CABOT

VISION. PERFORMANCE. RESULTS.

2017 ANNUAL REPORT

Delivering performance to advance applications and industries — providing the competitive advantage needed to seize tomorrow's opportunities.

Cabot Corporation is a leading global specialty chemicals and performance materials company headquartered in Boston, Massachusetts, USA.

We strive to be the most innovative, respected and responsible leader in our markets — delivering performance that makes a difference. As a market leader we collaborate with customers to find innovative solutions that will help them advance their own products for a wide range of industries, from transportation and infrastructure to environment and consumer goods. Our customers worldwide trust our solutions to help them address their needs and accelerate innovation in key applications — creating value and delivering an advantage over the competition.

Our global network consists of 45 manufacturing facilities throughout 21 countries. All are joined by our commitment and continued dedication to safety, health and environmental leadership and progress.

OUR BUSINESS SEGMENTS

PERFORMANCE CHEMICALS

Specialty Carbons and Formulations; Metal Oxides

Specialty additives that enable performance in: plastics, wire and cable, toners, coatings, adhesives and sealants, electronics, batteries, inks, inkjet printing, composites, silicones, building construction materials, industrial insulation

REINFORCEMENT MATERIALS

Rubber Blacks; Elastomer Composites

Carbon black to reinforce and optimize the performance of rubber products including: tires, hoses, belts, molded goods

SPECIALTY FLUIDS

Cesium Formate Brines; Fine Cesium Chemicals

Advanced cesium products for use in: oil and gas well drilling and completion fluids, catalysts, titanium dioxide, glass, brazing fluxes

PURIFICATION SOLUTIONS

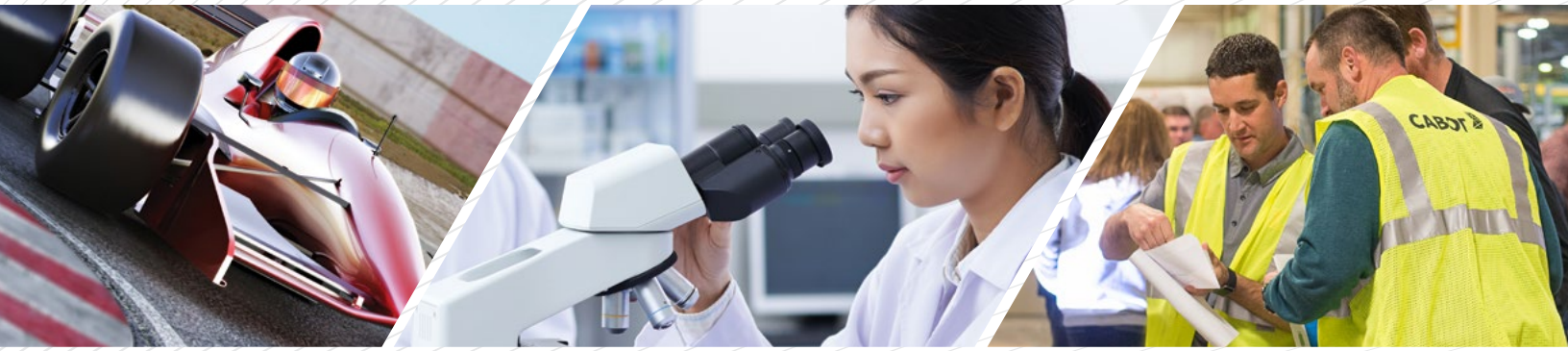
Activated Carbon

Activated carbon for purification in various applications including: air and water, food and beverages, pharmaceuticals, catalysts

A MESSAGE TO OUR SHAREHOLDERS

Fiscal 2017 was a year of tremendous progress for Cabot Corporation. I'm proud to report that in fiscal 2017, we delivered on our financial commitments, extended our industry-leading positions and advanced a range of compelling strategic priorities to position the company for the future.

This is a very exciting time for Cabot Corporation. We sit at the crossroads of several significant and fundamental trends which offer distinct strategic opportunities to grow and transform our company. The end markets that we serve continue to grow at robust rates and our global footprint and industry leadership position offer unique opportunities to create value for our shareholders. Across our diverse set of end market applications, we are experiencing a convergence of global macro trends that can only be addressed



by materials innovation. From green tires and lithium-ion batteries, to light-weight plastics and digital printing, our market spaces are rich with innovation potential.

We are also observing an ever-increasing global trend toward greater environmental stewardship and sustainability. As an industry leader, sustainability has always guided our investment decisions. For example, over the last 15 years, China has emerged as the largest tire producing country with approximately 40% of the world's capacity. This has resulted in incredible growth in supporting the chemicals value chain, but often at the expense of environmental sustainability. Throughout the years, as we invested to capture this growth, we did so with an unwavering commitment to implementing the best process technology and environmental controls. While there has not always been a level playing field, we recognized that this was the best way to build a durable and distinguishing leadership position. Today, we are experiencing a broad transformation in environmental enforcement across the entire industrial and chemicals landscape in China. We strongly support this initiative and are a recognized leader in the chemicals ecosystem advocating for responsible management practices. There is no global competitor that is as well positioned as Cabot to capitalize on this important and fundamental trend.

Against this backdrop of market opportunities, we continue to be guided by our vision *"to be the most innovative, respected and responsible leader in our markets — delivering performance that makes a difference."* This commitment informs our choices, inspires our global team and will be the source of compelling value creation for our shareholders.

"I'm proud to report that in fiscal 2017, we delivered on our financial commitments, extended our industry leading positions and advanced a range of compelling strategic priorities to position the company for the future."

DELIVERING ON OUR COMMITMENTS

When we launched our vision and strategy in mid-2016, we set an objective to deliver sustained and attractive total shareholder return (TSR). Our strategy and accompanying financial framework was built to deliver 7% to 10% annual adjusted earnings per share (EPS) growth over time. Complementing the earnings growth portion of the TSR package is a commitment to a balanced capital allocation strategy, whereby approximately 50% of our discretionary free cash flow will be invested for growth and 50% will be returned to shareholders. This balance in capital allocation philosophy will ensure that we invest sufficiently in our core businesses to capture opportunities and drive long-term earnings growth while also providing our shareholders with a meaningful cash return. While there will always be a cyclical dimension to our businesses, we believe this long-term value framework will provide top-tier performance for our shareholders.

In fiscal 2017, we continued to deliver on our financial commitments. Adjusted EPS increased by 9% on a year-over-year basis and we produced $340 million of operating cash flow, which clearly showcases the cash-generating power of the portfolio. As committed, we returned 57%, or $138 million, of discretionary free cash flow to shareholders through a combination of dividends and share repurchases. While we are very pleased with these results, we remain committed to long-term leadership and performance. On this front, we advanced several long-term strategic investments to strengthen our leadership positions and ensure sustained growth of earnings and cash flow.

$340M
OPERATING CASH FLOW

9%
ADJUSTED EPS GROWTH

57%
DISCRETIONARY FREE CASH FLOW RETURN TO SHAREHOLDERS

$244M
DISCRETIONARY FREE CASH FLOW

STRATEGIC PROGRESS

Our "Advancing the Core" strategy is to extend our leadership in performance materials by driving three key themes of 1) investing for growth in our core businesses, 2) driving application innovation with our customers, and 3) generating strong cash flows through efficiency and optimization. Across each of these strategic pillars, we made notable progress in 2017.

GROWTH IN OUR CORE

Our Reinforcement Materials and Performance Chemicals segments achieved volume growth in-line with or better than market averages while maintaining a commitment to earn fair value for the performance our products deliver in applications. We also advanced several key growth projects across the company. Specifically, we announced two new fumed silica plants in Wuhai, China and Carrollton, Kentucky, USA. These projects will allow us to meet the growing market demand for our high-performance fumed silica while strengthening our relationships with Dow and HYC, key leaders in the silicones industry.

In November 2017, we also completed the acquisition of Tech Blend, a leading North American producer of black masterbatches. This transaction is an excellent example of how we will use disciplined and focused M&A to strengthen our existing businesses. We have long held a position as a leader in black masterbatches and compounds in the EMEA and Asia Pacific regions, and this acquisition will establish a strong footprint in North America and a platform to better serve our global customers. Our long-standing participation in the plastics value chain as both a supplier of specialty carbon blacks and a masterbatch producer has allowed us to develop a deep understanding of plastics applications and bring unique performance to our customers. We acquired this business at an attractive multiple and have a clear plan to drive commercial synergies and generate above market growth.

VOLUME GROWTH

IN-LINE WITH GLOBAL MARKETS

Groundbreaking ceremonies in Carrollton, Kentucky, USA and Wuhai, China.

