

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

FORM 10-K

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

For the fiscal year ended **DECEMBER 31, 2016**

OR

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

For the transition period from _____ to _____

Commission File Number: **1-1463**

UNION CARBIDE CORPORATION

(Exact name of registrant as specified in its charter)

New York
State or other jurisdiction of
incorporation or organization

13-1421730
(I.R.S. Employer Identification No.)

7501 State Highway 185 North, Seadrift, Texas 77983
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: 361-553-2997

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

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

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

Yes R 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 R 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.

R Yes No

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

R Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer R Small reporting company

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

Yes R No

At February 9, 2017, 935.51 shares of common stock were outstanding, all of which were held by the registrant's parent, The Dow Chemical Company.

The registrant meets the conditions set forth in General Instructions I(1)(a) and (b) of Form 10-K and is therefore filing this Form with the reduced disclosure format.

DOCUMENTS INCORPORATED BY REFERENCE
None

Union Carbide Corporation
ANNUAL REPORT ON FORM 10-K
For the Fiscal Year Ended December 31, 2016

TABLE OF CONTENTS

	PAGE
<u>PART I</u>	
Item 1. Business.	4
Item 1A. Risk Factors.	7
Item 1B. Unresolved Staff Comments.	10
Item 2. Properties.	11
Item 3. Legal Proceedings.	12
Item 4. Mine Safety Disclosures.	13
<u>PART II</u>	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.	14
Item 6. Selected Financial Data.	15
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.	16
Item 7A. Quantitative and Qualitative Disclosures About Market Risk.	24
Item 8. Financial Statements and Supplementary Data.	25
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.	59
Item 9A. Controls and Procedures.	60
Item 9B. Other Information.	61
<u>PART III</u>	
Item 10. Directors, Executive Officers and Corporate Governance.	62
Item 11. Executive Compensation.	62
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.	62
Item 13. Certain Relationships and Related Transactions, and Director Independence.	62
Item 14. Principal Accounting Fees and Services.	62
<u>PART IV</u>	
Item 15. Exhibits, Financial Statement Schedules.	63
<u>SIGNATURES</u>	65

Union Carbide Corporation and Subsidiaries

Throughout this Annual Report on Form 10-K, except as otherwise indicated by the context, the terms "Corporation" or "UCC" as used herein mean Union Carbide Corporation and its subsidiaries.

FORWARD-LOOKING STATEMENTS

Certain statements in this report, other than purely historical information, including estimates, projections, statements relating to business plans, objectives, and expected operating results, and the assumptions upon which those statements are based, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements may appear throughout this report, including without limitation, the following sections: "Item 1. Business," "Management's Discussion and Analysis," and "Risk Factors." These forward-looking statements are generally identified by the words "anticipate," "believe," "estimate," "expect," "future," "intend," "may," "opportunity," "outlook," "plan," "project," "should," "strategy," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. A detailed discussion of principal risks and uncertainties which may cause actual results and events to differ materially from such forward-looking statements is included in the section titled "Risk Factors" (Part I, Item 1A of this Form 10-K). Union Carbide Corporation undertakes no obligation to update or revise publicly any forward-looking statements whether because of new information, future events, or otherwise, except as required by securities and other applicable laws.

Union Carbide Corporation and Subsidiaries
PART I, Item 1. Business.

THE CORPORATION

Union Carbide Corporation (the “Corporation” or “UCC”) is a chemicals and polymers company that has been a wholly owned subsidiary of The Dow Chemical Company (“Dow”) since 2001. Except as otherwise indicated by the context, the terms “Corporation” or “UCC” as used herein mean Union Carbide Corporation and its consolidated subsidiaries.

Dow conducts its worldwide operations through global businesses, and the Corporation's business activities comprise components of Dow's global businesses rather than stand-alone operations. Because there are no separable reportable business segments for UCC and no detailed business information is provided to a chief operating decision maker regarding the Corporation's stand-alone operations, the Corporation's results are reported as a single operating segment. In addition, in order to simplify the customer interface process, the Corporation sells substantially all its products to Dow. Products are sold to Dow at market-based prices, in accordance with the terms of Dow's intercompany pricing policies.

Available Information

The Corporation's annual reports on Form 10-K, quarterly reports on Form 10-Q and 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, are available free of charge through the Financial Reports-SEC Filings section of the Corporation's website (www.unioncarbide.com), as soon as reasonably practicable after the reports are electronically filed or furnished with the U.S. Securities and Exchange Commission (“SEC”). The SEC maintains a website that contains these reports as well as proxy statements and other information regarding issuers that file electronically. The SEC's website is at www.sec.gov. The Corporation's website and its content are not deemed incorporated by reference into this report.

PRODUCTS

The following is a description of the Corporation's principal products.

Electrical and Telecommunications - polyolefin-based compounds for high-performance insulation, semiconductives and jacketing systems for power distribution, telecommunications, and flame-retardant wire and cable insulation. Key product lines include: REDI-LINK™ Polyethylene-Based Wire and Cable Compounds, SI-LINK™ Polyethylene-Based Low Voltage Insulation Compounds, UNIGARD™ HP High-Performance Flame-Retardant Compounds, UNIGARD™ RE Reduced Emissions Flame-Retardant Compounds, and UNIPURGE™ Purging Compounds.

Ethylene Oxide/Ethylene Glycol (“EO/EG”) - ethylene oxide, a chemical intermediate primarily used in the manufacture of monoethylene glycol (“MEG”), polyethylene glycol, glycol ethers, ethanolamines, surfactants and other performance chemicals and polymers; di- and triethylene glycol, used in a variety of applications, including boat construction, shoe manufacturing, natural gas-drying and other moisture-removing applications, and plasticizers for safety glasses; and tetraethylene glycol, used predominantly in the production of plasticizers for automotive windows. MEG is used extensively in the production of polyester fiber, resin and film, automotive antifreeze and engine coolants, and aircraft anti-icing and deicing fluids.

Hydrocarbons - ethylene and propylene; internal feedstocks that are primarily consumed by downstream businesses to optimize integration benefits and drive low costs.

Industrial Chemicals and Polymers - broad range of products for specialty applications, including pharmaceutical, animal food supplements, personal care, industrial and household cleaning, coatings for beverage and food cans, industrial coatings and many other industrial uses. Product lines include acrolein and derivatives, glutaraldehydes, ethyleneamines, CARBOWAX™ and CARBOWAX™ SENTRY™ Polyethylene Glycols and Methoxypolyethylene Glycols, TERGITOL™ and TRITON™ Surfactants, UCAR™ Deicing Fluids, UCARTHERM™ Heat Transfer Fluids and UCON™ Fluids.

Polyethylene - includes FLEXOMER™ Polyethylene, very low-density polyethylene resins used as impact modifiers in other polymers and to produce flexible hose and tubing, frozen-food bags and stretch wrap; TUFLIN™ Linear Low Density and UNIVAL™ High Density Polyethylene resins used in high-volume applications such as housewares; milk, water, bleach and detergent bottles; grocery sacks; trash bags; packaging; and water and gas pipe.

Solvents and Intermediates - includes oxo aldehydes, acids and alcohols used as chemical intermediates and industrial solvents and in herbicides, plasticizers, paint dryers, jet-turbine lubricants, lube oil additives, and food and feed preservatives;

[Table of Contents](#)

and esters, which serve as solvents in industrial coatings and printing inks and in the manufacturing processes for pharmaceuticals and polymers.

Technology Licensing and Catalysts - includes catalysts for supply and licensing of the METEOR™ Process for EO/EG and the LP OXO process for oxo alcohols; and licensing of the METEOR™ Process for EO/EG and the LP OXO process for oxo alcohols through Dow Technology Investments LLC, a 50:50 joint venture with Dow Global Technologies LLC, a Dow subsidiary.

Vinyl Acetate Monomer - a building block for the manufacture of a variety of polymers used in water-based emulsion paints, adhesives, paper coatings, textiles, safety glass and acrylic fibers.

Water Soluble Polymers - polymers used to enhance the physical and sensory properties of end-use products in a wide range of applications including food, paints and coatings, pharmaceuticals, oil and gas, home and personal care, building and construction, and other specialty applications. Key product lines include POLYOX™ Water-Soluble Resins, and products for hair and skin manufactured by Amerchol Corporation, a wholly owned subsidiary.

COMPETITION

The chemical industry has been historically competitive and this competitive environment is expected to continue. Large, multinational chemical firms, as well as the chemical divisions of the major national and international oil companies, provide substantial competition both in the United States and abroad.

RESEARCH AND DEVELOPMENT

The Corporation is engaged in a continuous program of basic and applied research to develop new products and processes, to improve and refine existing products and processes, and to develop new applications for existing products. Research and development expenses were \$18 million in 2016, \$20 million in 2015 and \$20 million in 2014.

PATENTS, LICENSES AND TRADEMARKS

The Corporation continually applies for and obtains U.S. and foreign patents that relate to a wide variety of products and processes, has a substantial number of pending patent applications throughout the world, and is licensed under a number of patents. At December 31, 2016, the Corporation owned 124 active U.S. patents and 578 active foreign patents related to a wide variety of products and processes. These patents expire as follows:

Remaining Life of Patents Owned at December 31, 2016		
	<i>United States</i>	<i>Foreign</i>
Within 5 years	60	219
6 to 10 years	14	118
11 to 15 years	47	241
16 to 20 years	3	—
Total	124	578

The Corporation also has a large number of trademarks. Although the Corporation considers that its patents, licenses and trademarks in the aggregate constitute a valuable asset, it does not regard its business as being materially dependent on any single or group of related patents, licenses or trademarks.

FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

In 2016, the Corporation derived 12 percent of its trade sales to external customers outside the United States and had 3 percent of its property investment located outside the United States. See Note 20 to the Consolidated Financial Statements for information on sales to external customers and long-lived assets by geographic area.

PROTECTION OF THE ENVIRONMENT

Matters pertaining to the environment are discussed in Management's Discussion and Analysis of Financial Condition and Results of Operations, and Notes 1 and 13 to the Consolidated Financial Statements.

OTHER ACTIVITIES

Divestitures

On November 1, 2015, UCC completed the sale of its assets related to the production of methylmercapto propionaldehyde ("MMP") at the St. Charles Operations site in Taft, Louisiana to MMP SCO, LLC ("Novus"), a subsidiary of Novus

[*Table of Contents*](#)

International, Inc., for net proceeds of \$31 million. Included in the divestiture was the Corporation's MMP manufacturing facility as well as inventory. The Corporation will continue to operate and provide services to the MMP facility under separate agreements with Novus. In addition, a pretax gain of \$10 million was recorded for the sale of two related patents. See Note 4 to the Consolidated Financial Statements for additional information.

Dividends

On a quarterly basis, the Corporation's Board of Directors reviews and determines if there will be a dividend distribution to its parent company and sole shareholder, Dow. The Board takes into consideration the level of earnings and cash flows, among other factors, in determining the amount of the dividend distribution. The Corporation declared and paid cash dividends of \$500 million to Dow in 2016; dividends paid to Dow were \$1,170 million in 2015. On February 7, 2017, the UCC Board of Directors approved a dividend to Dow of \$169 million, payable on March 24, 2017.

Union Carbide Corporation and Subsidiaries
PART I, Item 1A. Risk Factors.

RISK FACTORS

The factors described below represent the Corporation's principal risks.

Global Economic Considerations: The Corporation operates in a global, competitive environment, which gives rise to operating and market risk exposure.

The Corporation sells substantially all of its products to Dow, which operates in a competitive, global environment, and competes worldwide for sales. Increased levels of competition could result in lower prices or lower sales volume, which could have a negative impact on the Corporation's results of operations. Sales of Dow's products are also subject to extensive federal, state, local and foreign laws and regulations, trade agreements, import and export controls, and duties and tariffs. The imposition by foreign governments and regional trade agreements could result in lower sales volume which could negatively impact the Corporation's results of operations.

Economic conditions around the world and in certain industries in which the Corporation does business also impact sales price and volume. As a result, market uncertainty or an economic downturn in the geographic areas or industries in which UCC sells its products could reduce demand for these products and result in decreased sales volume, which could have a negative impact on UCC's results of operations.

Raw Materials: Availability of purchased feedstocks and energy and the volatility of these costs impact the Corporation's operating costs and add variability to earnings.

Purchased feedstock and energy costs account for a substantial portion of the Corporation's total production costs and operating expenses. The Corporation purchases hydrocarbon raw materials including ethane, propane, butane and naphtha as feedstocks. The Corporation also purchases certain monomers, primarily ethylene and propylene, to supplement internal production, as well as other raw materials. The Corporation purchases natural gas, primarily to generate electricity, and purchases electric power.

Feedstock and energy costs generally follow price trends in crude oil and natural gas, which are sometimes volatile. Ultimately, the ability to pass on underlying cost increases is dependent on market conditions. Conversely, when feedstock and energy costs decline, selling prices generally decline as well. As a result, volatility in these costs could impact the Corporation's results of operations.

While the Corporation expects abundant and cost-advantaged supplies of natural gas liquids ("NGLs") in the United States to persist for the foreseeable future, if NGLs were to become significantly less advantaged than crude oil-based feedstocks, it could have a negative impact on the Corporation's results of operations and future investments. Also, if the Corporation's key suppliers of feedstocks and energy are unable to provide the raw materials required for production, it could have a negative impact on the Corporation's results of operations.

Supply/Demand Balance: Earnings generated by the Corporation vary based in part on the balance of supply relative to demand within the industry.

The balance of supply relative to demand within the industry may be significantly impacted by the addition of new capacity, especially for basic commodities where capacity is generally added in large increments as world-scale facilities are built. This may disrupt industry balances and result in downward pressure on prices due to the increase in supply, which could negatively impact the Corporation's results of operations.

Financial Flexibility: Market conditions could reduce Dow's financial flexibility, which could impact the financial flexibility of the Corporation.

Adverse economic conditions could reduce Dow's flexibility to respond to changing business and economic conditions or to fund capital expenditures or working capital needs. The economic environment could result in a contraction in the availability of credit in the marketplace and reduce sources of liquidity for Dow and could result in higher borrowing costs. Since Dow is a service provider, material debtor, and the major customer of the Corporation, reduced financial flexibility for Dow could potentially impact the financial flexibility of the Corporation.

Environmental Compliance: The costs of complying with evolving regulatory requirements could negatively impact the Corporation's financial results. Actual or alleged violations of environmental laws or permit requirements could result in restrictions or prohibitions on plant operations, substantial civil or criminal sanctions, as well as the assessment of strict liability and/or joint and several liability.

The Corporation is subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to pollution, protection of the environment, greenhouse gas emissions and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. At December 31, 2016, the Corporation had accrued obligations of \$145 million (\$115 million at December 31, 2015) for probable environmental remediation and restoration costs, including \$20 million (\$21 million at December 31, 2015) for the remediation of Superfund sites. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Corporation has accrued liabilities, although it is reasonably possible that the ultimate cost with respect to these particular matters could range up to approximately two and a half times that amount. Costs and capital expenditures relating to environmental, health or safety matters are subject to evolving regulatory requirements and depend on the timing of the promulgation and enforcement of specific standards which impose the requirements. Moreover, changes in environmental regulations could inhibit or interrupt the Corporation's operations, or require modifications to its facilities. Accordingly, environmental, health or safety regulatory matters could result in significant unanticipated costs or liabilities.

Litigation: The Corporation is party to a number of claims and lawsuits arising out of the normal course of business with respect to commercial matters, including product liability, governmental regulation and other actions.

The Corporation is involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters, including, but not limited to: product liability; trade regulation; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts; taxes; and commercial disputes. With the exception of the possible effect of the asbestos-related liability described below, it is the opinion of the Corporation's management that the possibility is remote that the aggregate of all such claims and lawsuits will have a material adverse impact on the Corporation's consolidated financial statements.

The Corporation is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past four decades. At December 31, 2016, the Corporation's total asbestos-related liability for pending and future claims, including future defense and processing costs, was \$1,490 million (\$437 million at December 31, 2015, which excluded defense and processing costs). See Notes 1 and 13 to the Consolidated Financial Statements for more information on asbestos-related matters.

Health and Safety: Increased concerns regarding the safety of chemicals in commerce and their potential impact on the environment have resulted in more restrictive regulations and could lead to new regulations.

Concerns regarding the safe use of chemicals in commerce and their potential impact on health and the environment reflect a growing trend in societal demands for increasing levels of product safety and environmental protection. These concerns could manifest themselves in stockholder proposals, preferred purchasing and continued pressure for more stringent regulatory intervention. These concerns could also influence public perceptions, the viability of the Corporation's products, the Corporation's reputation and the cost to comply with regulations. In addition, terrorist attacks and natural disasters have increased concerns about the security and safety of chemical production and distribution. These concerns could have a negative impact on the Corporation's results of operations.

Local, state, federal and foreign governments continue to propose new regulations related to the security of chemical plant locations and the transportation of hazardous chemicals, which could result in higher operating costs.

Operational Event: A significant operational event could negatively impact the Corporation's results of operations.

As a diversified chemical manufacturing company, the Corporation's operations, the transportation of products, cyber attacks or severe weather conditions and other natural phenomena (such as drought, hurricanes, earthquakes, tsunamis, floods, etc.) could result in an unplanned event that could be significant in scale and could negatively impact operations, neighbors or the public at large, which could have a negative impact on the Corporation's results of operations.

Major hurricanes have caused significant disruption in UCC's operations on the U.S. Gulf Coast, logistics across the region, and the supply of certain raw materials, which had an adverse impact on volume and cost for some of UCC's products. Due to the Corporation's substantial presence on the U.S. Gulf Coast, similar severe weather conditions or other natural phenomena in the future could negatively affect UCC's results of operations.

Pension and Other Postretirement Benefits: Increased obligations and expenses related to the Corporation's defined benefit pension plans and other postretirement benefit plan could negatively affect UCC's financial condition and results of operations.

The Corporation has defined benefit pension plans and an other postretirement benefit plan (the "plans") in the United States. The assets of the Corporation's funded plans are primarily invested in fixed income securities, equity securities and alternative investments in real estate and private equity of U.S. and foreign issuers. Changes in the market value of plan assets, investment returns, discount rates, mortality rates, the rate of increase in compensation levels, regulations and health care cost trends may affect the funded status of the Corporation's plans and could cause volatility in the net periodic benefit cost, future funding requirements of the plans and the funded status of the plans. A significant increase in the Corporation's obligations or future funding requirements could have a negative impact on the Corporation's results of operations and cash flows for a particular period and on the consolidated financial position of the Corporation.

Cyber Vulnerability: The risk of loss of the Corporation's intellectual property, trade secrets or other sensitive business information or disruption of operations could negatively impact the Corporation's financial results.

Cyber attacks or security breaches could compromise confidential, business critical information, cause a disruption in the Corporation's operations or harm the Corporation's reputation. The Corporation has attractive information assets, including intellectual property, trade secrets and other sensitive, business critical information. While the Corporation has a comprehensive cyber security program that is continuously reviewed, maintained and upgraded, a significant cyber attack could result in the loss of critical business information and/or could negatively impact operations, which could have a negative impact on the Corporation's financial results.

Union Carbide Corporation and Subsidiaries
PART I, Item 1B. Unresolved Staff Comments.

UNRESOLVED STAFF COMMENTS

None.

