facilities, and an additional 8 strategic affiliate production facilities. As of December 31, 2015, we employed 7,081 people worldwide.

Table of Contents

## Business Segment Overview

We are organized around two complementary cores, Materials Solutions and the Acetyl Chain. Together, these two value drivers share raw materials, technology, integrated systems and research resources to increase efficiency and quickly respond to market needs. The businesses within Materials Solutions drive value through intimate customer relationships, which drives development of value-added applications for these customers. The Acetyl Chain leverages our industry-leading, low-cost technology and global production platforms to serve a broad array of customers and end-use markets around the world.

Within Materials Solutions, we operate principally through two business segments, Advanced Engineered Materials and Consumer Specialties. In Advanced Engineered Materials we leverage our opportunity pipeline to drive growth. In Consumer Specialties we focus on managing our production landscape and productivity. Materials Solutions also includes certain strategic affiliates.

The Acetyl Chain includes our Industrial Specialties and Acetyl Intermediates business segments. Due to our geographic breadth, our net sales are balanced across global regions. See Business Segments below and Note 26 - Segment Information in the accompanying consolidated financial statements for further information.

Each business segment's net sales to external customers for the year ended December 31, 2015, as well as each business segment's major products and end-use applications are as follows:

	Advanced Engineered Materials (In \$ millions)	Consumer Specialties	Industrial Specialties	Acetyl Intermediates
2015 Net Sales <sup>(1)</sup>	1,326	969	1,082	2,297
Key Products	<ul style="list-style-type: none"> <li>• Polyoxymethylene ("POM")</li> <li>• Ultra-high molecular weight polyethylene ("UHMW-PE")</li> <li>• Polybutylene terephthalate ("PBT")<sup>(2)</sup></li> <li>• Long-fiber reinforced thermoplastics ("LFRT")</li> <li>• Liquid crystal polymers ("LCP")</li> </ul>	<ul style="list-style-type: none"> <li>• Acetate tow</li> <li>• Acetate flake</li> <li>• Acetate film</li> <li>• Acesulfame potassium ("Ace-K")</li> <li>• Potassium sorbate</li> <li>• Sorbic acid</li> <li>• Sweetener system</li> </ul>	<ul style="list-style-type: none"> <li>• Conventional emulsions</li> <li>• Vinyl acetate ethylene ("VAE") emulsions</li> <li>• Ethylene vinyl acetate ("EVA") resins and compounds</li> <li>• Low-density polyethylene resins ("LDPE")</li> </ul>	<ul style="list-style-type: none"> <li>• Acetic acid</li> <li>• Vinyl acetate monomer ("VAM")</li> <li>• Acetic anhydride</li> <li>• Acetaldehyde</li> <li>• Ethyl acetate</li> <li>• Formaldehyde</li> <li>• Butyl acetate</li> <li>• Ethanol</li> </ul>
Major End-Use Applications	<ul style="list-style-type: none"> <li>• Fuel system components</li> <li>• Automotive safety systems</li> <li>• Medical</li> <li>• Industrial</li> <li>• Battery separators</li> <li>• Consumer electronics</li> <li>• Appliances</li> <li>• Filtration equipment</li> <li>• Telecommunications</li> <li>• Low-friction and low-wear grade acetal</li> </ul>	<ul style="list-style-type: none"> <li>• Filtration</li> <li>• Films</li> <li>• Flexible packaging</li> <li>• Beverages</li> <li>• Confections</li> <li>• Baked goods</li> </ul>	<ul style="list-style-type: none"> <li>• Paints</li> <li>• Coatings</li> <li>• Adhesives</li> <li>• Textiles</li> <li>• Paper finishing</li> <li>• Flexible packaging</li> </ul>	<ul style="list-style-type: none"> <li>• Paints</li> <li>• Coatings</li> <li>• Adhesives</li> <li>• Lubricants</li> <li>• Pharmaceuticals</li> <li>• Films</li> <li>• Textiles</li> <li>• Inks</li> <li>• Plasticizers</li> <li>• Solvents</li> </ul>

copolymer

Lamination products

- Medical
- Automotive parts

---

(1) Net sales for Acetyl Intermediates exclude intersegment sales of \$447 million for the year ended December 31, 2015.

(2) PBT is compounded by Celanese.

5

---

## Table of Contents

### Business Segments

#### Advanced Engineered Materials

Our Advanced Engineered Materials segment includes our engineered materials business and certain strategic affiliates. The engineered materials business leverages our leading project pipeline process to more rapidly commercialize projects. Our unique process is based on deep customer engagement to develop projects that are aligned with our skill domains and ensure our success and growth.

Our project pipeline model leverages competitive advantages that include our global assets and resources, market place presence, broad materials portfolio and differentiated capabilities. Our global assets and resources are represented by our operations, including polymerization, compounding, research and development, and customer technology centers in all regions of the world, including Brazil, China, Germany, Mexico, South Korea and the US. Our broad market place presence reflects our deep understanding of global trends, including the growing global demand for vehicles, elevating environmental considerations, increased global connectivity, and improving health and wellness. These global trends drive a range of needed customer solutions such as vehicle lightweighting, precise components, aesthetics and appearance, low emissions, heat resistance and drug delivery systems that we are uniquely positioned to address with our materials portfolio.

Our materials portfolio leverages differentiated chemical and physical properties that enable them to perform in a variety of conditions. These include enduring elevated temperatures, resisting adverse chemical interactions and withstanding deformation. POM, PBT and LFRT are used in a broad range of performance-demanding applications, including fuel system components, automotive safety systems, consumer electronics, appliances, industrial products and medical applications. UHMW-PE is used in battery separators, industrial products, filtration equipment, coatings and medical applications. Primary end uses for LCP are electrical applications or products and consumer electronics. These value-added applications in diverse end uses support the business' global growth objectives.

We also have several differentiated polymer technologies designed for the utility industry, the oil and gas industry, original equipment manufacturers and companies that enhance supply chain efficiency. These include composite technologies for the utility industry that deliver greater reliability, capacity and performance for utility transmission lines, as well as anti-counterfeiting technologies that help original equipment manufacturers and suppliers ensure products contain components and parts that meet their specifications.

Our differentiator capabilities are highlighted in our intimate and differentiated customer engagement which allows us to work across the entirety of our customers' value chain. For example, in the automotive industry we work with original equipment manufacturers as well as system and tier suppliers and injection molders in numerous areas, including polymer formulation and functionality, part and structural design, mold design, color development, part testing and part processing. This business segment also includes four strategic affiliates that complement our global reach, improve our ability to capture growth opportunities in emerging economies and positions us as a leading participant in the global specialty polymers industry.

#### Key Products

**POM.** Commonly known as polyacetal in the chemical industry, POM is sold by our engineered materials business under the trademarks Celcon® and Hostaform®. POM is used for diverse end-use applications in the automotive, industrial, consumer and medical industries. These applications include mechanical parts in automotive fuel system components and window lift systems, water handling, conveyor belts, sprinkler systems, drug delivery systems and gears in large and small home appliances.

We continue to innovate and broaden the portfolio of Celcon® and Hostaform® in order to support the industry needs for higher performing polyacetal. We have expanded our portfolio to include products with higher impact resistance and stiffness, low emissions, improved wear resistance and enhanced appearance such as laser marking and metallic effects.

Polyplastics Co., Ltd., our 45%-owned strategic affiliate ("Polyplastics"), and Korea Engineering Plastics Co., Ltd., our 50%-owned strategic affiliate ("KEPCO"), also manufacture POM and other engineering resins in the Asia-Pacific region.

The primary raw material for POM is formaldehyde, which is manufactured from methanol. Raw materials are sourced from internal production and from third parties, generally through long-term contracts.





Table of Contents

**UHMW-PE.** Celanese is the global leader in UHMW-PE products which are sold under the trademark GUR<sup>®</sup>. They are highly engineered thermoplastics designed for a variety of industrial, automotive, consumer and medical applications. Primary applications for the material include lead acid battery separators, heavy machine components, lithium ion separator membranes, and noise and vibration dampening tapes. Several specialty grades are also produced for applications in high performance filtration equipment, ballistic fibers, thermoplastic and elastomeric additives, as well as medical implants. The primary raw material for GUR<sup>®</sup> UHMW-PE is ethylene.

**Polyesters.** Our products include a series of thermoplastic polyesters including Celanex<sup>®</sup> PBT, Celanex<sup>®</sup> PET (polyethylene terephthalate) and Thermx<sup>®</sup> PCT (polycyclohexylene-dimethylene terephthalate), as well as Riteflex<sup>®</sup>, a thermoplastic polyester elastomer. These products are used in a wide variety of automotive, electrical and consumer applications, including ignition system parts, radiator grilles, electrical switches, appliance and sensor housings, light emitting diodes and technical fibers.

**LFRT.** Celstran<sup>®</sup> and Factor<sup>®</sup>, our LFRT products, impart extra strength and stiffness, making them more suitable for larger parts than conventional thermoplastics. These products are used in automotive, transportation and industrial applications, such as instrument panels, consoles and front end modules. The primary raw materials for LFRT include polypropylene and a variety of fibers such as glass, stainless steel and carbon. LFRTs meet a wide range of end-user requirements and are excellent candidates for metal replacement where they provide the required structural integrity with significant weight reduction, corrosion resistance and the potential to lower manufacturing costs.

**LCP.** Vectra<sup>®</sup> and Zenite<sup>®</sup>, our LCP brands, are primarily used in electrical and electronics applications for precision parts with thin walls and complex shapes and applications requiring heat dissipation. They are also used in high heat cookware applications. Raw materials for LCP include acetic anhydride, which is sourced from our Acetyl Intermediates segment.

**Geographic Regions**

Net sales by destination for the Advanced Engineered Materials segment by geographic region are as follows:

	Year Ended December 31,								
	2015		2014		2013				
	(In \$ millions, except percentages)								
North America	496	37	%	509	35	%	487	36	%
Europe and Africa	526	40	%	617	42	%	575	42	%
Asia-Pacific	266	20	%	284	20	%	238	18	%
South America	38	3	%	49	3	%	52	4	%
Total	1,326	100	%	1,459	100	%	1,352	100	%

**Customers**

Advanced Engineered Materials' principal customers are original equipment manufacturers and their suppliers serving the automotive, medical, industrial and consumer industries. By collaborating with our customers, our engineered materials business assists in developing and improving specialized applications and systems and offers customers global solutions. Our engineered materials business has long-standing relationships and multi-year arrangements with many of its major customers and utilizes distribution partners to expand its customer base.

**Competition**

Advanced Engineered Materials' principal competitors include BASF SE, E. I. du Pont de Nemours and Company, Koninklijke DSM N.V., SABIC Innovative Plastics and Solvay S.A. Other regional competitors include Asahi Kasei Corporation, Braskem S.A., Lanxess AG, Mitsubishi Gas Chemical Company, Inc., Sumitomo Corporation, Teijin Limited and Toray Industries, Inc.

**Consumer Specialties**

The Consumer Specialties segment includes our cellulose derivatives and food ingredients businesses, which serve consumer-driven applications.

Our cellulose derivatives business is a leading global producer and supplier of acetate flake, acetate tow and acetate film, primarily used in filter products applications. Our near-term focus in cellulose derivatives is to drive productivity initiatives



Table of Contents

through our business, including managing our own production landscape. We hold an approximately 30% ownership interest in three separate ventures in China that produce acetate flake and acetate tow. China National Tobacco Corporation, a Chinese state-owned tobacco entity, has been our venture partner for over two decades and has driven successful growth in our cellulose derivatives business. Our cellulose derivatives business has production sites in Belgium, Mexico, the United Kingdom and the US, along with sites at our three cellulose derivatives ventures in China.

Our food ingredients business is a leading global supplier of premium quality ingredients for the food and beverage and pharmaceutical industries and is a leading producer of food protection ingredients, such as potassium sorbate and sorbic acid. Similar to engineered materials, we leverage our leading project pipeline process in our food ingredients business in which we have over fifty years of experience in developing and marketing specialty ingredients for the food and beverages industry.

Our food ingredients business has a production facility in Germany, with sales and distribution facilities in all major regions of the world.

**Key Products**

Acetate flake, acetate tow and acetate film. Acetate tow is a fiber used primarily in cigarette filters. In order to produce acetate tow, we first produce acetate flake by processing wood pulp with acetic acid and acetic anhydride. Wood pulp generally comes from reforested trees and is purchased externally from a variety of sources, and acetic anhydride is an intermediate chemical that we produce from acetic acid in our Acetyl Intermediates segment. Acetate flake is then further processed into acetate tow. Acetate flake can also be a solvent that is cast to create a film, which is primarily used in packaging for food and high-end luxury goods, as well as other applications such as anti-fog films, which are sold under the trademark, Clarifoil®.

Sales of acetate tow amounted to 14%, 14% and 16% of our consolidated net sales for the years ended December 31, 2015, 2014 and 2013, respectively.

Sunett® sweetener. Ace-K, a non-nutritive high intensity sweetener sold under the trademark Sunett®, is used in a variety of beverages, confections and dairy products throughout the world. Sunett® sweetener is the ideal blending partner for caloric and non-caloric sweeteners as it balances the sweetness profile. It is recognized in the food industry for its consistent product quality and reliable supply. The primary raw material for Sunett is diketene, which is derived from acetic acid produced in our Acetyl Intermediates segment.

Qorus® sweetener system. The Qorus® sweetener system is designed to assist food and beverage formulators in achieving their unique taste profile. This product enables the manufacturer to balance taste, without the need to mask certain notes, and ultimately provide the consumer with a pure, authentic taste. The Qorus® sweetener system is designed for low- to no-calorie carbonated and non-carbonated beverages, flavored waters, energy drinks, milk and dairy products.

Food protection ingredients. Our food protection ingredients, potassium sorbate and sorbic acid, are mainly used in foods, beverages and personal care products. Pricing is extremely sensitive to demand and industry capacity and is not necessarily dependent on the cost of raw materials. The primary raw materials are acetic acid, ethylene and potassium hydroxide.

**Geographic Regions**

Net sales by destination for the Consumer Specialties segment by geographic region are as follows:

	Year Ended December 31,							
	2015		2014		2013			
	(In \$ millions, except percentages)							
North America	183	19	% 195	17	% 204	17	%	
Europe and Africa	476	49	% 549	48	% 592	49	%	
Asia-Pacific	255	26	% 352	30	% 351	29	%	
South America	55	6	% 62	5	% 63	5	%	
Total <sup>(1)</sup>	969	100	% 1,158	100	% 1,210	100	%	

(1)

Excludes intersegment sales of \$0 million, \$2 million and \$4 million for the years ended December 31, 2015, 2014 and 2013, respectively.

## Table of Contents

### Customers

Acetate tow is sold principally to the major tobacco companies that account for a majority of worldwide cigarette production. Contracts with most of our customers are generally entered into on an annual basis.

Customers of Clarifoil® film include printers, carton manufacturers, retailers, packaging buyers, publishers, designers and freezer door manufacturers.

Our food ingredients business primarily sells Sunett® sweetener to a limited number of large multinational and regional customers and the Qorus® sweetener system to regional customers in the food and beverage industry under long-term and annual contracts. Food protection ingredients are primarily sold through regional distributors to small and medium sized customers and directly to large multinational customers in the food industry.

### Competition

Our cellulose derivatives business' principal competitors include Daicel Corporation, Eastman Chemical Company, Mitsubishi Rayon Co., Ltd and Solvay S.A.

Our principal competitors for our Ace-K based sweeteners, Sunett® and Qorus®, are Anhui Jinhe Industry Co., Ltd. and Suzhou Hope Technology Co., Ltd. The European Commission has instituted a dumping investigation into the sales of Ace-K produced in China into the European Union. As a result of this investigation, on November 1, 2015, "definitive dumping duties" became effective as published in the European Commission's Official Journal. The definitive duties range between €2.64 and €4.58 net per kg and have been imposed for a period of five years from the effective date. Celanese does not produce Ace-K in China.

Our Ace-K based sweetener systems also compete with other high-intensity sweeteners, notably aspartame produced by Ajinomoto Co. Inc. and The NutraSweet Company, and sucralose produced by Tate & Lyle plc. Our principal competitors for potassium sorbate and sorbic acid include Daicel Corporation and Nantong Acetic Acid Chemical Co., Ltd.

### Industrial Specialties

The Industrial Specialties segment, which includes our emulsion polymers and EVA polymers businesses, is active in every major global industrial sector and serves diverse industrial and consumer end-use applications. These include traditional vinyl-based end uses, such as paints and coatings and adhesives, as well as other unique, high-value end uses including flexible packaging, thermal laminations, wire and cable, compounds and medical applications.

Our emulsion polymers business is a leading global producer of vinyl acetate-based emulsions and develops products and application technologies to improve performance, create value and drive innovation in applications such as paints and coatings, adhesives, construction, glass fiber, textiles and paper. The emulsion polymers business has production facilities in Canada, China, Germany, the Netherlands, Sweden and the US and is supported by expert technical service regionally. Our emulsion polymers products are sold under globally and regionally recognized brands including EcoVAE®, Mowilith®, Vinamul®, Celvolit®, Duroset®, TufCOR® and Avicor®.

Our EVA polymers business is a leading North American manufacturer of a full range of specialty EVA resins and compounds as well as select grades of low-density polyethylene. Sold under the Ateva® and VitalDose® brands, these products are used in many applications, including flexible packaging films, lamination film products, hot melt adhesives, medical products, automotive parts and carpeting. Our EVA polymers business has a production facility in Edmonton, Alberta, Canada.

The Industrial Specialties segment builds on our leading acetyl technology. Our Acetyl Intermediates segment produces VAM, a primary raw material for our emulsion polymers and EVA polymers businesses. Ethylene, another key raw material, is purchased externally from a variety of sources.

Our emulsion polymers business has experienced significant growth in Asia, and we have made investments to support continued growth in the region. We are currently constructing a VAE emulsions unit in Singapore. The unit is expected to begin production by mid-2016. In addition to geographic growth, the Industrial Specialties businesses are focused on supporting our overall manufacturing footprint strategy to increase value, such as integrating our production sites to provide critical economies of scale.

Table of Contents**Key Products**

Our emulsion polymers business produces conventional vinyl- and acrylate-based emulsions and VAE emulsions. Emulsions are made from VAM, ethylene, acrylate esters and styrene. VAE emulsions are a key component of water-based architectural coatings, adhesives, non-wovens, textiles, glass fiber and other applications.

Our EVA polymers business produces low-density polyethylene, EVA resins and compounds. Low-density polyethylene is produced in high-pressure reactors from ethylene, while EVA resins and compounds are produced in high-pressure reactors from ethylene and VAM.

**Geographic Regions**

Net sales by destination for the Industrial Specialties segment by geographic region are as follows:

	Year Ended December 31,								
	2015			2014			2013		
	(In \$ millions, except percentages)								
North America	401	37	%	461	38	%	441	38	%
Europe and Africa	485	45	%	562	46	%	520	45	%
Asia-Pacific	180	17	%	181	15	%	179	16	%
South America	16	1	%	20	1	%	15	1	%
Total	1,082	100	%	1,224	100	%	1,155	100	%

**Customers**

Industrial Specialties' products are sold to a diverse group of regional and multinational customers. Customers of our emulsion polymers business are manufacturers of water-based paints and coatings, adhesives, paper, building and construction products, glass fiber, non-wovens and textiles. Customers of our EVA polymers business are engaged in the manufacture of a variety of products, including hot melt adhesives, automotive components, thermal laminations, flexible and food packaging materials, medical packaging and controlled-release medical devices.

**Competition**

Principal competitors of our emulsion polymers business include BASF SE, Dairen Chemical Corporation, The Dow Chemical Company and Wacker Chemie AG.

Principal competitors of our EVA polymers business include Arkema, E. I. du Pont de Nemours and Company and ExxonMobil Chemical.

**Acetyl Intermediates**

Our Acetyl Intermediates segment includes our intermediate chemistry business, which produces and supplies acetyl products, including acetic acid, VAM, acetic anhydride and acetate esters. These products are generally used as starting materials for colorants, paints, adhesives, coatings and pharmaceuticals. Our intermediate chemistry business also produces organic solvents and intermediates for pharmaceutical, agricultural and chemical products.

As an industry leader, our intermediate chemistry business has built on its leading technology, low cost production footprint and attractive competitive position to drive growth. With decades of experience, advanced proprietary process technology and favorable capital and production costs, we are a leading global producer of acetic acid and VAM. AOPlus<sup>®3</sup> technology extends our historical technology advantage and enables us to construct a greenfield acetic acid facility with a capacity of 1.8 million tons at a lower capital cost than our competitors. Our VAntage<sup>®2</sup> technology could increase VAM capacity by up to 50% to meet growing customer demand globally with minimal investment. We believe our production technology is among the lowest cost in the industry and provides us with global growth opportunities through low cost expansions and a cost advantage over our competitors. In addition, we have focused in recent years on enhancing our ability to drive incremental value through our global production network and productivity initiatives as well as proactively managing the intermediate chemistry business in response to trade flows and prevailing industry trends. Our intermediate chemistry business has production sites in China, Germany, Mexico, Singapore and the US.

Table of Contents**Key Products**

**Acetyl Products.** Acetyl products include acetic acid, VAM, acetic anhydride and acetaldehyde. Acetic acid is primarily used to manufacture VAM, purified terephthalic acid and other acetyl derivatives. VAM is used in a variety of adhesives, paints, films, coatings and textiles. Acetic anhydride is a raw material used in the production of cellulose acetate, detergents and pharmaceuticals. Acetaldehyde is a major feedstock for the production of a variety of derivatives, such as pyridines, which are used in agricultural products. We manufacture acetic acid, VAM and acetic anhydride for our own use in producing downstream, value-added products, as well as for sale to third parties. Acetic acid and VAM, our basic acetyl intermediates products, are impacted by global supply and demand fundamentals. The principal raw materials in these products are carbon monoxide, which we generally purchase under long-term contracts, and methanol and ethylene, which we generally purchase under both long- and short-term contracts. Generally, methanol and ethylene are commodity products available from a wide variety of sources, while carbon monoxide is typically obtained from sources in close proximity.

In February 2014, we formed a joint venture, Fairway Methanol LLC ("Fairway"), with Mitsui & Co., Ltd., of Tokyo, Japan, in which we own a 50% interest, for the production of methanol at our integrated chemical plant in Clear Lake, Texas. The methanol unit utilizes natural gas in the US Gulf Coast region as a feedstock and benefits from the existing infrastructure at our Clear Lake facility. The methanol facility has an annual capacity of 1.3 million tons. Fairway began production in October 2015.

Sales from acetyl products amounted to 31%, 33% and 32% of our consolidated net sales for the years ended December 31, 2015, 2014 and 2013, respectively.

**Solvents and Derivatives.** We manufacture a variety of solvents, formaldehyde and other chemicals, which in turn are used in the manufacture of paints, coatings, adhesives and other products. Many solvents and derivatives products are derived from our production of acetic acid. Primary products are:

- Ethyl acetate, an acetate ester that is a solvent used in coatings, inks and adhesives and in the manufacture of photographic films and coated papers;

- Butyl acetate, an acetate ester that is a solvent used in inks, pharmaceuticals and perfume;

- Formaldehyde and paraformaldehyde, which are primarily used to produce adhesive resins for plywood, particle board, coatings, POM engineering resins and a compound used in making polyurethane; and

- Other chemicals, such as crotonaldehyde, which are used by our food ingredients business for the production of sorbic acid and potassium sorbates, as well as raw materials for the fragrance and food ingredients industry.

Sales from solvents and derivatives products amounted to 10%, 11% and 11% of our consolidated net sales for the years ended December 31, 2015, 2014 and 2013, respectively.

**Geographic Regions**

Net sales by destination for the Acetyl Intermediates segment by geographic region are as follows:

	Year Ended December 31,								
	2015			2014			2013		
	(In \$ millions, except percentages)								
North America	588	26	%	743	25	%	708	25	%
Europe and Africa	711	31	%	905	31	%	894	32	%
Asia-Pacific	932	40	%	1,210	41	%	1,091	39	%
South America	66	3	%	103	3	%	100	4	%
Total <sup>(1)</sup>	2,297	100	%	2,961	100	%	2,793	100	%

<sup>(1)</sup> Excludes intersegment sales of \$447 million, \$532 million and \$448 million for the years ended December 31, 2015, 2014 and 2013, respectively.



## Table of Contents

### Customers

Our intermediate chemistry business sells its products both directly to customers and through distributors. Acetic acid, VAM and acetic anhydride are global businesses, and we generally supply our customers under multi-year contracts. Acetic acid, VAM and acetic anhydride customers produce polymers used in water-based paints, adhesives, paper coatings, polyesters, film modifiers, pharmaceuticals, cellulose acetate and textiles. We have long-standing relationships with most of these customers.

Solvents and derivatives are sold to a diverse group of regional and multinational customers under multi-year contracts and on the basis of long-standing relationships. Solvents and derivatives customers are primarily engaged in the production of paints, coatings and adhesives. We manufacture formaldehyde for our own use as well as for sale to a few regional customers that include manufacturers in the wood products and chemical derivatives industries. The sale of formaldehyde is based on long- and short-term agreements. Specialty solvents are sold globally to a wide variety of customers, primarily in the coatings and resins and the specialty products industries. These products serve global regions in the synthetic lubricant, agrochemical, rubber processing and other specialty chemical areas.

### Competition

Our principal competitors in the Acetyl Intermediates segment include BASF SE, BP PLC, Chang Chun Petrochemical Co., Ltd., Daicel Corporation, The Dow Chemical Company, Eastman Chemical Company, E. I. du Pont de Nemours and Company, Jiangsu Sopo (Group) Co., Ltd., Kuraray Co., Ltd., LyondellBasell Industries N.V., Nippon Gohsei, Perstorp Inc. and Showa Denko K.K.

### Other Activities

Other Activities primarily consists of corporate center costs, including administrative activities such as finance, information technology and human resource functions, interest income and expense associated with our financing activities and results of our captive insurance companies. Our two wholly-owned captive insurance companies are a key component of our global risk management program, as well as a form of self-insurance for our liability and workers compensation risks. The captive insurance companies retain risk at levels approved by management and obtain reinsurance coverage from third parties to limit the net risk retained. One of the captive insurance companies also insures certain third-party risks. Other Activities also includes the interest cost, expected return on assets and net actuarial gains and losses components of our net periodic benefit cost for our defined benefit pension plans and other postretirement plans, which are not allocated to our business segments.

### Strategic Affiliates

Our strategic affiliates represent an important component of our strategy for accelerated growth and global expansion. We have a substantial portfolio of affiliates in various regions, including Asia-Pacific, North America and the Middle East. These affiliates, some of which date back as far as the 1960s, have sizeable operations and are significant within their industries.

Our strategic affiliates have similar business models as our core businesses. With shared characteristics such as products, applications and manufacturing technology, these strategic affiliates complement and extend our technology and specialty materials portfolio. We have historically entered into these investments to gain access to local demand, minimize costs and accelerate growth in areas we believe have significant future business potential. Depending on the level of investment and other factors, we account for our strategic affiliates using either the equity method or cost method of accounting.

Our strategic affiliates contribute substantial earnings and cash flows to Celanese. During the year ended December 31, 2015, our equity method strategic affiliates generated combined sales of \$2.4 billion, resulting in our recording \$150 million of equity in net earnings of affiliates and \$136 million of dividends.

Table of Contents

Our strategic affiliates as of December 31, 2015 are as follows:

	Location of Headquarters	Ownership	Partner(s)	Year Entered
Equity Method Investments				
Advanced Engineered Materials				
National Methanol Company	Saudi Arabia	25 %	Saudi Basic Industries Corporation (50%); Texas Eastern Arabian Corporation Ltd. (25%)	1981
Korea Engineering Plastics Co., Ltd	South Korea	50 %	Mitsubishi Gas Chemical Company, Inc. (40%); Mitsubishi Corporation (10%)	1999
Polyplastics Co., Ltd.	Japan	45 %	Daicel Corporation (55%)	1964
Fortron Industries LLC	US	50 %	Kureha America Inc. (50%)	1992
Cost Method Investments				
Consumer Specialties				
Kunming Cellulose Fibers Co. Ltd.	China	30 %	China National Tobacco Corporation (70%)	1993
Nantong Cellulose Fibers Co. Ltd.	China	31 %	China National Tobacco Corporation (69%)	1986
Zhuhai Cellulose Fibers Co. Ltd.	China	30 %	China National Tobacco Corporation (70%)	1993

National Methanol Company (Ibn Sina). National Methanol Company represents approximately 1% of the world's methanol production capacity and is one of the world's largest producers of methyl tertiary-butyl ether, a gasoline additive. Its production facilities are located in Saudi Arabia. Saudi Basic Industries Corporation ("SABIC") is responsible for all product marketing. Methanol is a key feedstock for POM production and is produced by our Ibn Sina affiliate which provides an economic hedge against raw material costs in our engineered materials business.

Ibn Sina is currently constructing a 50,000 ton POM production facility in Saudi Arabia. The new facility will supply POM to support Advanced Engineered Materials' future growth plans as well as our venture partners' regional business development. Upon successful startup of the POM facility, which is expected to occur in 2017, our indirect economic interest in Ibn Sina will increase from 25% to 32.5%. SABIC's economic interest will remain unchanged.

Korea Engineering Plastics Co., Ltd. KEPCO is the leading producer of POM in South Korea. KEPCO has polyacetal production facilities in Ulsan, South Korea, compounding facilities for PBT and nylon in Pyongtaek, South Korea, and participates with Polyplastics and Mitsubishi Gas Chemical Company, Inc. in a world-scale POM facility in Nantong, China.

Polyplastics Co., Ltd. Polyplastics is a leading supplier of engineered plastics. Polyplastics is a manufacturer and/or marketer of POM, LCP and PPS, with principal production facilities located in Japan and Malaysia.

Fortron Industries LLC. Fortron is a leading global producer of PPS, sold under the Fortron® brand, which is used in a wide variety of automotive and other applications, especially those requiring heat and/or chemical resistance. Fortron's facility is located in Wilmington, North Carolina. This venture combines the sales, marketing, distribution, compounding and manufacturing expertise of Celanese with the PPS polymer technology expertise of Kureha America Inc.

Cellulose derivatives strategic ventures. Our cellulose derivatives ventures generally fund their operations using operating cash flow and pay dividends based on each ventures' performance in the preceding year. In 2015, 2014 and 2013, we received cash dividends of \$106 million, \$115 million and \$92 million, respectively.

Although our ownership interest in each of our cellulose derivatives ventures exceeds 20%, we account for these investments using the cost method of accounting because we determined that we cannot exercise significant influence over these entities due to local government investment in and influence over these entities, limitations on our involvement in the day-to-day operations and the present inability of the entities to provide timely financial information prepared in accordance with generally accepted accounting principles in the United States of America

("US GAAP").

13

---

Table of Contents**Other Equity Method Investments**

InfraServs. We hold indirect ownership interests in several German InfraServ Groups that own and develop industrial parks and provide on-site general and administrative support to tenants. Our ownership interest in the equity investments in InfraServ affiliates are as follows:

	As of December 31, 2015 (In percentages)
InfraServ GmbH & Co. Gendorf KG	39
InfraServ GmbH & Co. Hoechst KG	32
InfraServ GmbH & Co. Knapsack KG	27

**Research and Development**

Our businesses are innovation-oriented and conduct research and development activities to develop new, and optimize existing, production technologies, as well as to develop commercially viable new products and applications. Research and development expense was \$119 million, \$86 million and \$85 million for the years ended December 31, 2015, 2014 and 2013, respectively. We consider the amounts spent during each of the last three fiscal years on research and development activities to be sufficient to execute our current strategic initiatives.

**Intellectual Property**

We attach importance to protecting our intellectual property, including safeguarding our confidential information and through our patents, trademarks and copyrights, in order to preserve our investment in research and development, manufacturing and marketing. Patents may cover processes, equipment, products, intermediate products and product uses. We also seek to register trademarks as a means of protecting the brand names of our Company and products.

**Patents.** In most industrial countries, patent protection exists for new substances and formulations, as well as for certain unique applications and production processes. However, we do business in regions of the world where intellectual property protection may be limited and difficult to enforce.

**Confidential Information.** We maintain stringent information security policies and procedures wherever we do business. Such information security policies and procedures include data encryption, controls over the disclosure and safekeeping of confidential information and trade secrets, as well as employee awareness training.

**Trademarks.** AOPlus<sup>®</sup>, Ateva<sup>®</sup>, Avicor<sup>®</sup>, BriteCoat<sup>®</sup>, Celanese<sup>®</sup>, Celanex<sup>®</sup>, Celcon<sup>®</sup>, CelFX<sup>®</sup>, Celstran<sup>®</sup>, Celvolit<sup>®</sup>, Clarifoil<sup>®</sup>, Duroset<sup>®</sup>, EcoVAE<sup>®</sup>, Factor<sup>®</sup>, Fortron<sup>®</sup>, GUR<sup>®</sup>, Hostaform<sup>®</sup>, Impet<sup>®</sup>, Mowilith<sup>®</sup>, MetaLX<sup>®</sup>, MT<sup>®</sup>, Nutrinova<sup>®</sup>, Qorus<sup>®</sup>, Riteflex<sup>®</sup>, SlideX<sup>™</sup>, Sun<sup>®</sup>TCX<sup>®</sup>, Thermx<sup>®</sup>, TufCOR<sup>®</sup>, VAntage<sup>®</sup>, VAntagePlus<sup>™</sup>, Vectra<sup>®</sup>, Vinamul<sup>®</sup>, VitalDose<sup>®</sup>, Zenite<sup>®</sup> and certain other branded products and services named in this document are registered or reserved trademarks or service marks owned or licensed by Celanese. The foregoing is not intended to be an exhaustive or comprehensive list of all registered or reserved trademarks and service marks owned or licensed by Celanese. Fortron<sup>®</sup> is a registered trademark of Fortron Industries LLC. Hostaform<sup>®</sup> is a registered trademark of Hoechst GmbH. Mowilith<sup>®</sup> is a registered trademark of Celanese in most European countries.

We monitor competitive developments and defend against infringements on our intellectual property rights. Neither Celanese nor any particular business segment is materially dependent upon any one patent, trademark, copyright or trade secret.

**Environmental and Other Regulation**

Matters pertaining to environmental and other regulations are discussed in Item 1A. Risk Factors, as well as Note 2 - Summary of Accounting Policies, Note 16 - Environmental and Note 24 - Commitments and Contingencies in the accompanying consolidated financial statements.

Table of Contents

## Employees

Employees employed by Celanese on a continuing basis throughout the world are as follows:

	Employees as of December 31, 2015
North America	
US	2,660
Canada	246
Mexico	703
Total	3,609
Europe	
Germany	1,455
Other Europe	973
Total	2,428
Asia	979
Rest of World	65
Total	7,081

## Backlog

We do not consider backlog to be a significant indicator of the level of future sales activity. In general, we do not manufacture our products against a backlog of orders. Production and inventory levels are based on the level of incoming orders as well as projections of future demand. Therefore, we believe that backlog information is not material to understanding our overall business and should not be considered a reliable indicator of our ability to achieve any particular level of net sales or financial performance.

Available Information — Securities and Exchange Commission ("SEC") Filings and Corporate Governance Materials  
We make available free of charge, through our internet website (<http://www.celanese.com>), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as well as ownership reports on Form 3 and Form 4, as soon as reasonably practicable after electronically filing such material with, or furnishing it to, the SEC. References to our website in this report are provided as a convenience, and the information on our website is not, and shall not be deemed to be a part of this report or incorporated into any other filings we make with the SEC. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including Celanese Corporation, that electronically file with the SEC at <http://www.sec.gov>.

We also make available free of charge, through our website, our Corporate Governance Guidelines of our Board of Directors and the charters of each of the committees of our Board of Directors.

Table of Contents

Item 1A. Risk Factors

Many factors could have an effect on our financial condition, cash flows and results of operations. We are subject to various risks resulting from changing economic, environmental, political, industry, business, financial and regulatory conditions. The factors described below represent our principal risks.

Risks Related to Our Business

We are a company with operations around the world and are exposed to general economic, political and regulatory conditions and risks in the countries in which we have operations and customers.

We operate globally and have customers in many countries. Our major facilities are primarily located in North America, Europe and Asia, and we hold interests in affiliates that operate in the US, Germany, China, Japan, Malaysia, South Korea and Saudi Arabia. Our principal customers are similarly global in scope and the prices of our most significant products are typically regional or world market prices. Consequently, our business and financial results are affected, directly and indirectly, by world economic conditions, including instability in credit markets, declining consumer and business confidence, fluctuating commodity prices and interest rates, volatile exchange rates and other challenges such as the changing regulatory environment.

Our operations are also subject to global political conditions. In certain foreign jurisdictions, our operations are subject to nationalization and expropriation risk and some of our contractual relationships within these jurisdictions are subject to cancellation without full compensation for loss. In certain cases where we benefit from local government subsidies or other undertakings, such benefits are subject to the solvency of local government entities and are subject to termination without meaningful recourse or remedies.

Failure to comply with applicable laws, rules, regulations or court decisions could expose us to fines, penalties and other costs. Moreover, changes in laws or regulations, such as unexpected changes in regulatory requirements (including import or export licensing requirements), or changes in reporting requirements of the US, Canadian, Mexican, German, European Union ("EU") or Asian governmental agencies, could increase the cost of doing business in these regions. Any of these conditions may have an effect on our business and financial results as a whole and may result in volatile current and future prices for our securities, including our stock.

We have invested significant resources in China and other Asian countries. This region's growth may slow, and we may fail to realize the anticipated benefits associated with our investment there and, consequently, our financial results may be adversely impacted.

In addition, we have significant operations and financial relationships based in Europe. Historically sales originating in Europe have accounted for over one-third of our net sales and approximately 40% in 2015. Adverse conditions in the European economy may negatively impact our overall financial results due to reduced economic growth and resulting decreased end-use customer demand.

Finally, conditions such as the uncertainties associated with war, terrorist activities, civil unrest, epidemics, pandemics, weather, natural disasters, the effects of climate change or political instability in any of the countries in which we operate or have significant customers or suppliers could affect us by causing delays or losses in the supply or delivery of raw materials and products, as well as increasing security costs, insurance premiums and other expenses. These conditions could also result in or lengthen economic recession in the US, Europe, Asia or elsewhere. We are subject to risks associated with the increased volatility in the prices and availability of key raw materials and energy, which could have a significant adverse effect on the margins of our products and our financial results.

We purchase significant amounts of ethylene, methanol, carbon monoxide and natural gas from third parties primarily for use in our production of basic chemicals in the Acetyl Intermediates segment, principally acetic acid, vinyl acetate monomer ("VAM") and formaldehyde. We use a portion of our output of these chemicals, in turn, as inputs in the production of downstream products in all our business segments. We also purchase some of these raw materials for use in our Industrial Specialties segment, primarily for vinyl acetate ethylene emulsions and ethylene vinyl acetate production, as well as significant amounts of wood pulp for use in our production of cellulose acetate in our Consumer Specialties segment. The price of many of these items is dependent on the available supply of that item and may increase significantly as a result of natural disasters, plant or production disruptions, strikes or other labor unrest, war or other outbreak of hostilities or terrorism, breakdown or degradation of transportation infrastructure used for delivery of strategic raw materials and energy commodities, or changes in laws or regulations. In particular, to the

extent of our vertical integration in the production of chemicals, shortages in the availability of raw material chemicals, such as natural gas, ethylene and methanol, or the loss of our dedicated supplies of carbon monoxide,

## Table of Contents

may have an increased adverse impact on us as it can cause a shortage in intermediate and finished products. Such shortages would adversely impact our ability to produce certain products and increase our costs resulting in reduced margins and adverse financial results.

We are exposed to volatility in the prices of our raw materials and energy. Although we have long-term supply agreements, multi-year purchasing and sales agreements and forward purchase contracts providing for the supply of ethylene, methanol, carbon monoxide, wood pulp, natural gas and electricity, the contractual prices for these raw materials and energy can vary with economic conditions and may be highly volatile. In addition to the factors noted above that may impact supply or price, factors that have caused volatility in our raw material prices in the past and which may do so in the future include:

- Shortages of raw materials due to increasing demand, e.g., from growing uses or new uses;
- Capacity constraints, e.g., due to construction delays, labor disruption, involuntary shutdowns or turnarounds;
- The inability of a supplier to meet our delivery orders or a supplier's choice not to fulfill orders or to terminate a supply contract or our inability to obtain or renew supply contracts on favorable terms;
- The general level of business and economic activity; and
- The direct or indirect effect of governmental regulation (including the impact of government regulation relating to climate change).

If we are not able to fully offset the effects of higher energy and raw material costs through price increases, productivity improvements or cost reduction programs, or if such commodities become unavailable, it could have a significant adverse effect on our ability to timely and profitably manufacture and deliver our products resulting in reduced margins and adverse financial results.

We have a practice of maintaining, when available, multiple sources of supply for raw materials and services. However, some of our individual plants may have single sources of supply for some of their raw materials, such as carbon monoxide, steam and ethylene, or services. Although we have been able to obtain sufficient supplies of raw materials and services, there can be no assurance that unforeseen developments will not affect our ability to source raw materials or services in the future. Even if we have multiple sources of supply for a raw material or a service, there can be no assurance that these sources can make up for the loss of a major supplier. Furthermore, if any sole source or major supplier were unable or unwilling to deliver a raw material or a service for an extended period of time, we may not be able to find an acceptable alternative, and any such alternative could result in increased costs. It is also possible profitability will be adversely affected if we are required to qualify additional sources of supply for a raw material or a service to our specifications in the event of the loss of a sole source or major supplier.

A portion of our supply of methanol in North America is currently obtained from our joint venture, Fairway Methanol LLC ("Fairway"), with Mitsui & Co., Ltd., of Tokyo, Japan, in which we own a 50% interest, for the production of methanol at our integrated chemical plant in Clear Lake, Texas. Fairway began production in October 2015.

Production at our manufacturing facilities could be disrupted for a variety of reasons, which could prevent us from producing enough of our products to maintain our sales and satisfy our customers' demands.

A disruption in production at one or more of our manufacturing facilities could have a material adverse effect on our business. Disruptions could occur for many reasons, including fire, natural disasters, weather, unplanned maintenance or other manufacturing problems, disease, strikes or other labor unrest, transportation interruption, government regulation, political unrest or terrorism. Alternative facilities with sufficient capacity or capabilities may not be available, may cost substantially more or may take a significant time to start production, each of which could negatively affect our business and financial performance. If one of our key manufacturing facilities is unable to produce our products for an extended period of time, our sales may be reduced by the shortfall caused by the disruption and we may not be able to meet our customers' needs, which could cause them to seek other suppliers. In particular, production disruptions at our manufacturing facilities that produce chemicals used as inputs in the production of chemicals in other business segments, such as acetic acid, VAM and formaldehyde, could have a more significant adverse effect on our business and financial performance and results of operations to the extent of such vertical integration. Furthermore, to the extent a production disruption occurs at a manufacturing facility that has been operating at or near full capacity, the resulting shortage of our product could be particularly harmful because production at the manufacturing facility may not be able to reach levels achieved prior to the disruption.





## Table of Contents

Failure to develop new products and production technologies or to implement productivity and cost reduction initiatives successfully may harm our competitive position.

Our operating results depend significantly on the development of commercially viable new products, product grades and applications, as well as process technologies, free of any legal restrictions. If we are unsuccessful in developing new products, applications and production processes in the future, including failing to leverage our opportunity pipeline in our Advanced Engineered Materials segment, our competitive position and operating results may be negatively affected. However, as we invest in new technology, we face the risk of unanticipated operational or commercialization difficulties, including an inability to obtain necessary permits or governmental approvals, the development of competing technologies, failure of facilities or processes to operate in accordance with specifications or expectations, construction delays, cost over-runs, the unavailability of financing, required materials or equipment and various other factors. Likewise, we have undertaken and are continuing to undertake initiatives in all business segments to improve productivity and performance and to generate cost savings. These initiatives may not be completed or beneficial or the estimated cost savings from such activities may not be realized.