APPLICATION INNOVATION

Materials will continue to drive and enable advancements in our world. In fact, many of society's most pressing global challenges are fundamentally a question of materials innovation. For example, driving greater energy efficiency is a macro trend that will play out across the materials sector. Light-weighting of cars requires the replacement of metals with plastics compounds and composite materials and improved structural adhesives. The electrification of the automotive fleet will demand advancements in battery chemistry to increase battery range and cycle life. Increasing the fuel economy of vehicles requires materials innovation in tires to reduce rolling resistance without compromising wear and other key performance characteristics. In each example, Cabot is positioned to capitalize on these clear trends.

Our commitment to growth and innovation is best exemplified by our investments in the high growth battery application. Conductive carbon additives are an essential performance material in battery formulations, both for lithium-ion and advanced lead-acid batteries. We have committed resources to the continued development and commercialization of battery materials and believe this application has the potential to become a material contributor to our growth objectives. Cabot has a strong "right to win" based on our current level of participation, a depth of application expertise, leadership in conductive carbon additive technologies and a strong footprint in Asia Pacific, where most of this development is occurring.

To support this corporate-wide commitment to application innovation, we are investing to build lasting capabilities. During 2017, we commissioned our new Asia Technology Center in Shanghai, China, which will serve as a key platform to drive collaboration and innovation with our customers in the Asia Pacific region. As China's economy transitions, innovating around new applications and collaborating more closely with our customers is an essential element of our strategy.

New Asia Technology Center in Shanghai accelerates application innovation capabilities in Asia Pacific.

EFFICIENCY AND OPTIMIZATION

As we enter a period of higher capital spending to support growth and innovation projects, we are proceeding with a laser focus on capital efficiency. This effort plays out in distinct ways across our asset base. We search for smart and efficient debottleneck projects to support capacity growth. In cases where we are building new assets, such as our fumed silica investments, each project undergoes a rigorous capital efficiency review where we bring the best practices of value engineering to ensure that we maximize the efficient use of our capital spending. Finally, we strive to operate our assets with the highest level of reliability and maximum energy recovery.

Throughout our global network of carbon black plants, we have made significant investments to recover waste energy. Our fleet of energy centers creates value through the recovery of thermal energy from waste heat generated from our processes. We monetize this recovered heat through avoided electricity purchases and energy sales to nearby industrial neighbors or the electrical grid. By driving improvements in the reliability and operating efficiency of our energy centers, we reduce our costs while also making a positive impact to overall greenhouse gas emissions. We had a successful year in 2017 and our efforts on this front were an important contributor to the improved profit results in our Reinforcement Materials segment.

RESPONSIBLE LEADER—MAKING A DIFFERENCE

The safety of our people and the sustainable development, production and use of our products are central to our corporate vision. Our 2017 total recordable injury rate of 0.45 continues to position us near the top of the broad industrial and chemical industry league tables. We have the highest expectations of our performance in this area and, as a result, include contractor safety in our performance measures — a practice that few in the industry do. We remain proud of our longstanding position as a leader in safety, but continue to reflect upon this performance with a healthy level of dissatisfaction as we know that zero injuries is possible.

During the past year, we enhanced our approach to sustainability by conducting an extensive materiality assessment that enabled a sharper focus on those areas of sustainability most important to Cabot. This effort included outreach to customers, investors and our employees around the globe. In June of 2017, we published our latest sustainability report which conforms to the Global Reporting Initiative (GRI) standard and reflects the insights from the materiality assessment. With this input, we are moving forward with confidence that our sustainability goals are relevant and have a strong connection to our business agenda.

Our leadership has been recognized by numerous important external parties. We are proud that *Corporate Responsibility (CR) Magazine* named Cabot one of its 2017 Most Responsible Companies in the Materials Industry Sector. In addition, for the second consecutive year, we were recognized with a gold level evaluation by EcoVadis, an independent assessment organization that specializes in evaluating sustainability programs and related performance of participating companies.

I am proud of the work that we have been able to accomplish so far, but know that we can do more to positively impact our overall performance. Sustainability is a continuous journey for which we have established meaningful goals and milestones. With the support of our dedicated team across the globe, I know we will continue to improve our performance and make a difference.

POSITIONED FOR THE FUTURE

Overall, I am very pleased with our performance in 2017 and am confident that we have the right strategy to win in the marketplace and drive superior returns for our shareholders. During fiscal 2017, we strengthened our leading market positions and are well prepared to capitalize on the strong fundamentals in our businesses. We are committed to delivering on our goals while making smart, strategic investments to drive long-term sustained performance.

I would like to thank my colleagues across Cabot for their efforts in fiscal year 2017, and to you, our shareholders, for your continued support. We look forward to sharing news of our continued progress and achievements in fiscal year 2018.

Thank you,

Sean D. Keohane
President and Chief Executive Officer

CABOT CORPORATION FINANCIAL HIGHLIGHTS

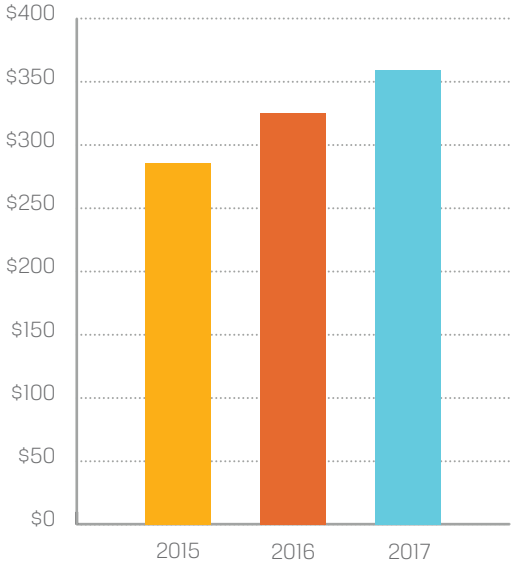
(dollars in USD millions, except per share amounts)

Fiscal Year	2015	2016	2017
Operating Results			
Operating revenues	$2,871	$2,411	**$2,717**
Net income (loss) attributable to Cabot Corporation*	$(334)	$149	**$241**
Per diluted common share*	$(5.27)	$2.36	**$3.80**
Adjusted earnings per share**	$2.71	$3.14	**$3.43**
Financial Positions			
Total assets	$3,063	$3,035	**$3,314**
Net property, plant and equipment	$1,383	$1,290	**$1,305**
Stockholders' equity	$1,338	$1,372	**$1,601**

** Fiscal 2015 includes the impact of the Purification Solutions' impairment charges.*
*** Non-GAAP financial measure, excludes financial results of divested businesses and certain items.*

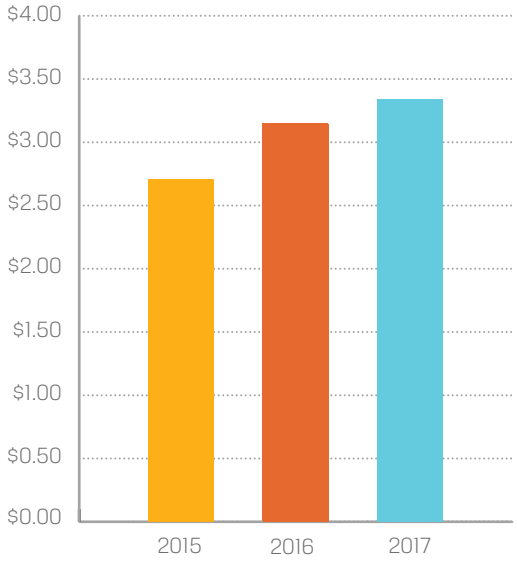
Adjusted EBIT ($M)*

$M/fiscal year



Adjusted Earnings Per Share ($)*

$ per share/fiscal year

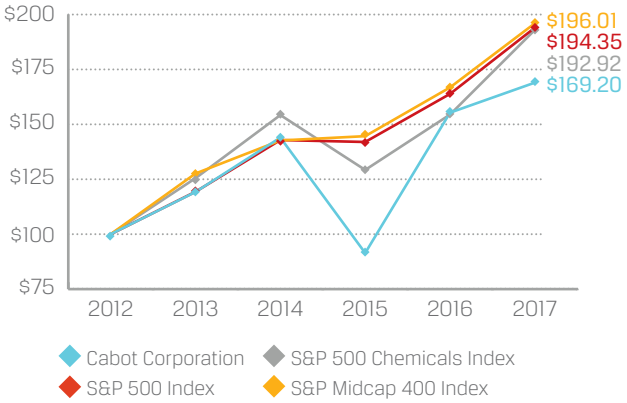


** Non-GAAP financial measure, excludes financial results of divested businesses and certain items. Refer to non-GAAP. reconciliations on page 14 for a reconciliation of these measures to their most directly comparable GAAP financial measure.*

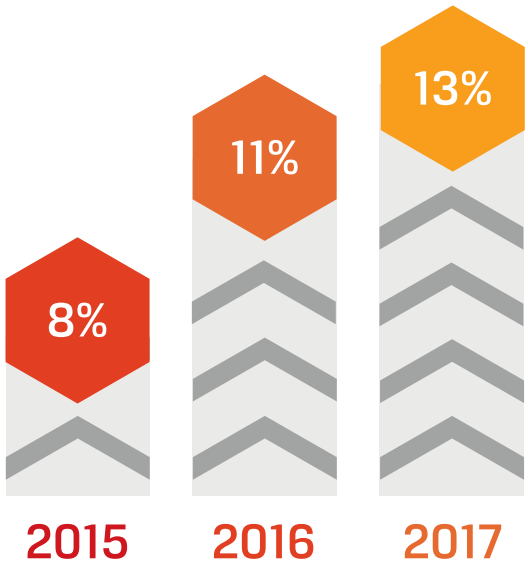
FINANCIAL PERFORMANCE

PERFORMANCE GRAPH

The graph compares the cumulative total stockholder return on Cabot common stock for the five-year period ending September 30, 2017 with the S&P 500 Chemicals Index, the S&P 500 Index and the S&P Midcap 400 Index. The comparisons assume the investment of $100 on October 1, 2012 in Cabot's common stock and in each of the indices and the reinvestment of all dividends.