Union Carbide Corporation and Subsidiaries

PART I, Item 2. Properties.

PROPERTIES

The Corporation operates eight manufacturing sites in three countries. The Corporation considers its properties to be in good operating condition and that its machinery and equipment have been well maintained. The following are the major production sites:

United States: Hahnville (St. Charles), Louisiana; Seadrift and Texas City, Texas.

All of UCC's plants are owned or leased, subject to certain easements of other persons that, in the opinion of management, do not substantially interfere with the continued use of such properties or materially affect their value.

A summary of property, classified by type, is contained in Note 6 to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
PART I, Item 3. Legal Proceedings.

LEGAL PROCEEDINGS

Asbestos-Related Matters

The Corporation is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past four decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both actual and punitive damages. The alleged claims primarily relate to products that UCC sold in the past, alleged exposure to asbestos-containing products located on UCC's premises, and UCC's responsibility for asbestos suits filed against a former subsidiary, Amchem Products, Inc.

For additional information, see Asbestos-Related Matters in Management's Discussion and Analysis of Financial Condition and Results of Operations, and Notes 1 and 13 to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
PART I, Item 4. Mine Safety Disclosures.

MINE SAFETY DISCLOSURES

Not applicable.

Union Carbide Corporation and Subsidiaries
PART II, Item 5. Market for Registrant's Common Equity,
Related Stockholder Matters and Issuer Purchases of Equity Securities.

MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Corporation is a wholly owned subsidiary of Dow; therefore, there is no public trading market for the Corporation's common stock.

Union Carbide Corporation and Subsidiaries
PART II, Item 6. Selected Financial Data.

SELECTED FINANCIAL DATA

Omitted pursuant to General Instruction I of Form 10-K.

Union Carbide Corporation and Subsidiaries
PART II, Item 7. Management's Discussion and
Analysis of Financial Condition and Results of Operations.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Pursuant to General Instruction I of Form 10-K "Omission of Information by Certain Wholly-Owned Subsidiaries," this section includes only management's narrative analysis of the results of operations for the year ended December 31, 2016, the most recent fiscal year, compared with the year ended December 31, 2015, the fiscal year immediately preceding it.

References below to "Dow" refer to The Dow Chemical Company and its consolidated subsidiaries, except as otherwise indicated by the context.

Dow conducts its worldwide operations through global businesses, and Union Carbide Corporation's (the "Corporation" or "UCC") business activities comprise components of Dow's global operations rather than stand-alone operations. Because there are no separable reportable business segments for UCC and no detailed business information is provided to a chief operating decision maker regarding the Corporation's stand-alone operations, the Corporation's results are reported as a single operating segment.

RESULTS OF OPERATIONS

Net Sales

Total net sales for 2016 were \$4,919 million, compared with net sales of \$5,842 million in 2015, a decrease of 16 percent. Net sales to related companies, principally to Dow, were \$4,811 million for 2016, compared with \$5,755 million for 2015, a decrease of 16 percent. Selling prices to Dow are based on market prices for the related products, in accordance with the terms of Dow's intercompany pricing policies.

Total net sales were down from the previous year driven primarily by declines in price as well as a decrease in volume. Average selling prices decreased 13 percent in 2016 compared with 2015. Prices were down across all products, primarily driven by lower crude oil prices as well as competitive pricing pressures, with the largest declines in polyethylene, oxo alcohols, glycol ethers, ethanolamines and ethylene oxide/ethylene glycol ("EO/EG"). Sales volume was down 3 percent in 2016 compared with 2015. Volume gains in EO/EG, glutaraldehydes and industrial chemicals were more than offset by volume declines in acrylic monomers, water soluble polymers, glycol ethers and polyethylene.

Cost of Sales

Cost of sales were \$3,713 million, down 18 percent from \$4,506 million in 2015, due to lower feedstock, energy and other raw material costs, decreased planned maintenance turnaround spending and a decline in sales volume, and were partially offset by an increase in accruals for environmental remediation and restoration projects compared with the previous year.

Research and Development, Selling, General and Administrative Expenses

Research and development expenses were \$18 million in 2016, compared with \$20 million in 2015. Selling, general and administrative expenses were \$7 million in 2016 compared with \$8 million in 2015.

Restructuring Charges (Credits)

In the second quarter of 2016, the Corporation approved actions to further improve cost effectiveness with additional workforce reductions. As a result of these actions, the Corporation recorded a pretax restructuring charge for severance costs of \$1 million for the separation of approximately 5 positions. In the fourth quarter of 2016, the Corporation recorded an additional charge of \$2 million related to the separation of an additional 16 positions. The impact of these charges is shown in "Restructuring charges (credits)" in the consolidated statements of income. These actions are expected to be completed during the next two years.

In the second quarter of 2015, the Corporation approved actions to improve the cost effectiveness of the Corporation's global operations and further streamline the organization. The Corporation recorded pretax restructuring charges of \$19 million consisting of \$2 million of costs associated with exit and disposal activities, severance costs of \$3 million and asset write-downs and write-offs of \$14 million. The restructuring affected approximately 24 positions and resulted in the shutdown of a manufacturing facility that produces water soluble polymers in Institute, West Virginia, in the fourth quarter of 2015. In the

[Table of Contents](#)

second quarter of 2016, the Corporation recorded an unfavorable adjustment of \$1 million to the restructuring charge for additional accruals for exit and disposal activities. These restructuring activities were substantially completed in 2016. See Note 3 to the Consolidated Financial Statements for additional information on the Corporation's restructuring activities.

Asbestos-Related Charge

In the fourth quarter of 2016, the Corporation elected to change its method of accounting for asbestos-related defense and processing costs from expensing as incurred to estimating and accruing a liability. As a result of this accounting policy change, the Corporation recorded a pretax charge of \$1,009 million for asbestos-related defense and processing costs through the terminal date of 2049. The Corporation also recorded a pretax charge of \$104 million to increase the asbestos-related liability for pending and future claims through the terminal date of 2049. These charges were included in "Asbestos-related charge" in the consolidated statements of income. See Notes 1 and 13 to the Consolidated Financial Statements for details on the asbestos-related charge.

Equity in Earnings of a Nonconsolidated Affiliate

Equity in earnings of a nonconsolidated affiliate were \$2 million in 2016, down from \$4 million in 2015. For additional information on nonconsolidated affiliates, see Note 7 to the Consolidated Financial Statements.

Sundry Income (Expense) - Net

Sundry income (expense) - net includes a variety of income and expense items such as dividend income, the gain or loss on foreign currency exchange, commissions, charges for management services provided by Dow, and gains and losses on sales of investments and assets. Sundry income (expense) - net for 2016 was net income of \$2 million compared with net expense of \$30 million in 2015. In 2016, sundry income (expense) - net included a pretax gain of \$50 million on the sale of land at the Corporation's Texas City, Texas, site and other asset sales. In 2015, sundry income (expense) - net included a pretax gain of \$23 million on the transfer of ownership of a third party's land and facilities in Institute, West Virginia, to UCC and a pretax gain of \$10 million on the sale of patents as part of the asset sale related to the production of methylmercapto propionaldehyde ("MMP") at the St. Charles Operations site in Taft, Louisiana. See Notes 4 and 12 to the Consolidated Financial Statements for additional information.

Texas City, Texas, Land Sale

On June 27, 2016, UCC signed agreements for the sale of excess land at the Texas City, Texas, manufacturing site. In the second quarter of 2016, UCC recorded a pretax gain of \$46 million on the sale of one parcel of land. In addition, a down payment of \$8 million was received for the sale of a second parcel of land, which is expected to be sold before the end of the second quarter of 2017. The \$8 million down payment was recorded in "Accrued and other current liabilities" in the consolidated balance sheets.

Institute, West Virginia, Site

On March 23, 2015, UCC signed an agreement with Bayer CropScience LP ("BCS") to transfer ownership of BCS's Institute Industrial Park to UCC. Effective April 1, 2015, UCC and BCS began a phased transfer to UCC of plant activities as well as the transfer of land and certain site assets to be completed by mid-year 2017. BCS will continue to be a tenant of the Industrial Park with UCC providing site services to BCS. UCC recorded a net pretax gain of \$23 million on the transfer of ownership and control of the site. The gain on the transaction represents the transfer of land, certain site assets and cash consideration received offset by increases in remediation liabilities and a deferred liability for site services. Additional costs may be recognized for demolition and decommissioning costs and will be recorded in the period incurred.

Interest Income and Expense

Interest income for 2016 was \$14 million, compared with \$8 million in 2015. The increase in interest income from 2015 was primarily due to an increase in interest rates from the previous year. Interest expense and amortization of debt discount for 2016 was \$25 million, compared with \$28 million in 2015, primarily driven by an increase in capitalized interest in 2016. See Note 14 to the Consolidated Financial Statements for additional information.

Provision (Credit) for Income Taxes

The provision for income taxes was a credit of \$32 million in 2016, which resulted in an overall effective tax rate of negative 56.1 percent. The tax rate for 2016 was favorably impacted by the release of a reserve in excess of the settlement of an uncertain tax position and from the asbestos-related charge. This compares with a tax provision of \$435 million in 2015, which resulted in an overall effective tax rate of 35.0 percent. In 2015, the tax rate was favorably impacted by changes in valuation allowances on state income tax attributes, offset by a change in an uncertain tax position that unfavorably impacted the tax rate. The underlying factors affecting UCC's overall effective tax rates are summarized in Note 18 to the Consolidated Financial Statements.

Net Income Attributable to UCC

The Corporation reported net income of \$89 million in 2016, compared with net income of \$808 million for 2015. Net income decreased as a result of lower selling prices, increases to the liability for environmental remediation, the adjustment to the asbestos-related liability for pending and future claims and the change in accounting method for asbestos-related defense and processing costs, partially offset by lower feedstock and energy costs resulting from lower crude oil prices, the gain on the sale of assets, reduced restructuring charges and lower planned maintenance turnaround spending.

Capital Expenditures

Capital spending in 2016 was \$267 million compared with \$270 million in 2015, reflecting spending on U.S. Gulf Coast projects and site infrastructure projects in both years.

OTHER MATTERS

Recent Accounting Guidance

See Note 2 to the Consolidated Financial Statements for a summary of recent accounting guidance.

Critical Accounting Policies

The preparation of financial statements and related disclosures in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires management to make judgments, assumptions and estimates that affect the amounts reported in the consolidated financial statements and accompanying notes. Note 1 to the Consolidated Financial Statements describes the significant accounting policies and methods used in preparation of the consolidated financial statements. Following are the Corporation's critical accounting policies impacted by judgments, assumptions and estimates:

Litigation

The Corporation is subject to legal proceedings and claims arising out of the normal course of business. The Corporation routinely assesses the likelihood of any adverse judgments or outcomes to these matters, as well as ranges of probable losses. A determination of the amount of the reserves required, if any, for these contingencies is made after thoughtful analysis of each known claim. The Corporation has an active risk management program consisting of numerous insurance policies secured from many carriers. These policies provide coverage that is utilized to minimize the financial impact, if any, of the legal proceedings. The required reserves may change in the future due to new developments in each matter. For further discussion, see Note 13 to the Consolidated Financial Statements.

Asbestos-Related Matters

The Corporation is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past four decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both actual and punitive damages. The alleged claims primarily relate to products that UCC sold in the past, alleged exposure to asbestos-containing products located on UCC's premises, and UCC's responsibility for asbestos suits filed against a former subsidiary, Amchem Products, Inc. ("Amchem"). Each year, Analysis, Research and Planning Corporation (now known as Ankura Consulting Group, LLC ("Ankura") as a result of the March 2016 merger of Analysis, Research & Planning Corporation and Ankura) performs a review for UCC based upon historical asbestos claims and resolution activity. UCC compares current asbestos claim and resolution activity to the results of the most recent Ankura study at each balance sheet date to determine whether the asbestos-related liability continues to be appropriate.

In 2016, UCC elected to change its method of accounting for asbestos-related defense and processing costs from expensing as incurred to estimating and accruing a liability. In addition to performing their annual review of pending and future asbestos claim resolution activity, Ankura also performed a review for UCC of asbestos-related defense and processing costs to determine a reasonable estimate of future defense and processing costs to be included in the asbestos-related liability, through the terminal year of 2049.

For additional information, see Part I, Item 3. Legal Proceedings; Asbestos-Related Matters in Management's Discussion and Analysis of Financial Condition and Results of Operations; and Notes 1 and 13 to the Consolidated Financial Statements.

Environmental Matters

The Corporation determines the costs of environmental remediation of its facilities and formerly owned facilities based on evaluations of current law and existing technologies. Inherent uncertainties exist in such evaluations primarily due to unknown environmental conditions, changing governmental regulations and legal standards regarding liability and emerging remediation technologies. The recorded liabilities are adjusted periodically as remediation efforts progress or as additional

technical or legal information becomes available. At December 31, 2016, the Corporation had accrued obligations of \$145 million for probable environmental remediation and restoration costs, including \$20 million for the remediation of Superfund sites. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Corporation has accrued liabilities, although it is reasonably possible that the ultimate cost with respect to these particular matters could range up to approximately two and a half times that amount. For further discussion, see Environmental Matters in Notes 1 and 13 to the Consolidated Financial Statements.

Pension Plans and Other Postretirement Benefits

The amounts recognized in the consolidated financial statements related to pension and other postretirement benefits are determined from actuarial valuations. Inherent in these valuations are assumptions including expected return on plan assets, discount rates at which the liabilities could have been settled at December 31, 2016, rate of increase in future compensation levels, mortality rates and health care cost trend rates. These assumptions are updated annually and are disclosed in Note 15 to the Consolidated Financial Statements. In accordance with U.S. GAAP, actual results that differ from the assumptions are accumulated and amortized over future periods and therefore affect expense recognized and obligations recorded in future periods.

The Corporation determines the expected long-term rate of return on plan assets by performing a detailed analysis of key economic and market factors driving historical returns for each asset class and formulating a projected return based on factors in the current environment. Factors considered include, but are not limited to, inflation, real economic growth, interest rate yield, interest rate spreads, and other valuation measures and market metrics. The expected long-term rate of return for each asset class is then weighted based on the strategic asset allocation approved by the governing body for each plan. The Corporation's historical experience with the pension fund asset performance is also considered. The expected long-term rate of return is an assumption and not what is expected to be earned in any one particular year. The weighted-average long-term rate of return assumption used for determining net periodic pension expense for 2016 and 2015 was 6.80 percent. This assumption was also used for determining 2017 net periodic pension expense. Future actual pension expense will depend on future investment performance, changes in future discount rates and various other factors related to the population of participants in the Corporation's pension plans.

The discount rates utilized to measure the pension and other postretirement benefit obligations are based on the yield on high-quality corporate fixed income investments at the measurement date. Future expected actuarially determined cash flows for the plans are individually discounted at the spot rates under the Willis Towers Watson U.S. RATE:Link 60-90 corporate yield curve (based on 60th to 90th percentile high-quality corporate bond yields) to arrive at the plan's obligations as of the measurement date. The discount rate was 4.00 percent at December 31, 2016 and 4.26 percent at December 31, 2015.

The value of the qualified plan assets totaled \$3.1 billion at December 31, 2016, a decrease from \$3.2 billion at December 31, 2015. The underfunded status of the qualified plan increased by \$112 million at December 31, 2016, compared with December 31, 2015. The Corporation contributed \$50 million to the qualified plan in 2016.

The assumption for the long-term rate of increase in compensation levels was 4.25 percent at December 31, 2016 and 4.50 percent at December 31, 2015. Since 2002, the Corporation has used a generational mortality table to determine the duration of its pension and other postretirement obligations.

The Corporation bases the determination of pension expense on a market-related valuation of plan assets that reduces year-to-year volatility. This market-related valuation recognizes investment gains or losses over a five-year period from the year in which they occur. Investment gains or losses for this purpose represent the difference between the expected return calculated using the market-related value of plan assets and the actual return based on the market value of plan assets. Since the market-related value of plan assets recognizes gains or losses over a five-year period, the future value of plan assets will be impacted when previously deferred gains or losses are recorded. Over the life of the plan, both gains and losses have been recognized and amortized. At December 31, 2016, \$149 million of net losses remain to be recognized in the calculation of the market-related value of plan assets. These net losses will result in increases in future pension expense as they are recognized in the market-related value of assets.

[Table of Contents](#)

The net decrease in the market-related value of assets due to the recognition of prior losses is presented in the following table:

Net Decrease in Market-Related Asset Value due to Recognition of Prior Losses	
In millions	
2017	\$ 48
2018	37
2019	53
2020	11
Total	\$ 149

On January 1, 2016, the Corporation adopted a spot rate approach to determine the discount rate utilized to measure the service cost and interest cost components of net periodic pension and other postretirement benefit costs. Under the spot rate approach, the Corporation calculates service costs and interest costs by applying individual spot rates from the Willis Towers Watson U.S. RATE:Link 60-90 corporate yield curve (based on 60th to 90th percentile high-quality corporate bond yields) to the separate expected cash flow components of service cost and interest cost. Prior to 2016, the interest and service cost components were determined based on the single discount rate used to measure the benefit obligation. The Corporation changed to the new method to provide a more precise measure of interest and service costs by improving the correlation between projected benefit cash flows and the discrete spot yield curves. The Corporation accounted for this change as a change in accounting estimate and it was applied prospectively starting in 2016.

Based on the 2017 pension assumptions and changes in the market-related value of assets, the Corporation expects net periodic benefit costs to increase approximately \$2 million for pension and other postretirement benefits in 2017 compared with 2016. The increase in net periodic benefit cost is primarily due to the impact of lower discount rates.

A 25 basis point adjustment in the long-term return on assets assumption would change total pension expense for 2017 by \$8 million. A 25 basis point adjustment in the discount rate assumption would have an immaterial impact on the total pension expense for 2017.

Income Taxes

Deferred tax assets and liabilities are determined based on temporary differences between the financial reporting and tax bases of assets and liabilities, applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. Based on the evaluation of available evidence, both positive and negative, the Corporation recognizes future tax benefits, such as net operating loss carryforwards and tax credit carryforwards, to the extent that realizing these benefits is considered more likely than not.

At December 31, 2016, the Corporation had a net deferred tax asset balance of \$928 million, after valuation allowances of \$20 million. In evaluating the ability to realize the deferred tax assets, the Corporation relies on, in order of increasing subjectivity, taxable income in prior carryback years, the future reversals of existing taxable temporary differences, tax planning strategies and forecasted taxable income using historical and projected future operating results.

At December 31, 2016, the Corporation had deferred tax assets for tax loss and tax credit carryforwards of \$53 million of which \$32 million is subject to expiration in the years 2017 through 2021. In order to realize these deferred tax assets for tax loss and tax credit carryforwards, the Corporation needs taxable income of approximately \$1,350 million across multiple jurisdictions. The taxable income needed to realize the deferred tax assets for tax loss and tax credit carryforwards that are subject to expiration between 2017 through 2021 is \$528 million.

The Corporation recognizes the financial statement effects of an uncertain tax position when it is more likely than not, based on technical merits, that the position will be sustained. At December 31, 2016, the Corporation had a liability for uncertain tax positions of \$1 million.

The Corporation accrues for non-income tax contingencies when it is probable that a liability to a taxing authority has been incurred and the amount of the contingency can be reasonably estimated. At December 31, 2016, the Corporation had an immaterial tax contingency reserve. For additional information, see Note 18 to the Consolidated Financial Statements.