Our business exposes us to potential product liability claims and recalls, which could adversely affect our financial condition and performance.

The development, manufacture and sales of specialty chemical products by us, including products produced for the food and beverage, cigarette, automobile, aerospace, medical device and pharmaceutical industries, involve a risk of exposure to product liability claims, product recalls, product seizures and related adverse publicity. A product liability claim or judgment against us could also result in substantial and unexpected expenditures, affect consumer or customer confidence in our products, and divert management's attention from other responsibilities. Although we maintain product liability insurance, there can be no assurance that this type or the level of coverage is adequate or that we will be able to continue to maintain our existing insurance or obtain comparable insurance at a reasonable cost, if at all. A product recall or a partially or completely uninsured judgment against us could have a material adverse effect on our results of operations or financial condition. Although we have standard contracting policies and controls, we may not always be able to contractually limit our exposure to third party claims should our failure to perform result in downstream supply disruptions or product recalls.

We could be subject to damages based on claims brought against us by our customers or lose customers as a result of the failure of our products to meet certain quality specifications.

Our products provide important performance attributes to our customers' products. If a product fails to perform in a manner consistent with quality specifications, a customer could seek replacement of the product or damages for costs incurred as a result of the product failing to perform as guaranteed. A successful claim or series of claims against us could have a material adverse effect on our financial condition and results of operations and could result in a loss of one or more key customers.

Our future success depends in part on our ability to protect our intellectual property rights. Our inability to protect and enforce these rights could reduce our ability to maintain our industry position and our profit margins.

We rely on our patents, trademarks, copyrights, know-how and trade secrets and patents and other technology licensed from third parties to protect our investment in research and development and our competitive commercial positions in manufacturing and marketing our products. We have adopted internal policies for protecting our know-how and trade secrets. In addition, our practice is to seek patent or trade secret protection for significant developments that provide us competitive advantages and freedom to practice for our businesses. Patents may cover catalysts, processes, products, intermediate products and product uses. These patents are usually filed in strategic countries throughout the world and provide varying periods and scopes of protection based on the filing date and the type of patent application. The legal life and scope of protection provided by a patent may vary among those countries in which we seek protection. As patents expire, the catalysts, processes and products described and claimed in those patents generally may become available for use by the public subject to our continued protection for associated know-how and trade secrets. We also seek to register trademarks as a means of protecting the brand names of our products, which brand names become more important once the corresponding product or process patents have expired. We operate in regions of the world where intellectual property protection may be limited and difficult to enforce and our continued growth strategy may bring us to additional regions with similar challenges. If we are not successful in protecting or

maintaining our patent, license, trademark or other intellectual property rights, our net sales, results of operations and cash flows may be adversely affected.

## Table of Contents

Our business is exposed to risks associated with the creditworthiness of our suppliers, customers and business partners and the industries in which our suppliers, customers and business partners participate are cyclical in nature, both of which may adversely affect our business and results of operations.

Some of the industries in which our end-use customers participate, such as the automotive, electrical, construction and textile industries, are highly competitive, to a large extent driven by end-use applications, and may experience overcapacity, all of which may affect demand for and pricing of our products. Our business is exposed to risks associated with the creditworthiness of our key suppliers, customers and business partners and reductions in demand for our customers' products. These risks include the interruption of production at the facilities of our customers, the reduction, delay or cancellation of customer orders, delays in or the inability of customers to obtain financing to purchase our products, delays in or interruptions of the supply of raw materials we purchase and bankruptcy of customers, suppliers or other creditors. In addition, many of these industries are cyclical in nature, thus posing risks to us that vary throughout the year. The occurrence of any of these events may adversely affect our cash flow, profitability and financial condition.

Environmental regulations and other obligations relating to environmental matters could subject us to liability for fines, clean-ups and other damages, require us to incur significant costs to modify our operations and increase our manufacturing and delivery costs.

Costs related to our compliance with environmental laws and regulations, and potential obligations with respect to sites currently or formerly owned or operated by us, may have a significant negative impact on our operating results. We also have obligations related to the indemnity agreement contained in the demerger and transfer agreement between Celanese GmbH and Hoechst AG for environmental matters arising out of certain divestitures that took place prior to the demerger.

Our operations are subject to extensive international, national, state, local and other laws and regulations that govern environmental and health and safety matters. We incur substantial capital and other costs to comply with these requirements. If we violate any one of those laws or regulations, we can be held liable for substantial fines and other sanctions, including limitations on our operations as a result of changes to or revocations of environmental permits involved. Stricter environmental, safety and health laws and regulations could result in substantial costs and liabilities to us or limitations on our operations. Consequently, compliance with these laws and regulations may negatively affect our earnings and cash flows in a particular reporting period. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources for further information.

Changes in environmental, health and safety regulations in the jurisdictions where we manufacture or sell our products could lead to a decrease in demand for our products.

New or revised governmental regulations and independent studies relating to the effect of our products on health, safety or the environment may affect demand for our products and the cost of producing our products. In addition, products we produce, including VAM, formaldehyde and plastics derived from formaldehyde, may be classified in a manner that would adversely affect demand for such products. For example, the International Agency for Research on Cancer ("IARC"), a private research agency, classified formaldehyde as carcinogenic to humans (Group 1) based on studies linking formaldehyde exposure to nasopharyngeal cancer, a rare cancer in humans. In addition, several studies have investigated possible links between formaldehyde exposure and various end points, including leukemia. In October 2009, IARC concluded that there is sufficient evidence of a causal association between formaldehyde and the development of leukemia. In 2011, the National Toxicology Program ("NTP") released the 12th report on carcinogens, which changed the classification of formaldehyde from "reasonably anticipated to be a human carcinogen" to "known to be a human carcinogen". Similar to the IARC modification in 2009, the NTP report also implicates formaldehyde as a leukemogen. We anticipate that the results of the IARC's and the NTP's reviews will be examined and considered by government agencies with responsibility for setting worker and environmental exposure standards and labeling requirements.

Other pending initiatives potentially will require toxicological testing and risk assessments of a wide variety of chemicals, including chemicals used or produced by us. These initiatives include the Voluntary Children's Chemical Evaluation Program, High Production Volume Chemical Initiative and expected modifications to the Toxic Substances Control Act ("TSCA") in the US, as well as various European Commission programs, such as the

Registration, Evaluation, Authorization and Restriction of Chemicals ("REACH"), as well as new initiatives in Asia and other regions. These assessments may result in heightened concerns about the chemicals involved and additional requirements being placed on the production, handling, labeling or use of the subject chemicals. Such concerns and additional requirements could also increase the cost incurred by our customers to use our chemical products and otherwise limit the use of these products, which could lead to a decrease in demand for these products. Such a decrease in demand would likely have an adverse impact on our business and results of operations.

## Table of Contents

Our production facilities, including facilities we own and/or operate, handle the processing of some volatile and hazardous materials that subject us to operating and other risks that could have a negative effect on our operating results.

Our operations are subject to operating and other risks associated with chemical manufacturing, including the storage and transportation of raw materials, finished products and waste. These risks include, among other things, pipeline and storage tank leaks and ruptures, explosions and fires and discharges or releases of toxic or hazardous substances.

These operating and other risks can cause personal injury, property damage, third-party damages and environmental contamination, and may result in the shutdown of affected facilities and the imposition of civil or criminal penalties. The occurrence of any of these events may disrupt production and have a negative effect on the productivity and profitability of a particular manufacturing facility, our operating results and cash flows.

US federal regulations aimed at increasing security at certain chemical production plants and similar legislation that may be proposed in the future, if passed into law, may increase our operating costs and cause an adverse effect on our results of operations.

The Chemical Facility Anti-Terrorism Standards program ("CFATS Program"), which is administered by the Department of Homeland Security ("DHS"), identifies and regulates chemical facilities to ensure that they have security measures in place to reduce the risks associated with potential terrorist attacks on chemical plants located in the US. In December 2014, the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014 ("CFATS Act") was enacted. The CFATS Act reauthorizes the CFATS Program for four years. DHS has released an interim final rule under the CFATS Program that imposes comprehensive federal security regulations for high-risk chemical facilities in possession of specified quantities of chemicals of interest. This rule establishes risk-based performance standards for the security of our nation's chemical facilities. It requires covered chemical facilities to prepare Security Vulnerability Assessments, which identify facility security vulnerabilities, and to develop and implement Site Security Plans, which include measures that satisfy the identified risk-based performance standards. We cannot determine with certainty the costs associated with any security measures that DHS may require. We are subject to risks associated with possible climate change legislation, regulation and international accords. Future environmental legislative and regulatory developments related to climate change are possible, which could materially increase operating costs in the chemical industry and thereby increase our manufacturing and delivery costs. Greenhouse gas emissions have become the subject of a large amount of international, national, regional, state and local attention. For example, the Environmental Protection Agency ("EPA") has promulgated rules concerning greenhouse gas emissions. In addition, regulation of greenhouse gas also could occur pursuant to future US treaty obligations, statutory or regulatory changes under the Clean Air Act or new climate change legislation. Cap and trade initiatives to limit greenhouse gas emissions have been introduced in the EU. While not all are likely to become law, many countries are considering or have implemented regulatory programs to reduce greenhouse gas emissions. Our business and financial results may be adversely affected by various legal and regulatory proceedings. We are subject to legal and regulatory proceedings, lawsuits and claims in the normal course of business and could become subject to additional claims in the future, some of which could be material. The outcome of existing proceedings, lawsuits and claims may differ from our expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict. Various factors or developments can lead us to change current estimates of liabilities and related insurance receivables where applicable, or permit us to make such estimates for matters previously not susceptible to reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments, or changes in applicable law. A future adverse ruling, settlement, or unfavorable development could result in charges that could have a material adverse effect on our business, results of operations or financial condition in any particular period. See Note 16 - Environmental and Note 24 - Commitments and Contingencies in the accompanying consolidated financial statements for further information.

Changes in, or the interpretation of, tax legislation or rates throughout the world could materially impact our results. Our future effective tax rate and related tax balance sheet attributes could be impacted by changes in tax legislation throughout the world. In particular, proposed US tax legislation could materially impact our results. Currently, the

majority of our net sales are generated from customers located outside of the US, and a substantial portion of our assets and employees are located outside of the US. If these funds are needed for our operations in the US, we will access such funds in a tax efficient manner to satisfy cash flow needs.

## Table of Contents

We have not accrued income taxes or foreign withholding taxes on undistributed earnings for most non-US subsidiaries, because those earnings are intended to be indefinitely reinvested in the operations of those subsidiaries. Certain tax proposals with respect to such earnings could substantially increase our tax expense, which would substantially reduce our income and have a material adverse effect on our results of operations and cash flows from operating activities. Currently, there are no contemplated cash distributions that will result in incremental US taxes payable in excess of applicable foreign tax credits related to such undistributed earnings. As a result, we have not provided any deferred income taxes on the portion of undistributed foreign earnings determined not to be permanently reinvested in foreign operations.

Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, expirations of tax holidays or rulings, changes in the assessment regarding the realization of the valuation of deferred tax assets, or changes in tax laws and regulations or their interpretation. We are subject to the regular examination of our income tax returns by various tax authorities. Examinations in material jurisdictions or changes in laws, rules, regulations or interpretations by local taxing authorities could result in impacts to tax years open under statute or to foreign operating structures currently in place. We regularly assess the likelihood of adverse outcomes resulting from these examinations or changes in laws, rules, regulations or interpretations to determine the adequacy of our provision for taxes. It is possible the outcomes from these examinations will have a material adverse effect on our financial condition and operating results.

Our significant non-US operations expose us to global exchange rate fluctuations that could adversely impact our profitability.

We conduct a significant portion of our operations outside the US. Consequently, fluctuations in currencies of other countries, especially the Euro, may materially affect our operating results. Because our consolidated financial statements are presented in US dollars, we must translate revenues, income and expenses, as well as assets and liabilities, into US dollars based on average exchange rates prevailing during the reporting period or the exchange rate at the end of that period. Therefore, increases or decreases in value of the US dollar against other major currencies will affect our net operating revenues, operating income and the cost of balance sheet items denominated in foreign currencies. Foreign exchange rates can also impact the competitiveness of products produced in certain jurisdictions and exported for sale into other jurisdictions. These changes may impact the value received for the sale of our goods versus those of our competitors.

In addition to currency translation risks, we incur a currency transaction risk whenever one of our operating subsidiaries enters into a purchase or sales transaction using a currency different from the operating subsidiary's functional currency. Given the volatility of exchange rates, particularly the strengthening of the US dollar against major currencies or the currencies of large developing countries, we may not be able to manage our currency transaction and translation risks effectively.

We use financial instruments to hedge certain exposure to foreign currency fluctuations, but those hedges in most cases cover existing balance sheet exposures and not future transactional exposures. We cannot guarantee that our hedging strategies will be effective. In addition, the use of financial instruments creates counterparty settlement risk. Failure to effectively manage these risks could have an adverse impact on our financial position, results of operations and cash flows.

We are subject to information technology security threats that could materially affect our business.

We have been and will continue to be subject to advanced persistent information technology security threats. While some unauthorized access to our information technology systems occurs, we believe to date these threats have not had a material impact on our business. We seek to detect and investigate these security incidents and to prevent their recurrence but in some cases we might be unaware of an incident or its magnitude and effects. The theft, mis-use or publication of our intellectual property and/or confidential business information or the compromising of our systems or networks could harm our competitive position, cause operational disruption, reduce the value of our investment in research and development of new products and other strategic initiatives or otherwise adversely affect our business or results of operations. To the extent that any security breach results in inappropriate disclosure of our employees', customers' or vendors' confidential information, we may incur liability as a result. Although we attempt to mitigate these risks by employing a number of measures, including monitoring of our systems and networks, and maintenance



of backup and protective systems, our systems, networks, products and services remain potentially vulnerable to increasingly sophisticated advanced persistent threats that may have a material effect on our business. In addition, the devotion of additional resources to the security of our information technology systems in the future could significantly increase the cost of doing business or otherwise adversely impact our financial results.

Table of Contents

Our success depends upon our ability to attract and retain key employees and the identification and development of talent to succeed senior management.

Our success depends on our ability to attract and retain key personnel, and we rely heavily on our management team. The inability to recruit and retain key personnel or the unexpected loss of key personnel may adversely affect our operations. In addition, because of our reliance on our management team, our future success depends in part on our ability to identify and develop talent to succeed senior management. The retention of key personnel and appropriate senior management succession planning will continue to be important to the successful implementation of our strategies.

Significant changes in pension fund investment performance or assumptions relating to pension costs may have a material effect on the valuation of pension obligations, the funded status of pension plans and our pension cost. The cost of our pension plans is incurred over long periods of time and involves many uncertainties during those periods of time. Our funding policy for pension plans is to accumulate plan assets that, over the long run, will approximate the present value of projected benefit obligations. Our pension cost is materially affected by the discount rate used to measure pension obligations, the level and value of plan assets available to fund those obligations at the measurement date and the expected long-term rate of return on plan assets. Significant changes in investment performance or a change in the portfolio mix of invested assets will likely result in corresponding increases and decreases in the valuation of plan assets and a change in the discount rate or mortality assumptions, which will likely result in an increase or decrease in the valuation of pension obligations. The combined impact of these changes will affect the reported funded status of our pension plans as well as the net periodic pension cost in the following fiscal years. In recent years, an extended duration strategy in the asset portfolio has been implemented in some plans to reduce the influence of liability volatility due to changes in interest rates. If the funded status of a pension plan declines, we may be required to make unscheduled contributions in addition to those contributions for which we have already planned.

Some of our employees are unionized, represented by workers councils or are subject to local laws that are less favorable to employers than the laws of the US.

As of December 31, 2015, we had 7,081 employees. Approximately 18% of our 2,660 US-based employees are unionized. At the largest union site, Narrows, Virginia, we successfully concluded contract negotiations on a three year contract in April 2014. This contract settled without any labor dispute or unrest. We announced the closing of our other US-based union site, Meredosia, Illinois, in October 2015. Unionized employees began departing the site in December 2015, and we anticipate that a majority of all employees will have departed the site by the end of the first quarter of 2016. We have conducted the required "effects bargaining" negotiations with the union and an agreement was reached on severance and other benefits without a labor dispute.

In addition, a large number of our employees are employed in countries in which employment laws provide greater bargaining or other employment rights than the laws of the US. Such employment rights require us to work collaboratively with the legal representatives of the employees to effect any changes to labor agreements. Most of our employees in Europe are represented by workers councils and/or unions that must approve any changes in terms and conditions of employment, including potentially salaries and benefits. They may also impede efforts to restructure our workforce. Although we believe we have a good working relationship with our employees and their legal representatives a strike, work stoppage, or slowdown by our employees could occur, resulting in a disruption of our operations or higher ongoing labor costs.

Provisions in our certificate of incorporation and bylaws, as well as any stockholders' rights plan, may discourage a takeover attempt.

Provisions contained in our certificate of incorporation and bylaws could make it more difficult for a third party to acquire us, even if doing so might be beneficial to our stockholders. Provisions of our certificate of incorporation and bylaws impose various procedural and other requirements, which could make it more difficult for stockholders to effect certain corporate actions. For example, our certificate of incorporation authorizes our Board of Directors to determine the rights, preferences, privileges and restrictions of unissued series of preferred stock, without any vote or action by our stockholders. Thus, our Board of Directors can authorize and issue shares of preferred stock with voting or conversion rights that could adversely affect the voting or other rights of holders of our Series A common stock, par

value \$0.0001 per share ("Common Stock"). These rights may have the effect of delaying or deterring a change of control of our Company. In addition, a change of control of our Company may be delayed or deterred as a result of any stockholders' rights plan that our Board of Directors may adopt. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our Common Stock.

## Table of Contents

We may incur significant charges in the event we close or divest all or part of a manufacturing plant or facility. We periodically assess our manufacturing operations in order to manufacture and distribute our products in the most efficient manner. Based on our assessments, we may make capital improvements to modernize certain units, move manufacturing or distribution capabilities from one plant or facility to another plant or facility, discontinue manufacturing or distributing certain products or close or divest all or part of a manufacturing plant or facility. We also have shared services agreements at several of our plants and if such agreements are terminated or revised, we would assess and potentially adjust our manufacturing operations. The closure or divestiture of all or part of a manufacturing plant or facility could result in future charges that could be significant. See Note 4 - Acquisitions, Dispositions and Plant Closures in the accompanying consolidated financial statements for further information. We may not be able to complete future acquisitions or successfully integrate future acquisitions into our business, which could adversely affect our business or results of operations.

As part of our growth strategy, we intend to pursue acquisitions and joint venture opportunities. Successful accomplishment of this objective may be limited by the availability and suitability of acquisition candidates and by our financial resources, including available cash and borrowing capacity. Acquisitions involve numerous risks, including difficulty determining appropriate valuation, integrating operations, technologies, services and products of the acquired lines or businesses, personnel turnover and the diversion of management's attention from other business matters. In addition, we may be unable to achieve anticipated benefits from these acquisitions in the time frame that we anticipate, or at all, which could adversely affect our business or results of operations.

The insurance coverage that we maintain may not fully cover all operational risks.

We maintain property, business interruption and casualty insurance but such insurance may not cover all of the risks associated with the hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies, including liabilities for environmental remediation. In the future, the types of insurance we obtain and the level of coverage we maintain may be inadequate or we may be unable to continue to maintain our existing insurance or obtain comparable insurance at a reasonable cost.

Differences in views with our joint venture participants may cause our joint ventures not to operate according to their business plans, which may adversely affect our results of operations.

We currently participate in a number of joint ventures and may enter into additional joint ventures in the future. The nature of a joint venture requires us to work cooperatively with unaffiliated third parties. Differences in views among joint venture participants may result in delayed decisions or failure to agree on major decisions. If these differences cause the joint ventures to deviate from their business plans or to fail to achieve their desired operating performance, our results of operations could be adversely affected.

### Risks Related to Our Indebtedness

Our level of indebtedness and other liabilities could diminish our ability to raise additional capital to fund our operations or refinance our existing indebtedness when it matures, limit our ability to react to changes in the economy or the chemicals industry and prevent us from meeting obligations under our indebtedness.

See Note 14 - Debt in the accompanying consolidated financial statements for further information about our indebtedness. See Note 13 - Noncurrent Other Liabilities, Note 15 - Benefit Obligations and Note 16 - Environmental in the accompanying consolidated financial statements for further information about our other obligations.

Our level of indebtedness and other liabilities could have important consequences, including:

Increasing our vulnerability to general economic and industry conditions, including exacerbating the impact of any adverse business effects that are determined to be material adverse events under our existing senior credit agreement (the "Amended Credit Agreement") or our indentures (the "Indentures") governing our €300 million in aggregate principal amount of 3.250% senior unsecured notes due 2019, \$400 million in aggregate principal amount of 5.875% senior unsecured notes due 2021 and \$500 million in aggregate principal amount of 4.625% senior unsecured notes due 2022 (collectively, the "Senior Notes");

Requiring a substantial portion of cash flow from operations to be dedicated to the payment of principal and interest on indebtedness and amounts payable in connection with the satisfaction of our other liabilities, therefore reducing our ability



Table of Contents

to use our cash flow to fund operations, capital expenditures and future business opportunities or pay dividends on our Common Stock;

• Exposing us to the risk of increased interest rates as certain of our borrowings are at variable rates of interest;

• Exposing us to the risk of changes in currency exchange rates as certain of our borrowings are denominated in foreign currencies;

• Limiting our ability to obtain additional financing for working capital, capital expenditures, product development, debt service requirements, acquisitions and general corporate or other purposes;

• Limiting our ability to enter into certain commercial arrangements because of concerns of counterparty risks; and

• Limiting our ability to adjust to changing market conditions and placing us at a competitive disadvantage compared to our competitors who have less debt.

We may incur additional indebtedness in the future, which could increase the risks described above.

Although covenants under the Amended Credit Agreement and the Indentures limit our ability to incur certain additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the indebtedness we could incur in compliance with these restrictions could be significant. To the extent that we incur additional indebtedness, the risks associated with our debt described above, including our possible inability to service our debt, including the Senior Notes, would increase.

Our variable rate and euro denominated indebtedness subjects us to interest rate risk and foreign currency exchange rate risk, which could cause our debt service obligations to increase significantly and affect our operating results.

Certain of our borrowings are at variable rates of interest or are euro denominated, which exposes us to interest rate risk and currency exchange rate risk, respectively. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources, Item 7A. Quantitative and Qualitative Disclosures About Market Risk below and Note 22 - Derivative Financial Instruments in the accompanying consolidated financial statements for further information.

We may not be able to generate sufficient cash to service our indebtedness and may be forced to take other actions to satisfy obligations under our indebtedness, which may not be successful.

Our ability to make scheduled payments on or to refinance our debt obligations depends on the financial condition and operating performance of our subsidiaries, which are subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. We may not be able to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness. If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets, seek additional capital or restructure or refinance our indebtedness.

These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations. In the absence of such operating results and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. We may not be able to consummate those dispositions or to obtain the proceeds that we could realize from them and these proceeds may not be adequate to meet any debt service obligations then due.

Restrictive covenants in our debt agreements may limit our ability to engage in certain transactions and may diminish our ability to make payments on our indebtedness or pay dividends.

The Amended Credit Agreement, the Indentures and the Receivables Purchase Agreement (the "Purchase Agreement") governing our receivables securitization facility each contain various covenants that limit our ability to engage in specified types of transactions. The Amended Credit Agreement requires us to maintain a maximum first lien senior secured leverage ratio if there are outstanding borrowings or letters of credit issued under the revolving credit facility. Our ability to meet this financial ratio can be affected by events beyond our control, and we may not be able to meet this test at all.

The Amended Credit Agreement also contains covenants including, but not limited to, restrictions on our ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; make



Table of Contents

investments; prepay or modify certain indebtedness; engage in transactions with affiliates; enter into sale-leaseback transactions or hedge transactions; or engage in other businesses.

In addition, the Indentures limit Celanese US's and certain of its subsidiaries' ability to, among other things, incur additional debt; pay dividends or make other restricted payments; consummate specified asset sales; enter into transactions with affiliates; incur liens, impose restrictions on the ability of a subsidiary to pay dividends or make payments to Celanese US and its restricted subsidiaries; merge or consolidate with any other person; and sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of Celanese US's assets or the assets of its restricted subsidiaries.

The Purchase Agreement also contains covenants including, but not limited to, restrictions on CE Receivables LLC, a wholly-owned, "bankruptcy remote" special purpose subsidiary of the Company, and certain other Company subsidiaries' ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; make investments; prepay or modify certain indebtedness; or engage in other businesses.

Such restrictions in our debt obligations could result in us having to obtain the consent of our lenders and holders of the Senior Notes in order to take certain actions. Disruptions in credit markets may prevent us from obtaining or make it more difficult or more costly for us to obtain such consents. Our ability to expand our business or to address declines in our business may be limited if we are unable to obtain such consents.

A breach of any of these covenants could result in a default, which, if not cured or waived, could have a material adverse effect on our business, financial condition and results of operations. Furthermore, a default under the Amended Credit Agreement could permit lenders to accelerate the maturity of our indebtedness under the Amended Credit Agreement and to terminate any commitments to lend. If we were unable to repay or refinance such indebtedness, the lenders under the Amended Credit Agreement could proceed against the collateral granted to them to secure that indebtedness. Our subsidiaries have pledged a significant portion of our assets as collateral to secure our indebtedness under the Amended Credit Agreement. If the lenders under the Amended Credit Agreement accelerate the repayment of such indebtedness, we may not have sufficient liquidity to repay such amounts or our other indebtedness, including the Senior Notes. In such event, we could be forced into bankruptcy or liquidation.

Celanese and Celanese US are holding companies and depend on subsidiaries to satisfy their obligations under the Senior Notes and the guarantee of Celanese US's obligations under the Senior Notes and the Amended Credit Agreement by Celanese.

As holding companies, Celanese and Celanese US conduct substantially all of their operations through their subsidiaries, which own substantially all of our consolidated assets. Consequently, the principal source of cash to pay Celanese and Celanese US's obligations, including obligations under the Senior Notes and the guarantee of Celanese US's obligations under the Amended Credit Agreement and the Indentures by Celanese, is the cash that our subsidiaries generate from their operations. We cannot assure that our subsidiaries will be able to, or be permitted to, make distributions to enable Celanese US and/or Celanese to make payments in respect of their obligations. Each of our subsidiaries is a distinct legal entity and, under certain circumstances, applicable country or state laws, regulatory limitations and terms of our debt instruments may limit our subsidiaries' ability to distribute cash to Celanese US and Celanese. While the Amended Credit Agreement and the Indentures limit the ability of our subsidiaries to put restrictions on paying dividends or making other intercompany payments to us, these limitations are subject to certain qualifications and exceptions, which may have the effect of significantly restricting the applicability of those limits. In the event Celanese US and/or Celanese do not receive distributions from our subsidiaries, Celanese US and/or Celanese may be unable to make required payments on the indebtedness under the Amended Credit Agreement, the Indentures, the guarantee of Celanese US's obligations under the Amended Credit Agreement and the Indentures by Celanese, or our other indebtedness.

Item 1B. Unresolved Staff Comments

None.



Table of Contents

## Item 2. Properties

## Description of Property

We and our affiliates own or lease numerous production and manufacturing facilities throughout the world. We also own or lease other properties, including office buildings, warehouses, pipelines, research and development facilities and sales offices. We continuously review and evaluate our facilities as a part of our strategy to optimize our business portfolio. The following table sets forth a list of our principal offices, production and other facilities throughout the world as of December 31, 2015.

Site	Leased/Owned	Products/Functions
Corporate Offices		
Amsterdam, Netherlands	Leased	Administrative offices
Budapest, Hungary	Leased	Administrative offices
Irving, Texas, US	Leased	Corporate headquarters
Nanjing, China	Leased	Administrative offices
Shanghai, China	Leased	Administrative offices
Sulzbach, Germany	Leased	Administrative offices
Advanced Engineered Materials		
Auburn Hills, Michigan, US	Leased	Automotive Development Center Polyoxymethylene ("POM"), Ultra-high molecular weight polyethylene ("UHMW-PE"), Compounding
Bishop, Texas, US	Owned	Compounding
Florence, Kentucky, US	Owned	Compounding
Frankfurt am Main, Germany <sup>(1)</sup>	Owned by InfraServ GmbH & Co. Hoechst KG <sup>(5)</sup>	POM, Compounding
Fuji City, Japan	Owned by Polyplastics Co., Ltd. <sup>(5)</sup>	POM, Polybutylene terephthalate, Liquid crystal polymers ("LCP"), Compounding
Jubail, Saudi Arabia	Owned by National Methanol Company <sup>(5)</sup>	Methyl tertiary-butyl ether, Methanol
Kaiserslautern, Germany <sup>(1)</sup>	Leased	Long-fiber reinforced thermoplastics ("LFRT")
Kuantan, Malaysia	Owned by Polyplastics Co., Ltd. <sup>(5)</sup>	POM, Compounding
Nanjing, China <sup>(2)</sup>	Owned	LFRT, UHMW-PE, Compounding
Oberhausen, Germany <sup>(1)</sup>	Leased	UHMW-PE
Shelby, North Carolina, US	Owned	LCP, Compounding
Suzano, Brazil <sup>(1)</sup>	Leased	Compounding
Ulsan, South Korea	Owned by Korea Engineering Plastics Co., Ltd. <sup>(5)</sup>	POM
Wilmington, North Carolina, US	Owned by Fortron Industries LLC <sup>(5)</sup>	Polyphenylene sulfide
Winona, Minnesota, US	Owned	LFRT
Consumer Specialties		
Frankfurt am Main, Germany <sup>(3)</sup>	Owned by InfraServ GmbH & Co. Hoechst KG <sup>(5)</sup>	Sorbates, Sunett <sup>®</sup> sweetener, Qorus <sup>®</sup> sweetener system
Kunming, China	Leased by Kunming Cellulose Fibers Co. Ltd. <sup>(6)</sup>	Acetate tow
Lanaken, Belgium	Owned	Acetate tow
Nantong, China	Owned by Nantong Cellulose Fibers Co. Ltd. <sup>(7)</sup>	Acetate tow, Acetate flake
Narrows, Virginia, US	Owned	Acetate tow, Acetate flake

Edgar Filing: Celanese Corp - Form 10-K

Ocotlán, Mexico	Owned	Acetate tow, Acetate flake
Spondon, Derby, United Kingdom	Owned	Acetate film
Zhuhai, China	Leased by Zhuhai Cellulose Fibers Co. Ltd. <sup>(8)</sup>	Acetate tow

Table of Contents

Site	Leased/Owned	Products/Functions
Industrial Specialties		
Boucherville, Quebec, Canada	Owned	Conventional emulsions
Edmonton, Alberta, Canada	Owned	Low-density polyethylene resins, Ethylene vinyl acetate
Enoree, South Carolina, US	Owned	Conventional emulsions, Vinyl acetate ethylene ("VAE") emulsions
Frankfurt am Main, Germany <sup>(3)</sup>	Owned by InfraServ GmbH & Co. Hoechst KG <sup>(5)</sup>	Conventional emulsions, VAE emulsions
Geleen, Netherlands	Owned	VAE emulsions
Meredosia, Illinois, US	Owned	Site is no longer operating
Nanjing, China <sup>(2)</sup>	Owned	Conventional emulsions, VAE emulsions
Perstorp, Sweden	Owned	Conventional emulsions, VAE emulsions
Tarragona, Spain	Owned	Site is no longer operating
Acetyl Intermediates		
Bay City, Texas, US <sup>(1)</sup>	Leased	Vinyl acetate monomer ("VAM")
Bishop, Texas, US	Owned	Formaldehyde
Cangrejera, Mexico	Owned	Acetic anhydride, Ethyl acetate
Clear Lake, Texas, US <sup>(4)</sup>	Owned	Acetic acid, VAM, Methanol
Frankfurt am Main, Germany <sup>(3)</sup>	Owned by InfraServ GmbH & Co. Hoechst KG <sup>(5)</sup>	Acetaldehyde, VAM, Butyl acetate
Jurong Island, Singapore <sup>(1)</sup>	Leased	Acetic acid, Butyl acetate, Ethyl acetate, VAM
Nanjing, China <sup>(2)</sup>	Owned	Acetic acid, Acetic anhydride, VAM, Ethanol

(1) Celanese owns the assets on this site and leases the land through the terms of a long-term land lease.

Multiple Celanese business segments conduct operations at the Nanjing facility. Celanese owns the assets on this (2) site. Celanese also owns the land through "land use right grants" for 46 to 50 years with the right to transfer, mortgage or lease such land during the term of the respective land use right grant.

(3) Multiple Celanese business segments conduct operations at the Frankfurt Hoechst Industrial Park located in Frankfurt am Main, Germany.

(4) Methanol is produced by our joint venture, Fairway Methanol LLC, in which Celanese owns a 50% interest.

(5) A Celanese equity method investment.

(6) A Celanese cost method investment. Kunming Cellulose Fibers Co. Ltd. owns the assets on this site and leases the land from China National Tobacco Corporation.

A Celanese cost method investment. Nantong Cellulose Fibers Co. Ltd. owns the assets on this site and the land (7) through "land use right grants" with the right to transfer, mortgage or lease such land during the term of the respective land use right grant.

(8) A Celanese cost method investment. Zhuhai Cellulose Fibers Co. Ltd. owns the assets on this site and leases the land from China National Tobacco Corporation.

Table of Contents

## Item 3. Legal Proceedings

See Note 16 - Environmental and Note 24 - Commitments and Contingencies in the accompanying consolidated financial statements for a discussion of environmental matters and commitments and contingencies related to legal and regulatory proceedings.

## Item 4. Mine Safety Disclosures

None.

## Executive Officers of the Registrant

The names, ages and biographies of our executive officers as of February 5, 2016 are as follows:

Name	Age	Position
Mark C. Rohr	64	Chairman of the Board of Directors and Chief Executive Officer, President
Scott M. Sutton	51	Executive Vice President and President, Materials Solutions
Patrick D. Quarles	48	Executive Vice President and President, Acetyl Chain and Integrated Supply Chain
Christopher W. Jensen	49	Senior Vice President, Finance and Chief Financial Officer
Lori A. Johnston	51	Senior Vice President, Human Resources
Gjon N. Nivica, Jr.	51	Senior Vice President and General Counsel

Mark C. Rohr has been our Chairman of the Board of Directors and Chief Executive Officer and President since April 2012 and a member of our Board of Directors since April 2007. He served as a director and as the Executive Chairman of Albemarle Corporation, a global developer, manufacturer and marketer of highly-engineered specialty chemicals, from September 2011 until February 2012 and previously had served as the Chairman from 2008 to 2011, President from 2000 to 2010, Chief Operating Officer from 2000 to 2002 and Chief Executive Officer from 2002 to 2011 of Albemarle. Prior to that, Mr. Rohr served as Executive Vice President - Operations of Albemarle. Before joining Albemarle, Mr. Rohr held leadership roles with companies including Occidental Chemical Corporation and The Dow Chemical Company. Mr. Rohr has served on the board of directors of Ashland Inc. since 2008, and has served as a member of its audit committee and the environmental, health & safety committee. He also serves as Chairman of the board of directors of the American Chemistry Council and President of the International Association of Chemical Associations. Mr. Rohr received a bachelor's degree in chemistry and chemical engineering from Mississippi State University.

Scott M. Sutton has served as our Executive Vice President and President, Materials Solutions since June 2015. From January 2015 to June 2015, Mr. Sutton served as our Vice President and General Manager of the Engineered Materials business. Prior to January 2015, Mr. Sutton served as our Vice President of Supply Chain from March 2014 to January 2015 and as our Vice President of Acetic Acid and Anhydride from August 2013 to March 2014. Mr. Sutton had 28 years of industry experience prior to joining Celanese, including serving as President and General Manager of Chemtura Corporation's AgroSolutions business, business manager for Landmark Structures and Vice President of a division of Albemarle Corporation. Mr. Sutton earned a civil engineering degree from Louisiana State University and is a registered professional engineer in Texas.

Patrick D. Quarles has served as our Executive Vice President and President, Acetyl Chain and Integrated Supply Chain since June 2015. Prior to joining Celanese, Mr. Quarles held a variety of leadership positions at LyondellBasell Industries N.V. before serving as Executive Vice President of the Intermediates and Derivatives (I&D) segment and the supply chain and procurement functions from January 2015 to June 2015, including serving as a member of LyondellBasell's Management Board from April 2014 to June 2015, Senior Vice President - I&D from 2009 to April 2014 and Vice President of Performance Chemicals from 2004 to 2009. Mr. Quarles began his career in 1990 at ARCO Chemical/Union Carbide where he held various positions in sales, marketing and business management. Mr. Quarles earned a bachelor of science degree in mechanical engineering from Clemson University and a master of management degree from The Kellogg School of Management at Northwestern University.

Christopher W. Jensen has served as our Chief Financial Officer since July 2015 and as our Senior Vice President, Finance since April 2011. He served as our Interim Chief Financial Officer from May 2014 to July 2015. From August 2010 to April 2011, Mr. Jensen served as our Senior Vice President, Finance and Treasurer. Prior to August 2010, Mr. Jensen served as our Vice President and Corporate Controller from March 2009 to July 2010. From May

2008 to February 2009, he served as Vice President of Finance and Treasurer. In his current capacity, Mr. Jensen has global responsibility for corporate finance, treasury operations, insurance risk management, pensions, global business services, information technology, corporate accounting, tax and general ledger accounting. Mr. Jensen was previously the Assistant Corporate Controller from March 2007 through April

Table of Contents

2008, where he was responsible for SEC reporting, internal reporting, and technical accounting. In his initial role at Celanese from October 2005 through March 2007, he built and directed the Company's technical accounting function. From August 2004 to October 2005, Mr. Jensen worked in the inspections and registration division of the Public Company Accounting Oversight Board. He spent 13 years of his career at PricewaterhouseCoopers LLP, an assurance, tax and advisory services firm, in various positions in both the auditing and mergers & acquisitions groups. Mr. Jensen earned bachelor's and master's degrees in accounting from Brigham Young University and is a Certified Public Accountant.

Lori A. Johnston has served as our Senior Vice President, Human Resources since October 2012. Prior to joining Celanese, she was the Vice President, International Human Resources for Amgen, Inc., a biotechnology medicines company, and had served in various human resources positions of increasing importance with Amgen since 2001, except from January 2006 to April 2007 when she served as the Human Resources and Communications Director of the Michael and Susan Dell Foundation. Before joining Amgen, Ms. Johnston held a variety of leadership positions beginning in 1990 at Dell, Inc., a global information technology company, before serving as the Human Resources Director, Home and Small Business, from 1997 to 2001. Ms. Johnston earned a master's of arts degree from Our Lady of the Lake University and a bachelor's degree in psychology from the University of Central Oklahoma.

Gjon N. Nivica, Jr. has served as our Senior Vice President and General Counsel since April 2009 and served as our Corporate Secretary from April 2009 to February 2014. Mr. Nivica previously served as Deputy General Counsel to Honeywell International Inc., a global technology and manufacturing leader, and Vice President and General Counsel of the Honeywell Transportation Systems business group from 2005 to 2009. Prior to that time, he was the Vice President and General Counsel of Honeywell Aerospace Electronic Systems from 2002 to 2005 and of Honeywell Engines Systems and Services from 1996 to 2002. Mr. Nivica began his career in 1989 as a corporate associate in the Los Angeles office of Gibson, Dunn & Crutcher, a global law firm, where he specialized in acquisitions, divestitures and general corporate and securities work, before becoming Mergers & Acquisitions Senior Counsel to AlliedSignal Aerospace Inc. from 1994 to 1996. Mr. Nivica received his J.D., magna cum laude, from Boston University Law School.

## PART II

## Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

## Market Information

Our Series A common stock, par value \$0.0001 per share ("Common Stock") has traded on the New York Stock Exchange ("NYSE") under the symbol "CE" since January 21, 2005. The closing sale price of our Common Stock, as reported by the NYSE, on February 1, 2016 was \$61.47. The following table sets forth the high and low intraday sales prices per share of our Common Stock, as reported by the NYSE, and the dividends declared per share on our Common Stock for the periods indicated.

	Price Range		Dividends Declared
	High	Low	
	(In \$ per share)		
2015			
Quarter ended March 31, 2015	60.61	52.56	0.250
Quarter ended June 30, 2015	73.13	54.99	0.300
Quarter ended September 30, 2015	74.19	54.35	0.300
Quarter ended December 31, 2015	72.95	58.56	0.300
2014			
Quarter ended March 31, 2014	56.21	48.78	0.180
Quarter ended June 30, 2014	65.17	54.48	0.250
Quarter ended September 30, 2014	66.35	57.57	0.250
Quarter ended December 31, 2014	63.28	49.42	0.250



Table of Contents

## Holders

No shares of Celanese's Series B common stock and no shares of Celanese's 4.25% convertible perpetual preferred stock are issued and outstanding. As of February 1, 2016, there were 31 holders of record of our Common Stock. By including persons holding shares in broker accounts under street names; however, we estimate we have approximately 61,877 beneficial holders.

## Dividend Policy

Our Board of Directors has a policy of declaring, subject to legally available funds, a quarterly cash dividend on each share of our Common Stock as determined in its sole discretion. Our Board of Directors may, at any time, modify or revoke our dividend policy on our Common Stock.

On February 4, 2016, we declared a cash dividend of \$0.30 per share on our Common Stock amounting to \$44 million. The cash dividend was for the period from November 1, 2015 to January 31, 2016 and will be paid on February 26, 2016 to holders of record as of February 16, 2016.

The amount available to us to pay cash dividends is restricted by our existing senior credit facility and our indentures governing our senior unsecured notes. See Note 14 - Debt in the accompanying consolidated financial statements for further information. Any decision to declare and pay dividends in the future will be made at the discretion of our Board of Directors and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions and other factors that our Board of Directors may deem relevant.

## Celanese Purchases of its Equity Securities

Information regarding repurchases of our Common Stock during the three months ended December 31, 2015 is as follows:

Period	Total Number of Shares Purchased <sup>(1)</sup>	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Approximate Dollar Value of Shares Remaining that may be Purchased Under the Program <sup>(2)</sup>
October 1 - 31, 2015	11,573	\$62.50	—	\$1,031,000,000
November 1 - 30, 2015	290	\$70.79	—	\$1,031,000,000
December 1 - 31, 2015	—	\$—	—	\$1,031,000,000
Total	11,863		—	

(1) Represents shares withheld from employees to cover their statutory minimum withholding requirements for personal income taxes related to the vesting of restricted stock units.

(2) Our Board of Directors has authorized the aggregate repurchase of \$2.4 billion of our Common Stock since February 2008.

See Note 17 - Stockholders' Equity in the accompanying consolidated financial statements for further information.



Table of Contents

Performance Graph

The following Performance Graph and related information shall not be deemed "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

Comparison of Cumulative Total Return

Recent Sales of Unregistered Securities

Our deferred compensation plan offers certain of our senior employees and directors the opportunity to defer a portion of their compensation in exchange for a future payment amount equal to their deferrals plus or minus certain amounts based upon the market-performance of specified measurement funds selected by the participant. These deferred compensation obligations may be considered securities of Celanese. Participants were required to make deferral elections under the plan prior to January 1 of the year such deferrals will be withheld from their compensation. We relied on the exemption from registration provided by Section 4(2) of the Securities Act in making this offer to a select group of employees, fewer than 35 of which were non-accredited investors under the rules promulgated by the Securities and Exchange Commission.