ADJUSTED RETURN ON INVESTED CAPITAL



RETURNED TO SHAREHOLDERS

$138 MILLION

$77M
IN DIVIDENDS

$61M
IN NET SHARE REPURCHASES

FINANCIAL PERFORMANCE

NON-GAAP RECONCILIATIONS

Adjusted EPS, adjusted EBIT, discretionary free cash flow and adjusted ROIC are not measures of financial performance under U.S. generally accepted accounting principles (GAAP) and should not be considered in isolation from, or as replacements for, earnings per share from continuing operations or income from continuing operations before taxes determined in accordance with GAAP, nor as substitutes for measures of profitability or performance reported in accordance with GAAP. These non-GAAP measures exclude certain items of expense or income that management does not consider representative of our ongoing performance. These certain items are described in detail in Notes S of our consolidated financial statements. The following tables reconcile non-GAAP measures used in this report.

Reconciliation of Adjusted Earnings Per Share (EPS)

Per Share / Fiscal Year	2015	2016	2017
Net income (loss) per share attributable to Cabot Corporation*	$(5.27)	$2.36	**$ 3.80**
Less: Net income (loss) per share from discontinued operations	$0.02	$0.02	**–**
Net income (loss) per share from continuing operations*	$(5.29)	$2.34	**$ 3.80**
Less: Certain items per share and dilutive impact of shares*	$(8.00)	$(0.80)	**$0.38**
Adjusted earnings per share	**$2.71**	**$3.14**	**$3.43**

Reconciliation of Adjusted Earnings Before Interest and Taxes (EBIT)

Dollars in Millions / Fiscal Year	2015	2016	2017
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies*	$(377)	$194	**$288**
Interest expense	$53	$54	**$53**
Certain items*	$617	$81	**$3**
General unallocated expense	$(11)	$(7)	**$8**
Equity in earnings of affiliated companies	$4	$3	**$7**
Adjusted EBIT	**$286**	**$325**	**$359**

Reconciliation of Discretionary Free Cash Flow

Dollars in Millions / Fiscal Year	2015	2016	2017
Cash flow from operating activities [1]	$499	$392	**$340**
Less: Changes in net working capital [2]	$137	$49	**$(23)**
Less: Sustaining and compliance capital expenditures	$102	$91	**$119**
Discretionary Free Cash Flow	**$260**	**$252**	**$244**

** Fiscal 2015 earnings and certain items include the impact of the Purification Solutions impairment charge.*

[1] As provided in the Consolidated Statement of Cash Flows for the periods presented.

[2] Defined as changes in accounts receivable, inventory and accounts payable and accrued liabilities as presented on the Consolidated Statement of Cash Flows for the periods presented.

Adjusted Return on Invested Capital (ROIC)

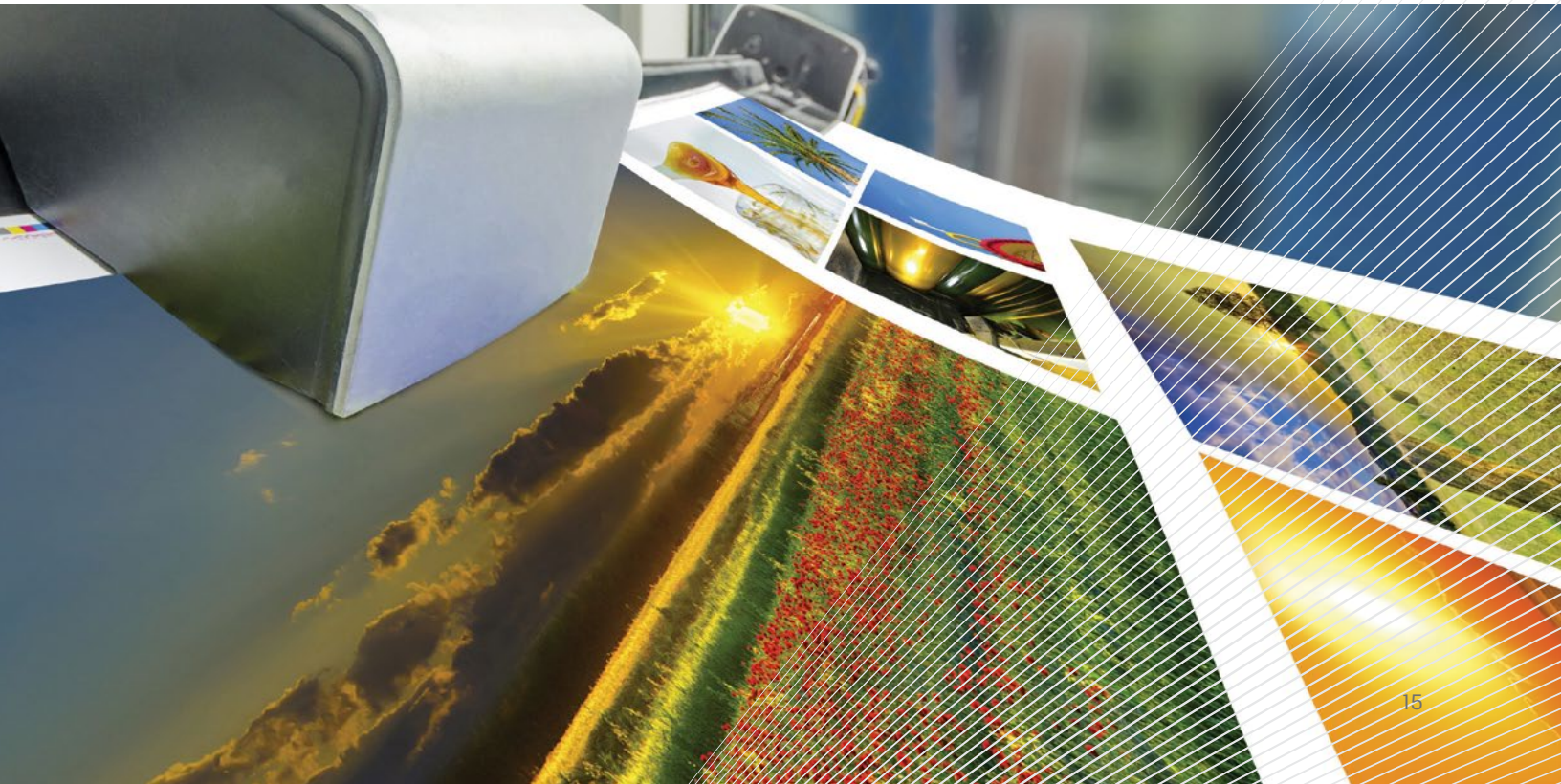
Dollars in Millions / Fiscal Year	2015	2016	2017
Numerator - Adjusted net income (loss):			
Net income (loss) attributable to Cabot Corporation*	$(334)	$149	$241
Less: Certain items, net of tax benefit (provision)[1]*	(510)	(50)	23
Less: Net income attributable to noncontrolling interests	(8)	(15)	(25)
Less: Net Interest income and expense, net of tax[2]	(36)	(37)	(36)
Adjusted Net Income (loss)	**220**	**251**	**279**
Denominator - Adjusted invested capital[3]:			
Total Cabot Corporation stockholders' equity	1,604	1,243	1,324
Plus: Noncontrolling interests	113	97	102
Plus: Total Debt	1,095	970	925
Plus: Purification Solutions impairment charges, net of tax	(193)	—	—
Less: Cash and cash equivalents	82	152	200
Less: Certain items, net of tax*	(212)	(35)	9
Adjusted Invested Capital	**$2,749**	**$2,193**	**$2,142**
ROIC	**8%**	**11%**	**13%**

** Fiscal 2015 earnings and certain items include the impact of the Purification Solutions impairment charge.*

[1] Tax impact on certain items is discussed in Note Q to the Financial Statements.