Environmental Matters

Environmental Policies

The Corporation is committed to world-class environmental, health and safety (“EH&S”) performance, as demonstrated by a long-standing commitment to Responsible Care®, as well as a strong commitment to achieve the Corporation's 2025 Sustainability Goals - goals that set the standard for sustainability in the chemical industry by focusing on improvements in UCC's local corporate citizenship and product stewardship, and by actively pursuing methods to reduce the Corporation's environmental impact.

The EH&S management system (“EMS”) defines the “who, what, when and how” needed for the businesses to achieve the policies, requirements, performance objectives, leadership expectations and public commitments. EMS is also designed to minimize the long-term cost of environmental protection and to comply with applicable laws and regulations. To ensure effective utilization, EMS is integrated into a company-wide management system for EH&S, Operations, Quality and Human Resources, including implementation of the global EH&S Work Process to improve EH&S performance and to ensure ongoing compliance worldwide.

UCC first works to eliminate or minimize the generation of waste and emissions at the source through research, process design, plant operations and maintenance. Next, UCC finds ways to reuse and recycle materials. Finally, unusable or non-recyclable hazardous waste is treated before disposal to eliminate or reduce the hazardous nature and volume of the waste. Treatment may include destruction by chemical, physical, biological or thermal means. Disposal of waste materials in landfills is considered only after all other options have been thoroughly evaluated. UCC has specific requirements for waste that is transferred to non-UCC facilities, including the periodic auditing of these facilities.

Chemical Security

Public and political attention continues to be placed on the protection of U.S. critical infrastructure, including the chemical industry, from security threats. Terrorist attacks and natural disasters have increased concern about the security and safety of chemical production and distribution. The focus on security is not new to UCC. UCC continues to improve its security plans, placing emphasis on the safety of UCC communities and people by being prepared to meet risks at any level and to address both internal and external identifiable risks. UCC's security plans are also developed to avert interruptions of normal business operations, which could have a material impact on the Corporation's results of operations, liquidity and financial condition.

UCC is a Responsible Care® company and adheres to the Responsible Care® Security Code, which requires that all aspects of security - including facility, transportation, and cyberspace - be assessed and gaps addressed. Through global implementation of the Security Code, including voluntary security enhancements and upgrades made since 2002, UCC has permanently heightened the level of security - not just in the United States, but worldwide. In addition, UCC uses a risk-based approach employing the U.S. Government's Sandia National Labs methodology to repeatedly assess the risks to sites, systems and processes. UCC has expanded its comprehensive Distribution Risk Review process that had been in place for decades to address potential threats in all modes of transportation across its supply chain. To reduce vulnerabilities, UCC maintains security measures that meet or exceed regulatory and industry security standards in all areas in which UCC operates. Assessment and improvement costs are not considered material to the Corporation's consolidated financial statements.

Climate Change

Climate change matters for UCC are driven by changes in regulatory matters and physical climate parameters.

Regulatory Matters

Regulatory matters include cap and trade schemes, increased greenhouse gas (“GHG”) limits, and taxes on GHG emissions, fuel and energy. The potential implications of each of these matters are all very similar, including increased cost of purchased energy, additional capital costs for installation or modification of GHG emitting equipment, and additional costs associated directly with GHG emissions (such as cap and trade systems or carbon taxes), which are primarily related to energy use. It is difficult to estimate the potential impact of these regulatory matters on energy prices.

Reducing UCC's overall energy usage and GHG emissions through new and unfolding projects will decrease the potential impact of these regulatory matters. The Corporation has not experienced any material impact related to regulated GHG emissions.

Physical Climate Parameters

Many scientific academies throughout the world have concluded that it is very likely that human activities are contributing to global warming. At this point, it is difficult to predict and assess the probability and opportunity of a

[Table of Contents](#)

global warming trend on UCC specifically. Preparedness plans are developed that detail actions needed in the event of severe weather. These measures have historically been in place and these activities and associated costs are driven by normal operational preparedness. UCC continues to study the long-term implications of changing climate parameters or water availability, plant siting issues, and impacts and opportunities for products.

The Corporation continues to elevate its internal focus and external positions to focus on the root cause of GHG emissions, including the sustainable use of energy. Through corporate energy efficiency programs and focused GHG management efforts, the Corporation has and is continuing to reduce its GHG emissions footprint.

Environmental Remediation

UCC accrues the costs of remediation of its facilities and formerly owned facilities based on current law and existing technologies. The nature of such remediation includes, for example, the management of soil and groundwater contamination. The policies adopted to properly reflect the monetary impacts of environmental matters are discussed in Note 1 to the Consolidated Financial Statements. To assess the impact on the consolidated financial statements, environmental experts review currently available facts to evaluate the probability and scope of potential liabilities. Inherent uncertainties exist in such evaluations primarily due to unknown environmental conditions, changing governmental regulations and legal standards regarding liability, and emerging remediation technologies. These liabilities are adjusted periodically as remediation efforts progress or as additional technical or legal information becomes available. In the fourth quarter of 2016, the Corporation recorded an adjustment to the environmental accrual, primarily resulting from the culmination of negotiations with regulators and/or final stages of certain remediation projects. These charges are included in "Cost of sales" in the consolidated statements of income. The Corporation had an accrued liability of \$125 million at December 31, 2016 and \$94 million at December 31, 2015, related to the remediation of current or former UCC-owned sites.

In addition to current and former UCC-owned sites, under the Federal Comprehensive Environmental Response, Compensation and Liability Act and equivalent state laws (hereafter referred to collectively as "Superfund Law"), UCC is liable for remediation of other hazardous waste sites where UCC allegedly disposed of, or arranged for the treatment or disposal of, hazardous substances. Because Superfund Law imposes joint and several liability upon each party at a site, UCC has evaluated its potential liability in light of the number of other companies that also have been named potentially responsible parties ("PRPs") at each site, the estimated apportionment of costs among all PRPs, and the financial ability and commitment of each to pay its expected share. Management's estimate of the Corporation's remaining liability for the remediation of Superfund sites was \$20 million at December 31, 2016 and \$21 million at December 31, 2015, which has been accrued, although the ultimate cost with respect to these sites could exceed that amount. The Corporation has not recorded any third-party recovery related to these sites as a receivable.

Information regarding environmental sites is provided below:

Environmental Sites	UCC-owned Sites (1)		Superfund Sites (2)	
	2016	2015	2016	2015
Number of sites at January 1	27	28	67	64
Sites added during year	—	—	4	7
Sites closed during year	(1)	(1)	(1)	(4)
Number of sites at December 31	26	27	70	67

(1) UCC-owned sites are sites currently or formerly owned by UCC. In the United States, remediation obligations are imposed by the Resource Conservation and Recovery Act or analogous state law.

(2) Superfund sites are sites, including sites not owned by UCC, where remediation obligations are imposed by Superfund Law.

In total, the Corporation's accrued liability for probable environmental remediation and restoration costs was \$145 million at December 31, 2016, compared with \$115 million at December 31, 2015. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Corporation has accrued liabilities, although it is reasonably possible that the ultimate cost with respect to these particular matters could range up to approximately two and a half times that amount. Consequently, it is reasonably possible that environmental remediation and restoration costs in excess of amounts accrued could have a material impact on the Corporation's results of operations, financial condition and cash flows. It is the opinion of the Corporation's management, however, that the possibility is remote that costs in excess of the range disclosed will have a material impact on the Corporation's results of operations, financial condition and cash flows.

The amounts charged to income on a pretax basis related to environmental remediation totaled \$122 million in 2016, \$58 million in 2015 and \$62 million in 2014. The amounts charged to income on a pretax basis related to operating the

[Table of Contents](#)

Corporation's pollution abatement facilities, excluding internal recharges, totaled \$103 million in 2016, \$96 million in 2015 and \$94 million in 2014. Capital expenditures for environmental protection were \$10 million in 2016, \$14 million in 2015 and \$6 million in 2014.

Asbestos-Related Matters

The Corporation is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past four decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both actual and punitive damages. The alleged claims primarily relate to products that UCC sold in the past, alleged exposure to asbestos-containing products located on UCC's premises, and UCC's responsibility for asbestos suits filed against a former subsidiary, Amchem Products, Inc. In many cases, plaintiffs are unable to demonstrate that they have suffered any compensable loss as a result of such exposure, or that injuries incurred in fact resulted from exposure to UCC's products.

The table below provides information regarding asbestos-related claims pending against the Corporation and Amchem based on criteria developed by UCC and its external consultants. UCC had a significant increase in the number of claims settled, dismissed or otherwise resolved in 2015, resulting from a detailed review of the status of individual claims and an update to criteria used to classify claims.

Asbestos-Related Claim Activity	<i>2016</i>	<i>2015</i>	<i>2014</i>
Claims unresolved at January 1	18,778	26,116	29,005
Claims filed	7,813	7,544	8,857
Claims settled, dismissed or otherwise resolved	(10,450)	(14,882)	(11,746)
Claims unresolved at December 31	16,141	18,778	26,116
Claimants with claims against both UCC and Amchem	(5,741)	(6,804)	(8,209)
Individual claimants at December 31	10,400	11,974	17,907

Plaintiffs' lawyers often sue numerous defendants in individual lawsuits or on behalf of numerous claimants. As a result, the damages alleged are not expressly identified as to UCC, Amchem or any other particular defendant, even when specific damages are alleged with respect to a specific disease or injury. In fact, there are no asbestos personal injury cases in which only the Corporation and/or Amchem are the sole named defendants. For these reasons and based upon the Corporation's litigation and settlement experience, the Corporation does not consider the damages alleged against it and Amchem to be a meaningful factor in its determination of any potential asbestos-related liability.

For additional information, see Part I, Item 3. Legal Proceedings and Asbestos-Related Matters in Notes 1 and 13 to the Consolidated Financial Statements.

Debt Covenants and Default Provisions

The Corporation's outstanding public debt has been issued under indentures which contain, among other provisions, covenants that the Corporation must comply with while the underlying notes are outstanding. Such covenants are typically based on the Corporation's size and financial position and include, subject to the exceptions and qualifications contained in the indentures, obligations not to (i) allow liens on principal U.S. manufacturing facilities, (ii) enter into sale and lease-back transactions with respect to principal U.S. manufacturing facilities, or (iii) merge into or consolidate with any other entity or sell or convey all or substantially all of its assets. Failure of the Corporation to comply with any of these covenants could, after the passage of any applicable grace period, result in a default under the applicable indenture which would allow the note holders to accelerate the due date of the outstanding principal and accrued interest on the subject notes. Management believes the Corporation was in compliance with the covenants referred to above at December 31, 2016.

Union Carbide Corporation and Subsidiaries

PART II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

UCC's business operations give rise to market risk exposure due to changes in foreign exchange rates and interest rates. To manage such risks effectively, the Corporation can enter into hedging transactions, pursuant to established guidelines and policies that enable it to mitigate the adverse effects of financial market risk. The Corporation does not hold derivative financial instruments for trading purposes.

As a result of investments, production facilities and other operations on a global basis, the Corporation has assets, liabilities and cash flows in currencies other than the U.S. dollar. The primary objective of the Corporation's foreign exchange risk management is to optimize the U.S. dollar value of net assets and cash flows, keeping the adverse impact of currency movements to a minimum. To achieve this objective, the Corporation will hedge, when appropriate, on a net exposure basis using foreign currency forward contracts, over-the-counter option contracts, cross-currency swaps and nonderivative instruments in foreign currencies. Main exposures are related to assets, liabilities and cash flows denominated in the currencies of Europe, Asia Pacific and Canada.

The main objective of interest rate risk management is to reduce the total funding cost to the Corporation and to alter the interest rate exposure to the desired risk profile. The Corporation's primary exposure is to the U.S. dollar yield curve. UCC will use interest rate swaps and "swaptions," when appropriate, to accomplish this objective.

UCC uses value-at-risk ("VAR"), stress testing and scenario analysis for risk measurement and control purposes. VAR estimates the maximum potential loss in fair market values given a certain move in prices over a certain period of time, using specified confidence levels. The VAR methodology used by the Corporation is a variance/covariance model. This model uses a 97.5 percent confidence level and includes at least one year of historical data. The 2016 and 2015 year-end and average daily VAR for the aggregate of all positions are shown below:

Total Daily VAR at December 31	<i>2016</i>		<i>2015</i>	
	<i>Year-end</i>	<i>Average</i>	<i>Year-end</i>	<i>Average</i>
In millions				
Interest rate	\$ 3	\$ 3	\$ 4	\$ 4

Union Carbide Corporation and Subsidiaries
PART II, Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholder of
Union Carbide Corporation

We have audited the accompanying consolidated balance sheets of Union Carbide Corporation and subsidiaries (the "Corporation") as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these 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 financial statements are free of material misstatement. The Corporation is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Union Carbide Corporation and subsidiaries at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the consolidated financial statements, in the fourth quarter of 2016, the Corporation changed its accounting policy from expensing asbestos-related defense and processing costs as incurred to the accrual of asbestos-related defense and processing costs when probable of occurring and estimable.

/s/ DELOITTE & TOUCHE LLP

Deloitte & Touche LLP
Midland, Michigan
February 9, 2017

Union Carbide Corporation and Subsidiaries
Consolidated Statements of Income

(In millions) For the years ended December 31	2016	2015	2014
Net trade sales	\$ 108	\$ 87	\$ 82
Net sales to related companies	4,811	5,755	6,835
Total Net Sales	4,919	5,842	6,917
Cost of sales	3,713	4,506	5,922
Research and development expenses	18	20	20
Selling, general and administrative expenses	7	8	9
Asbestos-related charge	1,113	—	78
Restructuring charges (credits)	4	19	(3)
Equity in earnings of a nonconsolidated affiliate	2	4	7
Sundry income (expense) - net	2	(30)	14
Interest income	14	8	11
Interest expense and amortization of debt discount	25	28	32
Income Before Income Taxes	57	1,243	891
Provision (Credit) for income taxes	(32)	435	304
Net Income Attributable to Union Carbide Corporation	\$ 89	\$ 808	\$ 587

See Notes to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income

(In millions) For years ended December 31	2016	2015	2014
Net Income Attributable to Union Carbide Corporation	\$ 89	\$ 808	\$ 587
Other Comprehensive Income (Loss), Net of Tax			
Cumulative translation adjustments	(1)	2	15
Pension and other postretirement benefit plan adjustments	(91)	13	(213)
Total other comprehensive income (loss)	(92)	15	(198)
Comprehensive Income (Loss) Attributable to Union Carbide Corporation	\$ (3)	\$ 823	\$ 389

See Notes to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
Consolidated Balance Sheets

(In millions, except share amounts) At December 31

2016

2015

Assets			
Current Assets			
Cash and cash equivalents	\$	11	\$ 23
Accounts receivable:			
Trade (net of allowance for doubtful receivables 2016: \$-; 2015: \$-)		15	13
Related companies		843	1,090
Other		36	36
Income taxes receivable		275	32
Notes receivable from related companies		1,411	1,296
Inventories		307	303
Other current assets		39	39
Total current assets		2,937	2,832
Investments			
Investments in related companies		639	639
Investment in nonconsolidated affiliate		14	13
Other investments		30	33
Noncurrent receivables		52	44
Noncurrent receivables from related companies		57	62
Total investments		792	791
Property			
Property		7,144	7,036
Less accumulated depreciation		5,750	5,735
Net property		1,394	1,301
Other Assets			
Intangible assets (net of accumulated amortization 2016: \$78; 2015: \$74)		25	22
Deferred income tax assets		928	577
Asbestos-related insurance receivables - noncurrent		36	51
Deferred charges and other assets		34	32
Total other assets		1,023	682
Total Assets	\$	6,146	\$ 5,606
Liabilities and Equity			
Current Liabilities			
Notes payable to related companies	\$	25	\$ 25
Long-term debt due within one year		1	1
Accounts payable:			
Trade		249	220
Related companies		521	476
Other		7	18
Income taxes payable		23	92
Asbestos-related liabilities - current		126	65
Accrued and other current liabilities		181	177
Total current liabilities		1,133	1,074
Long-Term Debt		475	476
Other Noncurrent Liabilities			
Pension and other postretirement benefits - noncurrent		1,170	1,076
Asbestos-related liabilities - noncurrent		1,364	387
Other noncurrent obligations		206	292
Total other noncurrent liabilities		2,740	1,755
Stockholder's Equity			
Common stock (authorized: 1,000 shares of \$0.01 par value each; issued: 935.51 shares)		—	—
Additional paid-in capital		138	138
Retained earnings		2,980	3,391

Accumulated other comprehensive loss	(1,320)	(1,228)
Union Carbide Corporation's stockholder's equity	1,798	2,301
Total Liabilities and Equity	\$ 6,146	\$ 5,606

See Notes to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
Consolidated Statements of Cash Flows

(In millions) For the years ended December 31	2016	2015	2014
Operating Activities			
Net Income Attributable to Union Carbide Corporation	\$ 89	\$ 808	\$ 587
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	190	184	202
Provision (credit) for deferred income tax	(297)	(44)	349
Earnings of nonconsolidated affiliate in excess of dividends received	(1)	(1)	(7)
Net gain on sales of property and investments	(51)	(7)	(70)
Net gain on ownership transfer of property	—	(23)	—
Asbestos-related charge	1,113	—	78
Restructuring charges (credits)	4	19	(3)
Pension contributions	(52)	(2)	(2)
Other, net	(1)	1	—
Changes in assets and liabilities, net of effects of divested companies:			
Accounts and notes receivable	(7)	39	(19)
Related company receivables	132	191	217
Inventories	(4)	62	27
Accounts payable	18	(22)	28
Related company payables	45	(413)	484
Other assets and liabilities	(491)	561	(622)
Cash provided by operating activities	687	1,353	1,249
Investing Activities			
Capital expenditures	(267)	(270)	(166)
Change in noncurrent receivable from related company	5	69	35
Proceeds from sales of property	60	40	153
Cash acquired in ownership transfer of property	—	5	—
Purchases of investments	(1)	(27)	—
Proceeds from sales of investments	5	1	—
Cash provided by (used in) investing activities	(198)	(182)	22
Financing Activities			
Dividends paid to stockholder	(500)	(1,170)	(1,280)
Payments on long-term debt	(1)	(1)	(1)
Cash used in financing activities	(501)	(1,171)	(1,281)
Summary			
Decrease in cash and cash equivalents	(12)	—	(10)
Cash and cash equivalents at beginning of year	23	23	33
Cash and cash equivalents at end of year	\$ 11	\$ 23	\$ 23

See Notes to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
Consolidated Statements of Equity

(In millions) For the years ended December 31	2016	2015	2014
Common Stock			
Balance at beginning and end of year	\$ —	\$ —	\$ —
Additional Paid-in Capital			
Balance at beginning of year	138	312	312
Shares acquired for constructive retirement	—	(174)	—
Balance at end of year	138	138	312
Retained Earnings			
Balance at beginning of year	3,391	3,740	4,442
Net Income Attributable to Union Carbide Corporation	89	808	587
Dividends declared	(500)	(1,170)	(1,289)
Other	—	13	—
Balance at end of year	2,980	3,391	3,740
Accumulated Other Comprehensive Loss, Net of Tax			
Balance at beginning of year	(1,228)	(1,243)	(1,045)
Other comprehensive income (loss)	(92)	15	(198)
Balance at end of year	(1,320)	(1,228)	(1,243)
Union Carbide Corporation's Stockholder's Equity	\$ 1,798	\$ 2,301	\$ 2,809

See Notes to the Consolidated Financial Statements.