Table of Contents

## Item 6. Selected Financial Data

The balance sheet data as of December 31, 2015 and 2014 and the statements of operations data for the years ended December 31, 2015, 2014 and 2013, all of which are set forth below, are derived from the consolidated financial statements included elsewhere in this Annual Report and should be read in conjunction with those financial statements and the notes thereto. The balance sheet data as of December 31, 2013, 2012, and 2011 and the statements of operations data for the years ended December 31, 2012 and 2011 set forth below were derived from previously issued financial statements, adjusted for applicable discontinued operations, a change in accounting policy for defined benefit pension plans and other postretirement benefit plans and a change in accounting policy for debt issuance costs.

	Year Ended December 31,				
	2015	2014	2013	2012	2011
	(In \$ millions, except per share data)				
<b>Statement of Operations Data</b>					
Net sales	5,674	6,802	6,510	6,418	6,763
Other (charges) gains, net	(351 )	15	(158 )	(14 )	(48 )
Operating profit (loss)	326	758	1,508	175	402
Earnings (loss) from continuing operations before tax	488	941	1,609	321	467
Earnings (loss) from continuing operations	287	627	1,101	376	426
Earnings (loss) from discontinued operations	(2 )	(7 )	—	(4 )	1
Net earnings (loss) attributable to Celanese Corporation	304	624	1,101	372	427
Earnings (loss) per common share					
Continuing operations — basic	2.03	4.07	6.93	2.37	2.72
Continuing operations — diluted	2.01	4.04	6.91	2.35	2.68
<b>Balance Sheet Data (as of the end of period)</b>					
Total assets	8,586	8,796	8,994	8,973	8,494
Total debt	2,981	2,723	3,040	3,071	2,993
Total Celanese Corporation stockholders' equity	2,378	2,818	2,699	1,730	1,341
<b>Other Financial Data</b>					
Depreciation and amortization	357	292	305	308	298
Capital expenditures <sup>(1)</sup>	483	681	408	339	364
Dividends paid per common share <sup>(2)</sup>	1.15	0.93	0.53	0.27	0.22

Amounts include accrued capital expenditures. Amounts do not include capital expenditures related to capital lease obligations or capital expenditures related to the relocation and expansion of our POM plant in Kelsterbach. See Note 4 - Acquisitions, Dispositions and Plant Closures and Note 25 - Supplemental Cash Flow Information in the accompanying consolidated financial statements for further information.

Annual dividends for the year ended December 31, 2015 consist of one quarterly dividend payment of \$0.25 per share and three quarterly dividend payments of \$0.30 per share. Annual dividends for the year ended December 31, 2014 consist of one quarterly dividend payment of \$0.18 per share and three quarterly dividend payments of \$0.25 per share. See Note 17 - Stockholders' Equity in the accompanying consolidated financial statements for further information.

Table of Contents

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

In this Annual Report on Form 10-K ("Annual Report"), the term "Celanese" refers to Celanese Corporation, a Delaware corporation, and not its subsidiaries. The terms the "Company," "we," "our" and "us," refer to Celanese and its subsidiaries on a consolidated basis. The term "Celanese US" refers to the Company's subsidiary, Celanese US Holdings LLC, a Delaware limited liability company, and not its subsidiaries.

The following discussion should be read in conjunction with the accompanying consolidated financial statements and notes to the consolidated financial statements, which are prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP").

Investors are cautioned that the forward-looking statements contained in this section and other parts of this Annual Report involve both risk and uncertainty. Several important factors could cause actual results to differ materially from those anticipated by these statements. Many of these statements are macroeconomic in nature and are, therefore, beyond the control of management. See "Forward-Looking Statements" below.

Forward-Looking Statements

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") and other parts of this Annual Report contain certain forward-looking statements and information relating to us that are based on the beliefs of our management as well as assumptions made by, and information currently available to, us. Generally, words such as "believe," "expect," "intend," "estimate," "anticipate," "project," "plan," "may," "can," "could," "might," "will" and similar expressions, as they relate to us are intended to identify forward-looking statements. These statements reflect our current views with respect to future events, are not guarantees of future performance and involve risks and uncertainties that are difficult to predict. Further, certain forward-looking statements are based upon assumptions as to future events that may not prove to be accurate. See "Special Note Regarding Forward-Looking Statements" at the beginning of this Annual Report for further discussion.

Item 1A. Risk Factors of this Annual Report also contains a description of certain risk factors that you should consider which could significantly affect our financial results. In addition, the following factors could cause our actual results to differ materially from those results, performance or achievements that may be expressed or implied by such forward-looking statements. These factors include, among other things:

- changes in general economic, business, political and regulatory conditions in the countries or regions in which we operate;
- the length and depth of product and industry business cycles particularly in the automotive, electrical, textiles, electronics and construction industries;
- changes in the price and availability of raw materials, particularly changes in the demand for, supply of, and market prices of ethylene, methanol, natural gas, wood pulp and fuel oil and the prices for electricity and other energy sources;
- the ability to pass increases in raw material prices on to customers or otherwise improve margins through price increases;
- the ability to maintain plant utilization rates and to implement planned capacity additions and expansions;
- the ability to reduce or maintain current levels of production costs and to improve productivity by implementing technological improvements to existing plants;
- increased price competition and the introduction of competing products by other companies;
- market acceptance of our technology;
- the ability to obtain governmental approvals and to construct facilities on terms and schedules acceptable to the Company;
- changes in the degree of intellectual property and other legal protection afforded to our products or technologies, or the theft of such intellectual property;
- compliance and other costs and potential disruption or interruption of production or operations due to accidents, interruptions in sources of raw materials, cyber security incidents, terrorism or political unrest, or other unforeseen events or delays in construction or operation of facilities, including as a result of geopolitical conditions, the occurrence of acts of war or terrorist incidents or as a result of weather or natural disasters;



Table of Contents

potential liability for remedial actions and increased costs under existing or future environmental regulations, including those relating to climate change;

potential liability resulting from pending or future litigation, or from changes in the laws, regulations or policies of governments or other governmental activities in the countries in which we operate;

changes in currency exchange rates and interest rates;

our level of indebtedness, which could diminish our ability to raise additional capital to fund operations or limit our ability to react to changes in the economy or the chemicals industry; and

various other factors, both referenced and not referenced in this Annual Report.

Many of these factors are macroeconomic in nature and are, therefore, beyond our control. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from those described in this Annual Report as anticipated, believed, estimated, expected, intended, planned or projected. We neither intend nor assume any obligation to update these forward-looking statements, which speak only as of their dates.

Overview

We are a global technology and specialty materials company. We are one of the world's largest producers of acetyl products, which are intermediate chemicals, for nearly all major industries, as well as a leading global producer of high performance engineered polymers that are used in a variety of high-value applications. As a recognized innovator in the chemicals industry, we engineer and manufacture a wide variety of products essential to everyday living. Our broad product portfolio serves a diverse set of end-use applications including paints and coatings, textiles, automotive applications, consumer and medical applications, performance industrial applications, filtration applications, paper and packaging, chemical additives, construction, consumer and industrial adhesives, and food and beverage applications. Our products enjoy leading global positions due to our large global production capacity, operating efficiencies, proprietary production technology and competitive cost structures.

Our large and diverse global customer base primarily consists of major companies in a broad array of industries. We hold geographically balanced global positions and participate in diversified end-use applications. We combine a demonstrated track record of execution, strong performance built on shared principles and objectives, and a clear focus on growth and value creation. Known for operational excellence and execution of our business strategies, we deliver value to customers around the globe with best-in-class technologies and solutions.

We are organized around two complementary cores, Materials Solutions and the Acetyl Chain. Together, these two value drivers share technology, fully integrated systems and research resources to increase efficiency and quickly respond to market needs. Within Materials Solutions and the Acetyl Chain, we operate principally through four business segments: Materials Solutions includes Advanced Engineered Materials and Consumer Specialties business segments, and the Acetyl Chain includes Industrial Specialties and Acetyl Intermediates business segments.

Table of ContentsResults of Operations  
Financial Highlights

	Year Ended December			Year Ended December		
	31, 2015	2014	Change	31, 2014	2013	Change
(In \$ millions, except percentages)						
<b>Statement of Operations Data</b>						
Net sales	5,674	6,802	(1,128 )	6,802	6,510	292
Gross profit	1,318	1,616	(298 )	1,616	1,365	251
Selling, general and administrative ("SG&A") expenses	(506 )	(758 )	252	(758 )	(311 )	(447 )
Other (charges) gains, net	(351 )	15	(366 )	15	(158 )	173
Operating profit (loss)	326	758	(432 )	758	1,508	(750 )
Equity in net earnings of affiliates	181	246	(65 )	246	180	66
Interest expense	(119 )	(147 )	28	(147 )	(172 )	25
Refinancing expense	—	(29 )	29	(29 )	(1 )	(28 )
Dividend income - cost investments	107	116	(9 )	116	93	23
Earnings (loss) from continuing operations before tax	488	941	(453 )	941	1,609	(668 )
Earnings (loss) from continuing operations	287	627	(340 )	627	1,101	(474 )
Earnings (loss) from discontinued operations	(2 )	(7 )	5	(7 )	—	(7 )
Net earnings (loss)	285	620	(335 )	620	1,101	(481 )
Net earnings (loss) attributable to Celanese Corporation	304	624	(320 )	624	1,101	(477 )
<b>Other Data</b>						
Depreciation and amortization	357	292	65	292	305	(13 )
SG&A expenses as a percentage of Net sales	8.9	% 11.1	%	11.1	% 4.8	%
Operating margin <sup>(1)</sup>	5.7	% 11.1	%	11.1	% 23.2	%
<b>Other (charges) gains, net</b>						
Employee termination benefits	(53 )	(7 )	(46 )	(7 )	(23 )	16
Kelsterbach plant relocation	—	—	—	—	(13 )	13
Asset impairments	(126 )	—	(126 )	—	(81 )	81
Other plant/office closures	—	2	(2 )	2	(33 )	35
Singapore contract termination	(174 )	—	(174 )	—	—	—
Commercial disputes	2	11	(9 )	11	(8 )	19
Other	—	9	(9 )	9	—	9
Total Other (charges) gains, net	(351 )	15	(366 )	15	(158 )	173

<sup>(1)</sup> Defined as Operating profit (loss) divided by Net sales.

Table of Contents

	As of December 31,	
	2015	2014
	(In \$ millions)	
Balance Sheet Data		
Cash and cash equivalents	967	780
Short-term borrowings and current installments of long-term debt - third party and affiliates	513	137
Long-term debt, net of unamortized deferred financing costs	2,468	2,586
Total debt	2,981	2,723

## Factors Affecting Business Segment Net Sales

The percentage increase (decrease) in net sales attributable to each of the factors indicated for each of our business segments is as follows:

## Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

	Volume	Price	Currency	Other	Total	
	(In percentages)					
Advanced Engineered Materials	(1	) (1	) (7	) —	(9	)
Consumer Specialties	(13	) (3	) (1	) —	(17	)
Industrial Specialties	—	(4	) (8	) —	(12	)
Acetyl Intermediates	(3	) (13	) (6	) —	(22	)
Total Company	(4	) (8	) (6	) 1	(17	)

## Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

	Volume	Price	Currency	Other	Total	
	(In percentages)					
Advanced Engineered Materials	9	(1	) —	—	8	
Consumer Specialties	(5	) 1	—	—	(4	)
Industrial Specialties	1	5	—	—	6	
Acetyl Intermediates	(3	) 11	—	—	8	
Total Company	—	6	—	(1	) 5	

Table of Contents

## Pension and Postretirement Benefit Plan Costs

The increase (decrease) in pension and other postretirement plan net periodic benefit cost for each of our business segments is as follows:

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

	Advanced Engineered Materials	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other Activities	Total
	(In \$ millions)					
Service cost	(1 )	—	1	—	1	1
Interest cost and expected return on plan assets	—	—	—	—	(25 )	(25 )
Amortization of prior service credit <sup>(1)</sup>	29	16	8	16	14	83
Special termination benefit	—	—	1	—	1	2
Recognized actuarial (gain) loss <sup>(2)</sup>	—	—	—	—	(223 )	(223 )
Curtailment / settlement (gain) loss <sup>(3)</sup>	26	16	3	16	14	75
Total	54	32	13	32	(218 )	(87 )

(1) Primarily relates to the elimination of eligibility for current and future employees and the elimination of benefits for certain participants under a US postretirement health care plan in 2014.

(2) Primarily relates to lower than assumed asset returns partially offset by an increase in the weighted average discount rate used to determine benefit obligations from 3.7% to 4.0% and a gain of \$62 million reflecting the incorporation of the RP-2015 mortality tables into the actuarial assumptions for the US pension plans as of December 31, 2015.

(3) Primarily relates to actions taken in 2014 to offer a limited-time, voluntary buyout to certain participants of our US qualified defined benefit pension plan with a vested benefit.

	Advanced Engineered Materials	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other Activities	Total
	(In \$ millions)					
Cost of sales	31	26	7	16	(20 )	60
SG&A expenses	16	4	3	8	(195 )	(164 )
Research and development expenses	7	2	2	8	(3 )	16
Other charges (gains), net	—	—	1	—	—	1
Total	54	32	13	32	(218 )	(87 )



Table of Contents

## Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

	Advanced Engineered Materials (In \$ millions)	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other Activities	Total
Service cost	(8 )	(4 )	(3 )	(5 )	(4 )	(24 )
Interest cost and expected return on plan assets	—	—	—	—	18	18
Amortization of prior service credit <sup>(1)</sup>	(24 )	(15 )	(7 )	(14 )	(12 )	(72 )
Recognized actuarial (gain) loss <sup>(2)</sup>	—	—	—	—	454	454
Curtailment / settlement (gain) loss <sup>(3)</sup>	(6 )	(3 )	(11 )	(4 )	(2 )	(26 )
Total	(38 )	(22 )	(21 )	(23 )	454	350

(1) Primarily relates to the elimination of eligibility for current and future employees and the elimination of benefits for certain participants under a US postretirement health care plan.

(2) Primarily relates to a decrease in the weighted average discount rate used to determine benefit obligations from 4.6% to 3.7% and a loss of \$52 million reflecting the incorporation of the RP-2014 mortality tables into the actuarial assumptions for the US pension plans as of December 31, 2014.

(3) Primarily relates to actions taken in 2014 to offer a limited-time, voluntary buyout to certain participants of our US qualified defined benefit pension plan with a vested benefit.

	Advanced Engineered Materials (In \$ millions)	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other Activities	Total
Cost of sales	(22 )	(18 )	(8 )	(11 )	36	(23 )
SG&A expenses	(12 )	(3 )	(11 )	(6 )	411	379
Research and development expenses	(4 )	(1 )	(2 )	(6 )	7	(6 )
Other charges (gains), net	—	—	—	—	—	—
Total	(38 )	(22 )	(21 )	(23 )	454	350

See Note 15 - Benefit Obligations in the accompanying consolidated financial statements for further information.

## Consolidated Results

## Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Net sales decreased \$1.1 billion, or 16.6%, for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- unfavorable currency impacts across all our business segments resulting from a strong US dollar relative to the Euro;
- lower pricing and volume in our Acetyl Intermediates segment for vinyl acetate monomer ("VAM") and acetic acid;
- and
- lower acetate tow volume and pricing in our Consumer Specialties segment driven by customer destocking and reduced industry utilization, respectively.

Selling, general and administrative expenses decreased \$252 million, or 33.2%, for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- a decrease in pension and other postretirement plan net periodic benefit cost of \$164 million;
- cost savings of \$50 million related to productivity initiatives across all of our business segments; and



Table of Contents

lower functional spending and incentive compensation costs of \$41 million.

Operating profit decreased \$432 million, or 57.0%, for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

a decrease in Net sales; and

an unfavorable impact from Other (charges) gains, net. In December 2015, we terminated our existing agreement with a raw materials supplier in Singapore. In connection with the contract termination, we recorded \$174 million to Other (charges) gains, net. We also recorded long-lived impairment losses of \$123 million to fully write-off certain ethanol related assets at our acetyl facility in Nanjing, China during the three months ended December 31, 2015. See Note 18 - Other (Charges) Gains, Net in the accompanying consolidated financial statements for further information; partially offset by:

a decrease in SG&A and lower raw material costs across all of our business segments.

Operating margin for the year ended December 31, 2015 decreased to 5.7 % from 11.1 % in 2014.

Equity in net earnings of affiliates decreased \$65 million for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

a \$48 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014, which did not recur in the current year. Our equity investment in InfraServ GmbH & Co. Hoechst KG is primarily owned by an entity included in our Other Activities segment, while our Consumer Specialties and Acetyl Intermediates segments also each hold an ownership percentage; and a decrease in equity investment earnings of \$27 million from our Ibn Sina strategic affiliate as a result of lower pricing for methyl tertiary-butyl ether ("MTBE") and methanol.

Our effective income tax rate for the year ended December 31, 2015 was 41% compared to 33% for the year ended 2014. The higher effective income tax rate for the year ended December 31, 2015 was primarily attributable to an increase in the valuation allowance due to an increase in losses in jurisdictions with no tax benefit. The increase in losses primarily relates to a \$123 million long-lived asset impairment recorded to fully write-off certain ethanol related assets at our acetyl facility in Nanjing, China and a \$174 million charge related to the termination of a raw materials contract with a supplier in Singapore. See Note 18 - Other (Charges) Gains, Net in the accompanying consolidated financial statements for further information. The tax impact of these events was partially offset by decreases in uncertain tax positions of \$29 million due to audit closures and technical jurisdictional clarifications.

Our effective income tax rate is affected by recurring items, such as tax rates in foreign jurisdictions and the relative amounts and mix of income and loss in those jurisdictions to which they relate, as well as discrete items and non-deductible expenses that may occur in any given year, but are not consistent from year to year.

In 2015, we established a centralized European headquarters in the Netherlands for the purpose of improving the operational efficiencies and profitability of our European operations and certain global product lines and to centralize leadership and management functions in a single location. A key objective of our European headquarters is to align our business operations, identify cost savings and further streamline our operations. These activities directly impacted our mix of earnings and product flows and resulted in both favorable and unfavorable tax rate impacts in the jurisdictions in which we operate. These impacts have been reflected in Other foreign tax rate differentials included in the reconciliation of the significant differences between the US federal and statutory tax rate and the effective tax rate. See Note 19 - Income Taxes in the accompanying consolidated financial statements for further information.

Assuming no material changes to tax rules and regulations or cash repatriation plans, we expect to realize operational savings in connection with the establishment of our centralized European headquarters, which will directly impact the mix of our earnings and may result in favorable income tax impacts in subsequent years. Our effective tax rate will vary based on the jurisdictions in which income is actually generated and remains subject to potential volatility from changing tax legislation in the US and other tax jurisdictions. We continue to assess our business model and its impact in various jurisdictions.

Table of Contents

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Net sales increased \$292 million, or 4.5%, for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- higher VAM pricing in our Acetyl Intermediates segment;
- higher acetic acid pricing in our Acetyl Intermediates segment; and
- higher volume globally in our Advanced Engineered Materials segment fueled by growth in automotive, medical and industrial applications.

Selling, general and administrative expenses increased \$447 million, or 143.7%, for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- an increase in pension and other postretirement plan net periodic benefit cost of \$379 million;
- higher functional and project spending of \$43 million; and
- higher incentive compensation costs of \$25 million.

Other (charges) gains, net changed \$173 million, or 109.5%, for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- \$138 million of lower charges in our Acetyl Intermediates segment as a result of the closure of our acetic anhydride facility in Roussillon, France and our VAM facility in Tarragona, Spain, as well as long-lived impairment losses related to our Singapore acetic acid production unit during the three months ended December 30, 2013. See Note 18 - Other (Charges) Gains, Net in the accompanying consolidated financial statements for further information.

Operating profit decreased \$750 million, or 49.7%, for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- higher Selling, general and administrative expenses; and
- the recognition of a gain of \$742 million during the three months ended December 31, 2013, which represented the deferred proceeds in excess of divested assets as a result of the 2006 settlement agreement with the Frankfurt, Germany Airport ("Fraport") to move our German POM operations. The proceeds were included in our Advanced Engineered Materials segment. See Note 4 - Acquisitions, Dispositions and Plant Closures in the accompanying consolidated financial statements for further information;

partially offset by:

- an increase in Net sales, as well as the impact of permanent capacity reductions in Europe in December 2013.

Operating margin for the year ended December 31, 2014 decreased to 11.1% from 23.2% in 2013.

Equity in net earnings of affiliates increased \$66 million for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- a \$48 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014; and
- an increase in equity investment earnings of \$13 million from our Polyplastics Co., Ltd. ("Polyplastics") strategic affiliate.

Our effective income tax rate for the year ended December 31, 2014 was 33% compared to 32% for the year ended 2013.

Table of Contents

## Business Segments

## Advanced Engineered Materials

	Year Ended December 31,				%	Year Ended December 31,				%
	2015	2014	Change	Change		2014	2013	Change	Change	
	(In \$ millions, except percentages)									
Net sales	1,326	1,459	(133 )	(9.1 )	%	1,459	1,352	107	7.9	%
Net Sales Variance										
Volume	(1)	%				9	%			
Price	(1)	%				(1)	%			
Currency	(7)	%				—	%			
Other	—	%				—	%			
Other (charges) gains, net	(7 )	(1 )	(6 )	600.0	%	(1 )	(13 )	12	(92.3 )	%
Operating profit (loss)	235	221	14	6.3	%	221	904	(683 )	(75.6 )	%
Operating margin	17.7	%	15.1	%		15.1	%	66.9	%	
Equity in net earnings (loss) of affiliates	150	161	(11 )	(6.8 )	%	161	148	13	8.8	%
Depreciation and amortization	99	106	(7 )	(6.6 )	%	106	110	(4 )	(3.6 )	%

Our Advanced Engineered Materials segment includes our engineered materials business and certain strategic affiliates. Our engineered materials business develops, produces and supplies a broad portfolio of high performance specialty polymers for automotive and medical applications, as well as industrial products and consumer electronics. Together with our strategic affiliates, our engineered materials business is a leading participant in the global specialty polymers industry. The primary products of Advanced Engineered Materials are polyoxymethylene, also commonly known as POM, ultra-high molecular weight polyethylene ("UHMW-PE"), polybutylene terephthalate ("PBT"), long-fiber reinforced thermoplastics ("LFRT") and liquid crystal polymers ("LCP"). POM, LFRT and PBT are used in automotive and medical applications as well as consumer electronics, appliances and industrial products. UHMW-PE, sold under the GUR<sup>®</sup> trademark, is used in battery separators, conveyor belts, filtration equipment, coatings and medical applications. Primary end uses for LCP are electrical applications or products and consumer electronics. PPS, sold under the Fortron<sup>®</sup> brand, is a key product of Fortron Industries LLC, one of our strategic affiliates. PPS is used in a wide variety of automotive and other applications, especially those requiring heat and/or chemical resistance.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Net sales decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- an unfavorable currency impact resulting from a strong US dollar relative to the Euro.

Operating profit increased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- lower energy and raw material costs, primarily for ethylene and polypropylene, which more than offset the decrease in Net sales;

partially offset by:

- an increase in net periodic benefit cost of \$54 million.

Equity in net earnings (loss) of affiliates decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- a decrease in equity investment earnings of \$27 million from our Ibn Sina strategic affiliate as a result of lower pricing for MTBE and methanol;

partially offset by:

Table of Contents

an increase in equity investment earnings from our Polyplastics and Korea Engineering Plastics Co., Ltd. strategic affiliates of \$8 million and \$6 million, respectively, primarily as a result of lower raw material costs.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Net sales increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

higher volume in Europe from strong growth in nearly all product lines;

higher volume in the Americas primarily driven by growth in POM in automotive applications and GUR® in medical and industrial applications; and

higher volume in Asia across all product lines resulting from targeted customer focus and the implementation of growth strategies;

partially offset by:

lower pricing for POM and GUR® due to shifts in product and geographic sales mix.

Operating profit decreased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

the recognition of a gain of \$742 million during the three months ended December 31, 2013, which represents the deferred proceeds in excess of divested assets as a result of the 2006 settlement agreement with Fraport to move our German POM operations;

lower pricing;

a \$16 million negative impact from inventory build in the same period in 2013 in response to a planned turnaround during the three months ended September 30, 2014; and

higher expenses of \$11 million related to plant maintenance;

partially offset by:

higher Net sales, as well as lower net periodic benefit cost of \$38 million; and

an increase of \$12 million from Other (charges) gains, net, primarily due to a decrease in costs associated with the relocation and expansion of our German POM operations.

Equity in net earnings (loss) of affiliates increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

an increase in equity investment earnings of \$13 million from our Polyplastics strategic affiliate as a result of higher volume, lower turnaround expenses and lower restructuring charges related to one of their affiliates.

Table of Contents

## Consumer Specialties

	Year Ended December 31, 2015				Year Ended December 31, 2014			
	2015	2014	Change	% Change	2014	2013	Change	% Change
(In \$ millions, except percentages)								
Net sales	969	1,160	(191 )	(16.5 )%	1,160	1,214	(54 )	(4.4 )%
Net Sales Variance								
Volume	(13)	%			(5 )%			
Price	(3)	%			1	%		
Currency	(1)	%			—	%		
Other	—	%			—	%		
Other (charges) gains, net	(25 )	16	(41 )	(256.3 )%	16	—	16	100.0 %
Operating profit (loss)	262	388	(126 )	(32.5 )%	388	346	42	12.1 %
Operating margin	27.0 %	33.4 %			33.4 %	28.5 %		
Equity in net earnings (loss) of affiliates	2	9	(7 )	(77.8 )%	9	3	6	200.0 %
Dividend income - cost investments	106	115	(9 )	(7.8 )%	115	92	23	25.0 %
Depreciation and amortization	60	43	17	39.5 %	43	41	2	4.9 %

Our Consumer Specialties segment includes our cellulose derivatives and food ingredients businesses, which serve consumer-driven applications. Our cellulose derivatives business is a leading global producer and supplier of acetate flake, acetate film and acetate tow, primarily used in filtration applications. Our food ingredients business is a leading international supplier of premium quality ingredients for the food and beverage and pharmaceuticals industries and is a leading producer of food protection ingredients, such as potassium sorbate and sorbic acid. Our food ingredients business produces and sells the Qorus® sweetener system and Sunett® high intensity sweeteners.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Net sales decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- lower acetate tow volume driven by customer destocking; and
- lower acetate tow pricing driven by reduced industry utilization.

Operating profit decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- a decrease in Net sales;
  - an unfavorable impact in Other (charges) gains, net due to employee termination costs of \$24 million and accelerated depreciation expense of \$10 million which were recorded as a result of a 50% capacity reduction at our acetate tow facility in Lanaken, Belgium in December 2015. See Note 4 - Acquisitions, Dispositions and Plant Closures in the accompanying consolidated financial statements for further information; Other (charges) gains, net was also unfavorably impacted by an arbitration recovery in 2014 against a former utility operator at our cellulose derivatives manufacturing facility in Narrows, Virginia, which did not recur in the current year; and
  - an increase in net periodic benefit cost of \$32 million;
- partially offset by:
- lower wood pulp and energy costs.

Equity in net earnings (loss) of affiliates decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

Table of Contents

• a \$6 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014, which did not recur in the current year.

• Dividend income from cost investments decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

• lower earnings from our cellulose derivatives ventures primarily due to the expiration of a favorable tax holiday.

• Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

• Net sales decreased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

• lower acetate tow volume globally; and

• lower acetate flake pricing under a legacy contract;

partially offset by:

• higher acetate tow pricing of 6% reflecting favorable shifts in customer mix; and

• higher acetate flake volume.

• Operating profit increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

• higher acetate tow pricing;

• lower raw material and energy costs of \$43 million as a result of productivity initiatives in our cellulose derivatives business;

• a decrease in net periodic benefit cost of \$22 million; and

• a favorable impact to Other (charges) gains, net of \$16 million primarily due to an arbitration award against a former utility operator at our cellulose derivatives manufacturing facility in Narrows, Virginia.

• Dividend income from cost investments increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

• higher earnings from our cellulose derivatives ventures resulting from higher volume and acetate tow pricing, as well as lower energy costs.



Table of Contents

## Industrial Specialties

	Year Ended December 31, 2015			%	Year Ended December 31, 2014			%
	2015	2014	Change		2014	2013	Change	
	(In \$ millions, except percentages)							
Net sales	1,082	1,224	(142 )	(11.6 )%	1,224	1,155	69	6.0 %
Net Sales Variance								
Volume	—	%			1	%		
Price	(4)	%			5	%		
Currency	(8)	%			—	%		
Other	—	%			—	%		
Other (charges) gains, net	(10 )	(1 )	(9 )	900.0 %	(1 )	(4 )	3	(75.0 )%
Operating profit (loss)	72	76	(4 )	(5.3 )%	76	64	12	18.8 %
Operating margin	6.7 %	6.2 %			6.2 %	5.5 %		
Depreciation and amortization	64	50	14	28.0 %	50	52	(2 )	(3.8 )%

Our Industrial Specialties segment includes our emulsion polymers and EVA polymers businesses. Our emulsion polymers business is a leading global producer of vinyl acetate-based emulsions and develops products and application technologies to improve performance, create value and drive innovation in applications such as paints and coatings, adhesives, construction, glass fiber, textiles and paper. Our emulsion polymers products are sold under globally and regionally recognized brands including EcoVAE<sup>®</sup>, Mowilith<sup>®</sup>, Vinamul<sup>®</sup>, Celvolit<sup>®</sup>, Duroset<sup>®</sup>, TufCOR<sup>®</sup> and Avicor<sup>®</sup>. Our EVA polymers business is a leading North American manufacturer of a full range of specialty ethylene vinyl acetate ("EVA") resins and compounds as well as select grades of low-density polyethylene. Sold under the Ateva<sup>®</sup> and VitalDose<sup>®</sup> brands, these products are used in many applications, including flexible packaging films, lamination film products, hot melt adhesives, medical, automotive parts and carpeting.

## Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Net sales decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to: an unfavorable currency impact on our emulsion polymers business resulting from a strong US dollar relative to the Euro; and

lower pricing in our emulsion polymers business due to lower raw material costs for VAM, primarily in Europe.

Operating profit decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

a decrease in Net sales, as well as an increase in site closure costs of \$22 million and \$16 million primarily related to our VAE emulsions unit in Meredosia, Illinois and in Tarragona, Spain, respectively. See [Note 4 - Acquisitions, Dispositions and Plant Closures](#) in the accompanying consolidated financial statements for further information; and an increase in net periodic benefit cost of \$13 million;

partially offset by:

lower raw material costs for VAM, primarily in Europe.

## Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Net sales increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to: higher pricing in our emulsion polymers business primarily due to higher raw material costs for VAM in Europe, Asia and North America; and

Table of Contents

higher volume driven by a targeted strategy in Asia, primarily in adhesive and construction products and paints and coatings products, and by higher demand in Europe.

Operating profit increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

higher Net sales, as well as a decrease in net periodic benefit cost of \$21 million;

partially offset by:

higher raw material costs of \$65 million, primarily for VAM, in our emulsion polymers business across all regions.

Acetyl Intermediates

	Year Ended December 31,				Year Ended December 31,			
	2015	2014	Change	% Change	2014	2013	Change	% Change
(In \$ millions, except percentages)								
Net sales	2,744	3,493	(749 )	(21.4 )%	3,493	3,241	252	7.8 %
Net Sales Variance								
Volume	(3)	%			(3)	%		
Price	(13)	%			11	%		
Currency	(6)	%			—	%		
Other	—	%			—	%		
Other (charges) gains, net	(300 )	(3 )	(297 )	9,900.0 %	(3 )	(141 )	138	(97.9 )%
Operating profit (loss)	(3 )	558	(561 )	(100.5 )%	558	153	405	264.7 %
Operating margin	(0.1) %	16.0 %			16.0 %	4.7 %		
Equity in net earnings (loss) of affiliates	6	20	(14 )	(70.0 )%	20	5	15	300.0 %
Depreciation and amortization	123	81	42	51.9 %	81	86	(5 )	(5.8 )%

Our Acetyl Intermediates segment includes our intermediate chemistry business, which produces and supplies acetyl products, including acetic acid, VAM, acetic anhydride and acetate esters. These products are generally used as starting materials for colorants, paints, adhesives, coatings and medicines. This business segment also produces organic solvents and intermediates for pharmaceutical, agricultural and chemical products.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Net sales decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

lower pricing and volume for VAM, primarily due to industry outages in the prior year that did not recur in the current year. VAM represents approximately one-half of the decrease in pricing and volume;

an unfavorable currency impact resulting from a strong US dollar relative to the Euro; and

lower pricing and volume for acetic acid, which represents approximately one-third of the pricing and volume decrease, primarily due to lower demand in Asia.

Operating profit decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

a decrease in Net sales, as well as an unfavorable impact from Other (charges) gains, net. In December 2015, we terminated our existing agreement with a raw materials supplier in Singapore. In connection with the contract termination, we recorded \$174 million to Other (charges) gains, net. We also recorded long-lived impairment losses of \$123 million to fully write-off certain ethanol related assets at our acetyl facility in Nanjing, China during the three months ended December 31, 2015. See Note 18 - Other (Charges) Gains, Net in the accompanying consolidated financial statements for further information;

Table of Contents

an increase in depreciation and amortization expense as a result of \$39 million in accelerated depreciation expense related to property, plant and equipment no longer in use at our ethanol technology development unit in Clear Lake, Texas, beginning in June 2015;

an increase in net periodic benefit cost of \$32 million; and

costs of \$10 million incurred related to the start-up of our Fairway joint venture;

partially offset by:

lower energy and raw material costs, primarily for ethylene, methanol and carbon monoxide, with ethylene making up approximately one-half and the other raw materials each making up approximately one-quarter of the decrease in raw materials.

Equity in net earnings (loss) of affiliates decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

a \$13 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014, which did not recur in the current year.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Net sales increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

higher VAM pricing resulting from permanent capacity reductions in Europe and planned and unplanned industry outages;

higher acetic acid pricing resulting from planned and unplanned industry outages; and

higher acetic anhydride pricing;

partially offset by:

lower volume.

Operating profit increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

higher Net sales, as well as the impact of permanent capacity reductions in Europe in 2013. Accordingly, we recorded \$20 million of employee termination benefits, \$33 million of contract termination costs and \$34 million of long-lived asset impairment losses to fully write-off the related property, plant and equipment during the year ended

December 31, 2013, which did not recur during the year ended December 31, 2014;

long-lived asset impairment losses of \$46 million, which were recorded during the year ended December 31, 2013 to fully write-off the property, plant and equipment at our Singapore acetic acid production unit and which did not recur during the year ended December 31, 2014; and

a decrease in net periodic benefit cost of \$23 million;

partially offset by:

lower volume;

higher raw material costs of \$98 million, primarily for ethylene and purchased materials for VAM and acetic acid; and a \$12 million loss as a result of damages in connection with a settlement of a claim by a raw materials supplier.

Equity in net earnings (loss) of affiliates increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

a \$13 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014.

Table of Contents

## Other Activities

	Year Ended December 31, 2015			%	Year Ended December 31, 2014			%	
	2015	2014	Change		2014	2013	Change		
	(In \$ millions)								
Other (charges) gains, net	(9	) 4	(13	) (325.0	)% 4	—	4	100.0	%
Operating profit (loss)	(240	) (485	) 245	(50.5	)% (485	) 41	(526	) (1,282.9	)%
Equity in net earnings (loss) of affiliates	23	56	(33	) (58.9	)% 56	24	32	133.3	%
Dividend income - cost investments	1	1	—	—	% 1	1	—	—	%
Depreciation and amortization	11	12	(1	) (8.3	)% 12	16	(4	) (25.0	)%

Other Activities primarily consists of corporate center costs, including administrative activities such as finance, information technology and human resource functions, interest income and expense associated with our financing activities and results of our captive insurance companies. Other Activities also includes the interest cost, expected return on assets and net actuarial gains and losses components of our net periodic benefit cost for our defined benefit pension plans and other postretirement plans, which are not allocated to our business segments.

Year Ended December 31, 2015 Compared to Year Ended December 31, 2014

Operating loss decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- a decrease in net periodic benefit cost of \$218 million, primarily recorded to SG&A expenses; and
- lower functional spending and incentive compensation costs of \$41 million;

partially offset by:

- higher project spending related to our European headquarters.

Equity in net earnings (loss) of affiliates decreased for the year ended December 31, 2015 compared to the same period in 2014 primarily due to:

- a \$29 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014, which did not recur in the current year.

Year Ended December 31, 2014 Compared to Year Ended December 31, 2013

Operating profit decreased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- an increase in net periodic benefit cost of \$454 million, primarily recorded to SG&A expenses;
- higher functional and project spending of \$43 million; and
- higher incentive compensation costs of \$25 million due to exceeding internal profitability targets.

Equity in net earnings (loss) of affiliates increased for the year ended December 31, 2014 compared to the same period in 2013 primarily due to:

- a \$29 million gain resulting from restructuring the debt of a subsidiary of InfraServ GmbH & Co. Hoechst KG during the three months ended June 30, 2014.

Table of Contents

## Liquidity and Capital Resources

Our primary source of liquidity is cash generated from operations, available cash and cash equivalents and dividends from our portfolio of strategic investments. In addition, as of December 31, 2015 we have \$550 million available for borrowing under our revolving credit facility to assist, if required, in meeting our working capital needs and other contractual obligations. During the year ended December 31, 2015, we had net borrowings of \$350 million under our revolving credit facility primarily to fund \$420 million in repurchases of our Series A common stock, par value \$0.0001 per share ("Common Stock").

While our contractual obligations, commitments and debt service requirements over the next several years are significant, we continue to believe we will have available resources to meet our liquidity requirements, including debt service, in 2016. If our cash flow from operations is insufficient to fund our debt service and other obligations, we may be required to use other means available to us such as increasing our borrowings, reducing or delaying capital expenditures, seeking additional capital or seeking to restructure or refinance our indebtedness. There can be no assurance, however, that we will continue to generate cash flows at or above current levels.

Total cash outflows for capital expenditures are expected to be in the range of \$250 million to \$300 million in 2016 primarily due to additional investments in growth opportunities in our Industrial Specialties segment.

On a stand-alone basis, Celanese and its immediate 100% owned subsidiary, Celanese US, have no material assets other than the stock of their subsidiaries and no independent external operations of their own. Accordingly, they generally depend on the cash flow of their subsidiaries and their ability to pay dividends and make other distributions to Celanese and Celanese US in order to meet their obligations, including their obligations under senior credit facilities and senior notes and to pay dividends on Common Stock.

## Cash Flows

Cash and cash equivalents as of December 31, 2015 were \$967 million, an increase of \$187 million from December 31, 2014. As of December 31, 2015, \$923 million of the \$967 million of cash and cash equivalents was held by our foreign subsidiaries. If these funds are needed for our operations in the US, we will access such funds in a tax efficient manner to satisfy cash flow needs. Currently, there are no contemplated cash distributions that will result in incremental US taxes payable in excess of applicable foreign tax credits related to such undistributed earnings. As a result, we have not provided any deferred income taxes on the portion of undistributed foreign earnings determined not to be permanently reinvested in foreign operations.

## Net Cash Provided by (Used in) Operating Activities

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

Net cash provided by operating activities decreased \$100 million to \$862 million for the year ended December 31, 2015 compared to \$962 million for the same period in 2014. Net cash provided by operations for the year ended December 31, 2015 decreased primarily due to:

- a decrease in net earnings;

partially offset by:

- a decrease in pension and postretirement benefit plan contributions of \$160 million.

## Year Ended December 31, 2014 Compared with Year Ended December 31, 2013

Cash flow provided by operating activities increased by \$200 million for the year ended December 31, 2014 compared to the same period in 2013, with operating cash inflows increasing from \$762 million to \$962 million. Cash flow provided by operations for the year ended December 31, 2014 increased primarily due to:

- stronger earnings performance;

- an increase in value-added tax refunds of \$87 million; and

- a \$23 million increase in dividends received from our cellulose derivatives ventures;

Table of Contents

partially offset by:

- an increase of \$127 million in pension plan and other postretirement benefit plan contributions; and
- a \$70 million increase in cash taxes paid.

Trade working capital is calculated as follows:

	As of December 31,		
	2015	2014	2013
	(In \$ millions)		
Trade receivables - third party and affiliates	706	801	867
Inventories	682	782	804
Trade payables - third party and affiliates	(587	) (757	) (799
Trade working capital	801	826	872

#### Net Cash Provided by (Used in) Investing Activities

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

Net cash used in investing activities decreased \$147 million to \$558 million for the year ended December 31, 2015 compared to \$705 million for the same period in 2014, primarily due to:

- capital expenditures relating to Fairway of \$288 million, \$136 million lower than in the same period in 2014.

Year Ended December 31, 2014 Compared with Year Ended December 31, 2013

Net cash used in investing activities increased \$283 million to \$705 million for the year ended December 31, 2014 compared to \$422 million for the year ended December 31, 2013, respectively. Cash outflows were primarily for: capital expenditures of \$424 million and \$93 million for the years ended December 31, 2014 and 2013, respectively, relating to Fairway;

capital expenditures of \$254 million and \$277 million for the years ended December 31, 2014 and 2013, respectively, primarily related to capacity expansions and major investments to reduce future operating costs and improve plant reliability, as well as environmental and health and safety initiatives; and

the \$10 million acquisition of substantially all of the assets of Cool Polymers, Inc. during the year ended December 31, 2014.

#### Net Cash Provided by (Used in) Financing Activities

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

Net cash used in financing activities decreased \$349 million to \$66 million for the year ended December 31, 2015 compared to \$415 million for the year ended December 31, 2014. The decrease in cash used in financing activities is primarily due to:

- an increase in net borrowings on short-term debt of \$385 million, primarily as a result of borrowing under our revolving credit facility to fund repurchases of our Common Stock; and
- a decrease in net repayments of long-term debt of \$215 million as a result of redeeming our \$600 million 6.625% senior unsecured notes due 2018 during the year ended December 31, 2014, which did not recur in the current year; partially offset by:

- an increase of \$170 million in share repurchases of our Common Stock;

- a decrease of \$50 million in contributions received from Mitsui in exchange for ownership in Fairway; and

Table of Contents

higher Common Stock dividends of \$30 million due to a 39% and 20% increase in quarterly cash dividends beginning May 2014 and May 2015, respectively.

Year Ended December 31, 2014 Compared with Year Ended December 31, 2013

Net cash used in financing activities increased \$89 million to \$415 million for the year ended December 31, 2014 compared to \$326 million for the year ended December 31, 2013. The increase in cash used in financing activities is primarily due to:

- an increase in net repayments on short-term borrowings and long-term debt of \$196 million primarily as a result of redeeming our \$600 million 6.625% senior unsecured notes due 2018;

- an increase in stock repurchase transactions of \$86 million; and

- higher Common Stock cash dividends of \$61 million. During the year ended December 31, 2014, we increased our Common Stock quarterly cash dividend rate from \$0.18 to \$0.25 per share;

partially offset by:

- proceeds from an offering of €300 million 3.250% senior unsecured notes due 2019; and

- contributions of \$264 million received from Mitsui during the year ended December 31, 2014 in exchange for ownership in Fairway.

In addition, exchange rates had unfavorable impacts of \$51 million and \$46 million on cash and cash equivalents for the years ended December 31, 2015 and 2014, respectively, and a favorable impact of \$11 million for the year ended December 31, 2013.