[2] Tax on interest expense and interest income is calculated using the Company's 2015, 2016 and 2017 operating tax rates of 26%, 24% and 19%, respectively.

[3] Each component of adjusted invested capital is calculated by averaging the previous five quarter ending balances.



OUR LEADERSHIP

MANAGEMENT EXECUTIVE COMMITTEE

Sean D. Keohane
President and
Chief Executive Officer

Brian A. Berube
Senior Vice President,
General Counsel

Eduardo E. Cordeiro
Executive Vice President
and Chief Financial Officer;
President, Americas Region

Nicholas S. Cross
Executive Vice President
and President, Performance
Chemicals; President, Europe,
Middle East and Africa
(EMEA) Region

Jay Doubman
Senior Vice President,
Corporate Strategy and
Development; President,
Specialty Fluids Segment

Bart C. Kalkstein
Senior Vice President and
President, Reinforcement
Materials Segment

Martin J. O'Neill
Senior Vice President, Safety,
Health and Environment (SH&E)
and Government Affairs)

Friedrich von Gottberg
Senior Vice President and
President, Purification
Solutions Segment; Interim
Chief Technology Officer

Arthur (Art) T. Wood
Senior Vice President and
Chief Human Resources Officer

Jeff Zhu
Senior Vice President and
President, Asia Pacific Region

BOARD OF DIRECTORS

John F. O'Brien
(Non-Executive Chairman of the Board) retired
President and Chief Executive Officer, Allmerica
Financial Corporation *(holding company for
insurance and other financial services)*

Sean D. Keohane
President and Chief Executive Officer,
Cabot Corporation

Cynthia Arnold
retired Chief Technology Officer,
The Valspar Corporation
(*global paint and coatings company*)

Juan Enriquez
Chairman and Chief Executive Officer,
Biotechonomy Ventures *(life sciences research
and investment firm)*

William C. Kirby
Spangler Family Professor of Business Administration,
Harvard Business School and T.M. Chang Professor
of China Studies, Harvard University

Roderick C.G. MacLeod
Co-founder and Principal, Waverley Investments
Ltd., and St. Martins Finance Ltd. *(private equity
investment companies)*

John K. McGillicuddy
retired Audit Partner, KPMG, LLP *(global provider
of audit, tax and advisory services)*

Michael M. Morrow
retired Audit Partner, PricewaterhouseCoopers
(global provider of audit, tax and advisory services)

Patrick M. Prevost
retired President and Chief Executive Officer,
Cabot Corporation

Sue H. Rataj
retired Chief Executive, Petrochemicals, BP plc
(global energy company)

Matthias L. Wolfgruber
retired Chief Executive Officer, Altana AG
(specialty chemicals company)

Mark S. Wrighton
Chancellor, Washington University in St. Louis

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended September 30, 2017

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 1-5667

Cabot Corporation

(Exact name of Registrant as specified in its Charter)

Delaware *(State or other jurisdiction of incorporation or organization)*	**04-2271897** *(I.R.S. Employer Identification No.)*
Two Seaport Lane, Suite 1300 **Boston, Massachusetts** *(Address of Principal Executive Offices)*	**02210** *(Zip Code)*

Registrant's telephone number, including area code: (617) 345-0100

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934: Common Stock, Par Value $1.00 per share, traded on the New York Stock Exchange.

Securities registered pursuant to Section 12(g) of the Securities Exchange Act of 1934: None.

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

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

If an emerging growth company, indicate by checkmark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

As of the last business day of the Registrant's most recently completed second fiscal quarter (March 31, 2017), the aggregate market value of the Registrant's common stock held by non-affiliates was $3,706,582,334. As of November 17, 2017, there were 61,949,646 shares of the Registrant's common stock outstanding.

Portions of the Registrant's definitive proxy statement for its 2018 Annual Meeting of Shareholders are incorporated by reference into Part III of this report.

TABLE OF CONTENTS

PART I

ITEM 1.	Business	3
ITEM 1A.	Risk Factors	10
ITEM 1B.	Unresolved Staff Comments	16
ITEM 2.	Properties	16
ITEM 3.	Legal Proceedings	18
ITEM 4.	Mine Safety Disclosures	19

PART II

ITEM 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	21
ITEM 6.	Selected Financial Data	21
ITEM 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	25
ITEM 7A.	Quantitative and Qualitative Disclosures About Market Risk	42
ITEM 8.	Financial Statements and Supplementary Data	43
ITEM 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	89
ITEM 9A.	Controls and Procedures	89
ITEM 9B.	Other Information	89

PART III

ITEM 10.	Directors, Executive Officers and Corporate Governance	90
ITEM 11.	Executive Compensation	90
ITEM 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	90
ITEM 13.	Certain Relationships and Related Transactions, and Director Independence	90
ITEM 14.	Principal Accounting Fees and Services	90

PART IV

ITEM 15.	Exhibits, Financial Statement Schedules	91
Signatures		94

Information Relating to Forward-Looking Statements

This annual report on Form 10-K contains "forward-looking statements" under the Federal securities laws. These forward-looking statements address expectations or projections about the future, including our expectations regarding our future business performance and overall prospects; future cash flow and cash return to shareholders; segment growth; demand for our products; when we expect construction of our new fumed silica plants in Wuhai, China and Carrollton, Kentucky and our infrastructure improvement and mining project at our mine in Manitoba, Canada to be completed; the sufficiency of our cash on hand, cash provided from operations and cash available under our credit and commercial paper facilities to fund our cash requirements; anticipated capital spending, including environmental-related capital expenditures; cash requirements and uses of available cash, including future cash outlays associated with long-term contractual obligations, restructurings, contributions to employee benefit plans, environmental remediation costs and future respirator liabilities; exposure to interest rate and foreign exchange risk; future benefit plan payments we expect to make; future amortization expenses; our expected tax rate for fiscal 2018; our ability to recover deferred tax assets; and the possible outcome of legal and environmental proceedings. From time to time, we also provide forward-looking statements in other materials we release to the public and in oral statements made by authorized officers.

Forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, potentially inaccurate assumptions, and other factors, some of which are beyond our control or difficult to predict. If known or unknown risks materialize, our actual results could differ materially from past results and from those expressed in the forward-looking statements. Important factors that could cause our actual results to differ materially from those expressed in our forward-looking statements are described in Item 1A in this report.

We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Investors are advised, however, to consult any further disclosures we make on related subjects in our 10-Q and 8-K reports filed with the Securities and Exchange Commission (the "SEC").

PART I

Item 1. *Business*

General

Cabot is a global specialty chemicals and performance materials company headquartered in Boston, Massachusetts. Our principal products are rubber and specialty grade carbon blacks, specialty compounds, fumed metal oxides, activated carbons, inkjet colorants, aerogel, cesium formate drilling fluids, and fine cesium chemicals. Cabot and its affiliates have manufacturing facilities and operations in the United States ("U.S.") and over 20 other countries. Cabot's business was founded in 1882 and incorporated in the State of Delaware in 1960. The terms "Cabot", "Company", "we", and "our" as used in this report refer to Cabot Corporation and its consolidated subsidiaries.

Our vision is to be the most innovative, respected and responsible leader in our markets – delivering performance that makes a difference. Our strategy is to extend our leadership in performance materials by investing for growth in our core businesses, driving application innovation with our customers, and generating strong cash flows through efficiency and optimization. Our products are generally based on technical expertise and innovation in one or more of our four core competencies: making and handling very fine particles; modifying the surfaces of very fine particles to alter their functionality; designing particles to impart specific properties to a formulation; and combining particles with other ingredients to deliver a formulated performance intermediate or composite. We focus on creating particles, and formulations of those particles, with the composition, morphology, and surface functionalities to deliver the requisite performance to support our customers' existing and emerging applications.

Our four business segments are: Reinforcement Materials; Performance Chemicals; Purification Solutions; and Specialty Fluids. The business segments are discussed in more detail later in this section. Financial information about our business segments appears in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 below ("MD&A") and in Note S of our Notes to the Consolidated Financial Statements in Item 8 below ("Note S").

Our internet address is www.cabotcorp.com. We make available free of charge on or through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after electronically filing such material with, or furnishing it to, the SEC. Information appearing on our website is not a part of, and is not incorporated in, this Annual Report on Form 10-K.

Reinforcement Materials

Products

Carbon black is a form of elemental carbon that is manufactured in a highly controlled process to produce particles and aggregates of varied structure and surface chemistry, resulting in many different performance characteristics for a wide variety of applications. Rubber grade carbon blacks are used to enhance the physical properties of the systems and applications in which they are incorporated.

Our rubber blacks products are used in tires and industrial products. Rubber blacks have traditionally been used in the tire industry as a rubber reinforcing agent to increase tread durability and are also used as a performance additive to reduce rolling resistance and improve traction. In industrial products such as hoses, belts, extruded profiles and molded goods, rubber blacks are used to improve the physical performance of the product, including the product's physical strength, fluid resistance, conductivity and resistivity.