Union Carbide Corporation and Subsidiaries
Notes to the Consolidated Financial Statements

Table of Contents

Note	Page
1 Summary of Significant Accounting Policies	31
2 Recent Accounting Guidance	35
3 Restructuring	37
4 Divestitures	37
5 Inventories	38
6 Property	38
7 Nonconsolidated Affiliate	38
8 Investments in Related Companies	39
9 Intangible Assets	39
10 Financial Instruments	40
11 Fair Value Measurements	41
12 Supplementary Information	41
13 Commitments and Contingent Liabilities	42
14 Notes Payable and Long-term Debt	45
15 Pension Plans and Other Postretirement Benefits	46
16 Leased Property	53
17 Related Party Transactions	53
18 Income Taxes	55
19 Accumulated Other Comprehensive Loss	57
20 Business and Geographic Areas	57
21 Planned Merger with DuPont	58

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of Presentation

Except as otherwise indicated by the context, the terms “Corporation” and “UCC” as used herein mean Union Carbide Corporation and its consolidated subsidiaries. The accompanying consolidated financial statements of the Corporation were prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and include the assets, liabilities, revenues and expenses of all majority-owned subsidiaries over which the Corporation exercises control and, when applicable, entities for which the Corporation has a controlling financial interest. Intercompany transactions and balances are eliminated in consolidation. Investments in nonconsolidated affiliates (20-50 percent owned companies, joint ventures and partnerships) are accounted for using the equity method.

The Corporation is a wholly owned subsidiary of The Dow Chemical Company (“Dow”). In accordance with the accounting requirements for wholly owned subsidiaries, the presentation of earnings per share is not required and therefore is not provided.

Dow conducts its worldwide operations through global businesses, and the Corporation's business activities comprise components of Dow's global operations rather than stand-alone operations. The Corporation sells substantially all of its products to Dow at market-based prices, in accordance with Dow's long-standing intercompany pricing policy, in order to simplify the customer interface process. Because there are no separable reportable business segments for UCC and no detailed business information is provided to a chief operating decision maker regarding the Corporation's stand-alone operations, the Corporation's results are reported as a single operating segment.

Adoption of Accounting Standards Update (“ASU”) 2015-17, “Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes”

In the first quarter of 2016, the Corporation early adopted ASU 2015-17, which requires that all deferred tax assets and liabilities be classified as noncurrent in a classified statement of financial position. The Corporation elected to apply the new guidance on a retrospective basis, and as a result, changes have been made to the presentation of deferred income tax assets in the consolidated balance sheets at December 31, 2015, with the reclassification of \$64 million of current deferred income tax assets from “Other current assets” to “Deferred income tax assets.”

Change in Method of Accounting for Asbestos-Related Matters - Legal Costs

In September 2014, the Corporation began to implement a strategy designed to reduce and to ultimately stabilize and forecast defense and processing costs associated with asbestos-related matters. The strategy included a number of important changes including: invoicing protocols including capturing costs by plaintiff, review of existing counsel roles, work processes and workflow, and utilization of enterprise legal management software, which enabled claim-specific tracking of asbestos-related defense costs. The Corporation reviewed the information generated from this new strategy and determined that it now has the ability to reasonably estimate asbestos-related defense and processing costs for the same periods that it estimates asbestos-related resolution costs for pending and future claims. The Corporation believes that including estimates of the liability for asbestos-related defense and processing costs provides a more complete assessment and measure of the liability associated with resolving asbestos-related matters, which the Corporation believes is preferable in these circumstances.

In the fourth quarter of 2016, the Corporation elected to change its method of accounting for asbestos-related defense and processing costs from expensing as incurred to estimating and accruing a liability. The Corporation believes this change is preferable as asbestos-related defense and processing costs represent expenditures related to legacy activities that do not contribute to current or future revenue generating activities. The change is also reflective of the manner in which the Corporation manages the asbestos-related exposure, including the careful monitoring of the correlation between defense spending and resolution costs. Together, these two sources of costs more accurately represent the "total cost" of resolving asbestos-related claims now and in the future.

In the fourth quarter of 2016, the Corporation added a new accounting policy for asbestos-related matters and updated its existing accounting policy for legal costs, as follows:

Asbestos-Related Matters

Accruals for asbestos-related matters, including defense and processing costs, are recorded based on an analysis of claim and resolution activity, defense spending and pending and future claims. These accruals are assessed at each balance sheet date to determine if the asbestos-related liability remains appropriate. Accruals for asbestos-related matters are included in the consolidated balance sheets in "Asbestos-related liabilities - current" and "Asbestos-related liabilities - noncurrent."

Legal Costs

The Corporation expenses legal costs as incurred, with the exception of defense and processing costs associated with asbestos-related matters.

The accounting policy change has been reflected as a change in accounting estimate effected by a change in accounting principle. As a result of this accounting policy change, the Corporation recorded a pretax charge for asbestos-related defense and processing costs of \$1,009 million in the fourth quarter of 2016, included in "Asbestos-related charge" in the consolidated statements of income (after-tax loss of \$636 million). The Corporation's total asbestos-related liability, including defense and processing costs, was \$1,490 million at December 31, 2016, and was included in "Asbestos-related liabilities - current" and "Asbestos-related liabilities - noncurrent" in the consolidated balance sheets. See Note 13 for additional information.

Related Companies

Transactions with the Corporation's parent company, Dow, or other Dow subsidiaries have been reflected as related company transactions in the consolidated financial statements.

Use of Estimates in Financial Statement Preparation

The preparation of financial statements in accordance with U.S. GAAP requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. The Corporation's consolidated financial statements include amounts that are based on management's best estimates and judgments. Actual results could differ from those estimates.

Foreign Currency Translation

While the Corporation's consolidated subsidiaries are primarily based in the United States, the Corporation has small subsidiaries in Asia Pacific and the rest of the world. For those subsidiaries, the local currency has been primarily used as the functional currency. Translation gains and losses of those operations that use local currency as the functional currency are included in the consolidated balance sheets in "Accumulated other comprehensive loss" ("AOCL"). Where the U.S. dollar is used as the functional currency, foreign currency gains and losses are reflected in income.

Environmental Matters

Accruals for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based on current law and existing technologies. These accruals are adjusted periodically as assessment and remediation efforts progress or as additional technical or legal information becomes available. Accruals for environmental liabilities are included in the consolidated balance sheets in "Accrued and other current liabilities" and "Other noncurrent obligations" at undiscounted amounts. Accruals for related insurance or other third-party recoveries for environmental liabilities are recorded when it is probable that a recovery will be realized and are included in the consolidated balance sheets as "Accounts receivable - Other."

Environmental costs are capitalized if the costs extend the life of the property, increase its capacity, and/or mitigate or prevent contamination from future operations. Environmental costs are also capitalized in recognition of legal asset retirement obligations resulting from the acquisition, construction and/or normal operation of a long-lived asset. Costs related to environmental contamination treatment and cleanup are charged to expense. Estimated future incremental operations, maintenance and management costs directly related to remediation are accrued when such costs are probable and reasonably estimable.

Cash and Cash Equivalents

Cash and cash equivalents include time deposits and investments with maturities of three months or less at the time of purchase.

Financial Instruments

The Corporation calculates the fair value of financial instruments using quoted market prices whenever available. When quoted market prices are not available for various types of financial instruments (such as forwards, options and swaps), the Corporation uses standard pricing models with market-based inputs that take into account the present value of estimated future cash flows.

Inventories

Inventories are stated at the lower of cost or market. The method of determining cost for each subsidiary varies among last-in, first-out ("LIFO"); first-in, first-out ("FIFO"); and average cost, and is used consistently from year to year.

The Corporation routinely exchanges and swaps raw materials and finished goods with other companies to reduce delivery time, freight and other transportation costs. These transactions are treated as non-monetary exchanges and are valued at cost.

Property

Land, buildings and equipment, including property under capital lease agreements, are carried at cost less accumulated depreciation. Depreciation is based on the estimated service lives of depreciable assets and is calculated using the straight-line method. Fully depreciated assets are retained in property and accumulated depreciation accounts until they are removed from service. In the case of disposals, assets and related accumulated depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in income.

Impairment and Disposal of Long-Lived Assets

The Corporation evaluates long-lived assets and certain identifiable intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When undiscounted future cash flows are not expected to be sufficient to recover an asset's carrying amount, the asset is written down to its fair value based on bids received from third parties or a discounted cash flow analysis based on market participant assumptions.

Long-lived assets to be disposed of by sale, if material, are classified as held for sale and reported at the lower of carrying amount or fair value less cost to sell, and depreciation is ceased. Long-lived assets to be disposed of other than by sale are classified as held and used until they are disposed of and reported at the lower of carrying amount or fair value, and depreciation is recognized over the remaining useful life of the assets.

Asset Retirement Obligations

The Corporation records asset retirement obligations as incurred and reasonably estimable, including obligations for which the timing and/or method of settlement are conditional on a future event that may or may not be within the control of the Corporation. The fair values of obligations are recorded as liabilities on a discounted basis and are accreted over time for the change in present value. Costs associated with the liabilities are capitalized and amortized over the estimated remaining useful life of the asset, generally for periods of 10 years or less.

Investments in Related Companies

Investments in related companies consist of the Corporation's ownership interests in Dow subsidiaries located in North America and Latin America. The Corporation accounts for these investments using the cost method as it does not have significant influence over the operating and financial policies of these related companies.

Investments

Investments in debt securities are classified as available-for-sale and reported at fair value with unrealized gains and losses recorded in AOCL. The cost of investments sold is determined by specific identification. The Corporation routinely reviews available-for-sale securities for other-than-temporary declines in fair value below the cost basis, and when events or changes in circumstances indicate the carrying value of an asset may not be recoverable, the security is written down to fair value establishing a new cost basis.

Revenue

Substantially all of the Corporation's revenues are generated by sales to Dow. Approximately 99 percent of the Corporation's sales are related to sales of product (99 percent in 2015 and 99 percent in 2014); the remaining 1 percent is related to the licensing of patents and technology (1 percent in 2015 and 1 percent in 2014).

Revenue for product sales to related companies is recognized as risk and title to the product transfer to the related company, which occurs either at the time production is complete or free on board ("FOB") UCC's manufacturing facility, in accordance with the sales agreement between the Corporation and Dow.

Revenue for product sales is recognized as risk and title to the product transfer to the customer, which for trade sales, usually occurs at the time shipment is made. As such, title to the product passes when the product is delivered to the freight carrier. UCC's standard terms of delivery are included in its contracts of sale, order confirmation documents and invoices. Freight costs and any directly related costs of transporting finished product to customers are recorded as "Cost of sales" in the consolidated statements of income.

Revenue related to the initial licensing of patents and technology is recognized when earned; revenue related to running royalties is recognized according to licensee production levels.

Severance Costs

Management routinely reviews its operations around the world in an effort to ensure competitiveness across its operations and geographic areas. When the reviews result in a workforce reduction related to the shutdown of facilities or other optimization activities, severance benefits are provided to employees primarily under ongoing benefit arrangements. These severance costs are accrued once management commits to a plan of termination including the number of employees to be terminated, their job classifications or functions, their locations and the expected termination date.

Income Taxes

The Corporation accounts for income taxes using the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the carrying amounts and tax bases of assets and liabilities using enacted tax rates. The effect of a change in tax rates on deferred tax assets or liabilities is recognized in income in the period that includes the enactment date. The Corporation is included in Dow's consolidated federal income tax group and consolidated income tax return. The Corporation accounts for its income taxes following the formula in the Dow-UCC Tax Sharing Agreement used to compute the amount due to Dow or UCC for UCC's share of taxable income and tax attributes on Dow's consolidated income tax return. This method generally follows the separate return method. The amounts reported as income taxes payable or receivable represent the Corporation's payment obligation (or refundable amount) to Dow based on a theoretical tax liability calculated on a separate return method.

Annual tax provisions include amounts considered sufficient to pay assessments that may result from examinations of prior year tax returns; however, the amount ultimately paid upon resolution of issues raised may differ from the amounts accrued.

The Corporation recognizes the financial statement effects of an uncertain income tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. The Corporation accrues for non-income tax contingencies when it is probable that a liability to a taxing authority has been incurred and the amount of the contingency can be reasonably estimated. The current portion of uncertain income tax positions is included in "Income taxes payable" and the long-term portion is included in "Other noncurrent obligations" in the consolidated balance sheets.

Provision is made for taxes on undistributed earnings of foreign subsidiaries and related companies to the extent that such earnings are not deemed to be permanently invested.

NOTE 2 - RECENT ACCOUNTING GUIDANCE

Recently Adopted Accounting Guidance

In the fourth quarter of 2015, the Corporation adopted ASU 2015-03, "Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs," which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, and amortization of those costs should be reported as interest expense. This ASU was effective for annual and interim periods beginning after December 15, 2015, and early adoption was permitted for financial statements that had not been previously issued. The new guidance required retrospective application for each period presented in the balance sheet. This change was reflected in "Deferred charges and other assets" and "Long-Term Debt" in the consolidated balance sheets on a retrospective basis and did not have a material impact on the consolidated financial statements.

In the first quarter of 2016, the Corporation early adopted ASU 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes," which simplifies the presentation of deferred income taxes by requiring that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. This ASU is effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods, and may be applied either prospectively or retrospectively, and early adoption was permitted. The change was reflected in "Other current assets" and "Deferred income tax assets" in the consolidated balance sheets on a retrospective basis and did not have a material impact on the consolidated financial statements. See Note 1 for additional information.

Accounting Guidance Issued But Not Adopted as of December 31, 2016

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)," which is the new comprehensive revenue recognition standard that will supersede all existing revenue recognition guidance under U.S. GAAP. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to a customer in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," which was issued in August 2015, revised the effective date for this ASU to annual and interim periods beginning on or after December 15, 2017, with early adoption permitted, but not earlier than the original effective date of annual and interim periods beginning on or after December 15, 2016, for public entities. Entities will have the option of using either a full retrospective approach or a modified approach to adopt the guidance in ASU 2014-09.

In May 2014, the FASB and International Accounting Standards Board formed The Joint Transition Resource Group for Revenue Recognition ("TRG"), consisting of financial statement preparers, auditors and users, to seek feedback on potential issues related to the implementation of the new revenue standard. As a result of feedback from the TRG, the FASB has issued additional guidance to provide clarification, implementation guidance and practical expedients to address some of the challenges of implementation. In March 2016, the FASB issued ASU 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," which is an amendment on assessing whether an entity is a principal or an agent in a revenue transaction. This amendment addresses issues to clarify the principal versus agent assessment and lead to more consistent application. In April 2016, the FASB issued ASU 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," which contains amendments to the new revenue recognition standard on identifying performance obligations and accounting for licenses of intellectual property. The amendments related to identifying performance obligations clarify when a promised good or service is separately identifiable and allows entities to disregard items that are immaterial in the context of a contract. The licensing implementation amendments clarify how an entity should evaluate the nature of its promise in granting a license of intellectual property, which will determine whether revenue is recognized over time or at a point in time. In May 2016, the FASB issued ASU 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients," which provides clarity and implementation guidance on assessing collectibility, presentation of sales taxes, noncash consideration, and completed contracts and contract modifications at transition. The new standards have the same effective date and transition requirements as ASU 2014-09.

The Corporation has a team in place to analyze the impact of ASU 2014-09 and the related ASU's across all revenue streams to evaluate the impact of the new standard on revenue contracts. This includes reviewing current accounting policies and practices to identify potential differences that would result from applying the requirements under the new standard. In 2016, the Corporation made significant progress on contract reviews and expects to complete the contract evaluations and validate results

[Table of Contents](#)

by the end of the first quarter of 2017. The Corporation has also started drafting its accounting policies and evaluating the new disclosure requirements and expects to complete its evaluations of the impact of the accounting and disclosure requirements on its business processes, controls and systems by the end of the second quarter of 2017. Full implementation will be completed by the end of 2017. Based on analysis completed to date, the Corporation expects the potential impact on accounting for product sales and licensing arrangements to remain substantially unchanged. The Corporation expects to adopt the new standard using the modified retrospective approach, under which the cumulative effect of initially applying the new guidance is recognized as an adjustment to the opening balance of retained earnings in the first quarter of 2018.

In July 2015, the FASB issued ASU 2015-11, "Inventory (Topic 330): Simplifying the Measurement of Inventory," which applies to inventory that is measured using FIFO or average cost. Under the updated guidance, an entity should measure inventory that is within scope at the lower of cost and net realizable value, which is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Subsequent measurement is unchanged for inventory that is measured using LIFO. This ASU is effective for annual and interim periods beginning after December 15, 2016, and should be applied prospectively with early adoption permitted at the beginning of an interim or annual reporting period. The adoption of this guidance in the first quarter of 2017 will not have a material impact on the consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities," which amends the guidance in U.S. GAAP on the classification and measurement of financial instruments. Changes to the current guidance primarily affects the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. In addition, the ASU clarifies guidance related to the valuation allowance assessment when recognizing deferred tax assets resulting from unrealized losses on available-for-sale debt securities. The new standard is effective for fiscal years and interim periods beginning after December 15, 2017, and upon adoption, an entity should apply the amendments by means of a cumulative-effect adjustment to the balance sheet at the beginning of the first reporting period in which the guidance is effective. Early adoption is not permitted except for the provision to record fair value changes for financial liabilities under the fair value option resulting from instrument-specific credit risk in other comprehensive income. The Corporation is currently evaluating the impact of adopting this guidance.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which requires organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by those leases. The new guidance requires that a lessee recognize assets and liabilities for leases with lease terms of more than twelve months and recognition, presentation and measurement in the financial statements will depend on its classification as a finance or operating lease. In addition, the new guidance will require disclosures to help investors and other financial statement users better understand the amount, timing and uncertainty of cash flows arising from leases. Lessor accounting remains largely unchanged from current U.S. GAAP but does contain some targeted improvements to align with the new revenue recognition guidance issued in 2014. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018, using a modified retrospective approach, and early adoption is permitted. The Corporation is currently evaluating the impact of adopting this guidance.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments," which addresses diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows with respect to eight specific cash flow issues. The new standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. The amendments should be applied using a retrospective transition method to each period presented, if practicable. Early adoption is permitted, including adoption in an interim period, and any adjustments should be reflected as of the beginning of the fiscal year that includes the interim period. All amendments must be adopted in the same period. The Corporation is currently evaluating the impact of adopting this guidance.

In October 2016, the FASB issued ASU 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory," which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The amendments are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017, and should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings at the beginning period of adoption. Early adoption is permitted in the first interim period of an annual reporting period for which financial statements have not been issued. The Corporation is currently evaluating the impact of adopting this guidance.

NOTE 3 - RESTRUCTURING

2016 Restructuring

On June 27, 2016, the Corporation approved actions to further improve cost effectiveness with additional workforce reductions. As a result of these actions, the Corporation recorded a pretax restructuring charge in the second quarter of 2016 consisting of severance charges of \$1 million for the separation of approximately 5 positions. The impact of these charges was shown as "Restructuring charges (credits)" in the consolidated statements of income. In the fourth quarter of 2016, the Corporation recorded an additional charge of \$2 million related to the separation of an additional 16 positions. The employee separations are expected to be completed during the next two years. At December 31, 2016, a liability of \$3 million for the separation of approximately 15 employees remains.