#### Debt and Other Obligations

##### Senior Notes

We have outstanding senior unsecured notes issued in public offerings registered under the Securities Act of 1933, as amended, as follows (collectively, the "Senior Notes"):

Senior Notes	Issue Date	Principal (In millions)	Interest Rate (In percentages)	Interest Pay Dates		Maturity Date
3.250% Notes	September 2014	€300	3.250	April 15	October 15	October 15, 2019
4.625% Notes	November 2012	\$500	4.625	March 15	September 15	November 15, 2022
5.875% Notes	May 2011	\$400	5.875	June 15	December 15	June 15, 2021

The Senior Notes are senior unsecured obligations of Celanese US and rank equally in right of payment with all other unsubordinated indebtedness of Celanese US. The Senior Notes were issued under indentures (collectively, the "Indentures") among Celanese US, Celanese and each of the domestic subsidiaries of Celanese US that guarantee its obligations under its senior secured credit facilities ("Subsidiary Guarantors") and Wells Fargo Bank, National Association, as trustee. The Senior Notes are guaranteed on a senior unsecured basis by Celanese and the Subsidiary Guarantors. The Indentures contain covenants, including, but not limited to, restrictions on our ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; engage in transactions with affiliates; or engage in other businesses. Celanese US may redeem some or all of each of the Senior Notes, prior to their respective maturity dates, at a redemption price of 100% of the principal amount, plus a "make-whole" premium as specified in the applicable indenture, plus accrued and unpaid interest, if any, to the redemption date.

In October 2014, Celanese US redeemed its \$600 million 6.625% senior unsecured notes due 2018 ("6.625% Notes") at a redemption price of 103.313% of the face amount for a total principal and premium payment of \$620 million plus accrued interest of \$20 million. Proceeds from the issuance of the 3.250% Notes were used to partially fund the redemption of the 6.625% Notes, as well as cash on hand. We recorded a loss on extinguishment of the 6.625% Notes of \$24 million for the year ended December 31, 2014, which included the redemption premium of \$20 million and accelerated amortization of deferred financing costs of \$4 million.

Table of Contents**Senior Credit Facilities**

In September 2014, Celanese US, Celanese and certain of the domestic subsidiaries of Celanese US entered into an amendment agreement with the lenders under Celanese US's existing senior secured credit facilities in order to amend and restate the amended credit agreement dated September 16, 2013 (as amended and restated by the 2014 amendment agreement, the "Amended Credit Agreement"). Under the Amended Credit Agreement, all of the US dollar denominated Term C-2 term loans and all but €28 million of the Euro-denominated Term C-2 term loans under the 2013 amended credit agreement were converted into, or refinanced by, the Term C-3 loan facility with an extended maturity date of October 2018. The non-extended portions of the Term C-2 loan facility continue to have a maturity date of October 2016. In addition, the maturity date of our revolving credit facility was extended to October 2018 and the facility was increased to \$900 million. Accordingly, the Amended Credit Agreement consists of the Term C-2 loan facility, the Term C-3 loan facility and a \$900 million revolving credit facility. We borrowed \$550 million and repaid \$200 million during the year ended December 31, 2015. Borrowings were primarily used to fund repurchases of our Common Stock.

As of December 31, 2015, the margin for borrowings under the Term C-2 loan facility was 2.0% above the Euro Interbank Offered Rate ("EURIBOR") and the margin for borrowings under the Term C-3 loan facility was 2.25% above London Interbank Offered Rate ("LIBOR") (for US dollars) and 2.25% above EURIBOR (for Euros), as applicable. As of December 31, 2015, the margin for borrowings under the revolving credit facility was 1.5% above LIBOR. The margin for borrowings under the revolving credit facility is subject to increase or decrease in certain circumstances based on changes in the corporate credit ratings of Celanese or Celanese US.

Term loan borrowings under the Amended Credit Agreement are subject to amortization at 1% of the initial principal amount per annum, payable quarterly. In addition, we pay quarterly commitment fees on the unused portion of the revolving credit facility of 0.25% per annum.

The Amended Credit Agreement is guaranteed by Celanese and certain domestic subsidiaries of Celanese US and is secured by a lien on substantially all assets of Celanese US and such guarantors, subject to certain agreed exceptions (including for certain real property and certain shares of foreign subsidiaries), pursuant to the Guarantee and Collateral Agreement, dated April 2, 2007.

As a condition to borrowing funds or requesting letters of credit be issued under the revolving credit facility, our first lien senior secured leverage ratio (as calculated as of the last day of the most recent fiscal quarter for which financial statements have been delivered under the revolving facility) cannot exceed the threshold as specified below. Further, our first lien senior secured leverage ratio must be maintained at or below that threshold while any amounts are outstanding under the revolving credit facility.

Our first lien senior secured leverage ratios under the revolving credit facility are as follows:

As of December 31, 2015

Maximum	Estimate	Estimate, if Fully Drawn
3.90	0.92	1.30

The Amended Credit Agreement contains covenants including, but not limited to, restrictions on our ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; make investments; prepay or modify certain indebtedness; engage in transactions with affiliates; enter into sale-leaseback transactions or hedge transactions; or engage in other businesses; as well as a covenant requiring maintenance of a maximum first lien senior secured leverage ratio.

The Amended Credit Agreement also maintains a number of events of default, including a cross default to other debt of Celanese, Celanese US, or their subsidiaries, including the Senior Notes, in an aggregate amount equal to more than \$50 million and the occurrence of a change of control. Failure to comply with these covenants, or the occurrence of any other event of default, could result in acceleration of the borrowings and other financial obligations under the Amended Credit Agreement.

We are in compliance with all of the covenants related to our debt agreements as of December 31, 2015.



Table of Contents

- Accounts Receivable Securitization Facility

As of December 31, 2015, the maximum borrowing base under our US accounts receivable securitization facility was \$120 million. The US accounts receivable securitization facility purchase agreement expires in 2016, but may be extended for successive one year terms by agreement of the parties. All of the transferred assets have been pledged to the administrator of the US accounts receivable securitization facility in support of its obligations under the purchase agreement. During the year ended December 31, 2015, we increased borrowings outstanding under the accounts receivable securitization facility by \$20 million. As of December 31, 2015, the outstanding amount of accounts receivable transferred under our US accounts receivable securitization facility was \$131 million.

See Note 14 - Debt in the accompanying consolidated financial statements for further information.

## Share Capital

Our Board of Directors follows a policy of declaring, subject to legally available funds, a quarterly cash dividend on each share of our Common Stock unless the Board of Directors, in its sole discretion, determines otherwise. The amount available to pay cash dividends is restricted by our Amended Credit Agreement and the Indentures.

On February 4, 2016, we declared a quarterly cash dividend of \$0.30 per share on our Common Stock amounting to \$44 million. The cash dividend is for the period from November 1, 2015 to January 31, 2016 and will be paid on February 26, 2016 to holders of record as of February 16, 2016. Cash dividends to be paid in 2016 are expected to be slightly higher than the cash dividends paid in 2015 based on the number of outstanding shares as of December 31, 2015 and a quarterly cash dividend rate of \$0.30.

Our Board of Directors has authorized the aggregate repurchase of \$2.4 billion of our Common Stock since February 2008. These authorizations give management discretion in determining the timing and conditions under which shares may be repurchased. This repurchase program does not have an expiration date. During the year ended December 31, 2015, we spent \$420 million on repurchased shares of our Common Stock. As of December 31, 2015, we had \$1.0 billion remaining under authorizations by our Board of Directors.

See Note 17 - Stockholders' Equity in the accompanying consolidated financial statements for further information.

## Contractual Debt and Cash Obligations

The following table sets forth our fixed contractual debt and cash obligations as of December 31, 2015.

	Total	Payments due by period			
		Less Than 1 Year	Years 2 & 3	Years 4 & 5	After 5 Years
	(In \$ millions)				
Fixed Contractual Debt Obligations					
Senior notes	1,227	—	—	327	900
Term C-2 loan facility	30	30	—	—	—
Term C-3 loan facility	878	9	869	—	—
Interest payments on debt and other obligations	719	(1) 122	233	162	202
Capital lease obligations	238	17	41	52	128
Other debt	626	(2) 457	—	—	169
Total	3,718	635	1,143	541	1,399
Operating leases	294	66	77	54	97
Uncertain tax positions, including interest and penalties	167	—	—	—	167
					(3)
Unconditional purchase obligations	2,954	(4) 644	840	616	854
Pension and other postretirement funding obligations	673	(5) 28	122	197	326
Environmental and asset retirement obligations	114	21	38	19	36
Total	7,920	1,394	2,220	1,427	2,879

(1) Future interest expense is calculated using the rate in effect on December 31, 2015.



## Table of Contents

Other debt is primarily made up of fixed rate pollution control and industrial revenue bonds, short-term borrowings (2) from affiliated companies, our revolving credit facility, our accounts receivable securitization facility and other bank obligations.

Due to uncertainties in the timing of the effective settlement of tax positions with the respective taxing authorities, (3) we are unable to determine the timing of payments related to our uncertain tax obligations, including interest and penalties. These amounts are therefore reflected in "After 5 Years".

Unconditional purchase obligations primarily represent the take-or-pay provisions included in certain long-term purchase agreements. We do not expect to incur material losses under these arrangements. These amounts also (4) include other purchase obligations such as maintenance and service agreements, energy and utility agreements, consulting contracts, software agreements and other miscellaneous agreements and contracts, obtained via a survey of Celanese.

(5) Excludes expected payments from nonqualified trusts related to nonqualified pension plans of \$196 million.

### Contractual Guarantees and Commitments

As of December 31, 2015, we have standby letters of credit of \$59 million and bank guarantees of \$6 million outstanding, which are irrevocable obligations of an issuing bank that ensure payment to third parties in the event that certain subsidiaries fail to perform in accordance with specified contractual obligations. The likelihood is remote that material payments will be required under these agreements.

See Note 14 - Debt in the accompanying consolidated financial statements for a description of the guarantees under our Senior Notes and Amended Credit Agreement.

See Note 24 - Commitments and Contingencies in the accompanying consolidated financial statements for a discussion of commitments and contingencies related to legal and regulatory proceedings.

### Off-Balance Sheet Arrangements

We have not entered into any material off-balance sheet arrangements.

### Market Risks

See Item 7A. Quantitative and Qualitative Disclosure about Market Risk for further information.

### Critical Accounting Policies and Estimates

Our consolidated financial statements are based on the selection and application of significant accounting policies. The preparation of consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of net sales, expenses and allocated charges during the reporting period. Actual results could differ from those estimates. However, we are not currently aware of any reasonably likely events or circumstances that would result in materially different results. We believe the following accounting policies and estimates are critical to understanding the financial reporting risks present in the current economic environment. These matters, and the judgments and uncertainties affecting them, are also essential to understanding our reported and future operating results. See Note 2 - Summary of Accounting Policies in the accompanying consolidated financial statements for further information.

#### Recoverability of Long-Lived Assets

#### Recoverability of Goodwill and Indefinite-Lived Assets

We assess goodwill for impairment at the reporting unit level. Our reporting units are either our operating business segments or one level below our operating business segments for which discrete financial information is available and for which operating results are regularly reviewed by business segment management and the chief operating decision maker. Our operating business segments have been designated as our reporting units and include our engineered materials, cellulose derivatives, food ingredients, emulsion polymers, EVA polymers and intermediate chemistry businesses. We assess the recoverability of the carrying amount of our goodwill and other indefinite-lived intangible assets annually during the third quarter of our fiscal year using June 30 balances or whenever events or changes in circumstances indicate that the carrying amount of the asset may not be fully recoverable.



Table of Contents

When assessing the recoverability of goodwill and other indefinite-lived intangible assets, we may first assess qualitative factors in determining whether it is more likely than not that the fair value of a reporting unit or other indefinite-lived intangible asset is less than its carrying amount. After assessing qualitative factors, if we determine that it is not more likely than not that the fair value of a reporting unit or other indefinite-lived intangible asset is less than its carrying amount, then performing a quantitative assessment is not required. If an initial qualitative assessment indicates that it is more likely than not the carrying amount exceeds the fair value of a reporting unit or other indefinite-lived intangible asset, a quantitative analysis will be performed. We may also elect to bypass the qualitative assessment and proceed directly to a quantitative analysis depending on the facts and circumstances.

In performing a quantitative analysis, recoverability of goodwill for each reporting unit is measured using a discounted cash flow model incorporating discount rates commensurate with the risks involved. Use of a discounted cash flow model is common practice in assessing impairment in the absence of available transactional market evidence to determine the fair value. The key assumptions used in the discounted cash flow valuation model include discount rates, growth rates, tax rates, cash flow projections and terminal value rates. Discount rates, growth rates and cash flow projections are the most sensitive and susceptible to change as they require significant management judgment. We may engage third-party valuation consultants to assist with this process. The valuation consultants assess fair value by equally weighting a combination of two market approaches (market multiple analysis and comparable transaction analysis) and the discounted cash flow approach. Discount rates are determined by using a weighted average cost of capital ("WACC"). The WACC considers market and industry data as well as company-specific risk factors for each reporting unit in determining the appropriate discount rate to be used. The discount rate utilized for each reporting unit is indicative of the return an investor would expect to receive for investing in such a business. Operational management, considering industry and company-specific historical and projected data, develops growth rates and cash flow projections for each reporting unit. Terminal value rate determination follows common methodology of capturing the present value of perpetual cash flow estimates beyond the last projected period assuming a constant WACC and low long-term growth rates. If the calculated fair value is less than the current carrying amount, impairment of the reporting unit may exist. If the recoverability test indicates potential impairment, we calculate an implied fair value of goodwill for the reporting unit. The implied fair value of goodwill is determined in a manner similar to how goodwill is calculated in a business combination. If the implied fair value of goodwill exceeds the carrying amount of goodwill assigned to the reporting unit, there is no impairment. If the carrying amount of goodwill assigned to a reporting unit exceeds the implied fair value of the goodwill, an impairment loss is recorded to write down the carrying amount. An impairment loss cannot exceed the carrying amount of goodwill assigned to a reporting unit but may indicate certain long-lived and amortizable intangible assets associated with the reporting unit may require additional impairment testing.

Management tests other indefinite-lived intangible assets quantitatively utilizing the relief from royalty method under the income approach to determine the estimated fair value for each indefinite-lived intangible asset. The relief from royalty method estimates our theoretical royalty savings from ownership of the intangible asset. Key assumptions used in this model include discount rates, royalty rates, growth rates, tax rates, sales projections and terminal value rates. Discount rates, royalty rates, growth rates and sales projections are the assumptions most sensitive and susceptible to change as they require significant management judgment. Discount rates used are similar to the rates estimated by the WACC considering any differences in company-specific risk factors. Royalty rates are established by management and are periodically substantiated by third-party valuation consultants. Operational management, considering industry and company-specific historical and projected data, develops growth rates and sales projections associated with each indefinite-lived intangible asset. Terminal value rate determination follows common methodology of capturing the present value of perpetual sales projections beyond the last projected period assuming a constant WACC and low long-term growth rates.

See Note 11 - Goodwill and Intangible Assets, Net in the accompanying consolidated financial statements for further information.

#### Recoverability of Long-Lived and Amortizable Intangible Assets

We assess the recoverability of long-lived and amortizable intangible assets whenever events or circumstances indicate that the carrying amount of the asset may not be recoverable. Examples of a change in events or

circumstances include, but are not limited to, a decrease in the market price of the asset, a history of cash flow losses related to the use of the asset or a significant adverse change in the extent or manner in which an asset is being used. To assess the recoverability of long-lived and amortizable intangible assets we compare the carrying amount of the asset or asset group to the future net undiscounted cash flows expected to be generated by the asset or asset group. Long-lived and amortizable intangible assets are tested for recognition and measurement of an impairment loss at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. If such assets are considered impaired, the impairment recognized is measured as the amount by which the carrying amount of the asset exceeds the fair value of the asset.

## Table of Contents

The development of future net undiscounted cash flow projections require management projections related to sales and profitability trends and the remaining useful life of the asset. Projections of sales and profitability trends are the assumptions most sensitive and susceptible to change as they require significant management judgment. These projections are consistent with projections we use to manage our operations internally. When impairment is indicated, a discounted cash flow valuation model similar to that used to value goodwill at the reporting unit level, incorporating discount rates commensurate with risks associated with each asset, is used to determine the fair value of the asset to measure potential impairment. We believe the assumptions used are reflective of what a market participant would have used in calculating fair value.

See Note 10 - Property, Plant and Equipment, Net and Note 11 - Goodwill and Intangible Assets, Net in the accompanying consolidated financial statements for further information.

Valuation methodologies utilized to evaluate goodwill and indefinite-lived intangible, amortizable intangible and long-lived assets for impairment were consistent with prior periods. We periodically engage third-party valuation consultants to assist us with this process. Specific assumptions discussed above are updated at the date of each test to consider current industry and company-specific risk factors from the perspective of a market participant. The current business environment is subject to evolving market conditions and requires significant management judgment to interpret the potential impact to our assumptions. To the extent that changes in the current business environment result in adjusted management projections, impairment losses may occur in future periods.

### **Income Taxes**

We regularly review our deferred tax assets for recoverability and establish a valuation allowance as needed. In forming our judgment regarding the recoverability of deferred tax assets related to deductible temporary differences and tax attribute carryforwards, we give weight to positive and negative evidence based on the extent to which the forms of evidence can be objectively verified. We attach the most weight to historical earnings due to its verifiable nature. Weight is attached to tax planning strategies if the strategies are prudent and feasible and implementable without significant obstacles. Less weight is attached to forecasted future earnings due to its subjective nature, and expected timing of reversal of taxable temporary differences is given little weight unless the reversal of taxable and deductible temporary differences coincide. Valuation allowances are established primarily on net operating loss carryforwards and other deferred tax assets in the US, Luxembourg, Spain, China, Singapore, the United Kingdom, Canada and France. We have appropriately reflected increases and decreases in our valuation allowance based on the overall weight of positive versus negative evidence on a jurisdiction by jurisdiction basis.

The recoverability of deferred tax assets and the recognition and measurement of uncertain tax positions are subject to various assumptions and management judgment. If actual results differ from the estimates made by management in establishing or maintaining valuation allowances against deferred tax assets, the resulting change in the valuation allowance would generally impact earnings or Other comprehensive income depending on the nature of the respective deferred tax asset. In addition, the positions taken with regard to tax contingencies may be subject to audit and review by tax authorities, which may result in future taxes, interest and penalties.

See Note 19 - Income Taxes in the accompanying consolidated financial statements for further information.

### **Benefit Obligations**

The amounts recognized in the consolidated financial statements related to pension and other postretirement benefits are determined on an actuarial basis. Various assumptions are used in the calculation of the actuarial valuation of the employee benefit plans. These assumptions include the discount rate, compensation levels, expected long-term rates of return on plan assets and trends in health care costs. In addition, actuarial consultants use factors such as withdrawal and mortality rates to estimate the projected benefit obligation. The actuarial assumptions used may differ materially from actual results due to changing market and economic conditions, higher or lower withdrawal rates or longer or shorter life spans of participants. These differences may result in a significant impact to the amount of net periodic benefit cost recorded in future periods.

Pension assumptions are reviewed annually in the fourth quarter of each fiscal year and whenever a plan is required to be remeasured. Assumptions are reviewed on a plan and country-specific basis by third-party actuaries and senior management. Such assumptions are adjusted as appropriate to reflect changes in market rates and outlook.

See Note 15 - Benefit Obligations in the accompanying consolidated financial statements for further information.





Table of Contents

The estimated change in pension and postretirement net periodic benefit cost that would occur in 2016 from a change in the indicated assumptions are as follows:

	Change in Rate	Impact on Net Periodic Benefit Cost (In \$ millions)
US Pension Benefits		
Decrease in the discount rate	0.50	% (9 )
Decrease in the long-term expected rate of return on plan assets <sup>(1)</sup>	0.50	% 10
US Postretirement Benefits		
Decrease in the discount rate	0.50	% —
Increase in the annual health care cost trend rates	1.00	% —
Non-US Pension Benefits		
Decrease in the discount rate	0.50	% (1 )
Decrease in the long-term expected rate of return on plan assets	0.50	% 2
Non-US Postretirement Benefits		
Decrease in the discount rate	0.50	% —
Increase in the annual health care cost trend rates	1.00	% —

<sup>(1)</sup> Excludes nonqualified pension plans.

#### Accounting for Commitments and Contingencies

We routinely assess the likelihood of any adverse judgments or outcomes to legal and regulatory proceedings, lawsuits, claims, and investigations, incidental to the normal conduct of our past and current business, as well as ranges of probable and reasonably estimable losses. Reasonable estimates involve judgments made by us after considering a broad range of information including: notifications, prior settlements, demands, which have been received from a regulatory authority or private party, estimates performed by independent consultants and outside counsel, available facts, identification of other potentially responsible parties and their ability to contribute, as well as prior experience. A determination of the amount of loss contingency required, if any, is recorded if probable and estimable after careful analysis of each individual matter. The required reserves may change in the future due to new developments in each matter and as additional information becomes available. Due to the inherent subjectivity of assessments and unpredictability of outcomes of legal proceedings, our litigation accruals and estimates of possible loss or range of possible loss may not represent the ultimate loss to us from legal proceedings.

See [Note 16 - Environmental](#) and [Note 24 - Commitments and Contingencies](#) in the accompanying consolidated financial statements for further information.

#### Recent Accounting Pronouncements

See [Note 3 - Recent Accounting Pronouncements](#) in the accompanying consolidated financial statements for information regarding recent accounting pronouncements.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

##### Market Risks

Our financial market risk consists principally of exposure to currency exchange rates, interest rates and commodity prices. Exchange rate and interest rate risks are managed with a variety of techniques, including use of derivatives. We have in place policies of hedging against changes in currency exchange rates, interest rates and commodity prices as described below.

See [Note 2 - Summary of Accounting Policies](#) in the accompanying consolidated financial statements for further information regarding our derivative and hedging instruments accounting policies related to financial market risk.

See [Note 22 - Derivative Financial Instruments](#) in the accompanying consolidated financial statements for further information regarding our market risk management and the related impact on our financial position and results of operations.



Table of Contents

**Interest Rate Swaps**

As of December 31, 2015, we had \$1.1 billion, €176 million and CNY234 million of variable rate debt and US dollar interest rate swap agreements with a notional value of \$500 million that expired January 2, 2016. These interest rate swap agreements had the economic effect of modifying the US dollar variable rate obligations into fixed interest obligations.

**Foreign Currency Forwards and Swaps**

A portion of our assets, liabilities, net sales and expenses are denominated in currencies other than the US dollar. Fluctuations in the value of these currencies against the US dollar can have a direct and material impact on the business and financial results. For example, a decline in the value of the Euro versus the US dollar results in a decline in the US dollar value of our sales and earnings denominated in Euros due to translation effects. Likewise, an increase in the value of the Euro versus the US dollar would result in an opposite effect. We estimate that a one cent Euro/US dollar change in the exchange rate would impact our earnings by \$5 million annually.

**Item 8. Financial Statements and Supplementary Data**

Our consolidated financial statements and supplementary data are included in Item 15. Exhibits and Financial Statement Schedules of this Annual Report on Form 10-K.

**Quarterly Financial Information**

For a discussion of material events affecting performance in each quarter, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. All amounts in the table below have been retroactively adjusted for the effects of discontinued operations.

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

	Three Months Ended			
	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
	(Unaudited)			
	(In \$ millions, except per share data)			
Net sales	1,450	1,477	1,413	1,334
Gross profit	381	375	303	259
Other (charges) gains, net	(5 )	(10 )	(4 )	(332 ) <sup>(1)</sup>
Operating profit (loss)	257	188	186	(305 ) <sup>(2)</sup>
Earnings (loss) from continuing operations before tax	306	227	225	(270 )
Amounts attributable to Celanese Corporation				
Earnings (loss) from continuing operations	236	207	161	(298 )
Earnings (loss) from discontinued operations	—	(2 )	—	—
Net earnings (loss)	236	205	161	(298 )
Net earnings (loss) per share — basic	1.54	1.34	1.07	(2.03 )
Net earnings (loss) per share — diluted	1.53	1.33	1.07	(2.03 )
	Three Months Ended			
	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014
	(Unaudited)			
	(In \$ millions, except per share data)			
Net sales	1,705	1,769	1,769	1,559
Gross profit	378	408	436	394
Other (charges) gains, net	(1 )	2	20	(6 )
Operating profit (loss)	243	259	310	(54 ) <sup>(2)</sup>
Earnings (loss) from continuing operations before tax	273	352	347	(31 )
Amounts attributable to Celanese Corporation				
Earnings (loss) from continuing operations	196	259	258	(82 )
Earnings (loss) from discontinued operations	—	—	(5 )	(2 )
Net earnings (loss)	196	259	253	(84 )
Net earnings (loss) per share — basic	1.25	1.66	1.64	(0.55 )
Net earnings (loss) per share — diluted	1.25	1.66	1.63	(0.55 )

<sup>(1)</sup> Includes \$174 million recorded in connection with terminating our existing agreement with a raw materials supplier in Singapore in December 2015, and \$123 million of long-lived impairment losses to fully write-off certain ethanol related assets at our acetyl facility in Nanjing, China. See Note 18 - Other (Charges) Gains, Net in the accompanying consolidated financial statements for further information.

<sup>(2)</sup> Includes \$126 million and \$349 million of net actuarial losses related to defined benefit pension, other postretirement and postemployment obligations in 2015 and 2014, respectively. See Note 15 - Benefit Obligations in the accompanying consolidated financial statements for further information.

Table of Contents

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this Annual Report. Based on that evaluation, as of December 31, 2015, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures are effective.

Changes in Internal Control Over Financial Reporting

During the three months ended December 31, 2015, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Management on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting for external purposes in accordance with accounting principles generally accepted in the United States of America. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our consolidated financial statements; providing reasonable assurance that receipts and expenditures of company assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our consolidated financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our consolidated financial statements would be prevented or detected.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2015. The Company's independent registered public accounting firm, KPMG LLP, has issued an audit report on the effectiveness of the Company's internal control over financial reporting. Their report follows.

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Celanese Corporation:

We have audited Celanese Corporation and subsidiaries' (the "Company") internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management 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, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included 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 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated 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 consolidated 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 consolidated financial statements.

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for each of the years in the three-year period ended December 31, 2015, and our report dated February 5, 2016 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Dallas, Texas

February 5, 2016

Table of Contents

## Item 9B. Other Information

None.

## PART III

## Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item 10 is incorporated herein by reference from the sections captioned "Governance - Item 1: Election of Directors," "Governance" and "Stock Ownership - Section 16(a) Beneficial Ownership Reporting Compliance" of the Company's definitive proxy statement for the 2016 annual meeting of stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "2016 Proxy Statement"). Information about executive officers of the Company is contained in Part I of this Annual Report.

## Codes of Ethics

The Company has adopted a Business Conduct Policy for directors, officers and employees along with a Financial Code of Ethics for its principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. These codes are available on the corporate governance portal of the Company's investor relations website at <http://www.celanese.com>. The Company intends to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to and waivers from these codes by posting such information on the same website.

## Item 11. Executive Compensation

The information required by this Item 11 is incorporated herein by reference from the subsections of "Executive Compensation" captioned "Compensation Discussion and Analysis," "Risk Assessment," "Compensation and Management Development Committee Report," "Compensation Committee Interlocks and Insider Participation" and "Compensation Tables" of the 2016 Proxy Statement.

## Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information with respect to beneficial ownership required by this Item 12 is incorporated herein by reference from the section captioned "Stock Ownership - Principal Stockholders and Beneficial Owners" of the 2016 Proxy Statement.

## Equity Compensation Plans

## Securities Authorized for Issuance Under Equity Compensation Plans

The following information is provided as of December 31, 2015 with respect to equity compensation plans:

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))	
	(a)	(b)	(c)	
Equity compensation plans approved by security holders	2,736,369	(1) \$37.60	20,894,686	(2)
Equity compensation plans not approved by security holders <sup>(3)</sup>	94,500	\$31.25	—	
Total	2,830,869		20,894,686	

(1) Includes 2,581,706 restricted stock units ("RSUs") granted under the Celanese Corporation 2009 Global Incentive Plan, as amended and restated April 19, 2012 (the "2009 Plan"), including shares that may be issued pursuant to outstanding performance-based RSUs, assuming currently estimated maximum potential performance; actual shares may vary, depending on actual performance. If the performance-based RSUs included in this total vest at the target performance level (as opposed to the maximum potential performance), the aggregate awards outstanding

would be 1,505,242.

62

---



Table of Contents

Upon vesting, a share of the Company's Series A common stock, par value \$0.0001 per share ("Common Stock"), is issued for each restricted stock unit. Column (b) does not take these awards into account because they do not have an exercise price.

Includes shares available for future issuance under the Celanese Corporation 2009 Employee Stock Purchase Plan approved by stockholders on April 23, 2009 (the "ESPP"). As of December 31, 2015, an aggregate of 13,944,760 (2) shares of our Common Stock were available for future issuance under the ESPP. Beginning January 1, 2015, eligible US employees could purchase shares of our Common Stock under the ESPP. As of December 31, 2015, 55,240 shares have been offered for purchase under the ESPP.

The stock options to be issued under plans not approved by stockholders relate to the Celanese Corporation 2004 Stock Incentive Plan (the "2004 Plan"), which is our former broad-based stock incentive plan for executive officers, key employees and directors. No further awards were made pursuant to the 2004 Plan upon stockholder (3) approval of the 2009 Plan in April 2009. Additionally, there are 35,289 shares of phantom stock for compensation for director services deferred by certain of our non-employee directors under the 2008 Deferred Compensation Plan, which are not reflected in column (a). Each share of phantom stock represents the right to receive one share of Common Stock.

#### Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item 13 is incorporated herein by reference from the section captioned "Governance — Director Independence" and "Governance — Certain Relationships and Related Person Transactions" of the 2016 Proxy Statement.

#### Item 14. Principal Accounting Fees and Services

The information required by this Item 14 is incorporated herein by reference from the section captioned "Audit Matters — Item 3: Ratification of Independent Registered Public Accounting Firm" of the 2016 Proxy Statement.

#### PART IV

#### Item 15. Exhibits, Financial Statement Schedules

1. Financial Statements. The report of our independent registered public accounting firm and our consolidated financial statements are listed below and begin on page 67 of this Annual Report on Form 10-K.

	Page Number
<u>Report of Independent Registered Public Accounting Firm</u>	<u>67</u>
<u>Consolidated Statements of Operations</u>	<u>68</u>
<u>Consolidated Statements of Comprehensive Income (Loss)</u>	<u>69</u>
<u>Consolidated Balance Sheets</u>	<u>70</u>
<u>Consolidated Statements of Equity</u>	<u>71</u>
<u>Consolidated Statements of Cash Flows</u>	<u>72</u>
<u>Notes to the Consolidated Financial Statements</u>	<u>73</u>

2. Financial Statement Schedules.

The financial statement schedules required by this item, if any, are included as Exhibits to this Annual Report on Form 10-K.

3. Exhibit List.

See Index to Exhibits following our consolidated financial statements contained in this Annual Report on Form 10-K.

Table of Contents

## SIGNATURES

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

CELANESE CORPORATION

By: /s/ MARK C. ROHR  
 Name: Mark C. Rohr  
 Title: Chairman of the Board of Directors and  
 Chief Executive Officer

Date: February 5, 2016

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Christopher W. Jensen his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution to sign in his or her name, place and stead, in any and all capacities, to do any and all things and execute any and all instruments that any such attorney-in-fact may deem necessary or advisable under the Securities Exchange Act of 1934 and any rules, regulations and requirements of the US Securities and Exchange Commission in connection with the Annual Report on Form 10-K for the fiscal year ended December 31, 2015 and any and all amendments hereto, as fully for all intents and purposes as he or she might or could do in person, and hereby ratifies and confirms all that such said attorney-in-fact, acting alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ MARK C. ROHR Mark C. Rohr	Director, Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)	February 5, 2016
/s/ CHRISTOPHER W. JENSEN Christopher W. Jensen	Senior Vice President, Finance (Principal Accounting Officer) and Chief Financial Officer (Principal Financial Officer)	February 5, 2016
/s/ JAMES E. BARLETT James E. Barlett	Director	February 5, 2016
/s/ JEAN S. BLACKWELL Jean S. Blackwell	Director	February 5, 2016
/s/ WILLIAM M. BROWN William M. Brown	Director	February 5, 2016
/s/ EDWARD G. GALANTE Edward G. Galante	Director	February 5, 2016
/s/ KATHRYN M. HILL Kathryn M. Hill	Director	February 5, 2016



Table of Contents

Signature	Title	Date
/s/ DAVID F. HOFFMEISTER David F. Hoffmeister	Director	February 5, 2016
/s/ JAY V. IHLENFELD Jay V. Ihlenfeld	Director	February 5, 2016
/s/ FARAH M. WALTERS Farah M. Walters	Director	February 5, 2016
/s/ JOHN K. WULFF John K. Wulff	Director	February 5, 2016

65

---

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	Page Number
<u>Report of Independent Registered Public Accounting Firm</u>	<u>67</u>
<u>Consolidated Statements of Operations for the years ended December 31, 2015, 2014 and 2013</u>	<u>68</u>
<u>Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2015, 2014 and 2013</u>	<u>69</u>
<u>Consolidated Balance Sheets as of December 31, 2015 and 2014</u>	<u>70</u>
<u>Consolidated Statements of Equity for the years ended December 31, 2015, 2014 and 2013</u>	<u>71</u>
<u>Consolidated Statements of Cash Flows for the years ended December 31, 2015, 2014 and 2013</u>	<u>72</u>
<u>Notes to the Consolidated Financial Statements</u>	<u>73</u>
<u>1. Description of the Company and Basis of Presentation</u>	<u>73</u>
<u>2. Summary of Accounting Policies</u>	<u>73</u>
<u>3. Recent Accounting Pronouncements</u>	<u>82</u>
<u>4. Acquisitions, Dispositions and Plant Closures</u>	<u>82</u>
<u>5. Ventures and Variable Interest Entities</u>	<u>84</u>
<u>6. Marketable Securities, at Fair Value</u>	<u>86</u>
<u>7. Receivables, Net</u>	<u>86</u>
<u>8. Inventories</u>	<u>86</u>
<u>9. Investments in Affiliates</u>	<u>86</u>
<u>10. Property, Plant and Equipment, Net</u>	<u>88</u>
<u>11. Goodwill and Intangible Assets, Net</u>	<u>89</u>
<u>12. Current Other Liabilities</u>	<u>91</u>
<u>13. Noncurrent Other Liabilities</u>	<u>92</u>
<u>14. Debt</u>	<u>93</u>
<u>15. Benefit Obligations</u>	<u>97</u>
<u>16. Environmental</u>	<u>107</u>
<u>17. Stockholders' Equity</u>	<u>109</u>
<u>18. Other (Charges) Gains, Net</u>	<u>111</u>
<u>19. Income Taxes</u>	<u>113</u>
<u>20. Management Compensation Plans</u>	<u>117</u>
<u>21. Leases</u>	<u>119</u>
<u>22. Derivative Financial Instruments</u>	<u>120</u>
<u>23. Fair Value Measurements</u>	<u>122</u>
<u>24. Commitments and Contingencies</u>	<u>124</u>
<u>25. Supplemental Cash Flow Information</u>	<u>125</u>
<u>26. Segment Information</u>	<u>126</u>
<u>27. Earnings (Loss) Per Share</u>	<u>128</u>
<u>28. Consolidating Guarantor Financial Information</u>	<u>129</u>

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
Celanese Corporation:

We have audited the accompanying consolidated balance sheets of Celanese Corporation and subsidiaries (the "Company") as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows for each of the years in the three-year period ended December 31, 2015. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements 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 consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

We also have 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, 2015, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 5, 2016 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

Dallas, Texas  
February 5, 2016

67

---

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions, except share and per share data)		
Net sales	5,674	6,802	6,510
Cost of sales	(4,356	) (5,186	) (5,145
Gross profit	1,318	1,616	1,365
Selling, general and administrative expenses	(506	) (758	) (311
Amortization of intangible assets	(11	) (20	) (32
Research and development expenses	(119	) (86	) (85
Other (charges) gains, net	(351	) 15	) (158
Foreign exchange gain (loss), net	4	(2	) (6
Gain (loss) on disposition of businesses and assets, net	(9	) (7	) 735
Operating profit (loss)	326	758	1,508
Equity in net earnings (loss) of affiliates	181	246	180
Interest expense	(119	) (147	) (172
Refinancing expense	—	(29	) (1
Interest income	1	1	1
Dividend income - cost investments	107	116	93
Other income (expense), net	(8	) (4	) —
Earnings (loss) from continuing operations before tax	488	941	1,609
Income tax (provision) benefit	(201	) (314	) (508
Earnings (loss) from continuing operations	287	627	1,101
Earnings (loss) from operation of discontinued operations	(3	) (11	) —
Gain (loss) on disposition of discontinued operations	—	—	—
Income tax (provision) benefit from discontinued operations	1	4	—
Earnings (loss) from discontinued operations	(2	) (7	) —
Net earnings (loss)	285	620	1,101
Net (earnings) loss attributable to noncontrolling interests	19	4	—
Net earnings (loss) attributable to Celanese Corporation	304	624	1,101
Amounts attributable to Celanese Corporation			
Earnings (loss) from continuing operations	306	631	1,101
Earnings (loss) from discontinued operations	(2	) (7	) —
Net earnings (loss)	304	624	1,101
Earnings (loss) per common share - basic			
Continuing operations	2.03	4.07	6.93
Discontinued operations	(0.01	) (0.04	) —
Net earnings (loss) - basic	2.02	4.03	6.93
Earnings (loss) per common share - diluted			
Continuing operations	2.01	4.04	6.91
Discontinued operations	(0.01	) (0.04	) —
Net earnings (loss) - diluted	2.00	4.00	6.91
Weighted average shares - basic	150,838,050	155,012,370	158,801,150
Weighted average shares - diluted	152,287,955	156,166,993	159,334,219

See the accompanying notes to the consolidated financial statements.





Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Net earnings (loss)	285	620	1,101
Other comprehensive income (loss), net of tax			
Unrealized gain (loss) on marketable securities	—	1	1
Foreign currency translation	(188	) (148	) 20
Gain (loss) on cash flow hedges	2	40	6
Pension and postretirement benefits	3	(54	) 58
Total other comprehensive income (loss), net of tax	(183	) (161	) 85
Total comprehensive income (loss), net of tax	102	459	1,186
Comprehensive (income) loss attributable to noncontrolling interests	19	4	—
Comprehensive income (loss) attributable to Celanese Corporation	121	463	1,186

See the accompanying notes to the consolidated financial statements.

Table of Contents
**CELANESE CORPORATION AND SUBSIDIARIES  
 CONSOLIDATED BALANCE SHEETS**

	As of December 31,	
	2015	2014
	(In \$ millions, except share data)	
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents (variable interest entity restricted - 2015: \$7; 2014: \$1)	967	780
Trade receivables - third party and affiliates (net of allowance for doubtful accounts - 2015: \$6; 2014: \$9; variable interest entity restricted - 2015: \$6; 2014: \$0)	706	801
Non-trade receivables, net	285	241
Inventories	682	782
Deferred income taxes	68	29
Marketable securities, at fair value	30	32
Other assets	49	33
Total current assets	2,787	2,698
Investments in affiliates	838	876
Property, plant and equipment (net of accumulated depreciation - 2015: \$2,039; 2014: \$1,816; variable interest entity restricted - 2015: \$772; 2014: \$530)	3,609	3,733
Deferred income taxes	222	253
Other assets (variable interest entity restricted - 2015: \$13; 2014: \$29)	300	355
Goodwill	705	749
Intangible assets, net (variable interest entity restricted - 2015: \$27; 2014: \$0)	125	132
Total assets	8,586	8,796
<b>LIABILITIES AND EQUITY</b>		
Current Liabilities		
Short-term borrowings and current installments of long-term debt - third party and affiliates	513	137
Trade payables - third party and affiliates	587	757
Other liabilities	330	432
Deferred income taxes	30	7
Income taxes payable	90	5
Total current liabilities	1,550	1,338
Long-term debt, net of unamortized deferred financing costs	2,468	2,586
Deferred income taxes	136	141
Uncertain tax positions	167	159
Benefit obligations	1,189	1,211
Other liabilities	247	283
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock, \$0.01 par value, 100,000,000 shares authorized (2015 and 2014: 0 issued and outstanding)	—	—
Series A common stock, \$0.0001 par value, 400,000,000 shares authorized (2015: 166,698,787 issued and 146,782,297 outstanding; 2014: 166,169,335 issued and 152,902,710 outstanding)	—	—
Series B common stock, \$0.0001 par value, 100,000,000 shares authorized (2015 and 2014: 0 issued and outstanding)	—	—
Treasury stock, at cost (2015: 19,916,490 shares; 2014: 13,266,625 shares)	(1,031)	(611)

Edgar Filing: Celanese Corp - Form 10-K

Additional paid-in capital	136	103	
Retained earnings	3,621	3,491	
Accumulated other comprehensive income (loss), net	(348	) (165	)
Total Celanese Corporation stockholders' equity	2,378	2,818	
Noncontrolling interests	451	260	
Total equity	2,829	3,078	
Total liabilities and equity	8,586	8,796	

See the accompanying notes to the consolidated financial statements.

70

---

Table of Contents
**CELANESE CORPORATION AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF EQUITY**

	Year Ended December 31,		2013		
	2015	2014	2013	2013	
	Shares	Amount	Shares	Amount	Amount
	(In \$ millions, except share data)				
<b>Series A Common Stock</b>					
Balance as of the beginning of the period	152,902,710	—	156,939,828	—	159,642,401
Stock option exercises	94,147	—	202,121	—	283,682
Purchases of treasury stock	(6,649,865 )	—	(4,338,488 )	—	(3,192,201 )
Stock awards	435,305	—	99,249	—	205,946
Balance as of the end of the period	146,782,297	—	152,902,710	—	156,939,828
<b>Treasury Stock</b>					
Balance as of the beginning of the period	13,266,625	(611 )	8,928,137	(361 )	23,986,836
Purchases of treasury stock, including related fees	6,649,865	(420 )	4,338,488	(250 )	3,192,201
Retirement of treasury stock	—	—	—	—	(18,250,900 )
Balance as of the end of the period	19,916,490	(1,031 )	13,266,625	(611 )	8,928,137
<b>Additional Paid-In Capital</b>					
Balance as of the beginning of the period		103		53	731
Retirement of treasury stock		—		—	(708 )
Stock-based compensation, net of tax		28		43	19
Stock option exercises, net of tax		5		7	11
Balance as of the end of the period		136		103	53
<b>Retained Earnings</b>					
Balance as of the beginning of the period		3,491		3,011	1,993
Net earnings (loss) attributable to Celanese Corporation		304		624	1,101
Series A common stock dividends		(174 )		(144 )	(83 )
Balance as of the end of the period		3,621		3,491	3,011
<b>Accumulated Other Comprehensive Income (Loss), Net</b>					
Balance as of the beginning of the period		(165 )		(4 )	(89 )
Other comprehensive income (loss), net of tax		(183 )		(161 )	85
Balance as of the end of the period		(348 )		(165 )	(4 )
<b>Total Celanese Corporation stockholders' equity</b>		<b>2,378</b>		<b>2,818</b>	<b>2,699</b>
<b>Noncontrolling Interests</b>					
Balance as of the beginning of the period		260		—	—
Net earnings (loss) attributable to noncontrolling interests		(19 )		(4 )	—
Contributions from noncontrolling interests		210		264	—
Balance as of the end of the period		451		260	—
<b>Total equity</b>		<b>2,829</b>		<b>3,078</b>	<b>2,699</b>

See the accompanying notes to the consolidated financial statements.



Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Operating Activities			
Net earnings (loss)	285	620	1,101
Adjustments to reconcile net earnings (loss) to net cash provided by (used in) operating activities			
Asset impairments	126	—	81
Depreciation, amortization and accretion	363	298	319
Pension and postretirement net periodic benefit cost	(52)	(113)	(35)
Pension and postretirement contributions	(63)	(223)	(96)
Actuarial (gain) loss on pension and postretirement plans	127	350	(104)
Pension curtailments and settlements, net	(3)	(78)	(52)
Deferred income taxes, net	42	124	344
(Gain) loss on disposition of businesses and assets, net	8	8	(737)
Stock-based compensation	40	46	24
Undistributed earnings in unconsolidated affiliates	(5)	(98)	(39)
Other, net	7	24	13
Operating cash provided by (used in) discontinued operations	(2)	(5)	(4)
Changes in operating assets and liabilities			
Trade receivables - third party and affiliates, net	61	23	(23)
Inventories	62	(15)	(81)
Other assets	(17)	20	(110)
Trade payables - third party and affiliates	(111)	(13)	109
Other liabilities	(6)	(6)	52
Net cash provided by (used in) operating activities	862	962	762
Investing Activities			
Capital expenditures on property, plant and equipment	(232)	(254)	(277)
Acquisitions, net of cash acquired	(6)	(10)	—
Proceeds from sale of businesses and assets, net	4	—	13
Capital expenditures related to Kelsterbach plant relocation	—	—	(7)
Capital expenditures related to Fairway Methanol LLC	(288)	(424)	(93)
Other, net	(36)	(17)	(58)
Net cash provided by (used in) investing activities	(558)	(705)	(422)
Financing Activities			
Net change in short-term borrowings with maturities of 3 months or less	350	(9)	(11)
Proceeds from short-term borrowings	80	62	177
Repayments of short-term borrowings	(83)	(91)	(123)
Proceeds from long-term debt	—	387	74
Repayments of long-term debt	(24)	(626)	(198)
Purchases of treasury stock, including related fees	(420)	(250)	(164)
Stock option exercises	3	5	9
Series A common stock dividends	(174)	(144)	(83)
Contributions from noncontrolling interests	214	264	—
Other, net	(12)	(13)	(7)

Edgar Filing: Celanese Corp - Form 10-K

Net cash provided by (used in) financing activities	(66	) (415	) (326	)
Exchange rate effects on cash and cash equivalents	(51	) (46	) 11	
Net increase (decrease) in cash and cash equivalents	187	(204	) 25	
Cash and cash equivalents as of beginning of period	780	984	959	
Cash and cash equivalents as of end of period	967	780	984	

See the accompanying notes to the consolidated financial statements.

72

---

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Description of the Company and Basis of Presentation

Description of the Company

Celanese Corporation and its subsidiaries (collectively, the "Company") is a global technology and specialty materials company. The Company's business involves processing chemical raw materials, such as methanol, carbon monoxide and ethylene, and natural products, including wood pulp, into value-added chemicals, thermoplastic polymers and other chemical-based products.

Definitions

In this Annual Report on Form 10-K ("Annual Report"), the term "Celanese" refers to Celanese Corporation, a Delaware corporation, and not its subsidiaries. The term "Celanese US" refers to the Company's subsidiary, Celanese US Holdings LLC, a Delaware limited liability company, and not its subsidiaries.

Basis of Presentation

The consolidated financial statements contained in this Annual Report were prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP") for all periods presented and include the accounts of the Company, its majority owned subsidiaries over which the Company exercises control and, when applicable, variable interest entities in which the Company is the primary beneficiary. The consolidated financial statements and other financial information included in this Annual Report, unless otherwise specified, have been presented to separately show the effects of discontinued operations.

In the ordinary course of business, the Company enters into contracts and agreements relative to a number of topics, including acquisitions, dispositions, joint ventures, supply agreements, product sales and other arrangements. The Company endeavors to describe those contracts or agreements that are material to its business, results of operations or financial position. The Company may also describe some arrangements that are not material but in which the Company believes investors may have an interest or which may have been included in a Form 8-K filing. Investors should not assume the Company has described all contracts and agreements relative to the Company's business in this Annual Report.

For those consolidated ventures in which the Company owns or is exposed to less than 100% of the economics, the outside stockholders' interests are shown as noncontrolling interests.

The Company has reclassified certain prior period amounts to conform to the current period's presentation.

2. Summary of Accounting Policies

Consolidation Principles

The consolidated financial statements have been prepared in accordance with US GAAP for all periods presented and include the accounts of the Company and its majority owned subsidiaries over which the Company exercises control. All intercompany accounts and transactions have been eliminated in consolidation.

Estimates and Assumptions

The preparation of consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of net sales, expenses and allocated charges during the reporting period. Significant estimates pertain to impairments of goodwill, intangible assets and other long-lived assets, purchase price allocations, restructuring costs and other (charges) gains, net, income taxes, pension and other postretirement benefits, asset retirement obligations, environmental liabilities and loss contingencies, among others. Actual results could differ from those estimates.



## Table of Contents

### Fair Value Measurements

The Company determines fair value based on the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, the Company considers assumptions that market participants would use when pricing the asset or liability. Market participant assumptions are categorized by a three-tiered fair value hierarchy which prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. If a financial instrument uses inputs that fall in different levels of the hierarchy, the instrument will be categorized based upon the lowest level of input that is significant to the fair value calculation. Valuations for fund investments, such as common/collective trusts, registered investment companies and short-term investment funds, which do not have readily determinable fair values, are typically estimated using a net asset value provided by a third party as a practical expedient.

The levels of inputs used to measure fair value are as follows:

Level 1 - unadjusted quoted prices for identical assets or liabilities in active markets accessible by the Company

Level 2 - inputs that are observable in the marketplace other than those inputs classified as Level 1

Level 3 - inputs that are unobservable in the marketplace and significant to the valuation

### Purchase Accounting

The Company allocates the purchase price of its acquisitions to identifiable intangible assets acquired based on their estimated fair values. The excess of purchase price over the aggregate fair values are recorded as goodwill. Intangible assets are valued using the relief from royalty and discounted cash flow methodologies, which are considered Level 3 measurements. The relief from royalty method estimates the Company's theoretical royalty savings from ownership of the intangible asset. Key assumptions used in this model include discount rates, royalty rates, growth rates, sales projections and terminal value rates, all of which require significant management judgment and, therefore, are susceptible to change. The key assumptions used in the discounted cash flow valuation model include discount rates, growth rates, cash flow projections and terminal value rates. Discount rates, growth rates and cash flow projections are the most sensitive and susceptible to change as they require significant management judgment. The Company calculates the fair value of the intangible assets acquired to allocate the purchase price at the acquisition date. The Company may use the assistance of third-party valuation consultants.

### Cash and Cash Equivalents

All highly liquid investments with original maturities of three months or less are considered cash equivalents.

### Allowance for Doubtful Accounts

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. The Company believes, based on historical results, the likelihood of actual write-offs having a material impact on financial results is low. The allowance for doubtful accounts is estimated using factors such as customer credit ratings, past collection history and general risk profile. Receivables are charged against the allowance for doubtful accounts when it is probable that the receivable will not be recovered.

### Inventories

Inventories, including stores and supplies, are stated at the lower of cost or market. Cost for inventories is determined using the first-in, first-out ("FIFO") method. Cost includes raw materials, direct labor and manufacturing overhead. Cost for stores and supplies is primarily determined by the average cost method.

### Investments

#### ◆Marketable Securities

The cost of available-for-sale securities sold is determined using the specific identification method.

Table of Contents**Investments in Affiliates**

Investments where the Company can exercise significant influence over operating and financial policies of an investee, which is generally considered when an investor owns 20% or more of the voting stock of an investee, are accounted for under the equity method of accounting. Investments where the Company does not exercise significant influence are accounted for under the cost method of accounting. The Company determined it cannot exercise significant influence over certain investments where the Company owns greater than a 20% interest due to local government investment in and influence over these entities, limitations on the Company's involvement in the day-to-day operations and the present inability of the entities to provide timely financial information prepared in accordance with US GAAP. Accordingly, these investments are accounted for under the cost method of accounting. In certain instances, the financial information of the Company's equity investees is not available on a timely basis. Accordingly, the Company records its proportional share of the investee's earnings or losses on a consistent lag of no more than one quarter.

When required to assess the recoverability of its investments in affiliates, the Company estimates fair value using a discounted cash flow model. The Company may engage third-party valuation consultants to assist with this process.

**Property, Plant and Equipment, Net**

Land is recorded at historical cost. Buildings, machinery and equipment, including capitalized interest, and property under capital lease agreements, are recorded at cost less accumulated depreciation. The Company records depreciation and amortization in its consolidated statements of operations as either Cost of sales, Selling, general and administrative expenses or Research and development expenses consistent with the utilization of the underlying assets. Depreciation is calculated on a straight-line basis over the following estimated useful lives of depreciable assets:

Land improvements	20 years
Buildings and improvements	30 years
Machinery and equipment	20 years

Leasehold improvements are amortized over 10 years or the remaining life of the respective lease, whichever is shorter.

Accelerated depreciation is recorded when the estimated useful life is shortened. Ordinary repair and maintenance costs, including costs for planned maintenance turnarounds, that do not extend the useful life of the asset are charged to earnings as incurred. Fully depreciated assets are retained in property and depreciation accounts until sold or otherwise disposed. In the case of disposals, assets and related depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in earnings.

The Company assesses the recoverability of the carrying amount of its property, plant and equipment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. An impairment loss would be assessed when estimated undiscounted future cash flows from the operation and disposition of the asset group are less than the carrying amount of the asset group. Asset groups have identifiable cash flows and are largely independent of other asset groups. Measurement of an impairment loss is based on the excess of the carrying amount of the asset group over its fair value. The Company calculates the fair value using a discounted cash flow model incorporating discount rates commensurate with the risks involved for the asset group, which is classified as a Level 3 fair value measurement. The key assumptions used in the discounted cash flow valuation model include discount rates, growth rates, cash flow projections and terminal value rates. Discount rates, growth rates and cash flow projections involve significant judgment and are based on management's estimate of current and forecasted market conditions and cost structure. Impairment losses are generally recorded to Other (charges) gains, net in the consolidated statements of operations.

**Goodwill and Intangible Assets, Net**

The Company assesses the recoverability of the carrying amount of its reporting unit goodwill and indefinite-lived intangible assets either qualitatively or quantitatively annually during the third quarter of its fiscal year using June 30 balances or whenever events or changes in circumstances indicate that the carrying amount of the asset may not be fully recoverable. The Company assesses the recoverability of finite-lived intangible assets in the same manner as for property, plant and equipment. Impairment losses are generally recorded to Other (charges) gains, net in the

consolidated statements of operations.

75

---

Table of Contents**Goodwill**

Recoverability of the carrying amount of goodwill is measured at the reporting unit level. In performing a quantitative analysis, the Company measures the recoverability of goodwill for each reporting unit using a discounted cash flow model incorporating discount rates commensurate with the risks involved, which is classified as a Level 3 fair value measurement. The key assumptions used in the discounted cash flow valuation model include discount rates, growth rates, tax rates, cash flow projections and terminal value rates. Discount rates, growth rates and cash flow projections are the most sensitive and susceptible to change as they require significant management judgment. Discount rates used are similar to the rates estimated by the weighted average cost of capital ("WACC") considering any differences in company-specific risk factors. The Company may engage third-party valuation consultants to assist with this process.

**Indefinite-lived Intangible Assets**

Management tests indefinite-lived intangible assets for impairment quantitatively utilizing the relief from royalty method under the income approach to determine the estimated fair value for each indefinite-lived intangible asset, which is classified as a Level 3 fair value measurement. The relief from royalty method estimates the Company's theoretical royalty savings from ownership of the intangible asset. The key assumptions used in this model include discount rates, royalty rates, growth rates, tax rates, sales projections and terminal value rates. Discount rates, royalty rates, growth rates and sales projections are the assumptions most sensitive and susceptible to change as they require significant management judgment. Discount rates used are similar to the rates estimated by the WACC considering any differences in company-specific risk factors. Royalty rates are established by management and are periodically substantiated by third-party valuation consultants.

**Definite-lived Intangible Assets**

Customer-related intangible assets and other intangible assets with finite lives are amortized on a straight-line basis over their estimated useful lives, which range from four to 20 years.

**Derivative and Hedging Instruments**

The Company manages its exposures to interest rates, foreign exchange rates and commodity prices through a risk management program that includes the use of derivative financial instruments. The Company does not use derivative financial instruments for speculative trading purposes. The fair value of all derivative instruments is recorded as an asset or liability on a net basis at the balance sheet date.

**Interest Rate Risk Management**

To reduce the interest rate risk inherent in the Company's variable rate debt, the Company utilizes interest rate swap agreements to convert a portion of its variable rate borrowings into a fixed rate obligation. These interest rate swap agreements fix the London Interbank Offered Rate ("LIBOR") portion of the Company's US dollar denominated variable rate borrowings. Prior to December 2014, all or a portion of these interest rate swap agreements were designated as cash flow hedges. Accordingly, to the extent the cash flow hedge was effective, changes in the fair value of interest rate swaps were included in gain (loss) from cash flow hedges within Accumulated other comprehensive income (loss), net in the consolidated balance sheets. Hedge accounting is discontinued when the interest rate swap is no longer effective in offsetting cash flows attributable to the hedged risk, the interest rate swap expires or the cash flow hedge is dedesignated because it is no longer probable that the forecasted transaction will occur according to the original strategy. In December 2014, the Company dedesignated as cash flow hedges a notional value of \$500 million US dollar interest rate swap agreements expiring January 2, 2016. When a cash flow hedge is dedesignated and it is probable that the forecasted transaction will not occur, any related amounts previously included in Accumulated other comprehensive income (loss), net would be reclassified to earnings immediately. Mark-to-market adjustments on dedesignated interest rate swap agreements are included in Interest expense in the consolidated statements of operations through their expiration.

**Foreign Exchange Risk Management**

Certain subsidiaries of the Company have assets and liabilities denominated in currencies other than their respective functional currencies, which creates foreign exchange risk. The Company also is exposed to foreign currency fluctuations on transactions with third-party entities as well as intercompany transactions. The Company minimizes its exposure to foreign currency fluctuations by entering into foreign currency forwards and swaps. These foreign currency forwards and swaps are not designated as hedges. Gains and losses on foreign currency forwards and swaps

entered into to offset foreign exchange impacts on intercompany balances are included in Other income (expense), net in the consolidated statements of operations. Gains and

76

---

Table of Contents

losses on foreign currency forwards and swaps entered into to offset foreign exchange impacts on all other assets and liabilities are included in Foreign exchange gain (loss), net in the consolidated statements of operations.

The Company uses non-derivative financial instruments that may give rise to foreign currency transaction gains or losses to hedge the foreign currency exposure of net investments in foreign operations. Accordingly, the effective portion of gains and losses from remeasurement of the non-derivative financial instrument is included in foreign currency translation within Accumulated other comprehensive income (loss), net in the consolidated balance sheets. Gains and losses are reclassified to earnings in the period the hedged investment is sold or liquidated.

Prior to March 2015, the Company used cross-currency swap contracts to hedge its exposure to foreign currency exchange rate risk associated with certain intercompany loans. Under the terms of the contracts, the Company would have exchanged Euro fixed interest for US dollar fixed interest and at maturity would have exchanged Euro notional values for US dollar notional values. The terms of the contracts corresponded to the related hedged intercompany loans. The cross-currency swap contracts were designated as cash flow hedges. Accordingly, the effective portion of the unrealized gains and losses on the contracts was included in gain (loss) from cash flow hedges within Accumulated other comprehensive income (loss), net in the consolidated balance sheets. Gains and losses were reclassified to Interest expense in the consolidated statements of operations over the period that the hedged loans affected earnings. The Euro notional values were marked-to-market based on the current spot rate and gains and losses from remeasurement of the Euro notional values, as well as the foreign exchange impact on the intercompany loans, were included in Other income (expense), net in the consolidated statements of operations. In March 2015, the Company settled its cross-currency swap agreements.

**Commodity Risk Management**

The Company has exposure to the prices of commodities in its procurement of certain raw materials. The Company manages its exposure to commodity risk primarily through the use of long-term supply agreements, multi-year purchasing and sales agreements and forward purchase contracts. The Company regularly assesses its practice of using forward purchase contracts and other raw material hedging instruments in accordance with changes in economic conditions. Forward purchases and swap contracts for raw materials are principally settled through physical delivery of the commodity. For qualifying contracts, the Company has elected to apply the normal purchases and normal sales exception based on the probability at the inception and throughout the term of the contract that the Company would not net settle and the transaction would result in the physical delivery of the commodity. Accordingly, realized gains and losses on these contracts are included in the cost of the commodity upon the settlement of the contract.

**Insurance Loss Reserves**

The Company has two wholly-owned insurance companies (the "Captives") that are used as a form of self-insurance for liability and workers compensation risks. Capitalization of the Captives is determined by regulatory guidelines. Premiums written are recognized as revenue based on policy periods. One of the Captives also insures certain third-party risks. The Captives use reinsurance arrangements to reduce their risks, however these arrangements do not relieve the Captives from their obligations to policyholders. The financial condition of the Captives' reinsurers are monitored to minimize exposure to insolvencies. However, failure of the reinsurers to honor their obligations could result in losses to the Captives.

Claim reserves are established when sufficient information is available to indicate a specific policy is involved and the Company can reasonably estimate its liability. These reserves are based on management estimates and periodic actuarial valuations. In addition, reserves have been established to cover exposures for both known and unreported claims. Estimates of these liabilities are reviewed and updated regularly, however it is possible that actual results could differ significantly from the recorded liabilities.

**Asset Retirement Obligations**

Periodically, the Company will conclude a site no longer has an indeterminate life based on long-lived asset impairment triggering events and decisions made by the Company. Accordingly, the Company will record asset retirement obligations associated with such sites. To measure the fair value of the asset retirement obligations, the Company will use the expected present value technique, which is classified as a Level 3 fair value measurement. The expected present value technique uses a set of cash flows that represent the probability-weighted average of all possible cash flows based on the Company's judgment. The Company uses the following inputs to determine the fair

value of the asset retirement obligations based on the Company's experience with fulfilling obligations of this type and the Company's knowledge of market conditions: (a) labor costs; (b) allocation of overhead costs; (c) profit on labor and overhead costs; (d) effect of inflation on estimated costs and profits; (e) risk premium for bearing the uncertainty inherent in cash flows, other than inflation; (f) time value of money represented by the risk-free interest rate commensurate with the timing of the associated cash flows; and (g) nonperformance risk relating to

Table of Contents

the liability, which includes the Company's own credit risk. The asset retirement obligations are accreted to their undiscounted values until the time at which they are expected to be settled.

The Company has identified but not recognized asset retirement obligations related to certain of its existing operating facilities. Examples of these types of obligations include demolition, decommissioning, disposal and restoration activities. Legal obligations exist in connection with the retirement of these assets upon closure of the facilities or abandonment of the existing operations. However, the Company currently plans on continuing operations at these facilities indefinitely and therefore, a reasonable estimate of fair value cannot be determined at this time. In the event the Company considers plans to abandon or cease operations at these sites, an asset retirement obligation will be reassessed at that time. If certain operating facilities were to close, the related asset retirement obligations could significantly affect the Company's results of operations and cash flows.

**Environmental Liabilities**

The Company manufactures and sells a diverse line of chemical products throughout the world. Accordingly, the Company's operations are subject to various hazards incidental to the production of industrial chemicals including the use, handling, processing, storage and transportation of hazardous materials. The Company recognizes losses and accrues liabilities relating to environmental matters if available information indicates that it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Depending on the nature of the site, the Company accrues through 15 years, unless the Company has government orders or other agreements that extend beyond 15 years. The Company estimates environmental liabilities on a case-by-case basis using the most current status of available facts, existing technology, presently enacted laws and regulations and prior experience in remediation of contaminated sites. Recoveries of environmental costs from other parties are recorded as assets when their receipt is deemed probable.

An environmental reserve related to cleanup of a contaminated site might include, for example, a provision for one or more of the following types of costs: site investigation and testing costs, cleanup costs, costs related to soil and water contamination resulting from tank ruptures and post-remediation monitoring costs. These undiscounted reserves do not take into account any claims or recoveries from insurance. The measurement of environmental liabilities is based on the Company's periodic estimate of what it will cost to perform each of the elements of the remediation effort. The Company utilizes third parties to assist in the management and development of cost estimates for its sites. Changes to environmental regulations or other factors affecting environmental liabilities are reflected in the consolidated financial statements in the period in which they occur.

**Deferred Financing Costs**

Deferred financing costs are amortized using a method that approximates the effective interest rate method over the term of the related debt into Interest expense in the consolidated statements of operations. Upon the extinguishment of the related debt, any unamortized deferred financing costs are immediately expensed and included in Refinancing expense in the consolidated statements of operations. Upon the modification of the related debt, a portion of unamortized deferred financing costs may be immediately expensed and included in Refinancing expense in the consolidated statements of operations. Direct costs of refinancing activities are immediately expensed and included in Refinancing expense in the consolidated statements of operations.

**Pension and Other Postretirement Obligations**

The Company recognizes a balance sheet asset or liability for each of its pension and other postretirement benefit plans equal to the plan's funded status as of a December 31 measurement date. The amounts recognized in the consolidated financial statements related to pension and other postretirement benefits are determined on an actuarial basis. Various assumptions are used in the calculation of the actuarial valuation of the employee benefit plans. These assumptions include the discount rate, compensation levels, expected long-term rates of return on plan assets and trends in health care costs. In addition, actuarial consultants use factors such as withdrawal and mortality rates to estimate the projected benefit obligation.

The Company applies the long-term expected rate of return to the fair value of plan assets and immediately recognizes in operating results the change in fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each fiscal year and whenever a plan is required to be remeasured. Events requiring a plan remeasurement will be recognized in the quarter in which such remeasurement event occurs. The remaining components of pension



and other postretirement plan net periodic benefit costs are recorded on a quarterly basis. The Company allocates the service cost and amortization of prior service cost (or credit) components of its pension and postretirement plans to its business segments. Interest cost, expected return on assets and net actuarial gains and losses are considered financing activities managed at the corporate level and are recorded to Other Activities. The Company believes the expense allocation appropriately matches the cost incurred for active employees to the respective business segment.

78

---

## Table of Contents

Other postretirement benefit plans provide medical and life insurance benefits to retirees who meet minimum age and service requirements. The key determinants of the accumulated postretirement benefit obligation ("APBO") are the discount rate and the health care cost trend rate.

### **Discount Rate**

As of the measurement date, the Company determines the appropriate discount rate used to calculate the present value of future cash flows currently expected to be required to settle the pension and other postretirement benefit obligations. The discount rate is generally based on the yield on high-quality corporate fixed-income securities. In the US, the rate used to discount pension and other postretirement benefit plan liabilities is based on a yield curve developed from market data of over 300 Aa-grade non-callable bonds at the measurement date. This yield curve has discount rates that vary based on the duration of the obligations. The estimated future cash flows for the pension and other benefit obligations were matched to the corresponding rates on the yield curve to derive a weighted average discount rate.

The Company determines its discount rates in the Euro zone using the iBoxx Euro Corporate AA Bond indices with appropriate adjustments for the duration of the plan obligations. In other international locations, the Company determines its discount rates based on the yields of high quality government bonds with a duration appropriate to the duration of the plan obligations.

### **Expected Long-Term Rate of Return on Assets**

The Company determines the long-term expected rate of return on plan assets by considering the current target asset allocation, as well as the historical and expected rates of return on various asset categories in which the plans are invested. A single long-term expected rate of return on plan assets is then calculated for each plan as the weighted average of the target asset allocation and the long-term expected rate of return assumptions for each asset category within each plan.

The expected rate of return is assessed annually and is based on long-term relationships among major asset classes and the level of incremental returns that can be earned by the successful implementation of different active investment management strategies. Equity returns are based on estimates of long-term inflation rate, real rate of return, 10-year Treasury bond premium over cash and historical equity risk premium. Fixed income returns are based on maturity, historical long-term inflation, real rate of return and credit spreads.

### **Investment Policies and Strategies**

The investment objectives for the Company's pension plans are to earn, over a moving twenty-year period, a long-term expected rate of return, net of investment fees and transaction costs, sufficient to satisfy the benefit obligations of the plan, while at the same time maintaining adequate liquidity to pay benefit obligations and proper expenses, and meet any other cash needs, in the short- to medium-term.

The equity and debt securities objectives are to provide diversified exposure across the US and global equity markets and to manage the risks and returns of the plans through the use of multiple managers and strategies. The fixed income strategy is designed to reduce liability-related interest rate risk by investing in bonds that match the duration and credit quality of the plan liabilities. Derivatives-based strategies may be used to mitigate investment risks.

The financial objectives of the qualified pension plans are established in conjunction with a comprehensive review of each plan's liability structure. The Company's asset allocation policy is based on detailed asset/liability analysis. In developing investment policy and financial goals, consideration is given to each plan's demographics, the returns and risks associated with current and alternative investment strategies and the current and projected cash, expense and funding ratios of each plan. Investment policies must also comply with local statutory requirements as determined by each country. A formal asset/liability study of each plan is undertaken every three to five years or whenever there has been a material change in plan demographics, benefit structure or funding status and investment market. The Company has adopted a long-term investment horizon such that the risk and duration of investment losses are weighed against the long-term potential for appreciation of assets. Although there cannot be complete assurance that these objectives will be realized, it is believed that the likelihood for their realization is reasonably high, based upon the asset allocation chosen and the historical and expected performance of the asset classes utilized by the plans. The intent is for investments to be broadly diversified across asset classes, investment styles, market sectors, investment managers, developed and emerging markets and securities in order to moderate portfolio volatility and risk.

Investments may be in separate accounts, commingled trusts, mutual funds and other pooled asset portfolios provided they all conform to fiduciary standards.

## Table of Contents

External investment managers are hired to manage pension assets. Investment consultants assist with the screening process for each new manager hired. Over the long-term, the investment portfolio is expected to earn returns that exceed a composite of market indices that are weighted to match each plan's target asset allocation. The portfolio return should also (over the long-term) meet or exceed the return used for actuarial calculations in order to meet the future needs of each plan.

### Commitments and Contingencies

Due to the inherent subjectivity of assessments and unpredictability of outcomes of legal proceedings, the Company's litigation accruals and estimates of possible loss or range of possible loss ("Possible Loss") may not represent the ultimate loss to the Company from legal proceedings. For reasonably possible loss contingencies that may be material, the Company estimates its Possible Loss when determinable, considering that the Company could incur no loss in certain matters.

For some matters, the Company is unable, at this time, to estimate its Possible Loss that is reasonably possible of occurring. Generally, the less progress that has been made in the proceedings or the broader the range of potential results, the more difficult it is for the Company to estimate the Possible Loss that is reasonably possible the Company could incur. The Company may disclose certain information related to a plaintiff's claim against the Company alleged in the plaintiff's pleadings or otherwise publicly available. While information of this type may provide insight into the potential magnitude of a matter, it does not necessarily represent the Company's estimate of reasonably possible or probable loss. Some of the Company's exposure in legal matters may be offset by applicable insurance coverage. The Company does not consider the possible availability of insurance coverage in determining the amounts of any accruals or any estimates of Possible Loss. Thus, the Company's exposure and ultimate losses may be higher or lower, and possibly materially so, than the Company's litigation accruals and estimates of Possible Loss.

### Revenue Recognition

The Company recognizes revenue when title and risk of loss have been transferred to the customer, generally at the time of shipment of products, and provided that four basic criteria are met: (a) persuasive evidence of an arrangement exists; (b) delivery has occurred or services have been rendered; (c) the fee is fixed or determinable; and (d) collectibility is reasonably assured. Shipping and handling fees billed to customers in a sales transaction are recorded in Net sales and shipping and handling costs incurred are recorded in Cost of sales.

### Research and Development

The costs of research and development are charged as an expense in the period in which they are incurred.

### Management Compensation Plans

Share-based compensation expense is measured at the grant date, based on the fair value of the award, and is recognized over the participant's requisite service period. Upon termination of a participant's employment with the Company by reason of death or disability, retirement or by the Company without cause (as defined in the respective award agreements), a prorated award will generally vest on the original vesting date. The prorated award is calculated based on the time lapsed between the grant date and the date of termination, reduced by awards previously vested. Upon the termination of a Participant's employment with the Company for any other reason, any unvested portion of the award shall be forfeited and canceled without consideration.

### Stock Options

The fair value of each option granted is estimated on the grant date using the Black-Scholes option pricing method. Stock option awards are granted with an exercise price equal to the average of the high and low price of the Company's Series A common stock, par value \$0.0001 per share ("Common Stock") on the grant date. Options issued under the 2009 Global Incentive Plan ("2009 GIP") have a term of seven years and vest on a graded basis over either three or four years. The computation of the expected volatility assumption used in the Black-Scholes calculations for new grants is based on the Company's historical volatilities. When establishing the expected life assumptions, the Company reviews annual historical employee exercise behavior of option grants with similar vesting periods. The estimated fair value of the Company's stock option awards less expected forfeitures is recognized over the vesting period of the respective grant on a straight-line basis.

Generally, vested stock options are exercised through a broker-assisted cashless exercise program. A broker-assisted cashless exercise is the simultaneous exercise of a stock option by an employee and a sale of the shares through a

broker. Authorized shares of the Company's Common Stock are used to settle stock options.

80

---

## Table of Contents

### Restricted Stock Units ("RSUs")

Performance-based RSUs. The Company generally grants performance-based RSUs to the Company's executive officers and certain employees annually in February. The Company may also grant performance-based RSUs to certain new employees or to employees who assume positions of increasing responsibility at the time those events occur. The fair value of the Company's performance-based RSUs with a performance condition is equal to the average of the high and low price of the Company's Common Stock on the grant date less the present value of the expected dividends not received during the vesting period. Performance-based RSUs generally vest in two equal tranches with the final tranche vesting three years from the grant date. Compensation expense for performance-based RSUs less estimated forfeitures is recognized over the vesting period of the respective grant based on the accelerated attribution method.

The number of performance-based RSUs that ultimately vest is dependent on the achievement of internal profitability targets (performance condition). Based on the achievement of internal profitability targets, the ultimate number of shares of the Company's Common Stock issued will range from zero to stretch, with stretch defined individually under each award, net of shares used to cover minimum statutory personal income taxes withheld. Performance-based RSUs are canceled to the extent actual results do not meet minimum internal profitability measures, as defined individually under each award.

Time-based RSUs. The Company grants non-employee Directors time-based RSUs annually that generally vest one year from the grant date. The Company also grants time-based RSUs to the Company's executives and certain employees that vest ratably over three years. The fair value of the time-based RSUs is equal to the average of the high and low price of the Company's Common Stock on the grant date less the present value of the expected dividends not received during the vesting period. Compensation expense for time-based RSUs less estimated forfeitures is recognized over the vesting period of the respective grant on a straight-line basis.

The Company's RSUs are net settled by withholding shares of the Company's Common Stock to cover minimum statutory income taxes and remitting the remaining shares of the Company's Common Stock to an individual brokerage account. Authorized shares of the Company's Common Stock are used to settle RSUs.

Under the 2009 GIP, the Company may not grant RSUs with the right to participate in dividends or dividend equivalents.

### Income Taxes

The provision for income taxes is determined using the asset and liability approach of accounting for income taxes. Under this approach, deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and net operating loss and tax credit carryforwards. The amount of deferred taxes on these temporary differences is determined using the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, as applicable, based on tax rates and laws in the respective tax jurisdiction enacted as of the balance sheet date. The Company reviews its deferred tax assets for recoverability and establishes a valuation allowance based on historical taxable income, projected future taxable income, applicable tax strategies and the expected timing of the reversals of existing temporary differences. A valuation allowance is provided when it is more likely than not (likelihood of greater than 50%) that some portion or all of the deferred tax assets will not be realized.

The Company considers many factors when evaluating and estimating its tax positions and tax benefits, which may require periodic adjustments and which may not accurately anticipate actual outcomes. Tax positions are recognized only when it is more likely than not (likelihood of greater than 50%), based on technical merits, that the positions will be sustained upon examination. Tax positions that meet the more-likely-than-not threshold are measured using a probability weighted approach as the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement. Whether the more-likely-than-not recognition threshold is met for a tax position is a matter of judgment based on the individual facts and circumstances of that position evaluated in light of all available evidence. The Company recognizes interest and penalties related to uncertain tax positions in Income tax (provision) benefit in the consolidated statements of operations.

### Functional and Reporting Currencies

For the Company's international operations where the functional currency is other than the US dollar, assets and liabilities are translated using period-end exchange rates, while the statement of operations amounts are translated using the average exchange rates for the respective period. Differences arising from the translation of assets and liabilities in comparison with the

81

---

Table of Contents

translation of the previous periods or from initial recognition during the period are included as a separate component of Accumulated other comprehensive income (loss), net.

### 3. Recent Accounting Pronouncements

In November 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2015-17, Balance Sheet Classification of Deferred Taxes ("ASU 2015-17"). ASU 2015-17 requires deferred tax liabilities and assets to be classified as noncurrent in a classified statement of financial position. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. Early adoption is permitted. The Company does not expect the impact of adopting this ASU to be material to the Company's financial statements and related disclosures.

In July 2015, the FASB issued ASU 2015-11, Simplifying the Measurement of Inventory ("ASU 2015-11"). ASU 2015-11 applies to inventory that is measured using the FIFO or average cost method and requires measurement of that 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. This ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2016. Early adoption is permitted. The Company does not expect the impact of adopting this ASU to be material to the Company's financial statements and related disclosures.

In May 2015, the FASB issued ASU 2015-07, Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent) ("ASU 2015-07"). ASU 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. This ASU also removes the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. Rather, such disclosures are limited to investments for which the entity has elected to measure the fair value using that practical expedient. This ASU is effective retrospectively for fiscal years, and interim periods within those years, beginning after December 15, 2015. Early adoption is permitted. The Company has elected to early adopt ASU 2015-07 in accordance with the FASB's disclosure simplification initiatives.

In April 2015, the FASB issued ASU 2015-03, Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs ("ASU 2015-03"). ASU 2015-03 requires debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying value of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by ASU 2015-03. The amendments in ASU 2015-03 require retrospective application and represent a change in accounting principle. The Company elected to early adopt ASU 2015-03 for the year ended December 31, 2015, and applied its provisions retrospectively. The adoption of ASU 2015-03 resulted in the reclassification of \$22 million of unamortized debt issuance costs from Other noncurrent assets to a reduction of Long-term debt in the consolidated balance sheet as of December 31, 2014. Unamortized debt issuance costs of \$18 million were recorded as a reduction to Long-term debt in the consolidated balance sheet as of December 31, 2015. Unamortized debt issuance costs related to the Company's revolving credit and accounts receivable securitization facilities are included in Other noncurrent assets in the consolidated balance sheets. The adoption of ASU 2015-03 did not have an impact on the Company's consolidated statements of operations or consolidated statements of cash flows.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers ("ASU 2014-09"). ASU 2014-09 supersedes the revenue recognition requirements of FASB Accounting Standards Codification ("ASC") Topic 605, Revenue Recognition and most industry-specific guidance throughout the ASC, resulting in the creation of FASB ASC Topic 606, Revenue from Contracts with Customers. ASU 2014-09 requires entities to recognize revenue in a way that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. This ASU provides alternative methods of adoption. In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers, Deferral of the Effective Date ("ASU 2015-14"). ASU 2015-14 defers the effective date of ASU 2014-09 by one year to December 15, 2017 for fiscal years, and interim periods within those years, beginning after that date and permits early adoption of the standards, but not before original effective date for fiscal years beginning after December 15, 2016. The Company is currently assessing the potential impact of adopting ASU 2014-09 on its financial statements



and related disclosures.

#### 4. Acquisitions, Dispositions and Plant Closures

##### Acquisitions

In October 2014, the Company completed the acquisition of substantially all of the assets of Cool Polymers, Inc., including CoolPoly<sup>®</sup>, a portfolio of thermally conductive polymers for cash plus contingent consideration (Note 25), to support the

82

---

Table of Contents

strategic growth of the Company's engineered materials business. The acquired operations are included in the Company's Advanced Engineered Materials segment.

Pro forma financial information since the respective acquisition date has not been provided as the acquisition did not have a material impact on the Company's financial information. The Company allocated the purchase price of the acquisition to identifiable assets based on their estimated fair values. The excess of the purchase price over the aggregate fair values was recorded as goodwill (Note 2 and Note 11).

## Plant Closures

## Lanaken, Belgium

On April 22, 2015, the Company announced its intention to consult with employee representatives on a potential 50% capacity reduction at its acetate tow facility in Lanaken, Belgium. On December 1, 2015, the Company announced it had completed the consultation process pursuant to which the Company ceased 50% of manufacturing operations in December 2015. The Lanaken, Belgium operations are included in the Company's Consumer Specialties segment. The exit costs and plant shutdown costs related to the capacity reduction at the Lanaken facility (Note 18) are as follows:

	Year Ended December 31, 2015 (In \$ millions)
Employee termination benefits <sup>(1)</sup>	(24 )
Accelerated depreciation	(10 )
Total	(34 )

<sup>(1)</sup> Included in Other (charges) gains, net in the consolidated statements of operations.

## Tarragona, Spain

In March 2015, the Company launched a sale process for its conventional and vinyl acetate ethylene ("VAE") emulsions facilities in Tarragona, Spain. On December 4, 2015, the Company announced the sale of its conventional emulsions production facility. The Company was unable to find a credible buyer for the VAE emulsions facility, resulting in its closure. The Company completed the information and consultation process with employee representatives pursuant to which the Company ceased all manufacturing operations at the VAE emulsions facility. The Tarragona, Spain operations are included in the Company's Industrial Specialties segment.

The exit costs and plant shutdown costs related to the closure of the Tarragona VAE facility and the sale of the conventional facility (Note 18) are as follows:

	Year Ended December 31, 2015 (In \$ millions)
Employee termination benefits <sup>(1)</sup>	(6 )
Asset impairments <sup>(1)</sup>	(1 )
Accelerated depreciation	(9 )
Total	(16 )

<sup>(1)</sup> Included in Other (charges) gains, net in the consolidated statements of operations.

Table of Contents**Meredosia, Illinois**

On December 15, 2015, the Company ceased operation of its VAE emulsions facility in Meredosia, Illinois. The Meredosia, Illinois operations are included in the Company's Industrial Specialties segment.

The exit costs and plant shutdown costs related to the closure of the Meredosia, Illinois VAE facility (Note 18) are as follows:

	Year Ended December 31, 2015 (In \$ millions)
Employee termination benefits <sup>(1)</sup>	(1 )
Asset impairments <sup>(1)</sup>	(1 )
Accelerated depreciation	(19 )
Other	(1 )
Total	(22 )

<sup>(1)</sup> Included in Other (charges) gains, net in the consolidated statements of operations.

During the year ended December 31, 2015, the Company also recorded \$39 million in accelerated depreciation expense related to property, plant and equipment no longer in use at the Company's ethanol technology development unit in Clear Lake, Texas. The accelerated depreciation is included in Research and development expenses in the consolidated statements of operations and is included in the Company's Acetyl Intermediates segment.

**Plant Relocation**

In November 2006, the Company finalized a settlement agreement with the Frankfurt, Germany Airport ("Fraport") that required the Company to cease operations at its Kelsterbach, Germany POM site and sell the site, including land and buildings, to Fraport, resolving several years of legal disputes related to the planned Fraport expansion. Upon completion of certain activities as specified in the settlement agreement, title to the land and buildings transferred to Fraport during the three months ended December 31, 2013, and deferred proceeds of €651 million were recognized in Gain (loss) on disposition of businesses and assets, net in the consolidated statements of operations. The activity was included in the Company's Advanced Engineered Materials segment.

**5. Ventures and Variable Interest Entities****Consolidated Variable Interest Entities**

In February 2014, the Company formed a joint venture, Fairway Methanol LLC ("Fairway"), with Mitsui & Co., Ltd., of Tokyo, Japan ("Mitsui"), in which the Company owns a 50% interest, for the production of methanol at the Company's integrated chemical plant in Clear Lake, Texas. The methanol unit utilizes natural gas in the US Gulf Coast region as a feedstock and benefits from the existing infrastructure at the Company's Clear Lake facility. Both Mitsui and the Company supply their own natural gas to Fairway in exchange for methanol tolling under a cost-plus off-take arrangement. The methanol facility has an annual capacity of 1.3 million tons. Fairway began production in October 2015.

The Company determined that Fairway is a variable interest entity ("VIE") in which the Company is the primary beneficiary. Under the terms of the joint venture agreements, the Company provides site services and day-to-day operations for the methanol facility. In addition, the joint venture agreements provide that the Company indemnifies Mitsui for environmental obligations that exceed a specified threshold, as well as an equity option between the partners. Accordingly, the Company consolidates the venture and records a noncontrolling interest for the share of the venture owned by Mitsui. Fairway is included in the Company's Acetyl Intermediates segment.

Table of Contents

The carrying amount of the assets and liabilities associated with Fairway included in the consolidated balance sheets are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Cash and cash equivalents	7	1
Trade receivables, net - third party & affiliate	12	—
Property, plant and equipment (net of accumulated depreciation - 2015: \$10)	772	530
Intangible assets (net of accumulated amortization - 2015: \$0)	27	—
Other assets	13	29
Total assets <sup>(1)</sup>	831	560
Trade payables	9	—
Current liabilities <sup>(2)</sup>	5	40
Long-term debt	5	—
Deferred income taxes	2	—
Total liabilities	21	40

<sup>(1)</sup> Assets can only be used to settle the obligations of Fairway.

<sup>(2)</sup> Amounts owed by Fairway to the Company for reimbursement of expenditures.

#### Nonconsolidated Variable Interest Entities

The Company holds variable interests in entities that supply certain raw materials and services to the Company. The variable interests primarily relate to cost-plus contractual arrangements with the suppliers and recovery of capital expenditures for certain plant assets plus a rate of return on such assets. Liabilities for such supplier recoveries of capital expenditures have been recorded as capital lease obligations. The entities are not consolidated because the Company is not the primary beneficiary of the entities as it does not have the power to direct the activities of the entities that most significantly impact the entities' economic performance. The Company's maximum exposure to loss as a result of its involvement with these VIEs as of December 31, 2015 relates primarily to the recovery of capital expenditures for certain property, plant and equipment.

The carrying amount of the assets and liabilities associated with the obligations to nonconsolidated VIEs, as well as the maximum exposure to loss relating to these nonconsolidated VIEs are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Property, plant and equipment, net	73	96
Trade payables	47	43
Current installments of long-term debt	10	9
Long-term debt	109	125
Total liabilities	166	177
Maximum exposure to loss	268	291

The difference between the total liabilities associated with obligations to unconsolidated VIEs and the maximum exposure to loss primarily represents take-or-pay obligations for services included in the Company's unconditional purchase obligations ([Note 24](#)).

Table of Contents

## 6. Marketable Securities, at Fair Value

The Company's nonqualified trusts hold available-for-sale securities for funding requirements of the Company's nonqualified pension plans (Note 15) as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Amortized cost	30	32
Gross unrealized gain	—	—
Gross unrealized loss	—	—
Fair value	30	32

## 7. Receivables, Net

	As of December 31,	
	2015	2014
	(In \$ millions)	
Trade receivables - third party and affiliates	712	810
Allowance for doubtful accounts - third party and affiliates	(6	) (9
Trade receivables - third party and affiliates, net	706	801

	As of December 31,	
	2015	2014
	(In \$ millions)	
Non-income taxes receivable	121	99
Reinsurance receivables	18	20
Income taxes receivable	79	50
Other	67	72
Non-trade receivables, net	285	241

## 8. Inventories

	As of December 31,	
	2015	2014
	(In \$ millions)	
Finished goods	498	579
Work-in-process	43	53
Raw materials and supplies	141	150
Total	682	782

## 9. Investments in Affiliates

Entities in which the Company has an investment accounted for under the cost or equity method of accounting are considered affiliates; any transactions or balances with such companies are considered affiliate transactions.