In addition to our rubber blacks products, we manufacture compounds of carbon black and rubber using our patented elastomer composites manufacturing process. These compounds improve abrasion/wear resistance, reduce fatigue of rubber parts and reduce rolling resistance compared to carbon black/rubber compounds made by conventional dry mix methods.

Sales and Customers

Sales of rubber blacks products are made by Cabot employees and through distributors and sales representatives. Sales to three major tire customers represent a material portion of Reinforcement Materials' total net sales and operating revenues. The loss of any of these customers, or a significant reduction in volumes sold to them, could have a material adverse effect on the segment.

Under appropriate circumstances, we have entered into supply contracts with certain customers, the typical duration of which is one year. Many of these contracts provide for sales price adjustments to account for changes in relevant feedstock indices and, in some cases, changes in other relevant costs (such as the cost of natural gas). In fiscal 2017, approximately half of our rubber blacks volume was sold under these supply agreements. The majority of the volumes sold under these agreements are sold to customers in the Americas and Europe.

We have licensed our patented elastomer composites manufacturing process to Manufacture Francaise des Pneumatiques Michelin for their exclusive use in tire applications through fiscal 2017, and for a period of limited exclusivity in tire applications through fiscal 2019. As consideration, we receive quarterly royalty payments extending through calendar year 2022.

Much of the rubber blacks we sell is used in tires and automotive products and, therefore, our financial results may be affected by the cyclical nature of the automotive industry. However, a large portion of the market for our products is in replacement tires that historically have been less subject to automotive industry cycles.

Competition

We are one of the leading manufacturers of carbon black in the world. We compete in the manufacture of carbon black with two companies that operate globally and numerous other companies that operate regionally, a number of which export product outside their region. Competition for our Reinforcement Materials products is based on product performance, quality, reliability, price, service, technical innovation, and logistics. We believe our product differentiation, technological leadership, global manufacturing presence, operations and logistics excellence and customer service provide us with a competitive advantage.

Raw Materials

The principal raw material used in the manufacture of carbon black is a portion of the residual heavy oils derived from petroleum refining operations, the distillation of coal tars, and the production of ethylene throughout the world. Natural gas is also used in the production of carbon black. Raw materials are, in general, readily available and in adequate supply. Raw material costs generally are influenced by the availability of various types of carbon black feedstock and natural gas, supply and demand of such raw materials, and related transportation costs. Importantly, movements in the market price for crude oil typically affect carbon black feedstock costs.

Operations

We own, or have a controlling interest in, and operate plants that produce rubber blacks in Argentina, Brazil, Canada, China, Colombia, the Czech Republic, France, Indonesia, Italy, Japan, Mexico, the Netherlands and the U.S. An equity affiliate operates a carbon black plant in Venezuela.

The following table shows our ownership interest as of September 30, 2017 in rubber blacks operations in which we own less than 100%:

Location	Percentage Interest
Shanghai, China	70% (consolidated subsidiary)
Tianjin, China	70% (consolidated subsidiary)
Xingtai City, China	60% (consolidated subsidiary)
Valasske Mezirici (Valmez), Czech Republic	52% (consolidated subsidiary)
Cilegon, Indonesia	98% (consolidated subsidiary)
Valencia, Venezuela	49% (equity affiliate)

Performance Chemicals

Performance Chemicals is composed of two businesses: (i) our Specialty Carbons and Formulations business, which manufactures and sells specialty grades of carbon black, specialty compounds and inkjet colorants, and (ii) our Metal Oxides business, which manufactures and sells fumed silica, fumed alumina and dispersions thereof and aerogel. In Performance Chemicals, we design, manufacture and sell materials that deliver performance in a broad range of customer applications across the automotive, construction, infrastructure, energy, inkjet printing, electronics, and consumer products sectors.

Products

Specialty Carbons and Formulations Business

Carbon black is a form of elemental carbon that is manufactured in a highly controlled process to produce particles and aggregates of varied structure and surface chemistry, resulting in many different performance characteristics for a wide variety of applications.

Our specialty grades of carbon black are used to impart color, provide rheology control, enhance conductivity and static charge control, provide UV protection, enhance mechanical properties, and provide formulation flexibility through surface treatment. These specialty carbon products are used in a wide variety of applications, such as inks, coatings, plastics, adhesives, toners, batteries, and displays.

Our masterbatch and conductive compound products, which we refer to as “specialty compounds”, are formulations derived from specialty grades of carbon black mixed with polymers and other additives. These products are generally used by plastic resin producers and converters in applications for the automotive, industrial, packaging, consumer products, and electronics industries. As an alternative to directly mixing specialty carbon blacks, these formulations offer greater ease of handling and help customers achieve their desired levels of dispersion and color and manage the addition of small doses of additives. In addition, our electrically conductive compound products generally are used to reduce risks associated with electrostatic discharge in plastics applications.

Our inkjet colorants are high-quality pigment-based black and color dispersions based on our patented carbon black surface modification technology. The dispersions are used in aqueous inkjet inks to impart color, sharp print characteristics and durability, while maintaining high printhead reliability. These products are used in various inkjet printing applications, including commercial printing, small office/home office and corporate office, and niche applications that require a high level of dispersibility and colloidal stability. Our inkjet inks, which utilize our pigment-based colorant dispersions, are used in the commercial printing segment for digital print.

Metal Oxides Business

Fumed silica is an ultra-fine, high-purity particle used as a reinforcing, thickening, abrasive, thixotropic, suspending or anti-caking agent in a wide variety of products for the automotive, construction, microelectronics, batteries, and consumer products industries. These products include adhesives, sealants, cosmetics, batteries, inks, toners, silicone elastomers, coatings, polishing slurries and pharmaceuticals. Fumed alumina, also an ultra-fine, high-purity particle, is used as an abrasive, absorbent or barrier agent in a variety of products, such as inkjet media, lighting, coatings, cosmetics and polishing slurries.

Aerogel is a hydrophobic, silica-based particle with a high surface area that is used in a variety of thermal insulation and specialty chemical applications. In the building and construction industry, the product is used in insulative sprayable plasters and composite building products, as well as translucent skylight, window, wall and roof systems for insulating eco-daylighting applications. In the specialty chemicals industry, the product is used to provide matte finishing, insulating and thickening properties for use in a variety of applications.

Sales and Customers

Sales of these products are made by Cabot employees and through distributors and sales representatives. In our Specialty Carbons and Formulations business, sales are generally to a broad number of customers. In our Metal Oxides business, sales under long-term contracts with two customers have accounted for a substantial portion of the revenue.

Competition

We are a leading producer of the products we sell in this segment. We compete in the manufacture of carbon black with two companies that operate globally and numerous other companies that operate regionally, a number of which export product outside their region. We compete with several companies that produce specialty compounds. Our inkjet colorants and inks are designed to replace traditional pigment dispersions and dyes used in inkjet printing applications. Competitive products for inkjet colorants are organic dyes and other dispersed pigments manufactured and marketed by large chemical companies and small independent producers. For fumed silica, we compete primarily with two companies with a global presence and several other companies which have a regional presence. For aerogel, we compete principally with one other company that produces aerogel products. We also compete with non-aerogel insulation products manufactured by regional companies throughout the world.

Competition for our Performance Chemicals products is based on product performance, quality, reliability, service, technical innovation, and price. We believe our product differentiation, technological leadership, operations excellence and customer service provide us with a competitive advantage.

Raw Materials

Raw materials for our products are, in general, readily available and in adequate supply. The principal raw material used in the manufacture of carbon black is a portion of the residual heavy oils derived from petroleum refining operations, the distillation of coal tars, and the production of ethylene throughout the world. Natural gas is also used in the production of carbon black. These raw material costs generally are influenced by the availability of various types of carbon black feedstock and natural gas, supply and demand of such raw materials, and related transportation costs. Importantly, movements in the market price for crude oil typically affect carbon black feedstock costs. The primary raw materials used for our specialty compounds include carbon black, primarily sourced from our carbon black plants, thermoplastic resins and mineral fillers supplied from various sources. Raw materials for inkjet colorants include carbon black sourced from our carbon black plants, organic pigments and other treating agents available from various sources. Raw materials for inkjet inks include pigment dispersions, solvents and other additives.

Raw materials for the production of fumed silica are various chlorosilane feedstocks. We purchase feedstocks and for some customers convert their feedstock to product on a fee-basis (so called “toll conversion”). We also purchase aluminum chloride as feedstock for the production of fumed alumina. We have long-term procurement contracts or arrangements in place for the purchase of fumed silica feedstock, which we believe will enable us to meet our raw material requirements for the foreseeable future. In addition, we buy some raw materials in the spot market to help ensure flexibility and minimize costs. The principal raw materials for the production of aerogel are silica sol and/or sodium silicate.