2015 Restructuring

On April 29, 2015, the Corporation approved actions to improve the cost effectiveness of the Corporation's global operations and further streamline the organization. These actions affected approximately 16 positions and resulted in the shutdown of a manufacturing facility that produces water soluble polymers in Institute, West Virginia, in the fourth quarter of 2015.

As a result of these actions, the Corporation recorded pretax restructuring charges of \$18 million in the second quarter of 2015 consisting of costs associated with exit and disposal activities of \$2 million, severance costs of \$2 million and asset write-downs and write-offs of \$14 million. In the fourth quarter of 2015, the Corporation recorded an additional charge of \$1 million related to the separation of an additional 8 positions. At December 31, 2015, severance of \$1 million had been paid, leaving a liability of \$2 million for approximately 15 employees.

During the second quarter of 2016, the Corporation recorded an unfavorable adjustment to the 2015 restructuring charge related to additional accruals for exit and disposal activities of \$1 million, included in "Restructuring charges (credits)" in the consolidated statements of income. In 2016, severance of \$2 million was paid, substantially completing the 2015 restructuring activities, with any remaining liabilities for contract cancellation fees to be settled over time.

The Corporation expects to incur additional costs in the future related to restructuring activities, as UCC continually looks for ways to enhance the efficiency and cost effectiveness of its operations. Future costs are expected to include demolition costs related to the closed facilities; these will be recognized as incurred. The Corporation also expects to incur additional employee-related costs, including involuntary termination benefits, related to its other optimization activities. These costs cannot be reasonably estimated at this time.

2014 Adjustment to the 4Q12 Restructuring Plan

In 2014, the Corporation reduced the 4Q12 restructuring reserve related to contract cancellations fees by \$3 million.

NOTE 4 - DIVESTITURES

Divestiture of Methylmercapto Propionaldehyde Assets

On November 1, 2015, the Corporation completed the sale of its assets related to the production of methylmercapto propionaldehyde ("MMP") at the St. Charles Operations site in Taft, Louisiana to MMP SCO, LLC ("Novus"), a subsidiary of Novus International, Inc., for net proceeds of \$31 million. Included in the divestiture was the Corporation's MMP manufacturing facility as well as inventory. The Corporation continues to operate and provide services to the MMP facility under separate agreements with Novus. The net proceeds were included in "Accrued and other current liabilities" and "Other noncurrent obligations" in the consolidated balance sheets as a deferred gain and will be amortized to "Sundry income (expense) - net" in the consolidated statements of income over the 25-year term of the operating agreements. The transaction also included a 25-year acrolein supply agreement containing an upfront payment of \$42.5 million which was reflected in "Accrued and other current liabilities" and "Other noncurrent obligations" in the consolidated balance sheets and will be amortized to "Net trade sales" over the 25-year term of the agreement. Proceeds of \$10 million for the sale of two related patents resulted in a pretax gain of \$10 million and was included in "Sundry income (expense) - net" in the consolidated statements of income.

NOTE 5 - INVENTORIES

The following table provides a breakdown of inventories:

Inventories at December 31		
In millions	2016	2015
Finished goods	\$ 186	\$ 191
Work in process	38	33
Raw materials	50	42
Supplies	87	86
Total FIFO inventories	\$ 361	\$ 352
Adjustment of inventories to a LIFO basis	(54)	(49)
Total inventories	\$ 307	\$ 303

Inventories that were valued on a LIFO basis, principally U.S. chemicals and plastics product inventories, represented 68 percent of the total inventories at December 31, 2016, and 67 percent of the total inventories at December 31, 2015.

A reduction of certain inventories resulted in the liquidation of some of the Corporation's LIFO inventory layers, which had an immaterial impact on pretax income in 2016 and 2014, and decreased pretax income \$14 million in 2015.

NOTE 6 - PROPERTY

Property at December 31		<i>Estimated Useful</i>	
In millions	<i>Lives (Years)</i>	2016	2015
Land	—	\$ 69	\$ 69
Land and waterway improvements	15-25	205	209
Buildings	5-50	396	420
Machinery and equipment	3-20	5,872	5,809
Utility and supply lines	5-20	171	164
Other property	3-30	101	98
Construction in progress	—	330	267
Total property		\$ 7,144	\$ 7,036

In millions	2016	2015	2014
Depreciation expense	\$ 166	\$ 160	\$ 176
Manufacturing maintenance and repair costs	\$ 304	\$ 353	\$ 295
Capitalized interest	\$ 13	\$ 10	\$ 5

NOTE 7 - NONCONSOLIDATED AFFILIATE

The Corporation's investment in a company accounted for by the equity method ("nonconsolidated affiliate") was \$14 million at December 31, 2016 and \$13 million at December 31, 2015. Dividends received from the nonconsolidated affiliate were \$1 million in 2016, \$2 million in 2015 and zero in 2014. Undistributed earnings of the nonconsolidated affiliate included in retained earnings were \$9 million at December 31, 2016 and \$8 million at December 31, 2015. The nonconsolidated affiliate is a privately held company; therefore, a quoted market price is not available.

NOTE 8 - INVESTMENTS IN RELATED COMPANIES

The Corporation's ownership interests in related companies at December 31, 2016 and 2015 were as follows:

Investments in Related Companies at December 31 In millions	Ownership Interest		Investment Balance	
	2016	2015	2016	2015
Dow International Holdings Company	15%	15%	\$ 633	\$ 633
Dow Quimica Argentina S.A.	23%	23%	—	—
Dow Quimica Mexicana S.A. de C.V.	15%	15%	5	5
Other	—%	—%	1	1
Total Investments in Related Companies			\$ 639	\$ 639

On October 5, 2015, (i) Dow completed the transfer of its U.S. Gulf Coast Chlor-Alkali and Vinyl, Global Chlorinated Organics and Global Epoxy businesses into a new company ("Splitco"), (ii) participating Dow shareholders tendered, and Dow accepted, Dow shares for Splitco shares in a public exchange offer, and (iii) Splitco merged with a wholly owned subsidiary of Olin Corporation in a tax-efficient Reverse Morris Trust transaction (collectively, the "Transaction"). As part of the Transaction, Dow established a separate legal entity structure to hold the relevant assets to be carved out from the existing Dow structure. To facilitate the Transaction, all entities in Europe and Asia Pacific were aligned under one single entity, with shares owned entirely by Dow. In order to align entity ownership under Dow, entities distributed their shares to Dow through either a series of dividends or share redemptions. As a result, in September 2015, UCC redeemed 462.7096 shares of common stock of Dow International Holdings Company ("DIHC"), a cost method investment, in exchange for stock in Blue Cube International Holdings, LLC ("BCIH"). Prior to the distribution, UCC had a 19.1 percent ownership interest in DIHC with the other 80.9 percent owned by Dow and its other wholly-owned subsidiaries. After the distribution, UCC's investment in DIHC was reduced to 15 percent and resulted in a reduction in investments in related companies of \$174 million. UCC then transferred and distributed to Dow all of its membership interest in BCIH in exchange for 64.58 shares of its common stock held by Dow. Dow will continue to own 100 percent of UCC. As part of the final settlement, an adjustment was made to the shares of UCC common stock that were exchanged by Dow, bringing the final number of UCC common stock exchanged with Dow to 64.49 shares. The impact of these transactions was reflected in "Investments in related companies" and "Additional paid-in capital" in the consolidated balance sheets.

NOTE 9 - INTANGIBLE ASSETS

The following table provides information regarding the Corporation's intangible assets:

Intangible Assets at December 31 In millions	2016			2015		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Intangible assets with finite lives:						
Licenses and intellectual property	\$ 33	\$ (33)	\$ —	\$ 33	\$ (33)	\$ —
Software	70	(45)	25	63	(41)	22
Total intangible assets	\$ 103	\$ (78)	\$ 25	\$ 96	\$ (74)	\$ 22

[Table of Contents](#)

The following table provides information regarding amortization expense:

Amortization Expense			
In millions	2016	2015	2014
Software (1)	\$ 4	\$ 2	\$ 2

(1) Included in "Cost of sales" in the consolidated statements of income.

Total estimated amortization expense for the next five fiscal years is as follows:

Estimated Amortization Expense for Next Five Years	
In millions	
2017	\$ 4
2018	\$ 5
2019	\$ 5
2020	\$ 5
2021	\$ 3

NOTE 10 - FINANCIAL INSTRUMENTS

Investments

The Corporation's investments in marketable securities are classified as available-for-sale. Proceeds from sales of available-for-sale securities in 2016 were \$2 million (\$1 million in 2015 and zero in 2014).

Portfolio managers regularly review all of the Corporation's holdings to determine if any investments are other-than-temporarily impaired. The analysis includes reviewing the amount of the impairment, as well as the length of time it has been impaired. In addition, specific guidelines for each instrument type are followed to determine if an other-than-temporary impairment has occurred. At December 31, 2016 and December 31, 2015, there were no impairment indicators or circumstances that would result in a material adjustment of these investments.

The Corporation's investments in debt securities, shown below, had contractual maturities of less than 10 years at December 31, 2016.

In millions	<i>At December 31, 2016</i>				<i>At December 31, 2015</i>			
	<i>Cost</i>	<i>Gain</i>	<i>Loss</i>	<i>Fair Value</i>	<i>Cost</i>	<i>Gain</i>	<i>Loss</i>	<i>Fair Value</i>
Cash equivalents	\$ 7	\$ —	\$ —	\$ 7	\$ 5	\$ —	\$ —	\$ 5
Debt securities (1)	\$ 2	\$ —	\$ —	\$ 2	\$ 4	\$ —	\$ —	\$ 4
Long-term debt including debt due within one year	\$ (476)	\$ —	\$ (95)	\$ (571)	\$ (477)	\$ —	\$ (96)	\$ (573)

(1) Marketable securities are included in "Other investments" in the consolidated balance sheets.

For all other financial instruments, cost approximates fair value.

NOTE 11 - FAIR VALUE MEASUREMENTS

Fair Value Measurements on a Recurring Basis

The following table summarizes the basis used to measure certain assets and liabilities at fair value on a recurring basis:

Basis of Fair Value Measurements on a Recurring Basis at December 31	<i>Significant Other Observable Inputs (Level 2)</i>	<i>Significant Other Observable Inputs (Level 2)</i>
In millions	2016	2015
Assets at fair value:		
Cash equivalents	\$ 7	\$ 5
Debt securities (1)	\$ 2	\$ 4
Liabilities at fair value:		
Long-term debt (2)	\$ 571	\$ 573

(1) Included in "Other investments" in the consolidated balance sheets.

(2) See Note 10 for information on fair value measurements of long-term debt.

For assets and liabilities classified as Level 2 measurements, where the security is frequently traded in less active markets, fair value is based on the closing price at the end of the period; where the security is less frequently traded, fair value is based on the price a dealer would pay for the security or similar securities, adjusted for any terms specific to that asset or liability, or by using observable market data points of similar, more liquid securities to imply the price. Market inputs are obtained from well-established and recognized vendors of market data and subjected to tolerance/quality checks.

Assets that are measured using significant other observable inputs are primarily valued by reference to quoted prices of similar assets in active markets, adjusted for any terms specific to that asset. For all other assets for which observable inputs are used, fair value is derived through the use of fair value models, such as a discounted cash flow model or other standard pricing models. There were no transfers between Levels 1 and 2 during the years ended December 31, 2016 and 2015.

NOTE 12 - SUPPLEMENTARY INFORMATION

Sundry Income (Expense) - Net			
In millions	2016	2015	2014
Dow administrative and overhead fees (1)	\$ (27)	\$ (30)	\$ (26)
Net commission expense - related company (1)	(22)	(22)	(21)
Net gain (loss) on sales of property	50	(3)	4
Net gain on ownership transfer of property	—	23	—
Net gain on sale of patents (2)	—	10	—
Net gain on sale of railcar fleet (1)	—	—	66
Dividend income - related companies (1)	—	—	12
Reclassification of cumulative translation adjustment	—	—	(16)
Net gain on sale of Dow's Polypropylene Licensing and Catalysts business (2)	—	—	4
Foreign exchange gain (loss)	1	(2)	—
Other - net	—	(6)	(9)
Total sundry income (expense) - net	\$ 2	\$ (30)	\$ 14

(1) See Note 17 for additional information.

(2) See Note 4 for additional information.

Accrued and Other Current Liabilities

"Accrued and other current liabilities" in the consolidated balance sheets were \$181 million at December 31, 2016 and \$177 million at December 31, 2015. The current portion of the Corporation's accrued obligations for environmental matters, which is a component of "Accrued and other current liabilities," was \$58 million at December 31, 2016 and \$56 million at December 31, 2015 (see Note 13 for additional information). No other component of accrued and other current liabilities was more than 5 percent of total current liabilities.

Supplementary Cash Flow Information			
In millions	2016	2015	2014
Cash payments for interest	\$ 38	\$ 39	\$ 37
Cash payments (refunds) for income taxes	\$ 697	\$ (125)	\$ 555

NOTE 13 - COMMITMENTS AND CONTINGENT LIABILITIES

Environmental Matters

Accruals for environmental matters are recorded when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies.

At December 31, 2016, the Corporation had accrued obligations of \$145 million for probable environmental remediation and restoration costs, including \$20 million for the remediation of Superfund sites. These obligations are included in "Accrued and other current liabilities" and "Other noncurrent obligations" in the consolidated balance sheets. This is management's best estimate of the costs for remediation and restoration with respect to environmental matters for which the Corporation has accrued liabilities, although it is reasonably possible that the ultimate cost with respect to these particular matters could range up to approximately two and a half times that amount. Consequently, it is reasonably possible that environmental remediation and restoration costs in excess of amounts accrued could have a material impact on the Corporation's results of operations, financial condition and cash flows. It is the opinion of the Corporation's management, however, that the possibility is remote that costs in excess of the range disclosed will have a material impact on the Corporation's results of operations, financial condition and cash flows. Inherent uncertainties exist in these estimates primarily due to unknown environmental conditions, changing governmental regulations and legal standards regarding liability, and emerging remediation technologies for handling site remediation and restoration. In the fourth quarter of 2016, the Corporation recorded an adjustment to the environmental accrual, primarily resulting from the culmination of negotiations with regulators and/or final stages of certain remediation projects. These charges were included in "Cost of sales" in the consolidated statements of income and are included in the total obligation of \$145 million. At December 31, 2015, the Corporation had accrued obligations of \$115 million for probable environmental remediation and restoration costs, including \$21 million for the remediation of Superfund sites.

The following table summarizes the activity in the Corporation's accrued obligations for environmental matters for the years ended December 31, 2016 and 2015:

Accrued Liability for Environmental Matters		
In millions	2016	2015
Balance at January 1	\$ 115	\$ 132
Accrual adjustment	115	61
Payments against reserve	(85)	(76)
Foreign currency impact	—	(2)
Balance at December 31	\$ 145	\$ 115

The amounts charged to income on a pretax basis related to environmental remediation totaled \$122 million in 2016, \$58 million in 2015 and \$62 million in 2014. Capital expenditures for environmental protection were \$10 million in 2016, \$14 million in 2015 and \$6 million in 2014.

Litigation

The Corporation is involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters, including, but not limited to: product liability; trade regulation; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts; taxes; and commercial disputes.

Asbestos-Related Matters

Introduction

Separately, the Corporation is and has been involved in a large number of asbestos-related suits filed primarily in state courts during the past four decades. These suits principally allege personal injury resulting from exposure to asbestos-containing products and frequently seek both actual and punitive damages. The alleged claims primarily relate to products that UCC sold in the past, alleged exposure to asbestos-containing products located on UCC's premises, and UCC's responsibility for asbestos suits filed against a former UCC subsidiary, Amchem Products, Inc. ("Amchem"). In many cases, plaintiffs are unable to demonstrate that they have suffered any compensable loss as a result of such exposure, or that injuries incurred in fact resulted from exposure to the Corporation's products.

The Corporation expects more asbestos-related suits to be filed against UCC and Amchem in the future, and will aggressively defend or reasonably resolve, as appropriate, both pending and future claims.

Estimating the Liability for Asbestos-Related Pending and Future Claims

Based on a study completed by Analysis, Research & Planning Corporation (now known as Ankura Consulting Group, LLC ("Ankura") as a result of the March 2016 merger of Analysis, Research & Planning Corporation and Ankura) in January 2003, the Corporation increased its December 31, 2002, asbestos-related liability for pending and future claims for a 15-year period ending in 2017 to \$2.2 billion, excluding future defense and processing costs. Since then, the Corporation has compared current asbestos claim and resolution activity to the results of the most recent Ankura study at each balance sheet date to determine whether the accrual continues to be appropriate. In addition, the Corporation has requested Ankura to review the Corporation's historical asbestos claim and resolution activity each year since 2004 to determine the appropriateness of updating the most recent Ankura study.

In October 2014, the Corporation requested Ankura to review its historical asbestos claim and resolution activity and determine the appropriateness of updating its December 2012 study. In response to that request, Ankura reviewed and analyzed data through September 30, 2014. The resulting study, completed by Ankura in December 2014, estimated the undiscounted cost of disposing of pending and future claims against UCC and Amchem, excluding future defense and processing costs, was between \$540 million and \$640 million through 2029 based on the data as of September 30, 2014.

In December 2014, based on Ankura's December 2014 study and the Corporation's own review of the asbestos claim and resolution activity, the Corporation determined that an adjustment to the accrual was required due to the increase in mesothelioma claim activity compared with what had been forecasted in the December 2012 study. Accordingly, the Corporation increased its asbestos-related liability for pending and future claims by \$78 million, which was included in "Asbestos-related charge" in the consolidated statements of income. At December 31, 2014, the asbestos-related liability for pending and future claims was \$513 million, and approximately 22 percent of the recorded liability related to pending claims and approximately 78 percent related to future claims.

In October 2015, the Corporation requested Ankura to review its historical asbestos claim and resolution activity and determine the appropriateness of updating its December 2014 study. In response to that request, Ankura reviewed and analyzed data through September 30, 2015. In December 2015, Ankura stated that an update of its December 2014 study would not provide a more likely estimate of future events than the estimate reflected in its study and, therefore, the estimate in that study remained applicable. Based on the Corporation's own review of the asbestos claim and resolution activity and Ankura's response, the Corporation determined that no change to the accrual was required. At December 31, 2015, the asbestos-related liability for pending and future claims was \$437 million, and approximately 21 percent of the recorded liability related to pending claims and approximately 79 percent related to future claims.

In October 2016, the Corporation requested Ankura to review its historical asbestos claim and resolution activity and determine the appropriateness of updating its December 2014 study. In response to the request, Ankura reviewed and analyzed asbestos-related claim and resolution data through September 30, 2016. The resulting study, completed by Ankura in December 2016, provided estimates for the undiscounted cost of disposing of pending and future claims against UCC and Amchem, excluding future defense and processing costs, for both a 15-year period and through the terminal year of 2049.