Table of Contents

## Equity Method

Equity method investments and ownership interests by business segment are as follows:

	Ownership as of December 31,		Carrying Value as of December 31,		Share of Earnings (Loss) Year Ended December 31,			Dividends and Other Distributions Year Ended December 31,		
	2015 (In percentages)	2014	2015 (In \$ millions)	2014	2015	2014	2013	2015	2014	2013
Advanced Engineered Materials										
Ibn Sina	25	25	87	97	88	115	111	(98 )	(85 )	(97 )
Fortron Industries LLC	50	50	100	97	11	9	8	(8 )	(7 )	(5 )
Korea Engineering Plastics Co., Ltd.	50	50	127	134	16	10	15	(10 )	(16 )	(19 )
Polyplastics Co., Ltd.	45	45	168	166	35	27	14	(20 )	(3 )	—
Other Activities <sup>(1)</sup>										
InfraServ GmbH & Co. Gendorf KG	39	39	37	39	7	9	10	(5 )	(7 )	(6 )
InfraServ GmbH & Co. Hoechst KG <sup>(2)</sup>	32	32	147	174	21	72	17	(32 )	(26 )	(9 )
InfraServ GmbH & Co. Knapsack KG	27	27	18	20	4	4	4	(3 )	(4 )	(5 )
Consumer Specialties										
Sherbrooke Capital Health and Wellness, L.P. <sup>(3)</sup>	10	10	3	4	(1 )	—	1	—	—	—
Total			687	731	181	246	180	(176 )	(148 )	(141 )

InfraServ real estate service companies ("InfraServ Entities") own and operate sites in Frankfurt am Main-Hoechst,

<sup>(1)</sup> Gendorf and Knapsack, Germany. The InfraServ Entities were created to own land and property and to provide various technical and administrative services at these manufacturing locations.

InfraServ GmbH & Co. Hoechst KG is owned primarily by an entity included in the Company's Other Activities.

<sup>(2)</sup> The Company's Consumer Specialties segment and Acetyl Intermediates segment also each hold an ownership percentage. During the three months ended June 30, 2014, InfraServ GmbH & Co. Hoechst KG restructured the debt of a subsidiary resulting in additional equity in net earnings of affiliates of \$48 million.

<sup>(3)</sup> The Company accounts for its ownership interest in Sherbrooke Capital Health and Wellness, L.P. under the equity method of accounting because the Company is able to exercise significant influence.

## Cost Method

Cost method investments and ownership interests by business segment are as follows:

	Ownership as of December 31,		Carrying Value as of December 31,		Dividend Income for the Year Ended December 31,		
	2015 (In percentages)	2014	2015 (In \$ millions)	2014	2015	2014	2013
Consumer Specialties							
Kunming Cellulose Fibers Co. Ltd.	30	30	14	14	14	15	13
Nantong Cellulose Fibers Co. Ltd.	31	31	106	106	79	87	68
Zhuhai Cellulose Fibers Co. Ltd.	30	30	22	14	13	13	11
Other Activities							
InfraServ GmbH & Co. Wiesbaden KG	8	8	5	6	1	1	1

Edgar Filing: Celanese Corp - Form 10-K

Other	4	5	—	—	—
Total	151	145	107	116	93

87

---

Table of Contents

## Transactions with Affiliates

The Company owns manufacturing facilities at the InfraServ location in Frankfurt am Main-Hoechst, Germany and has contractual agreements with the InfraServ Entities and certain other equity affiliates and investees accounted for under the cost method. These contractual agreements primarily relate to energy purchases, site services and purchases of product for consumption and resale.

Transactions and balances with affiliates are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Purchases	195	231	264
Sales	—	—	—
		As of December 31,	
		2015	2014
		(In \$ millions)	
Non-trade receivables		23	31
Total due from affiliates		23	31
Short-term borrowings <sup>(1)</sup>		16	16
Trade payables		34	39
Current Other liabilities		6	6
Total due to affiliates		56	61

<sup>(1)</sup> The Company has agreements with certain affiliates whereby excess affiliate cash is lent to and managed by the Company at variable interest rates governed by those agreements.

## 10. Property, Plant and Equipment, Net

	As of December 31,	
	2015	2014
	(In \$ millions)	
Land	39	42
Land improvements	60	49
Buildings and building improvements	679	658
Machinery and equipment	4,609	3,910
Construction in progress	261	890
Gross asset value	5,648	5,549
Accumulated depreciation	(2,039)	(1,816)
Net book value	3,609	3,733



Table of Contents

Assets under capital leases, net, included in the amounts above are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Buildings	13	15
Machinery and equipment	289	311
Accumulated depreciation	(138	) (125
Net book value	164	201

Capitalized interest costs and depreciation expense are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Capitalized interest	15	16	9
Depreciation expense	346	272	280

During 2015 and 2013, certain long-lived assets were impaired (Note 18). No long-lived assets were impaired during 2014.

#### 11. Goodwill and Intangible Assets, Net Goodwill

	Advanced Engineered Materials	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Total
	(In \$ millions)				
As of December 31, 2013	303	254	43	198	798
Acquisitions (Note 4)	9	—	—	—	9
Exchange rate changes	(17	) (14	) (2	) (25	) (58
As of December 31, 2014	295	240	41	173	749
Acquisitions (Note 4)	—	—	—	—	—
Exchange rate changes	(13	) (10	) (2	) (19	) (44
As of December 31, 2015 <sup>(1)</sup>	282	230	39	154	705

<sup>(1)</sup> There were \$0 million of accumulated impairment losses as of December 31, 2015.

In connection with the Company's annual goodwill impairment assessment, the Company did not record an impairment loss to goodwill during the three months ended September 30, 2015 as the estimated fair value for each of the Company's reporting units exceeded the carrying amount of the underlying assets by a substantial margin (Note 2). No events or changes in circumstances occurred during the three months ended December 31, 2015 that would indicate that the carrying amount of the assets may not be fully recoverable. Accordingly, no additional impairment analysis was performed during that period.

Table of Contents

## Intangible Assets, Net

Finite-lived intangible assets are as follows:

	Licenses	Customer- Related Intangible Assets	Developed Technology	Covenants Not to Compete and Other	Total	
(In \$ millions)						
Gross Asset Value						
As of December 31, 2013	33	544	30	39	646	
Acquisitions (Note 4)	—	2	3	10	15	(1)
Exchange rate changes	(1	) (51	) —	—	(52	)
As of December 31, 2014	32	495	33	49	609	
Acquisitions (Note 5)	7	—	2	1	10	(2)
Exchange rate changes	(1	) (39	) —	—	(40	)
As of December 31, 2015	38	456	35	50	579	
Accumulated Amortization						
As of December 31, 2013	(20	) (521	) (21	) (25	) (587	)
Amortization	(3	) (12	) (3	) (2	) (20	)
Exchange rate changes	—	50	1	—	51	
As of December 31, 2014	(23	) (483	) (23	) (27	) (556	)
Amortization	(3	) (4	) (2	) (2	) (11	)
Exchange rate changes	1	38	—	—	39	
As of December 31, 2015	(25	) (449	) (25	) (29	) (528	)
Net book value	13	7	10	21	51	

Includes intangible assets acquired from Cool Polymers, Inc. with a weighted average amortization period of seven (1) years (Note 4). Also includes intangible assets reimbursed by Mitsui (Note 5) during the year ended December 31, 2014.

(2) Primarily related to intangible assets acquired by Fairway (Note 5) during the year ended December 31, 2015, with a weighted average amortization period of 16 years.

Indefinite-lived intangible assets are as follows:

	Trademarks and Trade Names	
(In \$ millions)		
As of December 31, 2013	83	
Acquisitions (Note 4)	2	
Impairment loss (Note 2)	—	
Exchange rate changes	(6	)
As of December 31, 2014	79	
Acquisitions (Note 4)	—	
Impairment loss (Note 2)	—	
Exchange rate changes	(5	)
As of December 31, 2015	74	

Table of Contents

In connection with the Company's annual indefinite-lived intangible assets impairment assessment, the Company did not record an impairment loss to indefinite-lived intangible assets during the three months ended September 30, 2015 as the estimated fair value for each of the Company's indefinite-lived intangible assets exceeded the carrying amount of the underlying asset by a substantial margin (Note 2). No events or changes in circumstances occurred during the three months ended December 31, 2015 that would indicate that the carrying amount of the assets may not be fully recoverable. Accordingly, no additional impairment analysis was performed during that period.

The Company's trademarks and trade names have an indefinite life. For the year ended December 31, 2015, the Company did not renew or extend any intangible assets.

Estimated amortization expense for the succeeding five fiscal years is as follows:

	(In \$ millions)
2016	9
2017	8
2018	5
2019	4
2020	3

## 12. Current Other Liabilities

	As of December 31,	
	2015	2014
	(In \$ millions)	
Asset retirement obligations	10	9
Benefit obligations (Note 15)	31	28
Customer rebates	45	53
Derivatives (Note 22)	2	13
Environmental (Note 16)	11	21
Insurance	10	9
Interest	16	19
Restructuring (Note 18)	30	21
Salaries and benefits	109	129
Sales and use tax/foreign withholding tax payable	13	13
Uncertain tax positions (Note 19)	—	59
Other	53	58
Total	330	432

Table of Contents

## 13. Noncurrent Other Liabilities

	As of December 31,	
	2015	2014
	(In \$ millions)	
Asset retirement obligations	26	28
Deferred proceeds	43	47
Deferred revenue	13	21
Derivatives ( <u>Note 22</u> )	—	10
Environmental ( <u>Note 16</u> )	61	63
Income taxes payable	7	13
Insurance	50	51
Other	47	50
Total	247	283

Changes in asset retirement obligations are as follows:

	Year Ended December 31,			
	2015	2014	2013	
	(In \$ millions)			
Balance at beginning of year	37	47	64	
Additions <sup>(1)</sup>	—	4	5	
Accretion	1	1	2	
Payments	(4	) (8	) (23	)
Revisions to cash flow estimates <sup>(2)</sup>	2	(7	) (2	)
Exchange rate changes	—	—	1	
Balance at end of year	36	37	47	

(1) Primarily relates to sites which management no longer considers to have an indeterminate life.

(2) Primarily relates to revisions to the estimated cost and timing of future obligations.

Included in the asset retirement obligations for the years ended December 31, 2015 and 2014 is \$10 million and \$10 million, respectively, related to indemnifications received for a business acquired in 2005. The Company has a corresponding receivable of \$1 million in Non-trade receivables, net and \$9 million included in noncurrent Other assets in the consolidated balance sheet as of December 31, 2015.

Table of Contents

## 14. Debt

	As of December 31,	
	2015	2014
	(In \$ millions)	
Short-Term Borrowings and Current Installments of Long-Term Debt - Third Party and Affiliates		
Current installments of long-term debt	56	25
Short-term borrowings, including amounts due to affiliates <sup>(1)</sup>	52	77
Revolving credit facility <sup>(2)</sup>	350	—
Accounts receivable securitization facility <sup>(3)</sup>	55	35
Total	513	137

<sup>(1)</sup> The weighted average interest rate was 3.3% and 4.7% as of December 31, 2015 and 2014, respectively.

<sup>(2)</sup> The weighted average interest rate was 1.8% and 0.0% as of December 31, 2015 and 2014, respectively.

<sup>(3)</sup> The weighted average interest rate was 0.8% and 0.7% as of December 31, 2015 and 2014, respectively.

	As of December 31,	
	2015	2014
	(In \$ millions)	
Long-Term Debt		
Senior credit facilities - Term C-2 loan due 2016	30	34
Senior credit facilities - Term C-3 loan due 2018	878	906
Senior unsecured notes due 2019, interest rate of 3.250%	327	364
Senior unsecured notes due 2021, interest rate of 5.875%	400	400
Senior unsecured notes due 2022, interest rate of 4.625%	500	500
Pollution control and industrial revenue bonds due at various dates through 2030, interest rates ranging from 5.7% to 6.7%	169	169
Obligations under capital leases due at various dates through 2054	238	260
Subtotal	2,542	2,633
Unamortized debt issuance costs <sup>(1)</sup>	(18	) (22
Current installments of long-term debt	(56	) (25
Total	2,468	2,586

Related to the Company's outstanding senior credit facilities - Term C-2 and Term C-3 loans, senior unsecured

<sup>(1)</sup> notes issued in public offerings registered under the Securities Act of 1933 (collectively, the "Senior Notes") and pollution control bonds.

## Senior Notes

The Company has outstanding Senior Notes, as follows:

Senior Notes	Issue Date	Principal (In millions)	Interest Rate (In percentages)	Interest Pay Dates	Maturity Date
3.250% Notes	September 2014	€300	3.250	April 15	October 15, 2019
4.625% Notes	November 2012	\$500	4.625	March 15	September 15, 2022
5.875% Notes	May 2011	\$400	5.875	June 15	December 15, 2021

Table of Contents

The Senior Notes are senior unsecured obligations of Celanese US and rank equally in right of payment with all other unsubordinated indebtedness of Celanese US. The Senior Notes were issued under indentures (collectively, the "Indentures") among Celanese US, Celanese and each of the domestic subsidiaries of Celanese US that guarantee its obligations under its senior secured credit facilities ("Subsidiary Guarantors") and Wells Fargo Bank, National Association, as trustee. The Senior Notes are guaranteed on a senior unsecured basis by Celanese and the Subsidiary Guarantors. The Indentures contain covenants, including, but not limited to, restrictions on the Company's ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; engage in transactions with affiliates; or engage in other businesses. Celanese US may redeem some or all of each of the Senior Notes, prior to their respective maturity dates, at a redemption price of 100% of the principal amount, plus a "make-whole" premium as specified in the applicable indenture, plus accrued and unpaid interest, if any, to the redemption date.

In October 2014, Celanese US redeemed its \$600 million of principal amount of 6.625% unsecured senior notes due 2018 ("6.625% Notes") at a redemption price of 103.313% of the face amount for a total principal and premium payment of \$620 million plus accrued interest of \$20 million. Proceeds from the issuance of the 3.250% Notes were used to partially fund the redemption of the 6.625% Notes, as well as cash on hand. The Company recognized a loss on the extinguishment of the 6.625% Notes comprised of the redemption premium of \$20 million and accelerated amortization of deferred financing costs of \$4 million, which were included in Refinancing expense in the consolidated statement of operations for the year ended December 31, 2014.

**Senior Credit Facilities**

In September 2014, Celanese US, Celanese and the Subsidiary Guarantors entered into an amendment agreement with the lenders under Celanese US's existing senior secured credit facilities in order to amend and restate the amended credit agreement dated September 16, 2013 (as amended and restated by the 2014 amendment agreement, the "Amended Credit Agreement"). Under the Amended Credit Agreement, all of the US dollar denominated Term C-2 term loans and all but €28 million of the Euro-denominated Term C-2 term loans under the 2013 amended credit agreement were converted into, or refinanced by, the Term C-3 loan facility with an extended maturity date of October 2018. The non-extended portions of the Term C-2 loan facility continue to have a maturity date of October 2016. In addition, the maturity date of the Company's revolving credit facility was extended to October 2018 and the facility was increased to \$900 million. Accordingly, the Amended Credit Agreement consists of the Term C-2 loan facility, the Term C-3 loan facility and a \$900 million revolving credit facility.

Table of Contents

Net deferred financing costs are as follows:

	(In \$ millions)
As of December 31, 2012	30
Financing costs deferred <sup>(1)</sup>	2
Accelerated amortization due to refinancing activity	—
Amortization	(5 )
As of December 31, 2013	27
Financing costs deferred <sup>(2)</sup>	10
Accelerated amortization due to refinancing activity <sup>(3)</sup>	(5 )
Amortization	(5 )
As of December 31, 2014 <sup>(4)</sup>	27
Financing costs deferred	—
Accelerated amortization due to refinancing activity	—
Amortization	(5 )
As of December 31, 2015 <sup>(4)</sup>	22

(1) Relates to the September 2013 amendment to the Celanese US existing senior secured credit facilities to reduce the interest rates payable in connection with certain borrowings thereby creating the Term C-2 loan facility due 2016.

(2) Includes \$6 million related to the issuance of the 3.250% Notes and \$4 million related to the September 2014 amendment to the Celanese US existing senior secured credit facilities.

(3) Includes \$4 million related to the 6.625% Notes redemption and \$1 million related to the Term C-2 loan facility conversion.

(4) Includes \$4 million and \$5 million as of December 31, 2015 and 2014, respectively, related to the Company's revolving credit facility and accounts receivables securitization facility, which are included in Other noncurrent assets in the consolidated balance sheets.

As of December 31, 2015, the margin for borrowings under the Term C-2 loan facility was 2.0% above the Euro Interbank Offered Rate ("EURIBOR") and the margin for borrowings under the Term C-3 loan facility was 2.25% above LIBOR (for US dollars) and 2.25% above EURIBOR (for Euros), as applicable. As of December 31, 2015, the margin for borrowings under the revolving credit facility was 1.5% above LIBOR. The margin for borrowings under the revolving credit facility is subject to increase or decrease in certain circumstances based on changes in the corporate credit ratings of Celanese or Celanese US.

Term loan borrowings under the Amended Credit Agreement are subject to amortization at 1% of the initial principal amount per annum, payable quarterly. In addition, the Company pays quarterly commitment fees on the unused portion of the revolving credit facility of 0.25% per annum.

The Amended Credit Agreement is guaranteed by Celanese and certain domestic subsidiaries of Celanese US and is secured by a lien on substantially all assets of Celanese US and such guarantors, subject to certain agreed exceptions (including for certain real property and certain shares of foreign subsidiaries), pursuant to the Guarantee and Collateral Agreement, dated April 2, 2007.

As a condition to borrowing funds or requesting letters of credit be issued under the revolving credit facility, the Company's first lien senior secured leverage ratio (as calculated as of the last day of the most recent fiscal quarter for which financial statements have been delivered under the revolving facility) cannot exceed the threshold as specified below. Further, the Company's first lien senior secured leverage ratio must be maintained at or below that threshold while any amounts are outstanding under the revolving credit facility.

The Company's amended first lien senior secured leverage ratios under the revolving credit facility are as follows:

As of December 31, 2015	Estimate	Estimate, if Fully Drawn
Maximum		
3.90	0.92	1.30





Table of Contents

The Amended Credit Agreement contains covenants including, but not limited to, restrictions on the Company's ability to incur indebtedness; grant liens on assets; merge, consolidate, or sell assets; pay dividends or make other restricted payments; make investments; prepay or modify certain indebtedness; engage in transactions with affiliates; enter into sale-leaseback transactions or hedge transactions; or engage in other businesses; as well as a covenant requiring maintenance of a maximum first lien senior secured leverage ratio.

The Amended Credit Agreement also maintains a number of events of default, including a cross default to other debt of Celanese, Celanese US, or their subsidiaries, including the Senior Notes, in an aggregate amount equal to more than \$50 million and the occurrence of a change of control. Failure to comply with these covenants, or the occurrence of any other event of default, could result in acceleration of the borrowings and other financial obligations under the Amended Credit Agreement.

The Company is in compliance with all of the covenants related to its debt agreements as of December 31, 2015.

Accounts Receivables Securitization Facility

In August 2013, the Company entered into a US accounts receivable securitization facility pursuant to (i) a Purchase and Sale Agreement ("Sale Agreement") among certain US subsidiaries of the Company (each an "Originator"), Celanese International Corporation ("CIC") and CE Receivables LLC, a wholly-owned, "bankruptcy remote" special purpose subsidiary of an Originator ("Transferor") and (ii) a Receivables Purchase Agreement ("Purchase Agreement"), among CIC, as servicer, the Transferor, various third-party purchasers (collectively, "Purchasers") and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator ("Administrator"). During 2015, the Sale Agreement and the Purchase Agreement were amended to reflect changes to the parties. The Purchase Agreement expires in 2016, but may be extended for successive one year terms by agreement of the parties. All of the Transferor's assets have been pledged to the Administrator in support of its obligations under the Purchase Agreement.

The Company's balances available for borrowing are as follows:

	As of December 31, 2015 (In \$ millions)
Revolving Credit Facility	
Borrowings outstanding <sup>(1)</sup>	350
Letters of credit issued	—
Available for borrowing	550
Accounts Receivables Securitization Facility	
Borrowings outstanding <sup>(2)</sup>	55
Letters of credit issued	59
Available for borrowing	—
Total borrowing base	114
Maximum borrowing base <sup>(3)</sup>	120

(1) The Company borrowed \$550 million and repaid \$200 million during the year ended December 31, 2015. Borrowings were primarily used to fund repurchases of the Company's Common Stock.

(2) The Company borrowed \$35 million and repaid \$15 million during the year ended December 31, 2015.

(3) Outstanding accounts receivable transferred by the Originators to the Transferor was \$131 million. On November 5, 2015, the Company reduced the maximum borrowing base from \$135 million to \$120 million.

Table of Contents

Principal payments scheduled to be made on the Company's debt, including short-term borrowings, are as follows:

	(In \$ millions)
2016	513
2017	28
2018	882
2019	351
2020	28
Thereafter	1,197
Total	2,999

## 15. Benefit Obligations

## Pension Obligations

The Company sponsors defined benefit pension plans in North America, Europe and Asia. Independent trusts or insurance companies administer the majority of these plans. Pension obligations are established for benefits payable in the form of retirement, disability and surviving dependent pensions. The commitments result from participation in defined contribution and defined benefit plans, primarily in the US. Benefits are dependent on years of service and the employee's compensation. Supplemental retirement benefits provided to certain employees are nonqualified for US tax purposes. Separate nonqualified trusts have been established for certain US nonqualified plan obligations. Pension costs under the Company's retirement plans are actuarially determined.

In October 2014, the Company offered a limited-time, voluntary program to certain participants of the Company's US qualified defined benefit pension plan with a vested benefit who terminated from the Company on or before May 31, 2014. The limited-time opportunity ended in November 2014 and included an offer of a single lump sum payment in December 2014 or to begin monthly annuity payments, regardless of age, or to continue to defer benefits until retirement age. If an election was not made by the eligible participant, the participant will begin receiving payments when otherwise eligible under the terms of the US qualified defined benefit pension plan. The Company made lump sum payments under this program of \$143 million in December 2014 using trust assets of the US qualified defined benefit pension plan. These actions resulted in the recognition of a settlement gain of \$78 million in the consolidated statements of operations for the year ended December 31, 2014.

Effective June 2014, the Company's US qualified defined benefit plan was amended and benefits offered to all current union participants of the Cash Balance Plan (hired on or after January 1, 2001) at the Company's Narrows, Virginia facility have been frozen and the US qualified defined benefit plan was closed to future union participants at the facility. Accumulated benefits earned and service rendered through May 2014 under the Plan provisions for the Cash Balance Plan Participants will continue to be considered for purposes of determining retirement benefits. Effective May 2014, the Company's US qualified defined benefit plan was amended and benefits offered to all current union participants of the Flat Rate Plan at the Company's Narrows, Virginia facility have been frozen and the US qualified defined benefit plan was closed to future union participants at the facility. Accumulated benefits earned and service rendered through December 2014 under the Plan provisions for the Flat Rate Plan Participants will continue to be considered for purposes of determining retirement benefits and eligibility for early retirement. These actions did not result in a curtailment gain or loss as the projected benefit obligation does not rely on salary assumptions.

During the three months ended December 31, 2013, the Company settled certain of its defined benefit pension plan obligations in the United Kingdom and Canada, which resulted in the recognition of settlement losses of \$9 million in the consolidated statement of operations.

Effective December 2013, benefits offered to all US non-union eligible employees in the Company's US qualified defined benefit pension plan have been frozen and the US qualified defined benefit pension plan was closed to new participants. Accumulated benefits earned and service rendered through December 31, 2013 under the US qualified defined benefit pension plan provisions will continue to be considered for purposes of determining retirement benefits and eligibility for early retirement. These actions resulted in the recognition of a curtailment gain of \$61 million in the consolidated statements of operations for the three months ended December 31, 2013.

The Company participates in a multiemployer defined benefit plan and a multiemployer defined contribution plan in Germany covering certain employees. The Company's contributions to the multiemployer defined benefit plan are based on specified percentages of employee contributions as outlined in a works council agreement, covering all German entity employees hired

Table of Contents

prior to January 1, 2012. As of January 1, 2012, the multiemployer defined benefit pension plan described above was closed to new employees. Qualifying employees hired in Germany after December 31, 2011 are covered by a multiemployer defined contribution plan. The Company's contributions to the multiemployer defined contribution plan are based on specified percentages of employee contributions, similar to the multiemployer defined benefit plan, but at a lower rate.

Statutory regulations and the works council agreement require the contributions to fully fund the multiemployer plans. The risks of participating in the multiemployer plans are different from single-employer plans in the following aspects:

- Assets contributed to the multiemployer plan by one employer may be used to provide benefits to employees of other participating employers.

- If a participating employer stops contributing to the plan, any underfunding may be borne by the remaining participants, especially since regulations strictly enforce funding requirements.

- If the Company chooses to stop participating in the multiemployer plan, the Company may be required to pay the plan an amount based on the underfunded status of the plan, referred to as the withdrawal liability.

Based on the 2015 unaudited and 2014 audited multiemployer defined benefit plan's financial statements, the plan is 100% funded in 2015, 2014 and 2013. The number of employees covered by the Company's multiemployer defined benefit plan remained relatively stable year over year from 2013 to 2015, resulting in minimal changes to employer contributions. Participation in the German multiemployer defined benefit plan is not considered individually significant to the Company.

Contributions made by the Company to the German multiemployer plan are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Multiemployer defined benefit plan	6	8	8
Other Postretirement Obligations			

Certain retired employees receive postretirement health care and life insurance benefits under plans sponsored by the Company, which has the right to modify or terminate these plans at any time. The cost for coverage is shared between the Company and the retiree. The cost of providing retiree health care and life insurance benefits is actuarially determined and accrued over the service period of the active employee group. The Company's policy is to fund benefits as claims and premiums are paid. The US postretirement health care plan was closed to new participants effective January 1, 2006.

In November 2013, the Company announced it would amend its primary US postretirement health care plan to (a) eliminate eligibility for all current and future US non-union employees; (b) terminate its US postretirement health care plan on December 31, 2014 for all US participants; and (c) offer certain eligible US participants a lump-sum buyout payment if they irrevocably waive all future benefits under the US postretirement health care plan and end their participation before December 31, 2014. These actions generated a prior service credit of \$92 million, which was amortized ratably into the consolidated statements of operations from November 1, 2013 through December 31, 2014. Effective March 2014, the Company eliminated eligibility in its US postretirement health care plan for all current and future employees represented by the bargaining unit at the Company's Narrows, Virginia facility. These actions generated a prior service credit of \$5 million, which was amortized ratably into the consolidated statements of operations from April 1, 2014 through December 31, 2014.

The Company recognized \$84 million and \$13 million of prior service credit amortization and made \$40 million and \$23 million in lump-sum buyout payments as of December 31, 2014 and 2013, respectively.

#### Postemployment Obligations

The Company provides benefits to certain employees after employment but prior to retirement, including severance and disability-related benefits offered pursuant to ongoing benefit arrangements. The cost of providing postemployment benefits is actuarially determined and recorded when the obligation is probable of occurring and can be reasonably estimated.



Table of Contents

Postemployment obligations are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Postemployment benefits	11	12

#### Defined Contribution Plans

The Company sponsors various defined contribution plans in North America, Europe and Asia covering certain employees. Employees may contribute to these plans and the Company will match these contributions in varying amounts. The Company's matching contribution to the defined contribution plans are based on specified percentages of employee contributions.

Beginning in 2014, the Company took the following actions as it relates to the US defined contribution plan:

- Increased its employer match for those employees participating in the US defined contribution plan;
- Added an annual retirement contribution for US employees who are employed as of December 31st each year (or have died during that year), regardless of whether the employee contributes to the US defined contribution plan; and
- For certain eligible US employees, provides an incremental retirement contribution through 2017, based on years of service and specified percentages of eligible compensation.

The amount of costs recognized for the Company's defined contribution plans are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Defined contribution plans	44	40	19

Table of Contents

Summarized information on the Company's pension and postretirement benefit plans is as follows:

	Pension Benefits		Postretirement Benefits	
	As of December 31, 2015	2014	As of December 31, 2015	2014
	(In \$ millions)			
<b>Change in Projected Benefit Obligation</b>				
Projected benefit obligation as of beginning of period	3,915	3,799	85	136
Service cost	12	11	1	1
Interest cost	139	168	3	4
Participant contributions	—	—	1	5
Plan amendments	—	(1	) (6	) (5
Net actuarial (gain) loss <sup>(1)</sup>	(141	) 458	(8	) 11
Settlements	—	(221	) —	—
Benefits paid	(234	) (232	) (5	) (61
Federal subsidy on Medicare Part D	—	—	—	(2
Curtailments	(1	) —	—	—
Special termination benefits	2	—	—	—
Exchange rate changes	(65	) (68	) (5	) (4
Other	8	1	—	—
Projected benefit obligation as of end of period	3,635	3,915	66	85
<b>Change in Plan Assets</b>				
Fair value of plan assets as of beginning of period	2,789	2,709	—	—
Actual return on plan assets	(67	) 327	—	—
Employer contributions	59	165	4	56
Participant contributions	—	—	1	5
Settlements	—	(143	) —	—
Benefits paid <sup>(2)</sup>	(234	) (232	) (5	) (61
Exchange rate changes	(39	) (37	) —	—
Fair value of plan assets as of end of period	2,508	2,789	—	—
Funded status as of end of period	(1,127	) (1,126	) (66	) (85
<b>Amounts Recognized in the Consolidated Balance Sheets</b>				
Consist of:				
Noncurrent Other assets	16	16	—	—
Current Other liabilities	(25	) (23	) (4	) (5
Benefit obligations	(1,118	) (1,119	) (62	) (80
Net amount recognized	(1,127	) (1,126	) (66	) (85
<b>Amounts Recognized in Accumulated Other Comprehensive</b>				
Income Consist of:				
Net actuarial (gain) loss <sup>(3)</sup>	16	16	—	—
Prior service (benefit) cost	(1	) (4	) (4	) 3
Net amount recognized <sup>(4)</sup>	15	12	(4	) 3

(1) Primarily relates to change in discount rates.

(2) Includes benefit payments to nonqualified pension plans of \$22 million and \$22 million as of December 31, 2015 and 2014, respectively.

(3) Relates to the pension plans of the Company's equity method investments.

(4) Amount shown net of an income tax benefit of \$3 million and \$4 million as of December 31, 2015 and 2014, respectively, in the consolidated statements of equity (Note 17).





Table of Contents

The percentage of US and international projected benefit obligation at the end of the period is as follows:

	Pension Benefits		Postretirement Benefits	
	As of December 31,		As of December 31,	
	2015	2014	2015	2014
	(In percentages)			
US plans	86	85	61	59
International plans	14	15	39	41
Total	100	100	100	100

The percentage of US and international fair value of plan assets at the end of the period is as follows:

	Pension Benefits	
	As of December 31,	
	2015	2014
	(In percentages)	
US plans	87	88
International plans	13	12
Total	100	100

Pension plans with projected benefit obligations in excess of plan assets are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Projected benefit obligation	3,588	3,866
Fair value of plan assets	2,445	2,724

Included in the above table are pension plans with accumulated benefit obligations in excess of plan assets as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Accumulated benefit obligation	3,570	3,833
Fair value of plan assets	2,442	2,713

The accumulated benefit obligation for all defined benefit pension plans is as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Accumulated benefit obligation	3,619	3,892

Table of Contents

The components of net periodic benefit cost are as follows:

	Pension Benefits			Postretirement Benefits		
	Year Ended December 31,			Year Ended December 31,		
	2015	2014	2013	2015	2014	2013
	(In \$ millions)					
Service cost	12	11	34	1	1	2
Interest cost	139	168	154	3	4	9
Expected return on plan assets	(209 )	(214 )	(223 )	—	—	—
Amortization of prior service cost / (credit)	—	—	1	—	(83 )	(12 )
Recognized actuarial (gain) loss	134	(1) 339	(2) (67 )	(7 )	11	(37 )
Curtailement (gain) loss	(3 )	—	(61 )	—	—	—
Settlement (gain) loss	—	(78 )	9	—	—	—
Special termination benefit	2	—	—	—	—	—
Total	75	226	(153 )	(3 )	(67 )	(38 )

(1) Includes a gain of \$62 million reflecting the incorporation of the RP-2015 mortality tables into the actuarial assumptions for the US pension plans.

(2) Includes a loss of \$53 million reflecting the incorporation of the RP-2014 mortality tables into the actuarial assumptions for the US pension plans.

Amortization of Accumulated other comprehensive income (loss), net into net periodic benefit cost in 2016 is expected to be as follows:

	Pension Benefits	Postretirement Benefits
	(In \$ millions)	
Prior service cost	—	(3 )

The Company maintains nonqualified pension plans funded with nonqualified trusts for certain US employees as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Nonqualified Trust Assets		
Marketable securities, at fair value	30	32
Noncurrent Other assets, consisting of insurance contracts	55	56
Nonqualified Pension Obligations		
Current Other liabilities	22	22
Benefit obligations	246	268

Table of Contents

Expense relating to the nonqualified pension plans included in net periodic benefit cost, excluding returns on the assets held by the nonqualified trusts, is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Total	—	(1) 43	6

(1) Actuarial gain offset interest cost.

## Valuation

The principal weighted average assumptions used to determine benefit obligation are as follows:

	Pension Benefits		Postretirement Benefits	
	As of December 31,		As of December 31,	
	2015	2014	2015	2014
	(In percentages)			
Discount Rate Obligations				
US plans	4.2	3.9	4.0	3.7
International plans	2.6	2.4	3.6	3.5
Combined	4.0	3.7	3.7	3.6
Rate of Compensation Increase				
US plans	N/A	N/A		
International plans	2.7	2.8		
Combined	2.7	2.8		

The principal weighted average assumptions used to determine net periodic benefit cost are as follows:

	Pension Benefits			Postretirement Benefits		
	Year Ended December 31,			Year Ended December 31,		
	2015	2014	2013	2015	2014	2013
	(In percentages)					
Discount Rate Obligations						
US plans	3.9	4.7	3.8	3.7	4.3	3.4
International plans	2.4	3.7	3.6	3.5	4.5	3.8
Combined	3.7	4.6	3.8	3.6	4.4	3.5
Expected Return on Plan Assets						
US plans	8.0	8.5	8.5			
International plans	6.0	6.2	5.8			
Combined	7.8	8.2	8.0			
Rate of Compensation Increase						
US plans	N/A	3.0	4.0			
International plans	2.8	2.8	2.9			
Combined	2.8	3.0	3.8			

Table of Contents

The Company's health care cost trend assumptions for US postretirement medical plan's net periodic benefit cost are as follows:

	As of December 31,		
	2015	2014	2013
	(In percentages, except year)		
Health care cost trend rate assumed for next year	10.0	7.0	7.5
Health care cost trend ultimate rate	5.0	5.0	5.0
Health care cost trend ultimate rate year	2026	2020	2017

Assumed health care cost trend rates for US postretirement medical plans have a significant effect on the amounts reported for the health care plans.

The impact of a one percentage point change in the assumed health care cost trend is as follows:

	Trend Rate Change	
	Decreases 1%	Increases 1%
	(In \$ millions)	
Postretirement obligations	2	2
Service and interest cost	—	—
Plan Assets		

The weighted average target asset allocations for the Company's pension plans in 2015 are as follows:

	US Plans	International Plans
	(In percentages)	
Bonds - domestic to plans	54	71
Equities - domestic to plans	26	19
Equities - international to plans	20	3
Other	—	7
Total	100	100

On average, the actual return on the US qualified defined pension plans' assets over the long-term (20 years) has exceeded the expected long-term rate of asset return assumption. The US qualified defined benefit plans' actual return on assets for the year ended December 31, 2015 was 2.5% loss versus an expected long-term rate of asset return assumption of 8.0%. The expected long-term rate of asset return assumption used to determine 2016 net periodic benefit cost is 7.5% for the US qualified defined benefit plans primarily due to an increase in Pension Benefit Guaranty Corporation premiums.

The Company's defined benefit plan assets are measured at fair value on a recurring basis (Note 2) as follows:

Cash and Cash Equivalents: Foreign and domestic currencies as well as short term securities are valued at cost plus accrued interest, which approximates fair value.

Equity securities, treasuries and corporate debt: Valued at the closing price reported on the active market in which the individual securities are traded. Automated quotes are provided by multiple pricing services and validated by the plan custodian. These securities are traded on exchanges as well as in the over the counter market.

Registered Investment Companies: Composed of various mutual funds and other investment companies whose diversified portfolio is comprised of foreign and domestic equities, fixed income securities, and short term investments. Investments are valued at the net asset value of units held by the plan at year-end.

Common/Collective Trusts: Composed of various funds whose diversified portfolio is comprised of foreign and domestic equities, fixed income securities, and short term investments. Investments are valued at the net asset value of units held by the plan at year-end.

Table of Contents

Derivatives: Derivative financial instruments are valued in the market using discounted cash flow techniques. These techniques incorporate Level 1 and Level 2 fair value measurement inputs such as interest rates and foreign currency exchange rates. These market inputs are utilized in the discounted cash flow calculation considering the instrument's term, notional amount, discount rate and credit risk. Significant inputs to the derivative valuation for interest rate swaps, foreign currency forwards and swaps, and options are observable in the active markets and are classified as Level 2 in the fair value measurement hierarchy.

Mortgage backed securities: Fair value is estimated based on valuations obtained from third-party pricing services for identical or comparable assets. Mortgage Backed Securities are traded in the over the counter broker/dealer market.

Insurance contracts: Valued at contributions made, plus earnings, less participant withdrawals and administrative expenses, which approximates fair value.

Short-term investment funds: Composed of various funds whose portfolio is comprised of foreign and domestic currencies as well as short-term securities. Investments are valued at the net asset value of units held by the plan at year-end.

Other: Composed of real estate investment trust common stock valued at closing price as reported on the active market in which the individual securities are traded.

Table of Contents

	Fair Value Measurement					
	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Total	
	As of December 31,					
	2015	2014	2015	2014	2015	2014
	(In \$ millions)					
Assets						
Cash and cash equivalents	4	6	—	—	4	6
Derivatives						
Swaps	—	—	25	275	25	275
Other	—	—	—	2	—	2
Equity securities						
US companies	241	249	—	—	241	249
International companies	327	383	—	—	327	383
Fixed income						
Corporate debt	—	—	692	639	692	639
Treasuries, other debt	25	49	742	708	767	757
Mortgage backed securities	—	—	5	31	5	31
Securities lending collateral	—	6	—	—	—	6
Insurance contracts	—	—	32	34	32	34
Other	18	16	—	2	18	18
Total investments, at fair value <sup>(1)</sup>	615	709	1,496	1,691	2,111	2,400
Liabilities						
Derivatives						
Swaps	—	—	25	270	25	270
Other	—	—	—	2	—	2
Obligations under securities lending	—	6	—	—	—	6
Total liabilities	—	6	25	272	25	278
Total net assets <sup>(2)</sup>	615	703	1,471	1,419	2,086	2,122

In accordance with ASU 2015-07 (Note 2), certain investments that are measured at fair value using the NAV per share practical expedient have not been classified in the fair value hierarchy. Total investments, at fair value, for the year ended December 31, 2015 excludes investments in common/collective trusts, registered investment

<sup>(1)</sup> companies and short-term investment funds with fair values of \$251 million, \$117 million and \$43 million, respectively. Total investments, at fair value, for the year ended December 31, 2014 excludes investments in common/collective trusts, registered investment companies and short-term investment funds with fair values of \$278 million, \$133 million and \$263 million, respectively.

Total net assets excludes non-financial plan receivables and payables of \$25 million and \$14 million, respectively,

<sup>(2)</sup> as of December 31, 2015 and \$19 million and \$26 million, respectively, as of December 31, 2014. Non-financial items include due to/from broker, interest receivables and accrued expenses.

Table of Contents

Benefit obligation funding is as follows:

	Total Expected 2016 (In \$ millions)
Cash contributions to defined benefit pension plans	23
Benefit payments to nonqualified pension plans	22
Benefit payments to other postretirement benefit plans	5
The Company's estimates of its US defined benefit pension plan contributions reflect the provisions of the Pension Protection Act of 2006.	

Pension benefits and postretirement benefit cost expected to be paid are as follows:

	Pension Benefit Payments <sup>(1)</sup> (In \$ millions)	Company Portion of Postretirement Benefit Cost <sup>(2)</sup>
2016	231	5
2017	230	5
2018	229	5
2019	228	4
2020	227	4
2021-2025	1,111	21

<sup>(1)</sup> Payments are expected to be made primarily from plan assets.

<sup>(2)</sup> Payments are expected to be made primarily from Company assets.

#### 16. Environmental

The Company is subject to environmental laws and regulations worldwide that impose limitations on the discharge of pollutants into the air and water and establish standards for the treatment, storage and disposal of solid and hazardous wastes. The Company believes that it is in substantial compliance with all applicable environmental laws and regulations. The Company is also subject to retained environmental obligations specified in various contractual agreements arising from the divestiture of certain businesses by the Company or one of its predecessor companies.

The components of environmental remediation reserves are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Demerger obligations ( <u>Note 24</u> )	22	25
Divestiture obligations ( <u>Note 24</u> )	17	21
Active sites	18	23
US Superfund sites	13	12
Other environmental remediation reserves	2	3
Total	72	84

#### Remediation

Due to its industrial history and through retained contractual and legal obligations, the Company has the obligation to remediate specific areas on its own sites as well as on divested, demerger, orphan or US Superfund sites (as defined below). In addition, as part of the demerger agreement between the Company and Hoechst AG ("Hoechst"), a specified portion of the responsibility for environmental liabilities from a number of Hoechst divestitures was transferred to the Company (Note 24). The Company





Table of Contents

provides for such obligations when the event of loss is probable and reasonably estimable. The Company believes that environmental remediation costs will not have a material adverse effect on the financial position of the Company, but may have a material adverse effect on the results of operations or cash flows in any given period.

The Company did not record any insurance recoveries during 2015 or have any receivables for insurance recoveries related to these matters as of December 31, 2015. As of December 31, 2015 and 2014, there were receivables of \$4 million and \$4 million, respectively, from the former owner of the Company's Spondon, Derby, United Kingdom acetate flake, tow and film business, which was acquired in 2007.

**German InfraServ Entities**

The Company's InfraServ Entities (Note 9) are liable for any residual contamination and other pollution because they own the real estate on which the individual facilities operate. In addition, Hoechst, and its legal successors, as the responsible party under German public law, is liable to third parties for all environmental damage that occurred while it was still the owner of the plants and real estate (Note 24). The contribution agreements entered into in 1997 between Hoechst and the respective operating companies, as part of the divestiture of these companies, provide that the operating companies will indemnify Hoechst, and its legal successors, against environmental liabilities resulting from the transferred businesses. Additionally, the InfraServ Entities have agreed to indemnify Hoechst, and its legal successors, against any environmental liability arising out of or in connection with environmental pollution of any site.

The InfraServ partnership agreements provide that, as between the partners, each partner is responsible for any contamination caused predominantly by such partner. Any liability, which cannot be attributed to an InfraServ partner and for which no third party is responsible, is required to be borne by the InfraServ partnership. Also, under lease agreements entered into by an InfraServ partner as landlord, the tenants agreed to pay certain remediation costs on a pro rata basis.