Operations

We own, or have a controlling interest in, and operate plants that produce specialty grades of carbon black primarily in China, the Netherlands and the U.S. Our specialty compounds are produced in facilities that we own, or have a controlling interest in, located in Belgium, Canada, China and the United Arab Emirates. Our inkjet colorants and inks are manufactured at our facility in Haverhill, Massachusetts. We also own, or have a controlling interest in, manufacturing plants that produce fumed metal oxides in China, Germany, the United Kingdom, and the U.S. and a manufacturing plant that produces aerogel in Frankfurt, Germany. An equity affiliate operates a fumed metal oxides plant in India.

The following table shows our ownership interest as of September 30, 2017 in these segment operations in which we own less than 100%:

Location	Percentage Interest
Tianjin, China (Specialty Carbons and Formulations business)	90% (consolidated subsidiary)
Jiangxi Province, China (Metal Oxides business)	90% (consolidated subsidiary)
Mettur Dam, India (Metal Oxides business)	50% (equity affiliate)

In November 2017, we purchased Tech Blend, a leading North American producer of black masterbatches, extending our geographic footprint in black masterbatch and compounds. Tech Blend produces black masterbatches at its manufacturing facility in Saint-Jean-sur-Richelieu, Québec, Canada.

We also continue to expand our fumed silica manufacturing capacity. During fiscal 2016, we entered into an agreement with Inner Mongolia Hengyecheng Silicone Co., Ltd (“HYC”) to build a fumed silica manufacturing facility in Wuhai, China in which we will hold an 80% interest and HYC will hold the remaining 20% interest. Construction of the plant began in June 2017, and we expect the plant to be completed in calendar year 2019. In addition, in fiscal 2017, we entered into an agreement with DowDuPont (“Dow”) to build a fumed silica manufacturing facility in Carrollton, Kentucky adjacent to the existing Dow silicone monomer plant. Construction of the plant began in September 2017, and we expect the plant to be completed in calendar year 2019.

Purification Solutions

Products

Activated carbon is a porous material consisting mainly of elemental carbon treated with heat, steam and/or chemicals to create high internal porosity, resulting in a large internal surface area that resembles a sponge. It is generally produced in two forms, powdered and granular, and is manufactured in different sizes, shapes and levels of purity and using a variety of raw materials for a wide variety of applications. Activated carbon is used to remove contaminants from liquids and gases using a process called adsorption, whereby the interconnected pores of activated carbon trap contaminants.

Our activated carbon products are used for the purification of water, air, food and beverages, pharmaceuticals and other liquids and gases, as either a colorant or a decolorizing agent in the manufacture of products for food and beverage applications and as a chemical carrier in slow release applications. In gas and air applications, one of the uses of activated carbon is for the removal of mercury in flue gas streams. In certain applications, used activated carbon can be reactivated for further use by removing the contaminants from the pores of the activated carbon product. The most common applications for our reactivated carbon are water treatment and food and beverage purification. In addition to our activated carbon production and reactivation, we also provide activated carbon solutions through on-site equipment and services, including delivery systems for activated carbon injection in coal-fired utilities, mobile water filter units and carbon reactivation services.

Sales and Customers

Sales of activated carbon are made by Cabot employees and through distributors and sales representatives to a broad range of customers, including coal-fired utilities, food and beverage processors, water treatment plants, pharmaceutical companies and catalyst producers. Some of our sales of activated carbon are made under annual contracts or longer-term agreements, particularly in mercury removal applications.

Competition

We are one of the leading manufacturers of activated carbon in the world. We compete in the manufacture of activated carbon with a number of companies, some of which have a global presence and others that have a regional or local presence, although not all of these companies manufacture activated carbon for the range of applications for which we sell our products.

Competition for activated carbon and activated carbon equipment and services is based on quality, price, performance, and supply-chain stability. We believe our product and application diversity, product differentiation, technological leadership, quality, cost-effective access to raw materials, and scalable manufacturing capabilities provide us with a competitive advantage.

Raw Materials

The principal raw materials we use in the manufacture of activated carbon are various forms of coal, including lignite, wood and other carbonaceous materials, which are, in general, readily available and we believe we have in adequate supply. We also own a lignite mine that is operated by Caddo Creek Resources Company, LLC, a subsidiary of the North American Coal Company, which supplies our Marshall, Texas facility.

Operations

We own, or have a controlling interest in, and operate plants that produce activated carbon in Italy, the Netherlands, the United Kingdom and the U.S. Our affiliates operate activated carbon plants in Canada and Mexico. The following table shows our ownership interest as of September 30, 2017 in activated carbon operations in which we own less than 100%:

Location	Percentage Interest
Estevan, Saskatchewan, Canada	50% (contractual joint venture)
Atitalaquia, Hidalgo, Mexico	49% (equity affiliate)

Specialty Fluids

Products

Our Specialty Fluids segment produces and markets a range of cesium products that include cesium formate brines and other fine cesium chemicals.

Cesium formate brines are used as a drilling and completion fluid for use primarily in high pressure and high temperature oil and gas well construction. Cesium formate products are solids-free, high-density fluids that have a low viscosity, enabling safe and efficient well construction and workover operations. The fluid is resistant to high temperatures, minimizes damage to producing reservoirs and is readily biodegradable in accordance with the testing guidelines set by the Organization for Economic Cooperation and Development. In a majority of applications, cesium formate is blended with other formates or products.

Fine cesium chemicals are used across a wide range of industries and applications that include catalysts, doping agents and brazing fluxes. Fine cesium chemicals enable process performance benefits and yield improvements, and help prevent or mitigate pollution in the applications they serve.

Sales, Rental and Customers

Sales of our cesium formate products are made to oil and gas operating companies directly by Cabot employees and sales representatives and indirectly through oil field service companies. We generally rent cesium formate to our customers for use in drilling operations on a short-term basis and on occasion make direct sales of cesium formate outside of the rental process. After completion of a job under our rental process, the customer returns the remaining fluid to Cabot and it is reprocessed for use in subsequent well operations. Any fluid that is lost during use and not returned to Cabot is paid for by the customer.

A large portion of our fluids has been used for drilling and completion of wells in the North Sea with a limited number of customers, where we have supplied cesium formate-based fluids for both reservoir drilling and completion activities on large gas and condensate field projects in the Norwegian Continental Shelf. We continue to expand the use of our fluids to drilling operations outside of the North Sea, particularly in Asia and the Middle East.

Sales of our fine cesium chemicals are made by Cabot employees and through distributors and sales representatives.

Competition

Formate fluids compete mainly with traditional drilling fluid technologies. Competition in the well fluids business is based on product performance, quality, reliability, service, technical innovation, price, and proximity of inventory to customers' drilling operations. We believe our commercial strengths include our unique product offerings and their performance, and our customer service.

We are one of the leading manufacturers of fine cesium chemicals in the world and compete in the manufacture of fine cesium chemicals with multiple companies. We also compete with other technical solutions, which differ by application.

Raw Materials

The principal raw material used in this business is pollucite (cesium ore), of which we own, at our mine in Manitoba, Canada, a substantial portion of the world's known reserves. In November 2015, we completed a development project at the mine, and in September 2017, we commenced work on an infrastructure improvement and mining project that we expect to complete in late fiscal year 2018. We believe we have sufficient raw material to enable us to continue to supply cesium products for the foreseeable future, based on our anticipated consumption. We are assessing options to access additional reserves in the mine, various technologies to augment our cesium supply and alternative sources of ore as demand for our cesium products warrants.

Most oil and gas well construction jobs for which cesium formate is used require a large volume of the product. Accordingly, the Specialty Fluids business maintains a large supply of fluid.

Operations

Our mine and cesium formate and fine cesium chemical manufacturing facility are located in Manitoba, Canada, and we have fluid blending and reclamation facilities in Aberdeen, Scotland and in Bergen, Norway. In addition, we warehouse fluid and fine cesium chemical products at various locations around the world to support existing and potential operations.

Patents and Trademarks

We own and are a licensee of various patents, which expire at different times, covering many of our products as well as processes and product uses. Although the products made and sold under these patents and licenses are important to Cabot, the loss of any particular patent or license would not materially affect our business, taken as a whole. We sell our products under a variety of trademarks we own and take reasonable measures to protect them. While our trademarks are important to Cabot, the loss of any one of our trademarks would not materially affect our business, taken as a whole.

Seasonality

Our businesses are generally not seasonal in nature, although we may experience some regional seasonal declines during holiday periods and some weather-related seasonality in Purification Solutions.

Backlog

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

Employees

As of September 30, 2017, we had approximately 4,500 employees. Some of our employees in the U.S. and abroad are covered by collective bargaining or similar agreements. We believe that our relations with our employees are generally satisfactory.