Based on the study completed in December 2016 by Ankura, and the Corporation's own review of the asbestos claim and resolution activity, it was determined that an adjustment to the accrual was necessary. The Corporation determined that using the estimate through the terminal year of 2049 was more appropriate due to increasing knowledge and data about the costs to resolve claims and diminished volatility in filing rates. Using the range in the Ankura December 2016 study, which was estimated to be between \$502 million and \$565 million for the undiscounted cost of disposing of pending and future claims, the Corporation increased its asbestos-related liability for pending and future claims through the terminal year of 2049 by

[Table of Contents](#)

\$104 million, included in "Asbestos-related charge" in the consolidated statements of income. At December 31, 2016, the Corporation's asbestos-related liability for pending and future claims was \$486 million, and approximately 14 percent of the recorded liability related to pending claims and approximately 86 percent related to future claims.

Estimating the Liability for Asbestos-Related Defense and Processing Costs

In September 2014, the Corporation began to implement a strategy designed to reduce and to ultimately stabilize and forecast defense costs associated with asbestos-related matters. The strategy included a number of important changes including: invoicing protocols including capturing costs by plaintiff; review of existing counsel roles, work processes and workflow; and utilization of enterprise legal management software, which enabled claim-specific tracking of asbestos-related defense and processing costs. The Corporation reviewed the information generated from this new strategy and determined that it now had the ability to reasonably estimate asbestos-related defense and processing costs for the same periods that it estimates its asbestos-related liability for pending and future claims. The Corporation believes that including estimates of the liability for asbestos-related defense and processing costs provides a more complete assessment and measure of the liability associated with resolving asbestos-related matters, which the Corporation believes is preferable in these circumstances.

In October 2016, in addition to the study for asbestos claim and resolution activity, the Corporation requested Ankura to review asbestos-related defense and processing costs and provide an estimate of a reasonable forecast of defense and processing costs associated with resolving pending and future asbestos-related claims facing UCC and Amchem for the same periods of time that the Corporation uses for estimating resolution costs. In December 2016, Ankura conducted the study and provided the Corporation with an estimate of future defense and processing costs for both a 15-year period and through the terminal year of 2049. The resulting study estimated asbestos-related defense and processing costs for pending and future asbestos claims to be between \$1,009 million and \$1,081 million through the terminal year of 2049.

In the fourth quarter of 2016, the Corporation elected to change its method of accounting for asbestos-related defense and processing costs from expensing as incurred to estimating and accruing a liability. This change is believed to be preferable as asbestos-related defense and processing costs represent expenditures related to legacy activities that do not contribute to current or future revenue generating activities of the Corporation. The change is also reflective of the manner in which the Corporation manages its asbestos-related exposure, including careful monitoring of the correlation between defense spending and resolution costs. Together, these two sources of cost more accurately represent the "total cost" of resolving asbestos-related claims now and in the future.

This accounting policy change has been reflected as a change in accounting estimate effected by a change in accounting principle. As a result of this accounting policy change and based on the December 2016 Ankura study of asbestos-related defense and processing costs and the Corporation's own review of the data, a pretax charge for asbestos-related defense and processing costs of \$1,009 million was recorded in the fourth quarter of 2016, included in "Asbestos-related charge" in the consolidated statements of income. The Corporation's total asbestos-related liability, including defense and processing costs, was \$1,490 million at December 31, 2016, and was included in "Asbestos-related liabilities - current" and "Asbestos-related liabilities - noncurrent" in the consolidated balance sheets.

Insurance Receivables

The Corporation has receivables for insurance recoveries related to its asbestos liability as well as receivables for defense and resolution costs submitted to insurance carriers that have a settlement agreement in place regarding their asbestos-related insurance coverage. The Corporation continues to believe that its recorded receivable for insurance recoveries from all insurance carriers is probable of collection. At December 31, 2016, the Corporation's receivable for insurance recoveries related to its asbestos liability was \$41 million (\$61 million at December 31, 2015).

Summary

The Corporation's management believes the amounts recorded for the asbestos-related liability (including defense and processing costs) reflect reasonable and probable estimates of the liability based on current, known facts. However, future events, such as the number of new claims to be filed and/or received each year and the average cost of defending and disposing of each such claim, as well as the numerous uncertainties surrounding asbestos litigation in the United States, could cause the actual costs for the Corporation to be higher or lower than those projected or those recorded. Any such event could result in an increase or decrease in the recorded liability.

Other Litigation

While it is not possible at this time to determine with certainty the ultimate outcome of any of the legal proceedings and claims referred to in this filing, management believes that the possibility is remote that the aggregate of all such other claims and lawsuits will have a material adverse impact on the results of operations, cash flows and financial position of the Corporation.

Purchase Commitments

At December 31, 2016, the Corporation had various outstanding commitments for take-or-pay agreements, with remaining terms extending from 1 to 14 years. Such commitments were not in excess of current market prices. The fixed and determinable portion of obligations under purchase commitments at December 31, 2016, is presented in the following table:

Fixed and Determinable Portion of Take-or-Pay Obligations at December 31, 2016		
In millions		
2017	\$	42
2018		32
2019		31
2020		31
2021		30
2022 and beyond		164
Total	\$	330

NOTE 14 - NOTES PAYABLE AND LONG-TERM DEBT

Notes Payable at December 31			
In millions			
		2016	2015
Notes payable to related companies	\$	25	\$ 25
Year-end average interest rates		2.07%	1.40%

Long-Term Debt at December 31					
In millions	2016		2015		
	Average Rate	2016	Average Rate	2015	2015
Promissory notes and debentures:					
Debentures due 2023	7.875%	\$ 175	7.875%	\$ 175	175
Debentures due 2025	6.79%	12	6.79%	12	12
Debentures due 2025	7.50%	150	7.50%	150	150
Debentures due 2096	7.75%	135	7.75%	135	135
Capital lease obligations	—	9	—	10	10
Unamortized debt discount and issuance costs	—	(5)	—	(5)	(5)
Long-term debt due within one year	—	(1)	—	(1)	(1)
Total long-term debt		\$ 475		\$ 476	476

Annual Installments on Long-Term Debt for Next Five Years

In millions		
2017	\$	1
2018	\$	1
2019	\$	1
2020	\$	1
2021	\$	1

Debt Covenants and Default Provisions

The Corporation's outstanding public debt has been issued under indentures which contain, among other provisions, covenants that the Corporation must comply with while the underlying notes are outstanding. Such covenants are typically based on the Corporation's size and financial position and include, subject to the exceptions and qualifications contained in the indentures, obligations not to (i) allow liens on principal U.S. manufacturing facilities, (ii) enter into sale and lease-back transactions with respect to principal U.S. manufacturing facilities, or (iii) merge into or consolidate with any other entity or sell or convey all or substantially all of its assets. Failure of the Corporation to comply with any of these covenants could, after the passage of any applicable grace period, result in a default under the applicable indenture which would allow the note holders to accelerate the due date of the outstanding principal and accrued interest on the subject notes.

NOTE 15 - PENSION PLANS AND OTHER POSTRETIREMENT BENEFITS

Pension Plans

The Corporation has a defined benefit pension plan that covers substantially all employees in the United States. Benefits are based on length of service and the employee's three highest consecutive years of compensation. Employees hired on or after January 1, 2008, earn benefits that are based on a set percentage of annual pay, plus interest. The Corporation also has a non-qualified supplemental pension plan.

The Corporation's funding policy is to contribute to the plan when pension laws or economics either require or encourage funding. In 2016, UCC contributed \$52 million to its pension plans including contributions to fund benefit payments for its non-qualified supplemental plan. UCC expects to contribute approximately \$160 million to its pension plans in 2017.

The weighted-average assumptions used to determine pension plan obligations and net periodic benefit costs are provided below:

Pension Plan Assumptions	Benefit Obligations at December 31			Net Periodic Costs for the Year		
	2016	2015	2014	2016	2015	2014
Discount rate	4.00%	4.26%	3.90%	4.26%	3.90%	4.75%
Rate of increase in future compensation levels	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%
Expected long-term rate of return on plan assets	—	—	—	6.80%	6.80%	6.80%

The Corporation determines the expected long-term rate of return on plan assets by performing a detailed analysis of key economic and market factors driving historical returns for each asset class and formulating a projected return based on factors in the current environment. Factors considered include, but are not limited to, inflation, real economic growth, interest rate yield, interest rate spreads, and other valuation measures and market metrics. The expected long-term rate of return for each asset class is then weighted based on the strategic asset allocation approved by the governing body for each plan. The Corporation's historical experience with the pension fund asset performance is also considered.

Effective January 1, 2016, the Corporation adopted the spot rate approach to determine the discount rate utilized to measure the service cost and interest cost components of net periodic pension and other postretirement benefit costs. Under the spot rate approach, the Corporation calculates service cost and interest cost by applying individual spot rates from the Willis Towers Watson U.S. RATE:Link 60-90 corporate yield curve (based on 60th to 90th percentile high-quality corporate bond yields) to the separate expected cash flow components of service cost and interest cost. Prior to 2016, the interest and service cost components were determined based on the single discount rate used to measure the benefit obligation. The Corporation changed to the new method to provide a more precise measure of interest and service costs by improving the correlation between projected benefit cash flows and the discrete spot yield curves. The Corporation accounted for this change as a change in accounting estimate and it was applied prospectively starting in 2016.

The discount rates utilized to measure the pension and other postretirement obligations of the U.S. qualified plans are based on the yield on high-quality corporate fixed income investments at the measurement date. Future expected actuarially determined cash flows for the plans are individually discounted at the spot rates under the Willis Towers Watson U.S. RATE:Link 60-90 corporate yield curve (based on 60th to 90th percentile high-quality corporate bond yields) to arrive at the plan's obligations as of the measurement date.

[Table of Contents](#)

In 2014, the Society of Actuaries ("SOA") published updated mortality tables and mortality improvement scales (generational mortality tables), which reflect increased life expectancy. Based on an evaluation of the mortality experience of the Corporation's U.S. pension plans and the SOA's tables, effective for 2014 and forward, the Corporation adopted updated generational mortality tables for purposes of measuring U.S. pension and other postretirement obligations.

The accumulated benefit obligation for all defined benefit pension plans was \$4.0 billion at December 31, 2016 and \$4.0 billion at December 31, 2015.

**Pension Plans with Accumulated Benefit Obligations
in Excess of Plan Assets at December 31**

In millions	2016		2015	
Projected benefit obligation	\$	4,025	\$	3,993
Accumulated benefit obligation	\$	3,997	\$	3,960
Fair value of plan assets	\$	3,097	\$	3,173

In addition to the qualified defined benefit pension plan, U.S. employees may participate in defined contribution plans (Employee Savings Plans or 401(k) plans) by contributing a portion of their compensation, which is partially matched by the Corporation. Expense recognized for all defined contribution plans was \$17 million in 2016, \$16 million in 2015 and \$15 million in 2014.

Other Postretirement Benefits

The Corporation provides certain health care and life insurance benefits to retired U.S. employees. The plan provides health care benefits, including hospital, physicians' services, drug and major medical expense coverage and life insurance benefits. The Corporation and the retiree share the cost of these benefits, with the Corporation portion increasing as the retiree has increased years of credited service, although there is a cap on the Corporation portion. The Corporation has the ability to change these benefits at any time. Employees hired after January 1, 2008, are not covered under this plan.

In the fourth quarter of 2013, the Corporation started implementing an Employer Group Waiver Plan ("EGWP") for its Medicare-eligible, retiree medical plan participants, which became effective on January 1, 2014. As a result, the Medicare Part D Retiree Drug Subsidy program ("RDS") was eliminated on January 1, 2014. The EGWP does not significantly alter the benefits provided to retiree medical plan participants. The federal subsidies to be earned under the EGWP are expected to exceed those earned under the RDS and will be partially offset by increased costs related to the administration of the EGWP. The net periodic benefit cost decreased by \$10 million in 2014 due to the EGWP.

The Corporation funds most of the cost of these health care and life insurance benefits as incurred. In 2016, UCC did not make any contributions to its other postretirement benefit plan trust. Likewise, UCC does not expect to contribute assets to its other postretirement benefit plan trust in 2017.

The weighted-average assumptions used to determine other postretirement benefit obligations and net periodic benefit costs for the plan are provided in the following table:

Plan Assumptions for Other Postretirement Benefits	Benefit Obligations at December 31			Net Periodic Costs for the Year		
	2016	2015	2014	2016	2015	2014
Discount rate	3.88%	4.08%	3.75%	4.08%	3.75%	4.40%
Initial health care cost trend rate	7.00%	7.25%	7.05%	7.25%	7.05%	7.46%
Ultimate health care cost trend rate	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Year ultimate trend rate to be reached	2025	2025	2020	2025	2020	2020

[Table of Contents](#)

Increasing the assumed medical cost trend rate by one percentage point in each year would increase the accumulated postretirement benefit obligation at December 31, 2016, by \$4 million and the net periodic postretirement benefit cost for the year by an immaterial amount. Decreasing the assumed medical cost trend rate by one percentage point in each year would decrease the accumulated postretirement benefit obligation at December 31, 2016, by \$5 million and the net periodic postretirement benefit cost for the year by an immaterial amount.

Net Periodic Benefit Cost for all Plans

In millions	<i>Defined Benefit Pension Plans</i>			<i>Other Postretirement Benefits</i>		
	2016	2015	2014	2016	2015	2014
Service cost	\$ 39	\$ 44	\$ 30	\$ 1	\$ 1	\$ 1
Interest cost	131	164	183	8	10	13
Expected return on plan assets	(217)	(226)	(232)	—	—	—
Amortization of prior service cost (credit)	(1)	(1)	6	—	(1)	—
Amortization of net (gain) loss	75	87	66	(7)	(10)	(10)
Net periodic benefit cost	\$ 27	\$ 68	\$ 53	\$ 2	\$ —	\$ 4

Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive (Income) Loss for all Plans

In millions	<i>Defined Benefit Pension Plans</i>			<i>Other Postretirement Benefits</i>		
	2016	2015	2014	2016	2015	2014
Net (gain) loss	\$ 208	\$ 34	\$ 450	\$ 4	\$ 19	\$ (12)
Prior service cost (credit) arising during period	—	4	(38)	—	—	—
Amortization of prior service (cost) credit	1	1	(6)	—	1	—
Amortization of net gain (loss)	(75)	(87)	(66)	7	10	10
Total recognized in other comprehensive (income) loss	\$ 134	\$ (48)	\$ 340	\$ 11	\$ 30	\$ (2)
Total recognized in net periodic benefit cost and other comprehensive loss	\$ 161	\$ 20	\$ 393	\$ 13	\$ 30	\$ 2

Change in Projected Benefit Obligations, Plan Assets and Funded Status for all Plans

In millions	Defined Benefit Pension Plans		Other Postretirement Benefits	
	2016	2015	2016	2015
<i>Change in projected benefit obligation:</i>				
Benefit obligation at beginning of year	\$ 3,993	\$ 4,345	\$ 276	\$ 270
Service cost	39	44	1	1
Interest cost	131	164	8	10
Plan amendments	—	4	—	—
Actuarial changes in assumptions and experience	155	(178)	4	19
Benefits paid	(285)	(293)	(25)	(24)
Other (1)	(8)	(93)	—	—
Benefit obligation at end of year	\$ 4,025	\$ 3,993	\$ 264	\$ 276

Change in plan assets:

Fair value of plan assets at beginning of year	\$ 3,173	\$ 3,543	\$ —	\$ —
Actual return on plan assets	165	14	—	—
Employer contributions	52	2	—	—
Asset transfers (1)	(8)	(93)	—	—
Benefits paid	(285)	(293)	—	—
Fair value of plan assets at end of year	\$ 3,097	\$ 3,173	\$ —	\$ —
Funded status at end of year	\$ (928)	\$ (820)	\$ (264)	\$ (276)

Net amounts recognized in the consolidated balance sheets at December 31:

Current liabilities	\$ (2)	\$ (2)	\$ (24)	\$ (26)
Noncurrent liabilities	(926)	(818)	(240)	(250)
Net amounts recognized in the consolidated balance sheets	\$ (928)	\$ (820)	\$ (264)	\$ (276)

Pretax amounts recognized in AOCL at December 31:

Net loss (gain)	\$ 2,035	\$ 1,902	\$ (69)	\$ (80)
Prior service credit	(13)	(14)	—	—
Pretax balance in AOCL at end of year	\$ 2,022	\$ 1,888	\$ (69)	\$ (80)

(1) The 2015 impact includes the transfer of benefit obligations of \$71 million through the purchase of annuity contracts from an insurance company.

In 2017, an estimated net loss of \$83 million and prior service credit of \$1 million for the defined benefit pension plans will be amortized from AOCL to net periodic benefit cost. In 2017, an estimated net gain of \$6 million for the other postretirement benefit plan will be amortized from AOCL to net periodic benefit cost.

Estimated Future Benefit Payments

The estimated future benefit payments, reflecting expected future service, as appropriate, are presented in the following table:

Estimated Future Benefit Payments at December 31, 2016

In millions	Defined Benefit Pension Plans	Other Postretirement Benefits
2017	\$ 275	\$ 25
2018	274	22
2019	273	22
2020	273	21
2021	272	21
2022 through 2026	1,314	88
Total	\$ 2,681	\$ 199

Plan Assets

Plan assets consist primarily of equity and fixed income securities of U.S. and foreign issuers, and include alternative investments such as real estate, private equity and other absolute return strategies. At December 31, 2016, plan assets totaled \$3.1 billion and \$3.2 billion at December 31, 2015 which included no Dow common stock.

Investment Strategy and Risk Management for Plan Assets

The Corporation's investment strategy for the plan assets is to manage the assets in relation to the liability in order to pay retirement benefits to plan participants over the life of the plans. This is accomplished by identifying and managing the exposure to various markets risks, diversifying investments across various asset classes and earning an acceptable long-term rate of return consistent with an acceptable amount of risk, while considering the liquidity needs of the plan.

The plan is permitted to use derivative instruments for investment purposes, as well as for hedging the underlying asset and liability exposures and rebalancing the asset allocation. The plan uses value-at-risk, stress testing, scenario analysis and Monte Carlo simulation to monitor and manage both asset risk in the portfolios and surplus risk.

Equity securities primarily include investments in large- and small-cap companies located in both developed and emerging markets around the world. Fixed income securities are primarily U.S. dollar based and include U.S. treasuries and investment grade corporate bonds of companies diversified across industries. Alternative investments primarily include investments in real estate, private equity limited partnerships and absolute return strategies. Other significant investment types include various insurance contracts; and interest rate, equity and foreign exchange derivative investments and hedges.

Strategic Target Allocation of Plan Assets

<i>Asset Category</i>	<i>Target Allocation</i>
Equity securities	23%
Fixed income securities	45%
Alternative investments	27%
Other	5%
Total	100%

Concentration of Risk

The Corporation mitigates the credit risk of investments by establishing guidelines with the investment managers that limit investment in any single issue or issuer to an amount that is not material to the portfolio being managed. These guidelines are monitored for compliance both by the Corporation and the external managers. Credit risk for hedging activity is mitigated by utilizing multiple counterparties, collateral support agreements, and centralized clearing where appropriate.

The Northern Trust Collective Government Short Term Investment money market fund is utilized as the sweep vehicle for the pension plan, which from time to time can represent a significant investment. Approximately 40 percent of the liability of the pension plan is covered by a participating group annuity issued by Prudential Insurance Company.