If an InfraServ partner defaults on its respective indemnification obligations to eliminate residual contamination, the owners of the remaining participation in the InfraServ companies have agreed to fund such liabilities, subject to a number of limitations. To the extent that any liabilities are not satisfied by either the InfraServ Entities or their owners, these liabilities are to be borne by the Company in accordance with the demerger agreement. However, Hoechst, and its legal successors, will reimburse the Company for two-thirds of any such costs. Likewise, in certain circumstances the Company could be responsible for the elimination of residual contamination on several sites that were not transferred to InfraServ companies, in which case Hoechst, and its legal successors, must also reimburse the Company for two-thirds of any costs so incurred.

The Company's ownership interest and environmental liability participation percentages for such liabilities, which cannot be attributed to an InfraServ partner are as follows:

	As of December 31, 2015		
	Ownership	Liability	Reserves <sup>(1)</sup>
	(In percentages)		(In \$ millions)
InfraServ GmbH & Co. Gendorf KG	39	10	10
InfraServ GmbH & Co. Hoechst KG	32	40	64
InfraServ GmbH & Co. Knapsack KG	27	22	1

<sup>(1)</sup> Gross reserves maintained by the respective InfraServ entity.

**US Superfund Sites**

In the US, the Company may be subject to substantial claims brought by US federal or state regulatory agencies or private individuals pursuant to statutory authority or common law. In particular, the Company has a potential liability under the US Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, and related state laws (collectively referred to as "Superfund") for investigation and cleanup costs at certain sites. At most of these sites, numerous companies, including the Company, or one of its predecessor companies, have been notified that the US Environmental Protection Agency ("EPA"), state governing bodies or private individuals consider such companies to be potentially responsible parties ("PRP") under Superfund or related laws. The proceedings

relating to these sites are in various stages. The cleanup process has not been completed at most sites, and the status of the insurance coverage for some of these proceedings is uncertain. Consequently, the Company cannot accurately determine its ultimate liability for investigation or cleanup costs at these sites.

108

---

Table of Contents

As events progress at each site for which it has been named a PRP, the Company accrues, as appropriate, a liability for site cleanup. Such liabilities include all costs that are probable and can be reasonably estimated. In establishing these liabilities, the Company considers its shipment of waste to a site, its percentage of total waste shipped to the site, the types of wastes involved, the conclusions of any studies, the magnitude of any remedial actions that may be necessary and the number and viability of other PRPs. Often the Company joins with other PRPs to sign joint defense agreements that settle, among PRPs, each party's percentage allocation of costs at the site. Although the ultimate liability may differ from the estimate, the Company routinely reviews the liabilities and revises the estimate, as appropriate, based on the most current information available.

One such site is the Lower Passaic River Study Area, which is the lower 17-mile stretch of the Passaic River ("Site"). The Company and 70 other companies are parties to a May 2007 Administrative Order on Consent with the EPA to perform a Remedial Investigation/Feasibility Study ("RI/FS") at the Site in order to identify the levels of contaminants and potential cleanup actions. The parties submitted draft documents with respect to the RI/FS to the EPA in 2014 and 2015 and seek to finalize such documents by the end of 2017. Cost estimates for the various alternatives at the Site range from \$365 million to \$3.2 billion.

In April 2014, the EPA issued its proposed, independent evaluation of remediation alternatives for a portion of the Site. The EPA's preferred plan for this portion of the Site would involve dredging bank to bank and installing an engineered cap at an estimated cost of \$1.7 billion. The parties involved have submitted comments to the EPA challenging the science, scope, necessity and viability of the EPA's proposed plan as the EPA's preferred remedy for this portion of the Site is inconsistent with the remedy being developed in the RI/FS for the full Site. The EPA will evaluate all the inputs and is expected to issue a final decision concerning this portion of the Site in 2016. Any subsequent order from the EPA requiring clean-up actions could be judicially challenged.

While the final remedy remains uncertain, the Company has found no evidence that it contributed any of the primary contaminants of concern to the Passaic River. The Company is vigorously defending this matter and currently believes that its ultimate allocable share of the cleanup costs, estimated at substantially less than 1%, will not be material.

#### 17. Stockholders' Equity

##### Common Stock

The Company's Board of Directors follows a policy of declaring, subject to legally available funds, a quarterly cash dividend on each share of the Company's Common Stock, unless the Company's Board of Directors, in its sole discretion, determines otherwise. The amount available to pay cash dividends is restricted by the Company's Amended Credit Agreement and the Indentures.

The Company's Board of Directors approved increases in the Company's Common Stock cash dividend rates as follows:

	Increase (In percentages)	Quarterly Common Stock Cash Dividend (In \$ per share)	Annual Common Stock Cash Dividend	Effective Date
April 2013	20	0.090	0.36	May 2013
July 2013	100	0.180	0.72	August 2013
April 2014	39	0.250	1.00	May 2014
April 2015	20	0.300	1.20	May 2015

On February 4, 2016, the Company declared a quarterly cash dividend of \$0.30 per share on its Common Stock amounting to \$44 million. The cash dividend is for the period from November 1, 2015 to January 31, 2016 and will be paid on February 26, 2016 to holders of record as of February 16, 2016.

##### Treasury Stock

The Company's Board of Directors authorizes repurchases of Common Stock from time to time. These authorizations give management discretion in determining the timing and conditions under which shares may be repurchased. This repurchase program does not have an expiration date.



Table of Contents

The share repurchase activity pursuant to this authorization is as follows:

	Year Ended December 31,			Total From February 2008 Through December 31, 2015
	2015	2014	2013	
Shares repurchased	6,640,601 <sup>(1)</sup>	4,338,488	3,186,180 <sup>(1)</sup>	27,307,796
Average purchase price per share	\$63.31	\$57.61	\$51.38	\$48.90
Amount spent on repurchased shares (in millions)	\$420	\$250	\$164	\$1,335
Aggregate Board of Directors repurchase authorizations during the period (in millions) <sup>(2)</sup>	\$1,000	\$473	\$—	\$2,366

The years ended December 31, 2015 and 2013 exclude 9,264 and 6,021 shares, respectively, withheld from an executive officer to cover statutory minimum withholding requirements for personal income taxes related to the vesting of restricted stock. Restricted stock awards are considered outstanding at the time of issuance. Accordingly, the shares withheld are treated as treasury shares.

These authorizations give management discretion in determining the timing and conditions under which shares may be repurchased. This repurchase program began in February 2008 and does not have an expiration date. In September 2015, the Board of Directors approved a new \$1.0 billion share repurchase authorization.

The purchase of treasury stock reduces the number of shares outstanding. The repurchased shares may be used by the Company for compensation programs utilizing the Company's stock and other corporate purposes. The Company accounts for treasury stock using the cost method and includes treasury stock as a component of stockholders' equity.

Other Comprehensive Income (Loss), Net

	Year Ended December 31,								
	2015			2014			2013		
	Gross Amount	Income Tax (Provision) Benefit	Net Amount	Gross Amount	Income Tax (Provision) Benefit	Net Amount	Gross Amount	Income Tax (Provision) Benefit	Net Amount
	(In \$ millions)								
Unrealized gain (loss) on marketable securities	—	—	—	—	1	1	1	—	1
Foreign currency translation	(193	) 5	(188	) (188	) 40	(148	) 55	(35	) 20
Gain (loss) on cash flow hedges	3	(1	) 2	—	40	40	9	(3	) 6
Pension and postretirement benefits	4	(1	) 3	(84	) 30	(54	) 88	(30	) 58
Total	(186	) 3	(183	) (272	) 111	(161	) 153	(68	) 85

Table of Contents

Adjustments to Accumulated other comprehensive income (loss), net, are as follows:

	Unrealized Gain (Loss) on Marketable Securities ( <u>Note 6</u> ) (In \$ millions)	Foreign Currency Translation	Gain (Loss) from Cash Flow Hedges ( <u>Note 22</u> )	Pension and Postretirement Benefits ( <u>Note 15</u> )	Accumulated Other Comprehensive Income (Loss), Net
As of December 31, 2012	(1	) (23	) (50	) (15	) (89
Other comprehensive income (loss) before reclassifications	1	55	(2	) 99	153
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	11	(11	) —
Income tax (provision) benefit	—	(35	) (3	) (30	) (68
As of December 31, 2013	—	(3	) (44	) 43	(4
Other comprehensive income (loss) before reclassifications	—	(188	) (9	) (1	) (198
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	9	(83	) (74
Income tax (provision) benefit	1	40	40	30	111
As of December 31, 2014	1	(151	) (4	) (11	) (165
Other comprehensive income (loss) before reclassifications	—	(193	) (2	) 6	(189
Amounts reclassified from accumulated other comprehensive income (loss)	—	—	5	(2	) 3
Income tax (provision) benefit	—	5	(1	) (1	) 3
As of December 31, 2015	1	(339	) (2	) (8	) (348
18. Other (Charges) Gains, Net					

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Employee termination benefits ( <u>Note 4</u> )	(53	) <sup>(1)</sup> (7	) (23
Kelsterbach plant relocation ( <u>Note 4</u> )	—	—	(13
Asset impairments	(126	) —	(81
Other plant/office closures	—	2	(33
Singapore contract termination	(174	) —	—
Commercial disputes	2	11	(8
Other	—	9	—
Total	(351	) 15	(158

(1) Includes \$1 million of special termination benefits included in Benefit obligations in the consolidated balance sheet as of December 31, 2015 and is included in the Company's Industrial Specialties segment.

2015

During the year ended December 31, 2015, the Company recorded \$21 million of employee termination benefits related to the Company's ongoing efforts to align its businesses around its core value drivers. In addition, the Company recorded \$24 million of employee termination benefits related to a 50% capacity reduction at its Lanaken, Belgium acetate tow facility (Note 4).

In addition, during the year ended December 31, 2015, the Company recorded \$6 million of employee termination benefits and \$1 million of long-lived asset impairment losses related to the closure of its VAE emulsions facility in Tarragona, Spain (Note 4). In addition, the Company recorded \$1 million of employee termination benefits and \$1 million of long-lived asset

Table of Contents

impairment losses related to the closure of its VAE emulsions facility in Meredosia, Illinois (Note 4). The long-lived asset impairment losses related to both VAE facilities were measured at the dates of impairment to write-off the related property, plant and equipment at each facility (Note 2 and Note 4).

During the three months ended December 31, 2015, the Company determined its ethanol production unit at its acetyl facility in Nanjing, China should be assessed for impairment based on market conditions affecting demand for ethanol and downstream products, the cost to operate the unit and contractual obligations. As a result, the Company concluded that certain long-lived ethanol related assets were fully impaired. Accordingly, the Company recorded long-lived impairment losses, measured at the date of impairment (Note 2), of \$123 million to fully write-off certain ethanol related assets. The Nanjing, China asset impairment is included in the Company's Acetyl Intermediates segment. In December 2015, the Company made a payment terminating an existing agreement with a raw materials supplier in Singapore and recognized a \$174 million charge, which reflects a discounted amount previously owed under that contract. This termination payment was determined not to have future economic benefit, and the contract's original terms substantially contributed to cumulative losses which resulted in a full impairment of the production assets in 2013. This charge is recorded in Other (charges) gains net, which is included in the Company's Acetyl Intermediates segment.

2014

During the year ended December 31, 2014, the Company received consideration of \$8 million in connection with the settlement of a claim against a bankrupt supplier. The Company also recorded \$12 million of damages in connection with the settlement of a claim by a raw materials supplier. These commercial dispute resolutions are included in the Acetyl Intermediates segment. In addition, the Company recovered \$15 million from an arbitration award against a former utility operator at its cellulose derivatives manufacturing facility in Narrows, Virginia, which is included in the Consumer Specialties segment.

During the year ended December 31, 2014 the Company recorded \$4 million of employee termination benefits related to the closure of its acetic anhydride facility in Roussillon, France and its vinyl acetate monomer ("VAM") facility in Tarragona, Spain. In addition, the Company recorded \$2 million of contract termination adjustments related to the closure of its VAM facility in Tarragona, Spain.

2013

During the three months ended December 31, 2013, the Company recorded \$6 million of employee termination benefits, \$3 million of contract termination costs and \$3 million of long-lived asset impairment losses related to the December 2013 closure of its acetic anhydride facility in Roussillon, France. In addition, the Company recorded \$14 million of employee termination benefits, \$30 million of contract termination costs and \$31 million of long-lived asset impairment losses as a result of the December 2013 closure of its VAM facility in Tarragona, Spain. The long-lived asset impairment losses related to both the Company's Roussillon acetic anhydride facility and Tarragona VAM facility were measured at the dates of impairment to fully write-off the related property, plant and equipment at both facilities (Note 2).

During the three months ended December 31, 2013, the Company determined its Singapore acetic acid production unit should be assessed for impairment based on local market conditions affecting demand for acetic acid and downstream products, the cost to operate the unit, contractual obligations and an interim arbitration ruling. As a result, the Company concluded that the long-lived assets at its Singapore acetic acid production unit were fully impaired. Accordingly, the Company recorded long-lived asset impairment losses, measured at the date of impairment, of \$46 million to fully write-off the related property, plant and equipment. The Singapore acetic acid operations are included in the Acetyl Intermediates segment (Note 2).



Table of Contents

The changes in the restructuring reserves by business segment are as follows:

	Advanced Engineered Materials (In \$ millions)	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other	Total
<b>Employee Termination Benefits</b>						
As of December 31, 2013	4	3	2	16	4	29
Additions	1	1	1	4	—	7
Cash payments	(1	) (3	) (2	) (14	) (1	) (21
Other changes	—	—	—	—	—	—
Exchange rate changes	—	—	—	(1	) —	(1
As of December 31, 2014	4	1	1	5	3	14
Additions	7	25	9	2	9	52
Cash payments	(4	) (12	) (4	) (5	) (3	) (28
Other changes	(3	) —	—	—	(3	) (6
Exchange rate changes	(1	) —	—	(1	) —	(2
As of December 31, 2015	3	14	6	1	6	30
<b>Other Plant/Office Closures</b>						
As of December 31, 2013	—	—	—	33	—	33
Additions	—	—	—	—	—	—
Cash payments	—	—	—	(9	) —	(9
Other changes	—	—	—	(15	) <sup>(1)</sup> —	(15
Exchange rate changes	—	—	—	(2	) —	(2
As of December 31, 2014	—	—	—	7	—	7
Additions	—	—	—	—	—	—
Cash payments	—	—	—	(6	) —	(6
Other changes	—	—	—	—	—	—
Exchange rate changes	—	—	—	(1	) —	(1
As of December 31, 2015	—	—	—	—	—	—
<b>Total</b>	<b>3</b>	<b>14</b>	<b>6</b>	<b>1</b>	<b>6</b>	<b>30</b>

<sup>(1)</sup> Includes a \$13 million non-cash reduction to take-or-pay contract termination penalties.

## 19. Income Taxes

## Income Tax Provision

Earnings (loss) from continuing operations before tax by jurisdiction are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
US	231	534	806
International <sup>(1)</sup>	257	407	803
<b>Total</b>	<b>488</b>	<b>941</b>	<b>1,609</b>

Includes aggregate earnings generated by operations in Bermuda, Luxembourg, the Netherlands and Hong Kong of <sup>(1)</sup> \$330 million, \$308 million and \$275 million for the years ended December 31, 2015, 2014 and 2013, respectively, which have an aggregate effective income tax rate of 6.1%, 4.8% and 4.0% for each year, respectively.

Table of Contents

The income tax provision (benefit) consists of the following:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Current			
US	28	108	78
International	152	56	83
Total	180	164	161
Deferred			
US	54	156	194
International	(33)	(6)	153
Total	21	150	347
Total	201	314	508

A reconciliation of the significant differences between the US federal statutory tax rate of 35% and the effective income tax rate on income from continuing operations is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions, except percentages)		
Income tax provision computed at US federal statutory tax rate	171	329	563
Change in valuation allowance	124	49	89
Equity income and dividends	(33)	(50)	(44)
(Income) expense not resulting in tax impact, net	(32)	(34)	(33)
US tax effect of foreign earnings and dividends	15	49	35
Foreign tax credits	(4)	(34)	(38)
Other foreign tax rate differentials	(41)	(33)	(55)
Legislative changes	—	—	(19)
Tax-deductible interest on foreign equity investments and other related items	—	12	11
State income taxes, net of federal benefit	6	9	11
Other, net	(5)	17	(12)
Income tax provision (benefit)	201	314	508
Effective income tax rate	41	% 33	% 32

Federal and state income taxes have not been provided on accumulated but undistributed earnings of \$3.9 billion as of December 31, 2015 as such earnings have been permanently reinvested in the business or may be remitted substantially free of incremental US federal tax liability. The determination of the amount of the unrecognized deferred tax liability related to the undistributed earnings is not practicable.

The higher effective tax rate for the year ended December 31, 2015 is primarily attributable to an increase in the valuation allowance due to an increase in losses in jurisdictions with no tax benefit. The increase in losses primarily relates to a \$123 million long-lived asset impairment recorded to fully write-off certain ethanol related assets at the Company's acetyl facility in Nanjing, China and a \$174 million charge related to the termination of a raw materials contract with a supplier in Singapore (Note 18). The tax impact of these events was partially offset by decreases in uncertain tax positions of \$29 million due to audit closures and technical jurisdictional clarifications. The effective tax rate was comparable for the years ended December 31, 2014 and 2013.

In February 2015, the Company established a centralized European headquarters for the purpose of improving the operational efficiencies and profitability of its European operations and certain global product lines. These activities directly impacted the Company's mix of earnings and product flows and resulted in both favorable and unfavorable tax rate impacts in the



Table of Contents

jurisdictions in which the Company operates. These impacts have been reflected in Other foreign tax rate differentials included in the reconciliation of the significant differences between the US federal statutory tax rate and the effective income tax rate.

## Deferred Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the consolidated deferred tax assets and liabilities are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
<b>Deferred Tax Assets</b>		
Pension and postretirement obligations	434	424
Accrued expenses	40	41
Inventory	14	10
Net operating loss	683	468
Tax credit carryforwards	88	100
Other	202	165
Subtotal	1,461	1,208
Valuation allowance <sup>(1)</sup>	(448)	(413)
Total	1,013	795
<b>Deferred Tax Liabilities</b>		
Depreciation and amortization	380	416
Investments in affiliates	395	143
Other	114	102
Total	889	661
Net deferred tax assets (liabilities)	124	134

(1) Includes deferred tax asset valuation allowances for the Company's deferred tax assets in the US, Luxembourg, Spain, China, Singapore, the United Kingdom, Canada and France. These valuation allowances relate primarily to net operating loss carryforward benefits and other net deferred tax assets, all of which may not be realizable.

For the year ended December 31, 2015, the valuation allowance increased by \$35 million primarily due to \$124 million of losses generated with no currently realizable income tax benefit, primarily associated with the long-lived asset impairment recorded to fully write-off certain ethanol assets at the Company's acetyl facility in Nanjing, China and the termination of a raw materials contract with a supplier in Singapore (Note 18), partially offset by \$22 million related to exchange rate changes and net operating loss expirations and utilization of previously unbenefited loss carryforwards of \$67 million.

## Legislative Changes

In October 2013, the Mexican National Congress passed new tax legislation. Among other things, the new legislation maintains a corporate tax rate of 30%, eliminates the tax consolidation rules and repeals the business flat tax ("IETU") for years beginning after December 31, 2013. The Company was subject to the IETU in 2013 and for prior periods and is now required to record deferred income taxes on an income tax basis. As a result, the Company realized a deferred income tax benefit of \$46 million for the year ended December 31, 2013.

The Company has historically filed consolidated income tax returns in Mexico. Under the new tax legislation, the Company was required to recapture previously deferred income taxes related to income tax loss carryforwards, intercompany dividends and differences between consolidated and individual company taxable earnings. The Company recorded additional tax expense of \$27 million related to these new rules for the year ended December 31, 2013, resulting in a net income tax benefit of \$19 million.



Table of Contents

## Net Operating Loss Carryforwards

As of December 31, 2015, the Company has US federal net operating loss carryforwards of \$26 million that are subject to limitation. These net operating loss carryforwards begin to expire in 2021. At December 31, 2015, the Company also had state net operating loss carryforwards, net of federal tax impact, of \$47 million, \$46 million of which are offset by a valuation allowance due to uncertain recoverability. The Company also has foreign net operating loss carryforwards as of December 31, 2015 of \$2.3 billion primarily for Luxembourg, Spain, Canada, China, Singapore and the United Kingdom, with various expiration dates. Net operating losses in China have various carryforward periods and began to expire in 2011. Net operating losses in most other foreign jurisdictions do not have an expiration date.

## Uncertain Tax Positions

Activity related to uncertain tax positions is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
As of the beginning of the year	228	244	218
Increases in tax positions for the current year	13	7	3
Increases in tax positions for prior years	76	24	57
Decreases in tax positions for prior years	(126)	(46)	(32)
Decreases due to settlements	(33)	(1)	(2)
As of the end of the year	158	228	244
Total uncertain tax positions that if recognized would impact the effective tax rate	144	245	258
Total amount of interest expense (benefit) and penalties recognized in the consolidated statements of operations	(12)	(1) <sup>(1)</sup>	12
Total amount of interest expense and penalties recognized in the consolidated balance sheets	43	67	65

This amount reflects interest on uncertain tax positions, the impact of currency and release of certain tax positions as a result of audit closure that was reflected in the consolidated statements of operations. In addition, the Company also paid an additional \$12 million of previously accrued amounts due to settlements of tax examinations.

The Company primarily operates in the US, Germany, Belgium, Canada, China, Mexico and Singapore. Examinations are ongoing in a number of these jurisdictions, including Germany for the years 2005 to 2012 and the US for the years 2009 through 2012. The Company's US federal income tax returns for 2004 and forward are open for examination under statute. The Company's German corporate tax returns for 2005 and forward are open for examination under statute. In addition, certain statutes of limitations are scheduled to expire in the near future. The decrease in uncertain tax positions for the year-ended December 31, 2015 is primarily due to audit closures and technical judicial clarifications. It is reasonably possible that a further change in the unrecognized tax benefits may occur within the next twelve months related to the settlement of one or more of these audits. Amounts immediately determinable have been reflected in the current portion of uncertain tax positions.

In December 2013, the French Tax Authority ("FTA") issued audit assessment claims against the Company that could result in incremental tax expense of €81 million, including interest and penalties. The assessment suggests that for the years 2008 to 2010, the Company transferred value from its otherwise profitable facility in Pardies, France to subsidize other global manufacturing operations outside of France. During the three months ended June 30, 2014, the Company completed a settlement of the examination with the FTA. As a result of the settlement, the Company utilized €141 million of previously unbenefited net operating loss carryforwards. The settlement did not result in any material additional cash tax liability.



Table of Contents

## 20. Management Compensation Plans

## General Plan Description

The Company issues stock-based awards under its 2009 GIP, which enables the compensation committee of the Board of Directors to award incentive and nonqualified stock options, stock appreciation rights, shares of Common Stock, restricted stock awards, restricted stock units ("RSUs") and incentive bonuses (which may be paid in cash or stock or a combination thereof), any of which may be performance-based, with vesting and other award provisions that provide effective incentive to Company employees (including officers), non-management directors and other service providers.

Total shares available for awards and total shares subject to outstanding awards are as follows:

	As of December 31, 2015		
	Shares Available for Awards	Shares Subject to Outstanding Awards	
2009 GIP	6,949,926	2,736,369	
2004 Stock Incentive Plan	—	94,500	(1)

(1) No RSUs remain outstanding under the 2004 Stock Incentive Plan.

The Company realized income tax benefits from stock option exercises and RSU vestings as follows:

	Year Ended December 31,		
	2015	2014	2013
Income tax benefit realized	2	2	2
Amount reversed in current year related to prior year	—	—	—

(In \$ millions)

## Stock Options

The summary of changes in stock options outstanding is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	(In thousands)	(In \$)	(In years)	(In \$ millions)
As of December 31, 2014	343	33.72	3.2	7
Granted	—	—		
Exercised	(94	) 29.82		
Forfeited	—	—		
Expired	—	—		
As of December 31, 2015	249	35.19	2.4	9
Options exercisable at end of year	239	34.74	2.3	9

The weighted average assumptions used in the Black-Scholes option pricing method for stock option grants are as follows:

	Year Ended December 31,			
	2015	2014	2013	
Risk-free interest rate	N/A	N/A	0.68	%
Estimated life in years	N/A	N/A	4.50	
Dividend yield	N/A	N/A	0.64	%
Volatility	N/A	N/A	49.50	%





Table of Contents

The weighted average grant date fair value of stock options granted is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$)		
Total	N/A	N/A	18.50

The total intrinsic value of stock options exercised is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Intrinsic value	4	7	6

Restricted Stock Units

A summary of changes in nonvested performance-based RSUs outstanding is as follows:

	Number of Units	Weighted Average Grant Date Fair Value
As of December 31, 2014	1,027	48.02
Granted	514	53.13
Additional performance-based RSUs granted <sup>(1)</sup>	253	47.32
Vested	(506)	47.32
Canceled	—	—
Forfeited	(57)	49.12
As of December 31, 2015	1,231	50.24

<sup>(1)</sup> Represents additional performance-based RSU grants in 2013 that were awarded in 2015 as a result of achieving internal profitability targets.

The fair value of shares vested for performance-based RSUs is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Total	27	—	10

A summary of changes in nonvested time-based RSUs outstanding is as follows:

	Employee Time-Based RSUs		Director Time-Based RSUs	
	Number of Units	Weighted Average Grant Date Fair Value	Number of Units	Weighted Average Grant Date Fair Value
	(In thousands)	(In \$)	(In thousands)	(In \$)
As of December 31, 2014	112	45.87	19	58.48
Granted	75	63.67	14	64.94
Vested	(81)	43.10	(19)	58.48
Forfeited	(1)	48.15	—	—
As of December 31, 2015	105	60.78	14	64.94

Table of Contents

The fair value of shares vested for time-based RSUs is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Total	6	9	12

As of December 31, 2015, there was \$22 million of unrecognized compensation cost related to RSUs, excluding actual forfeitures, which is expected to be recognized over a weighted average period of one year.

Employee Stock Purchase Plan

Beginning January 1, 2015, eligible US employees can purchase shares of the Company's Common Stock under the 2009 Employee Stock Purchase Plan approved by stockholders on April 23, 2009 ("ESPP"). As of December 31, 2015, 55,240 shares of Common Stock have been offered for purchase under the ESPP.

21. Leases

Future minimum lease payments under non-cancelable rental and lease agreements, which have initial or remaining terms in excess of one year are as follows:

	As of December 31, 2015	
	Capital Leases	
	(In \$ millions)	
2016	46	
2017	46	
2018	45	
2019	45	
2020	45	
Later years	195	
Sublease income	—	
Minimum lease commitments	422	
Less amounts representing interest	(184	)
Present value of net minimum lease obligations	238	
	As of December 31, 2015	
	Operating Leases	
	(In \$ millions)	
2016	66	
2017	43	
2018	34	
2019	31	
2020	23	
Later years	97	
Sublease income	(3	)
Minimum lease commitments	291	

The Company expects that, in the normal course of business, leases that expire will be renewed or replaced by other leases.

Table of Contents

Rent expense recorded under all operating leases is as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Total	154	161	160

## 22. Derivative Financial Instruments

## Interest Rate Swaps

The Company fixes the LIBOR portion of its US dollar denominated variable rate borrowings (Note 14) with interest rate swap derivative arrangements as follows:

As of December 31, 2015

Notional Value (In \$ millions)	Effective Date	Expiration Date	Fixed Rate (In percentages)
500	January 2, 2014	January 2, 2016	0.94

As of December 31, 2014

Notional Value (In \$ millions)	Effective Date	Expiration Date	Fixed Rate (In percentages)
500	January 2, 2014	January 2, 2016	1.02

## Cross-currency Swaps

In March 2015, the Company settled its cross-currency swap agreements with notional values of \$250 million/€193 million, expiring on September 11, 2020, and \$225 million/€162 million, expiring on April 17, 2019, in exchange for cash of \$88 million. The Company recorded a net loss of \$1 million, which is included in Other income (expense), net in the consolidated statement of operations. The Company classifies cash flows from derivative instruments designated as cash flow hedges in the same category of the consolidated statement of cash flows as the cash flows from the items being hedged. Accordingly, the settlement of the cross-currency swap agreements is included in Net cash provided by (used in) operating activities in the consolidated statement of cash flows for the year ended December 31, 2015.

## Foreign Currency Forwards and Swaps

Each of the contracts included in the table below will have approximately offsetting effects from actual underlying payables, receivables, intercompany loans or other assets or liabilities subject to foreign exchange remeasurement. The total US dollar equivalents of net foreign exchange exposure related to (short) long foreign exchange forward contracts outstanding by currency are as follows:

	2016 Maturity (In \$ millions)
Currency	
Brazilian real	(10 )
British pound sterling	(88 )
Canadian dollar	25
Euro	127
Hungarian forint	8
Korean won	9
Mexican peso	(31 )
Singapore dollar	22
Swedish krona	8
Total	70

Table of Contents

Gross notional values of the foreign currency forwards and swaps are as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Total	502	1,336

Hedging activity for interest rate swaps and cross-currency swaps is as follows:

	Year Ended December 31,			Statement of Operations
	2015	2014	2013	Classification
	(In \$ millions)			
Hedging activities	2	(4	) (11	) Interest income (expense)
Ineffective portion of hedging activities	—	—	—	Other income (expense), net

Information regarding changes in the fair value of the Company's derivative and non-derivative instruments is as follows:

	Gain (Loss) Recognized in Other Comprehensive Income (Loss)			Gain (Loss) Recognized in Earnings (Loss)			Statement of Operations Classification
	Year Ended December 31,			Year Ended December 31,			
	2015	2014	2013	2015	2014	2013	
	(In \$ millions)						
<b>Designated as Cash Flow Hedges</b>							
Interest rate swaps	—	(1	) (2	) —	(4	) (11	) Interest expense
Cross-currency swaps	—	(8	) —	46	46	—	Other income (expense), net or Interest expense
Total	—	(9	) (2	) 46	42	(11	)
<b>Designated as a Net Investment Hedge</b>							
3.250% Notes	38	23	—	—	—	—	Foreign currency translation
Term C-2 and Term C-3 loans <sup>(2)</sup>	10	—	—	—	—	—	Foreign currency translation
Total	48	23	—	—	—	—	
<b>Not Designated as Hedges</b>							
Interest rate swaps	—	—	—	(1	) (3	) <sup>(1)</sup> —	Interest expense
Foreign currency forwards and swaps	—	—	—	(82	) (15	) (23	) Foreign exchange gain (loss), net or Other income (expense), net
Total	—	—	—	(83	) (18	) (23	)

<sup>(1)</sup> In December 2014, the Company dedesignated as cash flow hedges a notional value of \$500 million US dollar interest rate swap agreements expiring January 2, 2016.

During the three months ended March 31, 2015, the Company designated the Euro-based principal amount of its Term C-2 loan and its Term C-3 loan as a net investment hedge of its investment in a wholly-owned international

<sup>(2)</sup> subsidiary whose functional currency is the Euro to mitigate the volatility caused by the changes in foreign currency exchange rates of the Euro with respect to the US dollar. During the three months ended December 31, 2015, the Company dedesignated the Euro-based principal amount of its Term C-3 loan as a net investment hedge.

See Note 23 - Fair Value Measurements for additional information regarding the fair value of the Company's derivative agreements.

121

---

Table of Contents

Certain of the Company's foreign currency forwards and swaps and interest rate swaps permit the Company to net settle all contracts with the counterparty through a single payment in an agreed upon currency in the event of default or early termination of the contract, similar to a master netting arrangement. The Company's interest rate swap agreements are subject to cross collateralization under the Guarantee and Collateral Agreement entered into in conjunction with the Term loan borrowings ([Note 14](#)).

Information regarding the gross amounts of the Company's derivative instruments and the amounts offset in the consolidated balance sheets is as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
<b>Derivative Assets</b>		
Gross amount recognized	2	55
Gross amount offset in the consolidated balance sheets	—	—
Net amount presented in the consolidated balance sheets	2	55
Gross amount not offset in the consolidated balance sheets	—	4
Net amount	2	51
	As of December 31,	
	2015	2014
	(In \$ millions)	
<b>Derivative Liabilities</b>		
Gross amount recognized	2	23
Gross amount offset in the consolidated balance sheets	—	—
Net amount presented in the consolidated balance sheets	2	23
Gross amount not offset in the consolidated balance sheets	—	4
Net amount	2	19

**23. Fair Value Measurements**

The Company's financial assets and liabilities are measured at fair value on a recurring basis ([Note 2](#)) as follows:

**Derivatives.** Derivative financial instruments include interest rate swaps, cross-currency swaps and foreign currency forwards and swaps and are valued in the market using discounted cash flow techniques. These techniques incorporate Level 1 and Level 2 fair value measurement inputs such as interest rates and foreign currency exchange rates. These market inputs are utilized in the discounted cash flow calculation considering the instrument's term, notional amount, discount rate and credit risk. Significant inputs to the derivative valuation for interest rate swaps, cross-currency swaps and foreign currency forwards and swaps are observable in the active markets and are classified as Level 2 in the fair value measurement hierarchy.

Table of Contents

	Fair Value Measurement				Total		Balance Sheet Classification
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)				
	As of December 31,		As of December 31,				
	2015	2014	2015	2014	2015	2014	
	(In \$ millions)						
Derivatives Designated as Cash Flow Hedges							
Cross-currency swaps	—	—	—	9	—	9	Current Other assets
Cross-currency swaps	—	—	—	43	—	43	Noncurrent Other assets
Derivatives Not Designated as Hedges							
Foreign currency forwards and swaps	—	—	2	3	2	3	Current Other assets
Total assets	—	—	2	55	2	55	
Derivatives Designated as Cash Flow Hedges							
Cross-currency swaps	—	—	—	(2 )	—	(2 )	Current Other liabilities
Cross-currency swaps	—	—	—	(10 )	—	(10 )	Noncurrent Other liabilities
Designated as a Net Investment Hedge							
3.250% Notes <sup>(1)</sup>	—	—	—	—	—	—	Long-term Debt
Term C-2 and Term C-3 loans <sup>(1)</sup>	—	—	—	—	—	—	Long-term Debt
Derivatives Not Designated as Hedges							
Interest rate swaps	—	—	—	(4 )	—	(4 )	Current Other liabilities
Foreign currency forwards and swaps	—	—	(2 )	(7 )	(2 )	(7 )	Current Other liabilities
Total liabilities	—	—	(2 )	(23 )	(2 )	(23 )	

<sup>(1)</sup> Included in the consolidated balance sheets at carrying amount. During the three months ended December 31, 2015, the Company dedesignated the Euro-based principal amount of its Term C-3 loan as a net investment hedge. Carrying values and fair values of financial instruments that are not carried at fair value are as follows:

	Carrying Amount	Fair Value Measurement				Total		
		Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)					
	As of December 31,		As of December 31,					
	2015	2014	2015	2014	2015	2014	2015	2014
	(In \$ millions)							
Cost investments	151	145	—	—	—	—	—	—
Insurance contracts in nonqualified trusts	55	56	55	56	—	—	55	56
Long-term debt, including current installments of long-term debt	2,542	2,633	2,348	2,398	238	260	2,586	2,658

In general, the cost investments included in the table above are not publicly traded and their fair values are not readily determinable; however, the Company believes the carrying values approximate or are less than the fair values. Insurance contracts in nonqualified trusts consist of long-term fixed income securities, which are valued using



independent vendor pricing models with observable inputs in the active market and therefore represent a Level 2 fair value measurement. The fair value of long-term debt is based on valuations from third-party banks and market quotations and is classified as Level 2 in the fair value measurement hierarchy. The fair value of obligations under capital leases, which are included in long-term debt, is based on

123

---

Table of Contents

lease payments and discount rates, which are not observable in the market and therefore represents a Level 3 fair value measurement.

As of December 31, 2015 and 2014, the fair values of cash and cash equivalents, receivables, trade payables, short-term borrowings and the current installments of long-term debt approximate carrying values due to the short-term nature of these instruments. These items have been excluded from the table with the exception of the current installments of long-term debt.

24. Commitments and Contingencies

Commitments

Guarantees

The Company has agreed to guarantee or indemnify third parties for environmental and other liabilities pursuant to a variety of agreements, including asset and business divestiture agreements, leases, settlement agreements and various agreements with affiliated companies. Although many of these obligations contain monetary and/or time limitations, others do not provide such limitations.

As indemnification obligations often depend on the occurrence of unpredictable future events, the future costs associated with them cannot be determined at this time.

The Company has accrued for all probable and reasonably estimable losses associated with all known matters or claims that have been brought to its attention. These known obligations include the following:

Demerger Obligations

In connection with the Hoechst demerger, the Company agreed to indemnify Hoechst, and its legal successors, for various liabilities under the demerger agreement, including for environmental liabilities associated with contamination arising either from environmental damage in general ("Category A") or under 19 divestiture agreements entered into by Hoechst prior to the demerger ("Category B") (Note 16).

The Company's obligation to indemnify Hoechst, and its legal successors, is capped under Category B at €250 million. If and to the extent the environmental damage should exceed €750 million in aggregate, the Company's obligation to indemnify Hoechst and its legal successors applies, but is then limited to 33.33% of the remediation cost without further limitations. Cumulative payments under the divestiture agreements as of December 31, 2015 are \$71 million. Most of the divestiture agreements have become time barred and/or any notified environmental damage claims have been partially settled.

The Company has also undertaken in the demerger agreement to indemnify Hoechst and its legal successors for (i) 33.33% of any and all Category A liabilities that result from Hoechst being held as the responsible party pursuant to public law or current or future environmental law or by third parties pursuant to private or public law related to contamination and (ii) liabilities that Hoechst is required to discharge, including tax liabilities, which are associated with businesses that were included in the demerger but were not demerged due to legal restrictions on the transfers of such items. These indemnities do not provide for any monetary or time limitations. The Company has not been requested by Hoechst to make any payments in connection with this indemnification. Accordingly, the Company has not made any payments to Hoechst and its legal successors.

Based on the Company's evaluation of currently available information, including the lack of requests for indemnification, the Company cannot estimate the Possible Loss for the remaining demerger obligations, if any, in excess of amounts accrued.

Divestiture Obligations

The Company and its predecessor companies agreed to indemnify third-party purchasers of former businesses and assets for various pre-closing conditions, as well as for breaches of representations, warranties and covenants. Such liabilities also include environmental liability, product liability, antitrust and other liabilities. These indemnifications and guarantees represent standard contractual terms associated with typical divestiture agreements and, other than environmental liabilities, the Company does not believe that they expose the Company to any significant risk (Note 16).

The Company has divested numerous businesses, investments and facilities through agreements containing indemnifications or guarantees to the purchasers. Many of the obligations contain monetary and/or time limitations, which extend through 2037. The aggregate amount of outstanding indemnifications and guarantees provided for under

these agreements is \$202 million as of December 31, 2015. Other agreements do not provide for any monetary or time limitations.

Table of Contents

Based on the Company's evaluation of currently available information, including the number of requests for indemnification or other payment received by the Company, the Company cannot estimate the Possible Loss for the remaining divestiture obligations, if any, in excess of amounts accrued.

Purchase Obligations

In the normal course of business, the Company enters into various purchase commitments for goods and services. The Company maintains a number of "take-or-pay" contracts for purchases of raw materials, utilities and other services. Certain of the contracts contain a contract termination buy-out provision that allows for the Company to exit the contracts for amounts less than the remaining take-or-pay obligations. The Company does not expect to incur any material losses under take-or-pay contractual arrangements. Additionally, the Company has other outstanding commitments representing maintenance and service agreements, energy and utility agreements, consulting contracts and software agreements. As of December 31, 2015, the Company had unconditional purchase obligations of \$3.0 billion, which extend through 2036.

Contingencies

The Company is involved in legal and regulatory proceedings, lawsuits, claims and investigations incidental to the normal conduct of business, relating to such matters as product liability, land disputes, commercial contracts, employment, antitrust, intellectual property, workers' compensation, chemical exposure, asbestos exposure, trade compliance, prior acquisitions and divestitures, claims of legacy stockholders, past waste disposal practices and release of chemicals into the environment. The Company is actively defending those matters where the Company is named as a defendant. The Company does not believe any of the potential outcomes from these matters would be material to our results of operations, cash flows or financial position.

25. Supplemental Cash Flow Information

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Interest paid, net of amounts capitalized	120	146	166
Taxes paid, net of refunds	151	199	129
Noncash Investing and Financing Activities			
Accrued capital expenditures	(37	) 3	38
Accrued Kelsterbach capital expenditures ( <u>Note 4</u> )	—	—	(2
Asset retirement obligations	3	4	9
Capital expenditure reimbursement	—	4	—
Capital lease obligations	6	22	28
Contingent consideration ( <u>Note 4</u> )	—	8	—
Distribution to noncontrolling interest ( <u>Note 5</u> )	(4	) —	—
Lease incentives	—	—	3
Mitsui reimbursement	—	70	(70

## Table of Contents

### 26. Segment Information

#### Business Segments

The Company operates through business segments according to the nature and economic characteristics of its products as well as the manner in which the information is used internally by the Company's key decision maker, who is the Company's Chief Executive Officer.

The Company's business segments are as follows:

#### Advanced Engineered Materials

The Company's Advanced Engineered Materials segment includes the engineered materials business and certain strategic affiliates. The engineered materials business develops, produces and supplies a broad portfolio of high performance specialty polymers for application in automotive and medical applications as well as industrial products and consumer electronics. Together with its strategic affiliates, the Company's engineered materials business is a leading participant in the global specialty polymers industry. The primary products of Advanced Engineered Materials are used in a broad range of end-use products including fuel system components, automotive safety systems, medical applications, electronics, appliances, industrial products, battery separators, conveyor belts, filtration equipment, coatings, and electrical applications and products.

#### Consumer Specialties

The Company's Consumer Specialties segment includes the cellulose derivatives and food ingredients businesses, which serve consumer-driven applications. These operating segments are aggregated by the Company into one reportable segment based on similar economic characteristics and similar production processes, classes of customers and selling and distribution practices. The Company's cellulose derivatives business is a leading global producer and supplier of acetate flake, acetate film and acetate tow, primarily used in filtration applications. The Company's food ingredients business is a leading global supplier of premium quality ingredients for the food and beverage and pharmaceuticals industries and is a leading producer of food protection ingredients, such as potassium sorbate and sorbic acid. The Company's food ingredients business produces and sells the Qorus<sup>®</sup> sweetener system and Sunett<sup>®</sup> high intensity sweeteners.

#### Industrial Specialties

The Company's Industrial Specialties segment includes the emulsion polymers and EVA polymers businesses, which are operating segments aggregated by the Company into one reportable segment based on similar products, production processes, classes of customers and selling and distribution practices as well as economic similarities over a normal business cycle. The Company's emulsion polymers business is a leading global producer of vinyl acetate-based emulsions and develops products and application technologies to improve performance, create value and drive innovation in applications such as paints and coatings, adhesives, construction, glass fiber, textiles and paper. The Company's EVA polymers business is a leading North American manufacturer of a full range of specialty ethylene vinyl acetate resins and compounds as well as select grades of low-density polyethylene. The Company's EVA polymers' products are used in many applications including flexible packaging films, lamination film products, hot melt adhesives, medical, automotive parts and carpeting.

#### Acetyl Intermediates

The Company's Acetyl Intermediates segment includes the intermediate chemistry business, which produces and supplies acetyl products, including acetic acid, vinyl acetate monomer, acetic anhydride and acetate esters. These products are generally used as starting materials for colorants, paints, adhesives, coatings and medicines. The Acetyl Intermediates segment also produces organic solvents and intermediates for pharmaceutical, agricultural and chemical products.