Research and Development

Cabot develops new and improved products and higher efficiency processes through Company-sponsored research and technical service activities, including those initiated in response to customer requests. In fiscal 2017, we opened a new Asia Technology Center in Shanghai, China to support our applications development and customer collaboration efforts in the region. Our expenditures for research and technical service activities generally are spread among our businesses and are shown in the Consolidated Statements of Operations. Further discussion of our research and technical expenses incurred in each of our last three fiscal years appears in MD&A in Item 7 below.

Safety, Health and Environment ("SH&E")

Cabot has been named as a potentially responsible party under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (the "Superfund law") and comparable state statutes with respect to several sites primarily associated with our divested businesses. (See "Legal Proceedings" below.) During the next several years, as remediation of various environmental sites is carried out, we expect to spend against our $12 million environmental reserve for costs associated with such remediation. Adjustments are made to the reserve based on our continuing analysis of our share of costs likely to be incurred at each site. Inherent uncertainties exist in these estimates due to unknown conditions at the various sites, changing governmental regulations and legal standards regarding liability, and changing technologies for handling site investigation and remediation. While the reserve represents our best estimate of the costs we expect to incur, the actual costs to investigate and remediate these sites may exceed the amounts accrued in the environmental reserve. While it is always possible that an unusual event may occur with respect to a given site and have a material adverse effect on our results of operations in a particular period, we do not believe that the costs relating to these sites, in the aggregate, are likely to have a material adverse effect on our consolidated financial position. Furthermore, it is possible that we may also incur future costs relating to environmental liabilities not currently known to us or as to which it is currently not possible to make an estimate.

Our ongoing operations are subject to extensive federal, state, local, and foreign laws, regulations, rules, and ordinances relating to safety, health, and environmental matters ("SH&E Requirements"). These SH&E Requirements include requirements to obtain and comply with various environmental-related permits for constructing any new facilities and operating all of our existing facilities and for product registrations. We have expended and will continue to expend considerable sums to construct, maintain, operate, and improve facilities for safety, health and environmental protection and to comply with SH&E Requirements. We spent approximately $41 million in environmental-related capital expenditures at existing facilities in fiscal 2017. We anticipate spending approximately $54 million for such matters in fiscal 2018, a significant portion of which will be for the installation of technology controls for sulfur dioxide and nitrogen oxide emissions at certain of our carbon black plants.

In recognition of the importance of compliance with SH&E Requirements to Cabot, our Board of Directors has a Safety, Health, and Environmental Affairs Committee. The Committee, which is comprised of a majority of independent directors, meets four times a year and provides oversight and guidance to Cabot's safety, health and environmental management programs. In particular, the Committee reviews Cabot's environmental reserve, safety, health and environmental risk assessment and management processes, environmental and safety audit reports, performance metrics, performance as benchmarked against industry peer groups, assessed fines or penalties, site security and safety issues, health and environmental training initiatives, and the SH&E budget. The Committee also consults with our external and internal advisors regarding management of Cabot's safety, health and environmental programs.

The International Agency for Research on Cancer ("IARC") classifies carbon black as a Group 2B substance (known animal carcinogen, possible human carcinogen). We have communicated IARC's classification of carbon black to our customers and employees and have included that information in our safety data sheets and elsewhere, as appropriate. We continue to believe that the available evidence, taken as a whole, indicates that carbon black is not carcinogenic to humans, and does not present a health hazard when handled in accordance with good housekeeping and safe workplace practices as described in our safety data sheets.

REACH (Registration, Evaluation and Authorization of Chemicals), the European Union ("EU") regulatory framework for chemicals developed by the European Commission ("EC"), applies to all chemical substances produced or imported into the EU in quantities greater than one metric ton a year. Manufacturers or importers of these chemical substances are required to submit specified health, safety, risk and use information about the substance to the European Chemical Agency. We have completed all required registrations under REACH to date and will continue to complete the registrations under REACH for our products in accordance with future registration deadlines. We will also continue to work with the manufacturers and importers of our raw materials, including our feedstocks, to ensure their registration prior to the applicable deadlines. In addition, the EC recommended definition of nanomaterial is under review and an updated definition may be included in existing and future regulations. This definition, which may be used in the EU to identify materials for which special provisions such as risk assessment and ingredient labeling may be required, could apply to many of our existing products including carbon black, fumed silica, inkjet pigments and fumed alumina. Country-specific nanomaterial reporting programs have been implemented in some countries and are being developed by others. We will continue to monitor and address these requirements.

Environmental agencies worldwide are increasingly implementing regulations and other requirements resulting in more restrictive air emission limits globally, particularly as they relate to nitrogen oxide, sulphur dioxide and particulate matter emissions. In addition, global efforts to reduce greenhouse gas emissions impact the carbon black and activated carbon industries as carbon dioxide is emitted from those manufacturing processes. The EU Emission Trading Scheme applies to our carbon black facilities and one activated carbon facility in Europe. In China, two of our carbon black facilities are participating in regional pilot greenhouse gas emissions trading programs associated with the development of a national trading program, which we anticipate will be more fully defined in fiscal 2018. In Canada, our carbon black manufacturing facility is subject to the greenhouse gas emissions trading program that began in calendar year 2017. In other regions where we operate, some of our facilities are required to report their greenhouse gas emissions, but are not currently subject to programs requiring trading or emission controls. We generally expect to purchase emission credits where necessary to respond to allocation shortfalls. In addition, air emission regulations may be adopted in the future in other regions and countries where we operate, which could have an impact on our operations.

A number of organizations and regulatory agencies have become increasingly focused on the issue of water scarcity and water quality, particularly in certain geographic regions. We are engaged in various activities to promote water conservation and wastewater recycling. The costs associated with these activities are not expected to have a material adverse effect on our operations.

Various U.S. agencies and international bodies have adopted security requirements applicable to certain manufacturing and industrial facilities and marine port locations. These security-related requirements involve the preparation of security assessments and security plans in some cases, and in other cases the registration of certain facilities with specified governmental authorities. We closely monitor all security-related regulatory developments and believe we are in compliance with all existing requirements. Compliance with such requirements is not expected to have a material adverse effect on our operations.

Foreign and Domestic Operations

A significant portion of our revenues and operating profits is derived from overseas operations. The profitability of our segments is affected by fluctuations in the value of the U.S. dollar relative to foreign currencies. (See MD&A and the Geographic Information portion of Note S for further information relating to sales and long-lived assets by geographic area.) Further, currency fluctuations, nationalization and expropriation of assets are risks inherent in international operations. We have taken steps we deem prudent in our international operations to diversify and otherwise to protect against these risks, including the use of foreign currency financial instruments to reduce the risk associated with changes in the value of certain foreign currencies compared to the U.S. dollar. (See the risk management discussion contained in "Quantitative and Qualitative Disclosures About Market Risk" in Item 7A below and Note J of our Notes to the Consolidated Financial Statements).

Item 1A. *Risk Factors*

In addition to factors described elsewhere in this report, the following are important factors that could adversely affect our business. The risks described below are not the only risks we face. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations and financial results.

Negative or uncertain worldwide or regional economic conditions may adversely impact our business.

Our operations and performance are affected by worldwide and regional economic conditions. Uncertainty or a deterioration in the economic conditions affecting the businesses to which, or geographic areas in which, we sell products could reduce demand for our products. We may also experience pricing pressure on products and services, which could decrease our revenues and have an adverse effect on our financial condition and cash flows. In addition, during periods of economic uncertainty, our customers may temporarily pursue inventory reduction measures that exceed declines in the actual underlying demand. Our businesses are sensitive to industry capacity utilization, particularly Reinforcement Materials and Purification Solutions. As a result, pricing tends to fluctuate when capacity utilization changes occur, which could affect our financial performance.

As a chemical manufacturing company, our operations are subject to operational risks and have the potential to cause environmental or other damage as well as personal injury, which could adversely affect our business, results of operations and cash flows.

The operation of a chemical manufacturing business as well as the sale and distribution of chemical products are subject to operational as well as safety, health and environmental risks. For example, the production and/or processing of carbon black, specialty compounds, fumed metal oxides, aerogel, activated carbon and other chemicals involve the handling, transportation, manufacture or use of certain substances or components that may be considered toxic or hazardous. Our manufacturing processes and the transportation of our chemical products and/or the raw materials used to manufacture our products are subject to risks inherent in chemical manufacturing, including leaks, fires, explosions, toxic releases, mechanical failures or unscheduled downtime. If operational risks materialize, they could result in injury or loss of life, damage to the environment, or damage to property. In addition, the occurrence of material operating problems at our facilities or a disruption in our supply chain or distribution operations may result in loss of production, which, in turn, may make it difficult for us to meet customer needs. Accordingly, these events and their consequences could negatively impact the Company's results of operations and cash flows, both during and after the period of operational difficulties, and could harm our reputation.

A significant adverse change in a customer relationship or the failure of a customer to perform its obligations under agreements with us could harm our business or cash flows.