[Table of Contents](#)

The following tables summarize the bases used to measure the Corporation's pension plan assets at fair value for the years ended December 31, 2016 and 2015:

Basis of Fair Value Measurements at December 31, 2016						
In millions	<i>Quoted Prices in Active Markets for Identical Items (Level 1)</i>		<i>Significant Other Observable Inputs (Level 2)</i>		<i>Significant Unobservable Inputs (Level 3)</i>	<i>Total</i>
Cash and cash equivalents	\$	—	\$	242	\$	242
Equity securities:						
U.S. equity	\$	235	\$	17	\$	252
Non-U.S. equity - developed countries		67		98		165
Emerging markets		43		80	6	129
Convertible bonds		1		—	—	1
Equity derivatives		—		(3)	—	(3)
Total equity securities	\$	346	\$	192	\$	544
Fixed income securities:						
U.S. government and municipalities	\$	—	\$	838	\$	838
U.S. agency mortgage backed securities		—		50	—	50
Corporates - investment grade		—		423	—	423
Non-U.S. governments - developed countries		—		4	—	4
Non-U.S. corporates - developed countries		—		81	—	81
Emerging markets debt		—		7	—	7
Other asset-backed securities		—		33	—	33
Other fixed income funds		—		—	77	77
Fixed income derivatives		—		(16)	—	(16)
High yield bonds		—		1	—	1
Total fixed income securities	\$	—	\$	1,421	\$	1,498
Alternative investments:						
Real estate	\$	—	\$	—	\$	329
Private equity		—		—	214	214
Absolute return		—		160	104	264
Total alternative investments	\$	—	\$	160	\$	807
Total other securities	\$	—	\$	(13)	\$	6
Total pension plan assets at fair value	\$	346	\$	2,002	\$	3,097

Basis of Fair Value Measurements at December 31, 2015

In millions	<i>Quoted Prices in Active Markets for Identical Items (Level 1)</i>	<i>Significant Other Observable Inputs (Level 2)</i>	<i>Significant Unobservable Inputs (Level 3)</i>	<i>Total</i>
Cash and cash equivalents	\$ 1	\$ 173	\$ —	\$ 174
Equity securities:				
U.S. equity	\$ 237	\$ 35	\$ —	\$ 272
Non-U.S. equity - developed countries	71	136	—	207
Emerging markets	45	90	5	140
Equity derivatives	—	3	—	3
Total equity securities	\$ 353	\$ 264	\$ 5	\$ 622
Fixed income securities:				
U.S. government and municipalities	\$ —	\$ 574	\$ —	\$ 574
U.S. agency mortgage backed securities	—	56	—	56
Corporates - investment grade	—	677	—	677
Non-U.S. governments - developed countries	—	5	—	5
Non-U.S. corporates - developed countries	—	146	—	146
Emerging markets debt	—	12	—	12
Other asset-backed securities	—	13	—	13
Other fixed income funds	—	—	51	51
Fixed income derivatives	—	15	—	15
High yield bonds	—	3	—	3
Total fixed income securities	\$ —	\$ 1,501	\$ 51	\$ 1,552
Alternative investments:				
Real estate	\$ —	\$ —	\$ 284	\$ 284
Private equity	—	—	220	220
Absolute return	—	114	165	279
Total alternative investments	\$ —	\$ 114	\$ 669	\$ 783
Total other securities	\$ —	\$ 20	\$ 22	\$ 42
Total pension plan assets at fair value	\$ 354	\$ 2,072	\$ 747	\$ 3,173

For assets classified as Level 1 measurements (measured using quoted prices in active markets), the total fair value is either the price of the most recent trade at the time of the market close or the official close price, as defined by the exchange on which the asset is most actively traded on the last trading day of the period, multiplied by the number of units held without consideration of transaction costs.

For assets classified as Level 2 measurements, where the security is frequently traded in less active markets, fair value is based on the closing price at the end of the period; where the security is less frequently traded, fair value is based on the price a dealer would pay for the security or similar securities, adjusted for any terms specific to that asset or liability. Market inputs are obtained from well-established and recognized vendors of market data and subjected to tolerance and quality checks. For derivative assets and liabilities, standard industry models are used to calculate the fair value of the various financial instruments based on significant observable market inputs such as foreign exchange rates, commodity prices, swap rates, interest rates, and implied volatilities obtained from various market sources. For other assets for which observable inputs are used, fair value is derived through the use of fair value models, such as a discounted cash flow model or other standard pricing models.

For assets classified as Level 3 measurements, total fair value is based on significant unobservable inputs including assumptions where there is little, if any, market activity for the investment. Investment managers or fund managers provide valuations of the investment on a monthly or quarterly basis. These valuations are reviewed for reasonableness based on applicable sector, benchmark and company performance. Adjustments to valuations are made where appropriate. Where available, audited financial statements are obtained and reviewed for the investments as support for the manager's investment valuation. Some pension plan assets are held in funds where fair value is based on an estimated net asset value per share (or its equivalent) as of the most recently available fund financial statements, and adjusted for estimated earnings and investment activity. These funds are classified as Level 3 due to the significant unobservable inputs inherent in the fair value measurement.

[Table of Contents](#)

The following table summarizes the changes in fair value of Level 3 pension plan assets for the years ended December 31, 2016 and 2015:

Fair Value Measurement of Level 3 Pension Plan Assets					
In millions	<i>Equity Securities</i>	<i>Fixed Income Securities</i>	<i>Alternative Investments</i>	<i>Other Securities</i>	<i>Total</i>
Balance at January 1, 2015	\$ 4	\$ 33	\$ 687	\$ 22	\$ 746
Actual return on plan assets:					
Relating to assets held at Dec 31, 2015	2	(4)	(35)	—	(37)
Relating to assets sold during 2015	—	1	60	—	61
Purchases, sales and settlements	—	21	(42)	—	(21)
Transfers out of Level 3, net	(1)	—	—	—	(1)
Foreign currency impact	—	—	(1)	—	(1)
Balance at December 31, 2015	\$ 5	\$ 51	\$ 669	\$ 22	\$ 747
Actual return on plan assets:					
Relating to assets held at Dec 31, 2016	1	(6)	(30)	2	(33)
Relating to assets sold during 2016	—	—	39	(8)	31
Purchases, sales and settlements	—	32	(30)	3	5
Foreign currency impact	—	—	(1)	—	(1)
Balance at December 31, 2016	\$ 6	\$ 77	\$ 647	\$ 19	\$ 749

NOTE 16 - LEASED PROPERTY

The Corporation has leases primarily for facilities and distribution equipment. The future minimum rental payments under leases with remaining noncancelable terms in excess of one year are as follows:

Minimum Lease Commitments at December 31, 2016	
In millions	
2017	\$ 6
2018	5
2019	5
2020	4
2021	3
2022 and thereafter	8
Total	\$ 31

Rental expenses under leases were \$28 million in 2016, \$29 million in 2015 and \$27 million in 2014.

NOTE 17 - RELATED PARTY TRANSACTIONS

The Corporation sells its products to Dow to simplify the customer interface process. Products are sold to and purchased from Dow at market-based prices in accordance with the terms of Dow's intercompany pricing policies. After each quarter, the Corporation and Dow analyze the pricing used for the sales in that quarter and reach agreement on any necessary adjustments, at which point the prices are final. The Corporation also procures certain commodities and raw materials through a Dow subsidiary and pays a commission to that Dow subsidiary based on the volume and type of commodities and raw materials purchased. The commission expense was included in "Sundry income (expense) - net" in the consolidated statements of income. Purchases from that Dow subsidiary were approximately \$1.4 billion in 2016, \$1.7 billion in 2015 and \$2.9 billion in 2014. The decrease in purchase costs in 2016 when compared with previous periods is due to lower feedstock and energy costs.

The Corporation has a master services agreement with Dow whereby Dow provides services including, but not limited to, accounting, legal, treasury (investments, cash management, risk management, insurance), procurement, human resources, environmental, health and safety, and business management for UCC. Under the master services agreement with Dow, general administrative and overhead type services that Dow routinely allocates to various businesses are charged to UCC. The master services agreement cost allocation basis is headcount and includes a 10 percent service fee. This agreement resulted in expense

[Table of Contents](#)

of approximately \$27 million in 2016, \$30 million in 2015 and \$26 million in 2014 for general administrative and overhead type services and the 10 percent service fee, and was included in "Sundry income (expense) - net" in the consolidated statements of income. The remaining activity-based costs were approximately \$58 million in 2016, \$63 million in 2015 and \$53 million in 2014 and were included in "Cost of sales" in the consolidated statements of income.

Management believes the method used for determining expenses charged by Dow is reasonable. Dow provides these services by leveraging its centralized functional service centers to provide services at a cost that management believes provides an advantage to the Corporation.

The monitoring and execution of risk management policies related to interest rate and foreign currency risks, which are based on Dow's risk management philosophy, are provided as a service to UCC.

As part of Dow's cash management process, UCC is a party to revolving loans with Dow that have interest rates based on LIBOR (London Interbank Offered Rate) with varying maturities. At December 31, 2016, the Corporation had a note receivable of \$1.4 billion (\$1.3 billion at December 31, 2015) from Dow under a revolving loan agreement. The Corporation may draw from this note receivable in support of its daily working capital requirements and, as such, the net effect of cash inflows and outflows under this revolving loan agreement is presented in the consolidated statements of cash flows as an operating activity.

The Corporation also has a separate revolving credit agreement with Dow that allows the Corporation to borrow or obtain credit enhancements up to an aggregate of \$1 billion that matures on December 30, 2017. Dow may demand repayment with a 30-day written notice to the Corporation, subject to certain restrictions. A related collateral agreement provides for the replacement of certain existing pledged assets, primarily equity interests in various subsidiaries and joint ventures, with cash collateral. At December 31, 2016, \$947 million (\$940 million at December 31, 2015) was available under the revolving credit agreement. The cash collateral was reported as "Noncurrent receivables from related companies" in the consolidated balance sheets.

On a quarterly basis, the Corporation's Board of Directors reviews and determines if there will be a dividend distribution to its parent company and sole shareholder, Dow. The Board takes into consideration the level of earnings and cash flows, among other factors, in determining the amount of the dividend distribution. During 2016, the Corporation declared and paid dividends totaling \$500 million to Dow. During 2015, the Corporation declared and paid dividends totaling \$1.2 billion to Dow.

The Corporation received no cash dividends from its related company investments in 2016 (zero in 2015 and \$12 million in 2014). These dividends were included in "Sundry income (expense) - net" in the consolidated statements of income.

In 2014, as part of a sale-leaseback transaction entered into by Dow for a significant portion of Dow's North America railcar fleet, UCC sold all of the railcars owned by UCC to Dow at fair value for \$145 million in cash. The sale of the railcars resulted in a pretax gain of \$66 million, and was included in "Sundry income (expense) - net" in the consolidated statements of income.

In accordance with the Tax Sharing Agreement between the Corporation and Dow, the Corporation makes payments to Dow to cover the Corporation's estimated federal tax liability; payments were \$415 million in 2016, \$310 million in 2015 and \$579 million in 2014.

NOTE 18 - INCOME TAXES

Domestic and Foreign Components of Income (Loss) Before Income Taxes			
In millions	2016	2015	2014
Domestic	\$ 49	\$ 1,254	\$ 896
Foreign	8	(11)	(5)
Total	\$ 57	\$ 1,243	\$ 891

Provision (Credit) for Income Taxes									
In millions	2016			2015			2014		
	Current	Deferred	Total	Current	Deferred	Total	Current	Deferred	Total
Federal (1)	\$ 265	\$ (285)	\$ (20)	\$ 373	\$ (31)	\$ 342	\$ (41)	\$ 311	\$ 270
State and local	(3)	(12)	(15)	2	(13)	(11)	(5)	38	33
Foreign	3	—	3	104	—	104	1	—	1
Total	\$ 265	\$ (297)	\$ (32)	\$ 479	\$ (44)	\$ 435	\$ (45)	\$ 349	\$ 304

(1) In 2016, reflects the impact of the asbestos-related charge. In 2014, reflects the impact of accelerated deductions.

Reconciliation to U.S. Statutory Rate			
In millions	2016	2015	2014
Taxes at U.S. statutory rate	\$ 20	\$ 435	\$ 312
U.S. manufacturing deductions	(8)	(8)	(26)
Unrecognized tax benefits	(26)	24	—
Federal tax accrual adjustments	(7)	(7)	(14)
State and local tax impact	(14)	(11)	42
Other - net	3	2	(10)
Total tax provision (credit)	\$ (32)	\$ 435	\$ 304
Effective tax rate	(56.1)%	35.0%	34.1%

The tax rate for 2016 was favorably impacted by the release of a reserve in excess of the settlement of an uncertain tax position and from the asbestos-related charge. UCC's reported effective tax rate for 2016 was negative 56.1 percent.

The tax rate for 2015 was favorably impacted by changes in valuation allowances on state income tax attributes. A change in uncertain tax positions in the fourth quarter of 2015 unfavorably impacted the tax rate and resulted in an increase in "Deferred income tax assets" and "Other noncurrent obligations" in the consolidated balance sheets. UCC's reported effective tax rate for 2015 was 35.0 percent.

The tax rate for 2014 was unfavorably impacted by changes in valuation allowances on state income tax attributes, partially offset by favorable manufacturing deductions in the United States. UCC's reported effective tax rate for 2014 was 34.1 percent.

Deferred Tax Balances at December 31	2016		2015	
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
In millions				
Property	\$ —	\$ 183	\$ —	\$ 193
Tax loss and credit carryforwards	53	—	70	—
Postretirement benefit obligations (1)	442	—	407	—
Other accruals and reserves (2)	611	—	297	—
Inventory (3)	14	—	18	—
Other - net	13	2	7	1
Subtotal	\$ 1,133	\$ 185	\$ 799	\$ 194
Valuation allowances	(20)	—	(28)	—
Total	\$ 1,113	\$ 185	\$ 771	\$ 194

(1) Prior year was adjusted to conform to current year presentation.

(2) In 2016, the increase is primarily due to the asbestos-related charge.

(3) The Corporation elected to early adopt ASU 2015-17 in the first quarter of 2016. As a result, prior year was adjusted to reflect the reclassification of prepaid tax assets of \$5 million to "Other current assets" in the consolidated balance sheets.

Gross operating loss carryforwards, primarily related to state operating losses, amounted to \$681 million at December 31, 2016, compared with \$889 million at December 31, 2015. At December 31, 2016, \$436 million of the operating loss carryforwards were subject to expiration in the years 2017 through 2021. The remaining balances expire in years beyond 2021 or have an indefinite carryforward period. Tax credit carryforwards amounted to \$5 million at December 31, 2016 and \$5 million at December 31, 2015, of which \$1 million is subject to expiration in the years 2017 through 2021. The remaining balances expire in years beyond 2021 or have an indefinite carryforward period.

Undistributed earnings of foreign subsidiaries and related companies that are deemed to be permanently invested amounted to \$36 million at December 31, 2016, \$41 million at December 31, 2015 and \$50 million at December 31, 2014. It is not practicable to calculate the unrecognized deferred tax liability on those earnings.

The Corporation had valuation allowances that were primarily related to the realization of recorded tax benefits on state tax loss carryforwards from operations in the United States of \$20 million at December 31, 2016 and \$28 million at December 31, 2015.

In the fourth quarter of 2016, a settlement in the amount of \$206 million was reached for a tax matter regarding a historical change in the legal ownership structure of a nonconsolidated affiliate. As a result of the settlement, the Corporation recorded a net decrease to uncertain tax positions of \$67 million in "Other noncurrent obligations" in the consolidated balance sheets.

Total Gross Unrecognized Tax Benefits			
In millions	2016	2015	2014
Balance at January 1	\$ 68	\$ 1	\$ 4
Increases related to positions taken on items from prior years	139	67	—
Settlement of uncertain tax positions with tax authorities	(206)	—	—
Decreases due to expiration of statutes of limitations	—	—	(3)
Balance at December 31	\$ 1	\$ 68	\$ 1

At December 31, 2016, the total amount of unrecognized tax benefits which would impact the effective tax rate if recognized was \$1 million (\$1 million at December 31, 2015).

Interest and penalties are recognized as components of "Provision (Credit) for income taxes" in the consolidated statements of income and was a benefit of \$36 million in 2016, a charge of \$37 million in 2015 and a benefit of \$6 million in 2014. The Corporation's accrual for interest and penalties associated with uncertain tax positions was insignificant at December 31, 2016 and \$38 million at December 31, 2015.

[Table of Contents](#)

Tax years that remain subject to examination for the Corporation's major tax jurisdictions are shown below:

Jurisdiction	Earliest Open Year	
	2016	2015
Tax Years Subject to Examination by Major Tax Jurisdiction at December 31		
United States:		
Federal income tax	2004	2004
State and local income tax	2004	2004

The Corporation is included in Dow's consolidated federal income tax group and consolidated tax return. Current and deferred tax expenses are calculated for the Corporation as a stand-alone group and are allocated to the group from the consolidated totals. UCC is currently under examination in a number of tax jurisdictions, including the U.S. federal and various state jurisdictions. It is reasonably possible that these examinations may be resolved within twelve months. As a result, it is reasonably possible that the total gross unrecognized tax benefits of the Corporation at December 31, 2016, will be reduced by approximately \$1 million from resolution of these examinations.

Inherent uncertainties exist in estimates of tax contingencies due to changes in tax law, both legislated and concluded through the various jurisdictions' tax court systems. It is the opinion of the Corporation's management that the possibility is remote that costs in excess of those accrued will have a material impact on the Corporation's consolidated financial statements.

NOTE 19 - ACCUMULATED OTHER COMPREHENSIVE LOSS

The following table provides an analysis of the changes in accumulated other comprehensive loss for the years ended December 31, 2016, 2015 and 2014:

Accumulated Other Comprehensive Loss	2016	2015	2014
In millions			
Cumulative Translation Adjustments at beginning of year	\$ (61)	\$ (63)	\$ (78)
Translation adjustments	(1)	2	(1)
Reclassification to earnings - Sundry income (expense) - net (1)	—	—	16
Balance at end of period	\$ (62)	\$ (61)	\$ (63)
Pension and Other Postretirement Benefit Plans at beginning of year	\$ (1,167)	\$ (1,180)	\$ (967)
Net loss during period (net of tax of \$(79), \$(21), \$(165)) (2)	(133)	(32)	(273)
Prior service credit (cost) arising during the period (net of tax of \$-, \$(2), \$13) (2)	—	(2)	25
Amortization of prior service cost (credit) included in net periodic pension costs (net of tax of \$-, \$(1), \$2) (2)	(1)	(1)	4
Amortization of net loss included in net periodic pension costs (net of tax of \$25, \$29, \$25) (2)	43	48	31
Balance at end of period	\$ (1,258)	\$ (1,167)	\$ (1,180)
Total accumulated other comprehensive loss	\$ (1,320)	\$ (1,228)	\$ (1,243)

(1) In 2014, reclassification resulted from the divestiture or liquidation of subsidiaries.

(2) See Note 15 for additional information.

NOTE 20 - BUSINESS AND GEOGRAPHIC AREAS

Dow conducts its worldwide operations through global businesses, and the Corporation's business activities comprise components of Dow's global businesses rather than stand-alone operations. The Corporation sells substantially all of its products to Dow in order to simplify the customer interface process at market-based prices in accordance with Dow's intercompany pricing policy. Because there are no separable reportable business segments for the Corporation and no detailed business information is provided to a chief operating decision maker regarding the Corporation's stand-alone operations, the Corporation's results are reported as a single operating segment.