#### Other Activities

Other Activities primarily consists of corporate center costs, including administrative activities such as finance, information technology and human resource functions, interest income and expense associated with financing activities and results of the Company's captive insurance companies. Other Activities also includes the components of net periodic benefit cost (interest cost, expected return on assets and net actuarial gains and losses) for the Company's defined benefit pension plans and other postretirement plans not allocated to the Company's business segments.

The business segment management reporting and controlling systems are based on the same accounting policies as those described in the summary of significant accounting policies (Note 2).

126

---

Table of Contents

Sales transactions between business segments are generally recorded at values that approximate third-party selling prices.

	Advanced Engineered Materials	Consumer Specialties	Industrial Specialties	Acetyl Intermediates	Other Activities	Eliminations	Consolidated
(In \$ millions)							
Year Ended December 31, 2015							
Net sales	1,326	969	<sup>(1)</sup> 1,082	2,744	<sup>(2)</sup> —	(447 )	5,674
Other (charges) gains, net	(7 )	(25 )	(10 )	(300 )	(9 )	—	(351 )
Operating profit (loss)	235	262	72	(3 )	(240 )	—	326
Equity in net earnings (loss) of affiliates	150	2	—	6	23	—	181
Depreciation and amortization	99	60	64	123	<sup>(3)</sup> 11	—	357
Capital expenditures	73	65	56	282	7	—	483
As of December 31, 2015							
Goodwill and intangible assets, net	338	249	49	194	—	—	830
Total assets	2,324	1,458	747	2,387	1,670	—	8,586
Year Ended December 31, 2014							
Net sales	1,459	1,160	<sup>(1)</sup> 1,224	3,493	<sup>(2)</sup> —	(534 )	6,802
Other (charges) gains, net	(1 )	16	(1 )	(3 )	4	—	15
Operating profit (loss)	221	388	76	558	(485 )	—	758
Equity in net earnings (loss) of affiliates	161	9	—	20	56	—	246
Depreciation and amortization	106	43	50	81	12	—	292
Capital expenditures	65	103	29	478	6	—	681
As of December 31, 2014							
Goodwill and intangible assets, net	358	261	54	208	—	—	881
Total assets	2,484	1,491	823	2,495	1,503	—	8,796
Year Ended December 31, 2013							
Net sales	1,352	1,214	<sup>(1)</sup> 1,155	3,241	<sup>(2)</sup> —	(452 )	6,510
Other (charges) gains, net	(13 )	—	(4 )	(141 )	—	—	(158 )
Operating profit (loss)	904	346	64	153	41	—	1,508
Equity in net earnings (loss) of affiliates	148	3	—	5	24	—	180
Depreciation and amortization	110	41	52	86	16	—	305
Capital expenditures	67	116	33	184	8	—	408

(1) Includes intersegment sales of \$0 million, \$2 million and \$4 million for the years ended December 31, 2015, 2014 and 2013, respectively.

(2) Includes intersegment sales of \$447 million, \$532 million and \$448 million for the years ended December 31, 2015, 2014 and 2013, respectively.

(3) See Note 4 - Acquisitions, Dispositions and Plant Closures for further information.

(4) Includes a decrease in accrued capital expenditures of \$37 million and an increase of \$3 million for the years ended December 31, 2015 and 2014, respectively.

(5) Excludes expenditures related to the relocation of the Company's POM operations in Germany (Note 4) and includes an increase in accrued capital expenditures of \$38 million for the year ended December 31, 2013.





Table of Contents

## Geographical Area Information

The net sales based on the geographic location of the Company's facilities are as follows:

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions)		
Belgium	417	480	525
Canada	162	204	249
China	800	996	863
Germany	1,779	2,156	2,049
Mexico	204	259	256
Singapore	703	632	578
US	1,463	1,899	1,808
Other	146	176	182
Total	5,674	6,802	6,510

Property, plant and equipment, net based on the geographic location of the Company's facilities is as follows:

	As of December 31,	
	2015	2014
	(In \$ millions)	
Belgium	56	66
Canada	137	138
China	417	593
Germany	931	1,084
Mexico	156	151
Singapore	68	50
US	1,774	1,563
Other	70	88
Total	3,609	3,733

## 27. Earnings (Loss) Per Share

	Year Ended December 31,		
	2015	2014	2013
	(In \$ millions, except share data)		
Amounts attributable to Celanese Corporation			
Earnings (loss) from continuing operations	306	631	1,101
Earnings (loss) from discontinued operations	(2	) (7	) —
Net earnings (loss)	304	624	1,101
Weighted average shares - basic	150,838,050	155,012,370	158,801,150
Incremental shares attributable to equity awards <sup>(1)</sup>	1,449,905	1,154,623	533,069
Weighted average shares - diluted	152,287,955	156,166,993	159,334,219

(1) Excludes 2,903, 0 and 40,306 equity award shares for the years ended December 31, 2015, 2014 and 2013, respectively, as their effect would have been antidilutive.

Table of Contents

28. Consolidating Guarantor Financial Information

The Senior Notes were issued by Celanese US (the "Issuer") and are guaranteed by Celanese Corporation (the "Parent Guarantor") and the Subsidiary Guarantors (Note 14). The Issuer and Subsidiary Guarantors are 100% owned subsidiaries of the Parent Guarantor. The Parent Guarantor and Subsidiary Guarantors have guaranteed the Notes fully and unconditionally and jointly and severally.

For cash management purposes, the Company transfers cash between the Parent Guarantor, Issuer, Subsidiary Guarantors and non-guarantors through intercompany financing arrangements, contributions or declaration of dividends between the respective parent and its subsidiaries. The transfer of cash under these activities facilitates the ability of the recipient to make specified third-party payments for principal and interest on the Company's outstanding debt, Common Stock dividends and Common Stock repurchases. The consolidating statements of cash flow present such intercompany financing activities, contributions and dividends consistent with how such activity would be presented in a stand-alone statement of cash flows.

The Company has not presented separate financial information and other disclosures for each of its Subsidiary Guarantors because it believes such financial information and other disclosures would not provide investors with any additional information that would be material in evaluating the sufficiency of the guarantees.

For the year ended December 31, 2015, \$54 million in interest expense was allocated from the Issuer to Subsidiary Guarantors.

The consolidating financial information for the Parent Guarantor, the Issuer, the Subsidiary Guarantors and the non-guarantors are as follows:

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF OPERATIONS

	Year Ended December 31, 2015					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
Net sales	—	—	2,410	4,485	(1,221	) 5,674
Cost of sales	—	—	(1,729	) (3,897	) 1,270	(4,356 )
Gross profit	—	—	681	588	49	1,318
Selling, general and administrative expenses	—	—	(242	) (264	) —	(506 )
Amortization of intangible assets	—	—	(5	) (6	) —	(11 )
Research and development expenses	—	—	(78	) (41	) —	(119 )
Other (charges) gains, net	—	—	(5	) (346	) —	(351 )
Foreign exchange gain (loss), net	—	—	—	4	—	4
Gain (loss) on disposition of businesses and assets, net	—	—	(6	) (3	) —	(9 )
Operating profit (loss)	—	—	345	(68	) 49	326
Equity in net earnings (loss) of affiliates	302	314	84	162	(681	) 181
Interest expense	—	(77	) (76	) (36	) 70	(119 )
Refinancing expense	—	—	—	—	—	—
Interest income	—	18	40	13	(70	) 1
Dividend income - cost investments	—	—	—	107	—	107
Other income (expense), net	—	(2	) 2	(8	) —	(8 )
Earnings (loss) from continuing operations before tax	302	253	395	170	(632	) 488
Income tax (provision) benefit	2	49	(133	) (98	) (21	) (201 )
Earnings (loss) from continuing operations	304	302	262	72	(653	) 287
Earnings (loss) from operation of discontinued operations	—	—	(3	) —	—	(3 )
Gain (loss) on disposition of discontinued operations	—	—	—	—	—	—
Income tax (provision) benefit from discontinued operations	—	—	1	—	—	1
Earnings (loss) from discontinued operations	—	—	(2	) —	—	(2 )
Net earnings (loss)	304	302	260	72	(653	) 285
Net (earnings) loss attributable to noncontrolling interests	—	—	—	19	—	19
Net earnings (loss) attributable to Celanese Corporation	304	302	260	91	(653	) 304

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF OPERATIONS

	Year Ended December 31, 2014						
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated	
	(In \$ millions)						
Net sales	—	—	2,860	5,166	(1,224	) 6,802	
Cost of sales	—	—	(1,822	) (4,550	) 1,186	(5,186	)
Gross profit	—	—	1,038	616	(38	) 1,616	
Selling, general and administrative expenses	—	—	(313	) (445	) —	(758	)
Amortization of intangible assets	—	—	(7	) (13	) —	(20	)
Research and development expenses	—	—	(47	) (39	) —	(86	)
Other (charges) gains, net	—	—	28	(13	) —	15	
Foreign exchange gain (loss), net	—	—	—	(2	) —	(2	)
Gain (loss) on disposition of businesses and assets, net	—	—	(11	) 4	—	(7	)
Operating profit (loss)	—	—	688	108	(38	) 758	
Equity in net earnings (loss) of affiliates	622	806	90	210	(1,482	) 246	
Interest expense	—	(190	) (22	) (78	) 143	(147	)
Refinancing expense	—	(29	) —	—	—	(29	)
Interest income	—	57	72	15	(143	) 1	
Dividend income - cost investments	—	—	—	116	—	116	
Other income (expense), net	—	—	4	(8	) —	(4	)
Earnings (loss) from continuing operations before tax	622	644	832	363	(1,520	) 941	
Income tax (provision) benefit	2	(22	) (237	) (71	) 14	(314	)
Earnings (loss) from continuing operations	624	622	595	292	(1,506	) 627	
Earnings (loss) from operation of discontinued operations	—	—	(8	) (3	) —	(11	)
Gain (loss) on disposition of discontinued operations	—	—	—	—	—	—	
Income tax (provision) benefit from discontinued operations	—	—	3	1	—	4	
Earnings (loss) from discontinued operations	—	—	(5	) (2	) —	(7	)
Net earnings (loss)	624	622	590	290	(1,506	) 620	
Net (earnings) loss attributable to noncontrolling interests	—	—	—	4	—	4	
Net earnings (loss) attributable to Celanese Corporation	624	622	590	294	(1,506	) 624	

Table of Contents
**CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF OPERATIONS**

	Year Ended December 31, 2013					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
Net sales	—	—	2,799	4,911	(1,200 )	6,510
Cost of sales	—	—	(1,827 )	(4,531 )	1,213	(5,145 )
Gross profit	—	—	972	380	13	1,365
Selling, general and administrative expenses	—	—	53	(364 )	—	(311 )
Amortization of intangible assets	—	—	(11 )	(21 )	—	(32 )
Research and development expenses	—	—	(53 )	(32 )	—	(85 )
Other (charges) gains, net	—	—	2	(156 )	(4 )	(158 )
Foreign exchange gain (loss), net	—	—	—	(6 )	—	(6 )
Gain (loss) on disposition of businesses and assets, net	—	—	(2 )	737	—	735
Operating profit (loss)	—	—	961	538	9	1,508
Equity in net earnings (loss) of affiliates	1,096	1,180	116	158	(2,370 )	180
Interest expense	—	(192 )	(34 )	(70 )	124	(172 )
Refinancing expense	—	(1 )	—	—	—	(1 )
Interest income	—	55	65	5	(124 )	1
Dividend income - cost investments	—	—	—	93	—	93
Other income (expense), net	—	—	(52 )	52	—	—
Earnings (loss) from continuing operations before tax	1,096	1,042	1,056	776	(2,361 )	1,609
Income tax (provision) benefit	5	54	(326 )	(229 )	(12 )	(508 )
Earnings (loss) from continuing operations	1,101	1,096	730	547	(2,373 )	1,101
Earnings (loss) from operation of discontinued operations	—	—	2	(2 )	—	—
Gain (loss) on disposition of discontinued operations	—	—	—	—	—	—
Income tax (provision) benefit from discontinued operations	—	—	(1 )	1	—	—
Earnings (loss) from discontinued operations	—	—	1	(1 )	—	—
Net earnings (loss)	1,101	1,096	731	546	(2,373 )	1,101
Net (earnings) loss attributable to noncontrolling interests	—	—	—	—	—	—
Net earnings (loss) attributable to Celanese Corporation	1,101	1,096	731	546	(2,373 )	1,101

Table of Contents

## CELANESE CORPORATION AND SUBSIDIARIES

## CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31, 2015						
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated	
	(In \$ millions)						
Net earnings (loss)	304	302	260	72	(653	) 285	
Other comprehensive income (loss), net of tax							
Unrealized gain (loss) on marketable securities	—	—	—	—	—	—	
Foreign currency translation	(188	) (188	) (181	) (231	) 600	(188	)
Gain (loss) from cash flow hedges	2	2	5	1	(8	) 2	
Pension and postretirement benefits	3	3	3	2	(8	) 3	
Total other comprehensive income (loss), net of tax	(183	) (183	) (173	) (228	) 584	(183	)
Total comprehensive income (loss), net of tax	121	119	87	(156	) (69	) 102	
Comprehensive (income) loss attributable to noncontrolling interests	—	—	—	19	—	19	
Comprehensive income (loss) attributable to Celanese Corporation	121	119	87	(137	) (69	) 121	

Table of Contents

## CELANESE CORPORATION AND SUBSIDIARIES

## CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31, 2014					Eliminations	Consolidated	
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors				
	(In \$ millions)							
Net earnings (loss)	624	622	590	290	(1,506	)	620	
Other comprehensive income (loss), net of tax								
Unrealized gain (loss) on marketable securities	1	1	1	1	(3	)	1	
Foreign currency translation	(148	) (148	) (31	) (65	) 244		(148	)
Gain (loss) from cash flow hedges	40	40	(1	) (7	) (32	)	40	)
Pension and postretirement benefits	(54	) (54	) (54	) (5	) 113		(54	)
Total other comprehensive income (loss), net of tax	(161	) (161	) (85	) (76	) 322		(161	)
Total comprehensive income (loss), net of tax	463	461	505	214	(1,184	)	459	
Comprehensive (income) loss attributable to noncontrolling interests	—	—	—	4	—		4	
Comprehensive income (loss) attributable to Celanese Corporation	463	461	505	218	(1,184	)	463	

Table of Contents

## CELANESE CORPORATION AND SUBSIDIARIES

## CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31, 2013					Eliminations	Consolidated	
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors				
	(In \$ millions)							
Net earnings (loss)	1,101	1,096	731	546	(2,373	)	1,101	
Other comprehensive income (loss), net of tax								
Unrealized gain (loss) on marketable securities	1	1	1	—	(2	)	1	
Foreign currency translation	20	20	(10	)	(8	)	20	
Gain (loss) from cash flow hedges	6	6	—	—	(6	)	6	
Pension and postretirement benefits	58	58	56	2	(116	)	58	
Total other comprehensive income (loss), net of tax	85	85	47	(6	)	(126	)	85
Total comprehensive income (loss), net of tax	1,186	1,181	778	540	(2,499	)	1,186	
Comprehensive (income) loss attributable to noncontrolling interests	—	—	—	—	—		—	
Comprehensive income (loss) attributable to Celanese Corporation	1,186	1,181	778	540	(2,499	)	1,186	



Table of Contents
**CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING BALANCE SHEET**

	As of December 31, 2015					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
<b>ASSETS</b>						
Current Assets						
Cash and cash equivalents	—	—	21	946	—	967
Trade receivables - third party and affiliates	—	—	132	722	(148)	706
Non-trade receivables, net	37	580	298	522	(1,152)	285
Inventories, net	—	—	258	474	(50)	682
Deferred income taxes	—	—	19	68	(19)	68
Marketable securities, at fair value	—	—	30	—	—	30
Other assets	—	12	28	40	(31)	49
Total current assets	37	592	786	2,772	(1,400)	2,787
Investments in affiliates	2,341	3,947	3,909	738	(10,097)	838
Property, plant and equipment, net	—	—	1,001	2,608	—	3,609
Deferred income taxes	—	2	178	42	—	222
Other assets	—	418	151	227	(496)	300
Goodwill	—	—	314	391	—	705
Intangible assets, net	—	—	51	74	—	125
Total assets	2,378	4,959	6,390	6,852	(11,993)	8,586
<b>LIABILITIES AND EQUITY</b>						
Current Liabilities						
Short-term borrowings and current installments of long-term debt - third party and affiliates	—	479	181	213	(360)	513
Trade payables - third party and affiliates	—	—	240	495	(148)	587
Other liabilities	—	28	281	283	(262)	330
Deferred income taxes	—	26	—	23	(19)	30
Income taxes payable	—	—	537	116	(563)	90
Total current liabilities	—	533	1,239	1,130	(1,352)	1,550
Noncurrent Liabilities						
Long-term debt, net of unamortized deferred financing costs	—	2,078	706	187	(503)	2,468
Deferred income taxes	—	—	—	136	—	136
Uncertain tax positions	—	7	29	131	—	167
Benefit obligations	—	—	960	229	—	1,189
Other liabilities	—	—	93	155	(1)	247
Total noncurrent liabilities	—	2,085	1,788	838	(504)	4,207
Total Celanese Corporation stockholders' equity	2,378	2,341	3,363	4,433	(10,137)	2,378
Noncontrolling interests	—	—	—	451	—	451
Total equity	2,378	2,341	3,363	4,884	(10,137)	2,829
Total liabilities and equity	2,378	4,959	6,390	6,852	(11,993)	8,586



Table of Contents
**CELANESE CORPORATION AND SUBSIDIARIES  
 CONSOLIDATING BALANCE SHEET**

	As of December 31, 2014					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
<b>ASSETS</b>						
Current Assets						
Cash and cash equivalents	—	—	110	670	—	780
Trade receivables - third party and affiliates	—	—	184	821	(204)	801
Non-trade receivables, net	35	477	2,265	407	(2,943)	241
Inventories, net	—	—	268	613	(99)	782
Deferred income taxes	—	—	39	12	(22)	29
Marketable securities, at fair value	—	—	32	—	—	32
Other assets	—	6	12	34	(19)	33
Total current assets	35	483	2,910	2,557	(3,287)	2,698
Investments in affiliates	2,784	5,889	4,349	613	(12,759)	876
Property, plant and equipment, net	—	—	1,029	2,704	—	3,733
Deferred income taxes	—	16	211	26	—	253
Other assets	—	653	145	400	(843)	355
Goodwill	—	—	314	435	—	749
Intangible assets, net	—	—	73	59	—	132
Total assets	2,819	7,041	9,031	6,794	(16,889)	8,796
<b>LIABILITIES AND EQUITY</b>						
Current Liabilities						
Short-term borrowings and current installments of long-term debt - third party and affiliates	—	1,894	184	290	(2,231)	137
Trade payables - third party and affiliates	—	—	413	548	(204)	757
Other liabilities	1	34	225	402	(230)	432
Deferred income taxes	—	22	—	7	(22)	7
Income taxes payable	—	—	484	45	(524)	5
Total current liabilities	1	1,950	1,306	1,292	(3,211)	1,338
Noncurrent Liabilities						
Long-term debt, net of unamortized deferred financing costs	—	2,248	899	208	(769)	2,586
Deferred income taxes	—	—	—	141	—	141
Uncertain tax positions	—	6	16	137	—	159
Benefit obligations	—	—	923	288	—	1,211
Other liabilities	—	53	121	192	(83)	283
Total noncurrent liabilities	—	2,307	1,959	966	(852)	4,380
Total Celanese Corporation stockholders' equity	2,818	2,784	5,766	4,276	(12,826)	2,818
Noncontrolling interests	—	—	—	260	—	260
Total equity	2,818	2,784	5,766	4,536	(12,826)	3,078
Total liabilities and equity	2,819	7,041	9,031	6,794	(16,889)	8,796



Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF CASH FLOWS

	Year Ended December 31, 2015					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
Net cash provided by (used in) operating activities	591	536	529	422	(1,216 )	862
Investing Activities						
Capital expenditures on property, plant and equipment	—	—	(128 )	(104 )	—	(232 )
Acquisitions, net of cash acquired	—	—	(3 )	(3 )	—	(6 )
Proceeds from sale of businesses and assets, net	—	—	—	4	—	4
Capital expenditures related to Kelsterbach plant relocation	—	—	—	—	—	—
Capital expenditures related to Fairway Methanol LLC	—	—	(20 )	(268 )	—	(288 )
Return of capital from subsidiary	—	—	—	—	—	—
Contributions to subsidiary	—	—	(120 )	—	120	—
Intercompany loan receipts (disbursements)	—	(333 )	(33 )	(15 )	381	—
Other, net	—	—	(12 )	(24 )	—	(36 )
Net cash provided by (used in) investing activities	—	(333 )	(316 )	(410 )	501	(558 )
Financing Activities						
Short-term borrowings (repayments), net	—	383	—	—	(33 )	350
Proceeds from short-term borrowings	—	—	—	80	—	80
Repayments of short-term borrowings	—	—	—	(83 )	—	(83 )
Proceeds from long-term debt	—	15	406	—	(421 )	—
Repayments of long-term debt	—	(9 )	(74 )	(14 )	73	(24 )
Purchases of treasury stock, including related fees	(420 )	—	—	—	—	(420 )
Dividends to parent	—	(592 )	(624 )	—	1,216	—
Contributions from parent	—	—	—	120	(120 )	—
Stock option exercises	3	—	—	—	—	3
Series A common stock dividends	(174 )	—	—	—	—	(174 )
Return of capital to parent	—	—	—	—	—	—
Contributions from noncontrolling interests	—	—	—	214	—	214
Other, net	—	—	(10 )	(2 )	—	(12 )
Net cash provided by (used in) financing activities	(591 )	(203 )	(302 )	315	715	(66 )
Exchange rate effects on cash and cash equivalents	—	—	—	(51 )	—	(51 )
Net increase (decrease) in cash and cash equivalents	—	—	(89 )	276	—	187
	—	—	110	670	—	780

Cash and cash equivalents as of  
beginning of period

Cash and cash equivalents as of end of period	—	—	21	946	—	967
--	---	---	----	-----	---	-----

138

---

Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF CASH FLOWS

	Year Ended December 31, 2014					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
Net cash provided by (used in) operating activities	389	498	644	433	(1,002 )	962
Investing Activities						
Capital expenditures on property, plant and equipment	—	—	(183 )	(71 )	—	(254 )
Acquisitions, net of cash acquired	—	—	(10 )	—	—	(10 )
Proceeds from sale of businesses and assets, net	—	—	—	—	—	—
Capital expenditures related to Kelsterbach plant relocation	—	—	—	—	—	—
Capital expenditures related to Fairway Methanol LLC	—	—	(44 )	(380 )	—	(424 )
Return of capital from subsidiary	—	28	51	—	(79 )	—
Contributions to subsidiary	—	—	(213 )	—	213	—
Intercompany loan receipts (disbursements)	—	(70 )	(93 )	(75 )	238	—
Other, net	—	—	(9 )	(8 )	—	(17 )
Net cash provided by (used in) investing activities	—	(42 )	(501 )	(534 )	372	(705 )
Financing Activities						
Short-term borrowings (repayments), net	—	93	6	(15 )	(93 )	(9 )
Proceeds from short-term borrowings	—	—	—	62	—	62
Repayments of short-term borrowings	—	—	—	(91 )	—	(91 )
Proceeds from long-term debt	—	462	75	—	(150 )	387
Repayments of long-term debt	—	(611 )	(5 )	(15 )	5	(626 )
Purchases of treasury stock, including related fees	(250 )	—	—	—	—	(250 )
Dividends to parent	—	(390 )	(390 )	(222 )	1,002	—
Contributions from parent	—	—	—	213	(213 )	—
Stock option exercises	5	—	—	—	—	5
Series A common stock dividends	(144 )	—	—	—	—	(144 )
Return of capital to parent	—	—	—	(79 )	79	—
Contributions from noncontrolling interests	—	—	—	264	—	264
Other, net	—	(10 )	(3 )	—	—	(13 )
Net cash provided by (used in) financing activities	(389 )	(456 )	(317 )	117	630	(415 )
Exchange rate effects on cash and cash equivalents	—	—	—	(46 )	—	(46 )
Net increase (decrease) in cash and cash equivalents	—	—	(174 )	(30 )	—	(204 )
	—	—	284	700	—	984

Cash and cash equivalents as of beginning of period						
Cash and cash equivalents as of end of period	—	—	110	670	—	780

139

---



Table of Contents

CELANESE CORPORATION AND SUBSIDIARIES  
CONSOLIDATING STATEMENT OF CASH FLOWS

	Year Ended December 31, 2013					
	Parent Guarantor	Issuer	Subsidiary Guarantors	Non- Guarantors	Eliminations	Consolidated
	(In \$ millions)					
Net cash provided by (used in) operating activities	228	105	766	154	(491)	) 762
Investing Activities						
Capital expenditures on property, plant and equipment	—	—	(156)	) (121)	) —	(277)
Acquisitions, net of cash acquired	—	—	—	—	—	—
Proceeds from sale of businesses and assets, net	—	—	—	13	—	13
Capital expenditures related to Kelsterbach plant relocation	—	—	—	(7)	) —	(7)
Capital expenditures related to Fairway Methanol LLC	—	—	(93)	) —	—	(93)
Return of capital from subsidiary	—	—	—	—	—	—
Contributions to subsidiary	—	—	(20)	) —	20	—
Intercompany loan receipts (disbursements)	—	5	(131)	) —	126	—
Other, net	—	—	(45)	) (13)	) —	(58)
Net cash provided by (used in) investing activities	—	5	(445)	) (128)	) 146	(422)
Financing Activities						
Short-term borrowings (repayments), net	—	131	(8)	) (3)	) (131)	) (11)
Proceeds from short-term borrowings	—	—	—	177	—	177
Repayments of short-term borrowings	—	—	—	(123)	) —	(123)
Proceeds from long-term debt	—	24	50	—	—	74
Repayments of long-term debt	—	(34)	) (121)	) (48)	) 5	(198)
Purchases of treasury stock, including related fees	(164)	) —	—	—	—	(164)
Dividends to parent	—	(229)	) (229)	) (33)	) 491	—
Contributions from parent	—	—	—	20	(20)	) —
Stock option exercises	9	—	—	—	—	9
Series A common stock dividends	(83)	) —	—	—	—	(83)
Return of capital to parent	—	—	—	—	—	—
Contributions from noncontrolling interests	—	—	—	—	—	—
Other, net	—	(2)	) (4)	) (1)	) —	(7)
Net cash provided by (used in) financing activities	(238)	) (110)	) (312)	) (11)	) 345	(326)
Exchange rate effects on cash and cash equivalents	—	—	—	11	—	11
Net increase (decrease) in cash and cash equivalents	(10)	) —	9	26	—	25
	10	—	275	674	—	959

Cash and cash equivalents as of beginning of period						
Cash and cash equivalents as of end of period	—	—	284	700	—	984

140

---

Table of Contents

INDEX TO EXHIBITS

Exhibits will be furnished upon request for a nominal fee, limited to reasonable expenses.

Exhibit

Number	Description
3.1	Second Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Annual Report on Form 10-K filed with the SEC on February 11, 2011).
3.2	Third Amended and Restated By-laws, effective as of July 23, 2014 (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K filed with the SEC on July 24, 2015).
4.1	Form of certificate of Series A Common Stock (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-1 (File No. 333-120187) filed with the SEC on January 13, 2005).
4.2	Indenture, dated May 6, 2011, by and between Celanese US Holdings LLC, Celanese Corporation and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on May 6, 2011).
4.3	First Supplemental Indenture, 5.875% Senior Notes due 2021, dated May 6, 2011, by and between Celanese US Holdings LLC, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K filed with the SEC on May 6, 2011).
4.4	Second Supplemental Indenture, 4.625% Senior Notes due 2022, dated November 13, 2012, by and between Celanese US Holdings LLC, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on November 13, 2012).
4.5	Third Supplemental Indenture, dated September 24, 2014, among Celanese US Holdings LLC, Celanese Corporation, the subsidiary guarantors party thereto, Wells Fargo Bank, National Association, as trustee, Deutsche Bank Trust Companies Americas, as paying agent, and Deutsche Bank Luxembourg S.A., as registrar and as transfer agent (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the SEC on September 25, 2014).
4.6	Fourth Supplemental Indenture, dated December 1, 2014, among Celanese US Holdings LLC, Celanese U.S. Sales LLC and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.6 to the Annual Report on Form 10-K filed with the SEC on February 6, 2015).
4.7*	Fifth Supplemental Indenture, dated July 8, 2015, among Celanese US Holdings LLC, Celanese Sales U.S. Ltd. and Wells Fargo Bank National Association, as trustee.
10.1†	Credit Agreement, dated April 2, 2007, among Celanese Holdings LLC, Celanese US Holdings LLC, the subsidiaries of Celanese US Holdings LLC from time to time party thereto as borrowers, the Lenders party thereto, Deutsche Bank AG, New York Branch, as administrative agent and as collateral agent, Merrill Lynch Capital Corporation as syndication agent, ABN AMRO Bank N.V., Bank of America, N.A., Citibank NA, and JP Morgan Chase Bank NA, as co-documentation agents (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on May 28, 2010).

- 10.1(a) Amended and Restated Credit Agreement, dated September 29, 2010, among Celanese Corporation, Celanese US Holdings LLC, the subsidiaries of Celanese US Holdings LLC from time to time party thereto as borrowers and guarantors, Deutsche Bank AG, New York Branch, as administrative agent and collateral agent, Deutsche Bank Securities LLC and Banc of Americas Securities LLC as joint lead arrangers and joint book runners, HSBC Securities (USA) Inc., JPMorgan Chase Bank, N.A., and The Royal Bank of Scotland PLC, as Co-Documentation Agents, the other lenders party thereto, and certain other agents for such lenders (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on September 29, 2010).
- 10.1(b) Amendment No. 1, dated January 23, 2013, among Celanese Corporation, Celanese US Holdings LLC, Celanese Americas LLC, the lenders party thereto, and Deutsche Bank AG, New York Branch, as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on April 2, 2013).
- 10.1(c) Amendment No. 2, dated August 14, 2013, among Celanese Corporation, Celanese US Holdings LLC, certain subsidiaries of Celanese US Holdings LLC, the lenders party thereto and Deutsche Bank AG, New York Branch, as administrative agent and as collateral agent (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed with the SEC on October 21, 2013).

Table of Contents

Exhibit Number	Description
10.1(d)	Amendment Agreement, dated September 16, 2013, among Celanese Corporation, Celanese US Holdings LLC, certain subsidiaries of Celanese US Holdings LLC, the lenders party thereto, Deutsche Bank AG, New York Branch, as administrative agent and as collateral agent, and Deutsche Bank Securities Inc., as lead arranger and book runner (containing an Amended and Restated Credit Agreement) (incorporated by reference to Exhibit 10.5. to the Quarterly Report on Form 10-Q filed with the SEC on October 21, 2013).
10.1(e)	Amendment Agreement, dated September 24, 2014, among Celanese Corporation, Celanese US Holdings LLC, certain subsidiaries of Celanese US Holdings LLC, Deutsche Bank AG, New York Branch, as administrative agent and as collateral agent, Bank of America, N.A., as syndication agent, HSBC Securities (USA) Inc., JPMorgan Chase Bank, N.A. and The Royal Bank of Scotland PLC as co-documentation agents, and the other lenders party thereto (contains an Amended and Restated Credit Agreement) (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on September 25, 2014).
10.1(f)	Guarantee and Collateral Agreement, dated April 2, 2007, by and among Celanese Holdings LLC, Celanese US Holdings LLC, certain subsidiaries of Celanese US Holdings LLC and Deutsche Bank AG, New York Branch (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on May 28, 2010).
10.2	Purchase and Sale Agreement, dated August 28, 2013, among Celanese Acetate LLC, Celanese Ltd., Ticona Polymers, Inc. and CE Receivables LLC (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on September 3, 2013).
10.2(a)	Amended and Restated Purchase and Sale Agreement, dated February 2, 2015, among Celanese U.S. Sales LLC, Celanese Ltd., Ticona Polymers, Inc., Celanese International Corporation and CE Receivables LLC (incorporated by reference to Exhibit 10.2(a) to the Annual Report on Form 10-K filed with the SEC on February 6, 2015).
10.2(b)*	Joinder Agreement, dated August 1, 2015, among Celanese Sales U.S., Ltd., CE Receivables LLC, Celanese US Holdings LLC, The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator and purchaser agent, and PNC Bank, National Association, as purchaser agent.
10.2(c)	Receivables Purchase Agreement, dated August 28, 2013, among Celanese International Corporation, CE Receivables LLC, various Conduit Purchasers, Related Committed Purchasers, LC Banks and Purchaser Agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed with the SEC on September 3, 2013).
10.2(d)	First Amendment to Receivables Purchase Agreement, dated October 31, 2013, among Celanese International Corporation, CE Receivables LLC, various Conduit Purchasers, Related Committed Purchasers, LC Banks and Purchaser Agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator (incorporated by reference to Exhibit 10.2(b) to the Annual Report on Form 10-K filed with the SEC on February 7, 2014).
10.2(e)	

Edgar Filing: Celanese Corp - Form 10-K

Second Amendment to Receivables Purchase Agreement, dated October 20, 2014, among CE Receivables LLC, Celanese International Corporation, various Conduit Purchasers, Related Committed Purchasers, LC Banks and Purchaser Agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator (incorporated by reference to Exhibit 10.2(d) to the Annual Report on Form 10-K filed with the SEC on February 6, 2015).

10.2(f) Third Amendment to Receivables Purchase Agreement, dated February 2, 2015, among CE Receivables LLC, Celanese International Corporation, various Conduit Purchasers, Related Committed Purchasers, LC Banks and Purchaser Agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator (incorporated by reference to Exhibit 10.2(e) to the Annual Report on Form 10-K filed with the SEC on February 6, 2015).

10.2(g)\* Omnibus Amendment, dated as of December 1, 2015, with the effect of Amendment No. 1 to the Amended and Restated Purchase and Sale Agreement, and Amendment No. 4 to the Receivables Purchase Agreement, among Celanese International Corporation, Celanese U.S. Sales LLC, Celanese Ltd., Ticona Polymers, Inc., Celanese Sales U.S. Ltd., CE Receivables LLC, various Conduit Purchasers, Related Committed Purchasers, LC Banks and Purchaser Agents, and The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator.

10.2(h) Performance Guaranty, dated August 28, 2013, by Celanese US Holdings LLC in favor of The Bank of Tokyo-Mitsubishi UFJ, Ltd., New York Branch, as administrator (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the SEC on September 3, 2013).

10.3‡ Celanese Corporation 2004 Deferred Compensation Plan (incorporated by reference to Exhibit 10.21 to the Registration Statement on Form S-1 (File No. 333-120187) filed with the SEC on January 3, 2005).

Table of Contents

Exhibit Number	Description
10.3(a)‡	Amendment to Celanese Corporation 2004 Deferred Compensation Plan (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on April 3, 2007).
10.3(b)‡	Form of 2007 Deferral Agreement between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on April 3, 2007).
10.4‡	Celanese Corporation 2008 Deferred Compensation Plan (incorporated by reference to Exhibit 10.6 to the Annual Report on Form 10-K (File No. 001-32410) filed on February 29, 2008).
10.4(a)‡	Amendment Number One to Celanese Corporation 2008 Deferred Compensation Plan dated December 11, 2008 (incorporated by reference to Exhibit 10.2 to the Registration Statement on Form S-8 (File No. 333-158736) filed with the SEC on April 23, 2009).
10.4(b)‡	Amendment Number Two to Celanese Corporation 2008 Deferred Compensation Plan dated December 22, 2008 (incorporated by reference to Exhibit 10.4(b) to the Annual Report on Form 10-K filed with the SEC on February 7, 2014).
10.5‡	Celanese Corporation 2004 Stock Incentive Plan (incorporated by reference to Exhibit 10.8 to the Annual Report on Form 10-K filed with the SEC on February 11, 2011).
10.5(a)‡	Form of Nonqualified Stock Option Agreement (for employees) between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.8(a) to the Annual Report on Form 10-K filed with the SEC on February 11, 2011).
10.5(b)‡	Form of Amendment to Nonqualified Stock Option Agreement (for employees) between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.5(b) to the Annual Report on Form 10-K (File No. 001-32410) filed with the SEC on February 12, 2010).
10.5(c)‡	Form of Amendment Two to Nonqualified Stock Option Agreement (for executive officers) between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on January 26, 2009).
10.5(d)‡	Form of Nonqualified Stock Option Agreement (for non-employee directors) between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.8(d) to the Annual Report on Form 10-K filed with the SEC on February 11, 2011).
10.6‡	Celanese Corporation 2009 Global Incentive Plan (incorporated by reference to Exhibit 4.4 to the Registration Statement on Form S-8 (File No. 333-158734) filed with the SEC on April 23, 2009).
10.6(a)‡	Form of 2009 Nonqualified Stock Option Award Agreement between Celanese Corporation and award recipient, together with a schedule identifying substantially identical agreements between Celanese Corporation and each of its executive officers identified thereon (incorporated by reference to Exhibit 10.7 to the Quarterly Report on Form 10-Q (File No. 001-32410) filed with the SEC on July 29, 2009).

Edgar Filing: Celanese Corp - Form 10-K

- 10.6(b)‡ Form of 2010 Nonqualified Stock Option Award Agreement between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on September 13, 2010).
- 10.6(c)‡ Form of 2011 Nonqualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed with the SEC on September 13, 2011).
- 10.6(d)‡ Form of Nonqualified Stock Option Award Agreement for Chief Executive Officer (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed with the SEC on July 25, 2012).
- 10.6(e)‡ Form of Amendment to 2010 and 2011 Nonqualified Stock Option Award Agreements, dated April 18, 2012, together with a schedule identifying each of the executive officers with substantially identical agreements (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q filed with the SEC on July 25, 2012).
- 10.7‡ Celanese Corporation 2009 Global Incentive Plan, as Amended and Restated, April 19, 2012 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on April 23, 2012).
- 10.7(a)‡ Form of 2012 Time-Vesting Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.6(a) to the Annual Report on Form 10-K filed with the SEC on February 8, 2013).
- 10.7(b)‡ Form of 2012 Nonqualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.6(b) to the Annual Report on Form 10-K filed with the SEC on February 8, 2013).



Table of Contents

Exhibit Number	Description
10.7(c)‡	Form of 2013 Performance-Based Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on February 12, 2013).
10.7(d)‡	Form of 2013 Time-Vesting Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.7(d) to the Annual Report on Form 10-K filed with the SEC on February 7, 2014).
10.7(e)‡	Form of 2014-2015 Performance-Based Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed with the SEC on April 22, 2014).
10.7(f)‡	Form of 2014-2015 Time-Based Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed with the SEC on April 22, 2014).
10.7(g)‡	Form of 2014-2015 Time-Based Restricted Stock Unit Award Agreement (for non-employee directors) (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed with the SEC on July 18, 2014).
10.8‡	Celanese Corporation 2009 Employee Stock Purchase Program (incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-8 (File No. 333-158734) filed on April 23, 2009).
10.9‡	Executive Severance Benefits Plan, dated July 21, 2010 (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on July 27, 2010).
10.9(a)‡	Executive Severance Benefits Plan, amended effective February 6, 2013 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K (File No. 001-32410) filed with the SEC on February 12, 2013).
10.10‡	Summary of pension benefits for David N. Weidman (updated to include revisions effective after the summary was first filed as Exhibit 10.34 to the Annual Report on Form 10-K filed with the SEC on March 31, 2005) (incorporated by reference to Exhibit 10.13 to the Annual Report on Form 10-K filed with the SEC on February 11, 2011).
10.11(a)‡	Offer Letter, dated February 25, 2009, between Celanese Corporation and Gjon N. Nivica, Jr. (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q (File No. 001-32410) filed with the SEC on April 28, 2009).
10.11(b)‡	Letter Agreement, dated November 4, 2011, between Celanese Corporation and Mark C. Rohr (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the SEC on November 7, 2011).
10.11(c)‡	Offer Letter, dated September 8, 2012, between Celanese Corporation and Lori A. Johnston (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed with the SEC on October 23, 2012).
10.11(d)‡	Agreement and Amendment, dated March 18, 2013, between Celanese Corporation and Douglas M. Madden (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed with the SEC on April 19, 2013).

- 10.11(e)‡ Agreement and General Release, dated May 6, 2014, between Celanese Corporation and Steven M. Sterin (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed with the SEC on October 21, 2014).
- 10.11(f)‡ Offer Letter, dated May 4, 2015, between Celanese Corporation and Patrick D. Quarles (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed with the SEC on July 17, 2015).
- 10.12(a)‡ Change in Control Agreement, dated May 1, 2008, between Celanese Corporation and Christopher W. Jensen (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q (File No. 001-32410) filed with the SEC on July 23, 2008).
- 10.12(b)‡ Form of 2010 Change in Control Agreement between Celanese Corporation and participant, together with a schedule of substantially identical agreements between Celanese Corporation and the individuals identified thereon (incorporated by reference to Exhibit 10.7 to the Quarterly Report on Form 10-Q (File No. 001-32410) filed with the SEC on July 29, 2010).
- 10.12(c)‡ Form of Amendment No. 1 to 2010 Form of Change in Control Agreement between Celanese Corporation and participant, together with a schedule of substantially identical agreements between Celanese Corporation and the individuals identified thereon (incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q filed with the SEC on October 26, 2011).
- 10.12(d)‡ Form of 2012 Change in Control Agreement between Celanese Corporation and participant, together with a schedule identifying each of the executive officers with substantially identical agreements (incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q filed with the SEC on July 25, 2012).

Table of Contents

Exhibit Number	Description
10.12(e)*‡	Form of 2015 Change in Control Agreement between Celanese Corporation and participant, together with a schedule identifying each of the executive officers with substantially identical agreements.
10.13‡	Form of Long-Term Incentive Claw-Back Agreement between Celanese Corporation and award recipient (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K/A (File No. 001-32410) filed with the SEC on January 26, 2009).
10.14‡	Celanese Americas Supplemental Retirement Savings Plan, as amended and restated effective January 1, 2014 (incorporated by reference to Exhibit 10.14(a) to the Annual Report on Form 10-K filed with the SEC on February 6, 2015).
10.15*‡	Summary of Non-Employee Director Compensation.
12.1*	Statement of Computation of Ratio of Earnings to Fixed Charges.
21.1*	List of subsidiaries of Celanese Corporation.
23.1*	Consent of Independent Registered Public Accounting Firm of Celanese Corporation, KPMG LLP.
23.2*	Consent of Independent Auditors of CTE Petrochemicals Company, BDO USA, LLP.
23.3*	Consent of Independent Auditors of National Methanol Company, BDO Dr. Mohamed Al-Amri & Co.
24.1*	Power of Attorney (included on the signature page of this Annual Report on Form 10-K).
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.
99.1*	Audited financial statements as of December 31, 2015 and 2014 and for each of the years in the three year period ended December 31, 2015 for CTE Petrochemicals Company.
99.2*	Audited financial statements as of December 31, 2015 and 2014 and for each of the years in the three year period ended December 31, 2015 for National Methanol Company.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.

101.LAB\* XBRL Taxonomy Extension Label Linkbase Document.

101.PRE\* XBRL Taxonomy Extension Presentation Linkbase Document.

\* Filed herewith.

‡ Indicates a management contract or compensatory plan or arrangement.

† Portions of this exhibit have been omitted pursuant to a request for confidential treatment filed with the SEC under Rule 24b-2 of the Securities Exchange Act of 1934, as amended. The omitted portions of this exhibit have been separately filed with the SEC.