[Table of Contents](#)

Sales are attributed to geographic areas based on customer location; long-lived assets are attributed to geographic areas based on asset location. Sales to external customers and long-lived assets by geographic area were as follows:

Geographic Area Information					
In millions		<i>United States</i>	<i>Asia Pacific</i>	<i>Rest of World</i>	<i>Total</i>
2016					
Sales to external customers	\$	95	\$ 3	\$ 10	\$ 108
Long-lived assets	\$	1,353	\$ 10	\$ 31	\$ 1,394
2015					
Sales to external customers	\$	70	\$ 3	\$ 14	\$ 87
Long-lived assets	\$	1,259	\$ 10	\$ 32	\$ 1,301
2014					
Sales to external customers	\$	62	\$ 1	\$ 19	\$ 82
Long-lived assets	\$	1,113	\$ 6	\$ 33	\$ 1,152

NOTE 21 - PLANNED MERGER WITH DUPONT

On December 11, 2015, Dow and E. I. du Pont de Nemours and Company ("DuPont") entered into an Agreement and Plan of Merger ("Merger Agreement") to effect an all-stock, merger of equals strategic combination ("Merger Transaction") resulting in a newly formed corporation named DowDuPont Inc. ("DowDuPont"). Pursuant to the terms of the Merger Agreement, Dow and DuPont will each merge with wholly owned subsidiaries of DowDuPont (the "Mergers") and, as a result of the Mergers, will become subsidiaries of DowDuPont. Following the consummation of the Mergers, Dow and DuPont intend to pursue, subject to the receipt of regulatory approvals and approval by the board of directors of DowDuPont, the separation of the combined company's agriculture business, specialty products business and material science business through one or more tax-efficient transactions. Additional information about the Merger Agreement is included in Dow's Current Report on Form 8-K filed with the U.S. Securities and Exchange Commission ("SEC") on December 11, 2015.

On June 9, 2016, DowDuPont's registration statement filed with the SEC on Form S-4 (File No. 333-209869), as amended, was declared effective. The registration statement was filed in connection with the proposed Mergers and includes a joint proxy statement of Dow and DuPont and a prospectus of DowDuPont. The companies also scheduled special meetings of their respective stockholders to seek adoption of the Merger Agreement and approval of related matters from such stockholders. Each company's common stockholders of record as of the close of business on June 2, 2016, were entitled to vote at the respective meeting. Dow's special meeting of stockholders was held on July 20, 2016, which resulted in a vote for adoption of the Merger Agreement and approval of related matters.

On February 2, 2017, Dow announced it reached an agreement to sell its global ethylene acrylic acid ("EAA") copolymers and ionomers business to SK Global Chemical Co., Ltd. as part of the ongoing regulatory approval process for the Merger Transaction. The divestiture will be conditioned on Dow and DuPont closing the Merger Transaction, in addition to other closing conditions, including regulatory filings, local employment law and governance obligations. On February 7, 2017, Dow and DuPont submitted a proposed remedy package to the European Commission ("EC") which includes the proposed divestment of Dow's EAA business and a portion of DuPont's crop protection business and associated research and development. As a result, the EC's deadline to review the proposed remedy actions has been extended to April 4, 2017.

Dow and DuPont remain focused on closing the transaction and continue to work constructively with regulatory agencies in all relevant jurisdictions, including the United States, European Union, China, Brazil and Canada. Given current regulatory agency status, closing is expected to occur in the first half of 2017, subject to satisfaction of customary closing conditions, including receipt of all regulatory approvals.

Union Carbide Corporation and Subsidiaries

PART II, Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

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

None.

Union Carbide Corporation and Subsidiaries
PART II, Item 9A. Controls and Procedures.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by the Annual Report on Form 10-K, the Corporation carried out an evaluation, under the supervision and with the participation of the Corporation's Disclosure Committee and the Corporation's management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of the design and operation of the Corporation's disclosure controls and procedures pursuant to Exchange Act Rule 15d - 15(b). Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Corporation's disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

There were no changes in the Corporation's internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that was conducted during the last fiscal quarter that materially affected or were reasonably likely to materially affect the Corporation's internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

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

The Corporation's internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records, that in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Corporation;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Corporation are being made only in accordance with authorizations of management and Directors of the Corporation; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Corporation's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, any system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements.

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

The Corporation's internal control over financial reporting was not subject to attestation by the Corporation's independent registered public accounting firm, Deloitte & Touche LLP, pursuant to the rules of the Securities and Exchange Commission that permit the Corporation to provide only management's report. Therefore, this annual report does not include an attestation report regarding internal controls over financial reporting from Deloitte & Touche LLP.

February 9, 2017

/s/ RICHARD A. WELLS

Richard A. Wells
President and Chief Executive Officer

/s/ IGNACIO MOLINA

Ignacio Molina
Vice President, Treasurer and
Chief Financial Officer

/s/ RONALD C. EDMONDS

Ronald C. Edmonds, Controller and Vice President of Controllers and
Tax
The Dow Chemical Company
Authorized Representative of
Union Carbide Corporation

Union Carbide Corporation and Subsidiaries
PART II, Item 9B. Other Information.

ITEM 9B. OTHER INFORMATION

None.

Union Carbide Corporation and Subsidiaries
PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Omitted pursuant to General Instruction I of Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

Omitted pursuant to General Instruction I of Form 10-K.

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

Omitted pursuant to General Instruction I of Form 10-K.

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

Omitted pursuant to General Instruction I of Form 10-K.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Dow's Audit Committee pre-approves all auditing services and permitted non-audit services (including the fees and terms thereof) to be performed for Dow and its subsidiaries (including the Corporation) by its independent auditor, subject to the *de minimus* exception for non-audit services described in Section 10A(i)(1)(B) of the Securities Exchange Act, which are approved by Dow's Audit Committee prior to the completion of the audit. The Corporation's management and its Board of Directors subscribe to these policies and procedures. For the years ended December 31, 2016 and 2015, professional services were performed for the Corporation by Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu Limited, and their respective affiliates (collectively, the "Deloitte Entities").

Total fees paid to the Deloitte Entities were \$1.6 million in 2016 and \$1.7 million in 2015. These are the aggregate of fees billed for the audit of the Corporation's annual financial statements, the reviews of the financial statements in the Quarterly Reports on Form 10-Q, statutory audits and other regulatory filings.

Union Carbide Corporation and Subsidiaries
PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

1. The Corporation's 2016 Consolidated Financial Statements and the Report of Independent Registered Public Accounting Firm are included in Item 8 of this Annual Report on Form 10-K.
2. Financial Statement Schedules are omitted because of the absence of the conditions under which they are required or because the information called for is included in the Consolidated Financial Statements or Notes thereto.
3. See the Exhibit Index for exhibits filed with this Annual Report on Form 10-K incorporated by reference.

The following exhibits are filed with this Annual Report on Form 10-K:

Exhibit No.	Description of Exhibit
10.5.14	Fourteenth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 12, 2016, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors.
23	Ankura Consulting Group, LLC's Consent.
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
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.

The Corporation will provide a copy of any exhibit upon receipt of a written request for the particular exhibit or exhibits desired. All requests should be addressed to the Corporation's principal executive offices.

Union Carbide Corporation and Subsidiaries
Trademark Listing

The following trademarks of Union Carbide Corporation or its subsidiaries appear in this report:

CARBOWAX, FLEXOMER, POLYOX, REDI-LINK, SI-LINK, SENTRY, TERGITOL, TRITON, TUFLIN, UCAR, UCARTHERM, UCON, UNIGARD, UNIPURGE, UNIVAL

The following trademark of The Dow Chemical Company appears in this report: METEOR

The following registered service mark of American Chemistry Council appears in this report: Responsible Care

Union Carbide Corporation and Subsidiaries

Supplemental Information to be Furnished With Reports Filed Pursuant to Section 15(d) of the Act by Registrants Which Have Not Registered Securities Pursuant to Section 12 of the Act

The Corporation is a wholly owned subsidiary of The Dow Chemical Company ("Dow") and, as such, does not send an annual report to security holders or proxy material with respect to any annual or other meeting of security holders to Dow or any other security holders.

Union Carbide Corporation and Subsidiaries
Exhibit Index

EXHIBIT NO.	DESCRIPTION
2.1	Agreement and Plan of Merger dated as of August 3, 1999 among Union Carbide Corporation, The Dow Chemical Company and Transition Sub Inc., incorporated by reference to Exhibit 2 of the Corporation's Current Report on Form 8-K dated August 3, 1999.
2.2	Agreement for the Sale & Purchase of Shares, dated as of August 17, 2009, among Union Carbide Corporation, UCMG L.L.C. and Petroliam Nasional Berhad, incorporated by reference to Exhibit 2.1 of the Corporation's Current Report on Form 8-K dated September 30, 2009.
3.1	Restated Certificate of Incorporation of Union Carbide Corporation under Section 807 of the Business Corporation Law, as filed on May 13, 2008, incorporated by reference to Exhibit 3.1.4 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008.
3.2	Amended and Restated Bylaws of Union Carbide Corporation, amended as of April 22, 2004, incorporated by reference to Exhibit 3.2 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2004.
4.1	Indenture dated as of June 1, 1995, between the Corporation and the Chase Manhattan Bank (formerly Chemical Bank), Trustee, incorporated by reference to Exhibit 4.1.2 to the Corporation's Form S-3 effective October 13, 1995, Reg. No. 33-60705.
4.2	The Corporation will furnish to the Commission upon request any other debt instrument referred to in Item 601(b)(4)(iii)(A) of Regulation S-K.
10.1	Amended and Restated Service Agreement, effective as of July 1, 2002, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.23 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002.
10.1.1	Service Addendum No. 2 to the Service Agreement, effective as of August 1, 2001, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.23.2 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2002.
10.1.2	Restated Service Addendum No. 1 to the Service Agreement, effective as of February 6, 2001, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.23.3 of the Corporation's 2002 Form 10-K.
10.1.3	Service Addendum No. 3 to the Amended and Restated Service Agreement, effective as of January 1, 2005, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.1.3 of the Corporation's 2004 Form 10-K.
10.1.4	First Amendment to Amended and Restated Service Agreement, effective as of January 1, 2011, between the Corporation and The Dow Chemical Company incorporated by reference to Exhibit 10.1.4 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011.
10.2	Second Amended and Restated Sales Promotion Agreement, effective January 1, 2004, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.24 of the Corporation's 2003 Form 10-K.
10.2.1	First Amendment to Second Amended and Restated Sales Promotion Agreement, effective as of March 22, 2013, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.2.1 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013.
10.2.2	Second Amendment to Second Amended and Restated Sales Promotion Agreement, effective as of July 1, 2014, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.2.2 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014.
10.3	Third Amended and Restated Agreement (to Provide Materials and Services), dated as of March 1, 2008, between the Corporation and Dow Hydrocarbons and Resources LLC, incorporated by reference to Exhibit 10.3 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008.
10.4	Amended and Restated Tax Sharing Agreement, effective as of February 7, 2001, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.27 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2003.
10.5	Amended and Restated Revolving Credit Agreement dated as of May 28, 2004, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.28 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004.

EXHIBIT NO.	DESCRIPTION
10.5.1	First Amendment dated October 29, 2004 to the Amended and Restated Revolving Credit Agreement, dated as of May 28, 2004, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.1 of the Corporation's 2004 Form 10-K.
10.5.2	Second Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 30, 2004, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.2 of the Corporation's 2004 Form 10-K.
10.5.3	Third Amendment to the Amended and Restated Revolving Credit Agreement, dated as of September 30, 2005, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.3 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005.
10.5.4	Fourth Amendment to the Amended and Restated Revolving Credit Agreement, dated as of September 30, 2006, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.4 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006.
10.5.5	Fifth Amendment to the Amended and Restated Revolving Credit Agreement, dated as of September 30, 2007, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors incorporated by reference to Exhibit 10.5.5 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2007.
10.5.6	Sixth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of September 30, 2008, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.6 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008.
10.5.7	Seventh Amendment to the Amended and Restated Revolving Credit Agreement, effective as of September 30, 2009, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.7 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009.
10.5.8	Eighth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of September 30, 2010, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.8 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010.
10.5.9	Ninth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of September 30, 2011, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.9 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011.
10.5.10	Tenth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 6, 2012, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.10 of the Corporation's 2012 10-K.
10.5.11	Eleventh Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 16, 2013, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.11 of the Corporation's 2013 10-K.
10.5.12	Twelfth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 17, 2014, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.12 of the Corporation's 2014 10-K.
10.5.13	Thirteenth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 16, 2015, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors, incorporated by reference to Exhibit 10.5.13 of the Corporation's 2015 10-K.
10.5.14	Fourteenth Amendment to the Amended and Restated Revolving Credit Agreement, effective as of December 12, 2016, among the Corporation, The Dow Chemical Company and certain Subsidiary Guarantors.
10.6	Amended and Restated Pledge and Security Agreement dated as of May 28, 2004, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.29 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended June 30, 2004.
10.7	Second Amended and Restated Revolving Loan Agreement, effective as of November 1, 2005, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7 of the Corporation's 2005 Annual Report on Form 10-K.

[Table of Contents](#)

EXHIBIT NO.	DESCRIPTION
10.7.1	First Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of December 31, 2007, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.1 of the Corporation's 2007 Annual Report on Form 10-K.
10.7.2	Second Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of August 1, 2009, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.2 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009.
10.7.3	Third Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of February 1, 2010, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.3 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010.
10.7.4	Fourth Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of August 1, 2010, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.4 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010.
10.7.5	Fifth Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of August 1, 2011, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.5 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011.
10.7.6	Sixth Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of April 1, 2012, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.6 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2012.
10.7.7	Seventh Amendment to Second Amended and Restated Revolving Loan Agreement, effective as of August 1, 2013, between the Corporation and The Dow Chemical Company, incorporated by reference to Exhibit 10.7.7 of the Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013.
10.9	Contribution Agreement dated as of December 21, 2007, among the Corporation, Dow International Holdings Company and The Dow Chemical Company, incorporated by reference to Exhibit 10.9 of the Corporation's 2007 Annual Report on Form 10-K.
21	Omitted pursuant to General Instruction I of Form 10-K.
23	Ankura Consulting Group, LLC's Consent.
31.1	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
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.

**FOURTEENTH AMENDMENT TO THE
AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT**

This Fourteenth Amendment to the Amended and Restated Revolving Credit Agreement (this “Amendment”) is made effective as of December 12, 2016, and is entered into among Union Carbide Corporation, as Borrower (“Borrower”), The Dow Chemical Company, as Lender (“Lender”) and Union Carbide Chemicals & Plastics Technology LLC as the Subsidiary Guarantor (the “Subsidiary Guarantor”) (together, the “Parties”).

BACKGROUND

The Parties have entered into the Amended and Restated Revolving Credit Agreement dated as of May 28, 2004, as amended by the First Amendment to the Amended and Restated Revolving Credit Agreement dated October 29, 2004, the Second Amendment to the Amended and Restated Revolving Credit Agreement dated December 30, 2004, the Third Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2005, the Fourth Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2006, the Fifth Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2007, the Sixth Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2008, the Seventh Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2009, and the Eighth Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2010, the Ninth Amendment to the Amended and Restated Revolving Credit Agreement dated September 30, 2011, the Tenth Amendment to the Amended and Restated Revolving Credit Agreement dated December 6, 2012, the Eleventh Amendment to the Amended and Restated Revolving Credit Agreement dated December 16, 2013, the Twelfth Amendment to the Amended and Restated Revolving Credit Agreement dated December 17, 2014, and the Thirteenth Amendment to the Amended and Restated Revolving Credit Agreement dated December 18, 2015 (the “Credit Agreement”). Union Carbide Subsidiary C is no longer a Subsidiary Guarantor under this Credit Agreement as it is no longer a wholly owned subsidiary of Borrower.

The Parties desire to amend the Credit Agreement according to the terms in this Amendment. Any capitalized terms used in this Amendment, but not otherwise defined in this Amendment, are as defined in the Credit Agreement.

THE AGREEMENT

1. Amendment to Section 1.1. The Parties agree to amend Section 1.1 of the Credit Agreement by Replacing the definition of “Scheduled Termination Date” with the following definition:

“Scheduled Termination Date” means December 30, 2017.
2. No Other Amendment or Waiver. Except as expressly amended by this Amendment, the Credit Agreement and all other Loan Documents remain in full force and effect in accordance with their terms, and the Parties ratify and confirm the Credit Agreement and all other Loan Documents in all respects.
3. Execution in Counterparts. This amendment may be executed in any number of counterparts and and by different parties in separate counterparts, each of which when so executed will be deemed to be an original and all of which taken together will constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart so that all signature pages are attached to the same document.

[Signature pages follow]

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4. Governing Law. This Amendment and the rights and obligation of the Parties to this Amendment will be governed by, and construed and interpreted in accordance with, the law of the State of New York.
 5. Subsidiary Guarantor. The Guarantor to this Agreement will only be bound by its guarantee if it remains a wholly owned subsidiary of the Borrower.

The Parties agree that this Amendment is effective as of December 12, 2016, and they have caused their authorized representatives to execute this Amendment below.

LENDER:

THE DOW CHEMICAL COMPANY

By: /s/ GARY MCGUIRE

Name: Gary McGuire

Title: Corporate Vice President and Treasurer

SUBSIDIARY GUARANTOR:

**UNION CARBIDE CHEMICALS &
PLASTICS TECHNOLOGY LLC**

By: /s/ MARK A WHITEMAN

Name: Mark A. Whiteman

Title: President

BORROWER:

UNION CARBIDE CORPORATION

By: /s/ IGNACIO MOLINA

Name: Ignacio Molina

Title: Chief Financial Officer, Vice President, and
Treasurer

Union Carbide Corporation:

Ankura Consulting Group, LLC ("Ankura"), hereby consents to the use of Ankura's name and the reference to Ankura's reports appearing in this Annual Report on Form 10-K of Union Carbide Corporation for the year ended December 31, 2016.

/s/ B. THOMAS FLORENCE

B. Thomas Florence
Senior Managing Director
Ankura Consulting Group, LLC
February 9, 2017

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Richard A. Wells, certify that:

1. I have reviewed this annual report on Form 10-K of Union Carbide Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 9, 2017

/s/ RICHARD A. WELLS

Richard A. Wells
President and Chief Executive Officer

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Ignacio Molina, certify that:

1. I have reviewed this annual report on Form 10-K of Union Carbide Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 9, 2017

/s/ IGNACIO MOLINA

Ignacio Molina
Vice President, Treasurer and
Chief Financial Officer

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Richard A. Wells, President and Chief Executive Officer of Union Carbide Corporation (the “Corporation”), certify that:

1. the Annual Report on Form 10-K of the Corporation for the year ended December 31, 2016 as filed with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

/s/ RICHARD A. WELLS

Richard A. Wells
President and Chief Executive Officer
February 9, 2017

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Ignacio Molina, Vice President, Treasurer and Chief Financial Officer of Union Carbide Corporation (the “Corporation”), certify that:

1. the Annual Report on Form 10-K of the Corporation for the year ended December 31, 2016 as filed with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

/s/ IGNACIO MOLINA

Ignacio Molina
Vice President, Treasurer and
Chief Financial Officer
February 9, 2017