Our success in strengthening relationships and growing business with our largest customers and retaining their business over extended time periods is important to our future results. We have a group of key customers across our businesses that together represent a significant portion of our total net sales and operating revenues. The loss of any of our important customers, or a significant reduction in volumes sold to them, could adversely affect our results of operations until such business is replaced or any temporary disruption ends. Further in Reinforcement Materials we enter into supply agreements with a number of key customers, that have a duration of at least one year, which account for approximately half of our total rubber blacks volumes. Our success in negotiating the price and volume terms under these agreements could have a material effect on our results. In addition, any deterioration in the financial condition of any of our customers that impairs our customers' ability to make payments to us also could increase our uncollectible receivables and could affect our future results and financial condition.

Volatility in the price and availability of raw materials and energy could impact our margins and working capital.

Our manufacturing processes consume significant amounts of energy and raw materials, the costs of which are subject to worldwide supply and demand as well as other factors beyond our control. Dramatic increases in such costs could have an adverse effect on our results of operations. For example, movements in the market price for crude oil typically affect carbon black feedstock costs. Significant movements in the market price for crude oil tend to create volatility in our carbon black feedstock costs, which can affect our working capital and results of operations. Certain of our carbon black supply contracts contain provisions that adjust prices to account for changes in a relevant feedstock price index. We also attempt to offset the effects of increases in raw material and energy costs through selling price increases in our non-contract sales, productivity improvements and cost reduction efforts. Success in offsetting increased raw material and energy costs with price increases is largely influenced by competitive and economic conditions and could vary significantly depending on the segment served. Such increases may not be accepted by our customers, may not be sufficient to compensate for increased raw material and energy costs or may decrease demand for our products and our volume of sales. If we are not able to fully offset the effects of increased raw material or energy costs, it could have a significant impact on our financial results. Rapid declines in energy and raw material costs can also negatively impact our financial results, as such changes can negatively affect the returns we receive on our energy centers and yield improvement investments, and may negatively impact our contract pricing adjustments. In addition, we use a variety of feedstock indices in our supply contracts to adjust our prices for changes in raw materials costs. Depending on feedstock markets and our choice of feedstocks, the indices we use in our supply contracts may not precisely track our actual costs. This could result in an incongruity between our contract pricing adjustments and changes in our actual feedstock costs, which can affect our margins.

In addition, we obtain certain of our raw materials from selected key suppliers. Although we maintain raw material inventory, if any of these suppliers is unable to meet its obligations under supply agreements with us on a timely basis or at all, we may be forced to incur higher costs to obtain the necessary raw materials elsewhere or, in certain limited cases, may not be able to obtain the required raw materials.

We may not be successful achieving our growth expectations from new products, new applications and technology developments, and money we spend on these efforts may not result in a proportional increase in our revenues or profits.

We may not be successful achieving our growth expectations from developing new products or product applications. Moreover, we cannot be certain that the costs we incur investing in new product and technology development will result in a proportional increase in our revenues or profits. In addition, the timely commercialization of products that we are developing may be disrupted or delayed by manufacturing or other technical difficulties, market acceptance or insufficient market size to support a new product, competitors' new products, and difficulties in moving from the experimental stage to the production stage. These disruptions or delays could affect our future business results.

We face operational risks inherent in mining operations and our mining operations have the potential to cause safety issues, including those that could result in significant personal injury.

We own two mines, a cesium mine in Manitoba, Canada, a portion of which is located under Bernic Lake, and an above-ground lignite mine, which is located close to our Marshall, Texas facility and operated by a subsidiary of The North American Coal Company. Mining operations by their nature are activities that involve a high level of uncertainty and are often affected by risks and hazards outside of our control. At our lignite mine, the risks are primarily operational risks associated with the maintenance and operation of the heavy equipment required to dig and haul the lignite, and risks relating to lower than expected lignite quality or recovery rates. Our underground mine in Manitoba is subject to a number of risks, including industrial accidents, unexpected geological conditions, fall of ground accidents or structural collapses, which, in the case of our cesium mine, could lead to flooding. Following a fall of ground incident in 2013, we implemented additional safety measures and several types of monitoring devices in the mine that have indicated good structural stability in the mine since that time. However, the structural stability may change at any time and there remains a possibility of deterioration and flooding of this mine. The failure to adequately manage these risks could result in significant personal injury, loss of life, damage to mineral properties, production facilities or mining equipment, damage to the environment, delays in or reduced production, and potential legal liabilities.

Any failure to realize benefits from acquisitions, alliances or joint ventures could adversely affect future financial results.

In achieving our strategic plan objectives, we may pursue acquisitions, alliances or joint ventures intended to complement or expand our existing businesses globally or add product technology, or both. The success of acquisitions of businesses, new technologies and products, or arrangements with third parties is not always predictable and we may not be successful in realizing our objectives as anticipated. We may not be able to integrate any acquired businesses successfully into our existing businesses, make such businesses profitable, or realize anticipated cost savings or synergies, if any, from these acquisitions, which could adversely affect our business results.

Plant capacity expansions and site development projects may impact existing plant operations, be delayed and/or not achieve the expected benefits.

Our ability to complete capacity expansions and other site development projects as planned may be delayed or interrupted by the need to obtain environmental and other regulatory approvals, unexpected cost increases, availability of labor and materials, unforeseen hazards such as weather conditions, and other risks customarily associated with construction projects. These risks include the risk that existing plant operations are disrupted, which could make it difficult for us to meet our customer needs. Moreover, the cost of these activities could have a negative impact on the financial performance of the relevant business until capacity utilization at the particular facility is sufficient to absorb the incremental costs associated with the expansion, in the case of capacity expansion projects. In addition, our ability to expand capacity in emerging regions depends in part on economic and political conditions in these regions and, in some cases, on our ability to establish operations, construct additional manufacturing capacity or form strategic business alliances.

An interruption in our operations as a result of fence-line arrangements could disrupt our manufacturing operations and adversely affect our financial results.

At certain of our facilities we have fence-line arrangements with adjacent third party manufacturing operations ("fence-line partners"), who provide raw materials for our manufacturing operations and/or take by-products generated from our operations. Accordingly, any unplanned disruptions or curtailments in a fence-line partner's production facilities that impacts their ability to supply us with raw materials or to take our manufacturing by-products could disrupt our manufacturing operations or cause us to incur increased operating costs to mitigate such disruption.

If our assumptions about future sales and profitability of the Purification Solutions segment are incorrect and we do not achieve our growth expectations for this business, we may be required to impair certain assets.

We performed our annual goodwill impairment test of Purification Solutions as of May 31, 2017 and determined that the fair value of the reporting unit exceeded its carrying amount by 13% at that time. Our strategic plan underlying this analysis relies on certain growth assumptions that are primarily dependent on (i) growth in demand for our existing portfolio of activated carbon products and new products developed for environmental and specialty applications, and (ii) stable demand in the mercury removal related portion of the business, which is largely dependent on the amount of coal-based power generation used in the U.S. and the continued regulation of utilities under the Mercury and Air Toxics Standards ("MATS"). In April 2017, the U.S. Environmental Protection Agency ("EPA") indicated that it intends to review the cost benefit analysis prepared by the EPA in support of MATS to determine if the EPA should reconsider MATS or some part of it. This continues to be under review by the EPA. Any action that the EPA takes related to MATS that decreases demand for our products for mercury removal, and/or our failure to achieve our growth expectations for our other products could have a negative effect on the financial results and the fair value of the Purification Solutions business, and lead to an impairment of certain assets.

We are exposed to political or country risk inherent in doing business in some countries.

Sales outside of the U.S. constituted a majority of our revenues in fiscal 2017. We conduct business in several countries that have less stable legal systems and financial markets, and potentially more corrupt business environments than the U.S. Our operations in some countries are subject to the following risks: changes in the rate of economic growth; unsettled political or economic conditions; non-renewal of operating permits or licenses; possible expropriation or other governmental actions; corruption by government officials and other third parties; social unrest, war, terrorist activities or other armed conflict; confiscatory taxation or other adverse tax policies; deprivation of contract rights; trade regulations affecting production, pricing and marketing of products; reduced protection of intellectual property rights; restrictions on the repatriation of income or capital; exchange controls; inflation; currency fluctuations and devaluation; the effect of global health, safety and environmental matters on economic conditions and market opportunities; and changes in financial policy and availability of credit. In addition, there may be costs associated with repatriating income or capital.

The Chinese government has, from time to time, curtailed manufacturing operations, without notice, in industrial regions out of growing concern over air quality. The timing and length of these curtailments are difficult to predict and, at times, are applied to manufacturing operations without regard to whether the operations being curtailed comply with environmental regulations in the area. Accordingly, although we believe our operations are in compliance with applicable regulations, our manufacturing operations in China may be subject to these curtailments. These events could negatively impact the Company's results of operations and cash flows both during and after the period of any curtailment affecting the Company's operations.

We face competition from other specialty chemical companies.

We operate in a highly competitive marketplace. Our ability to compete successfully depends in part upon our ability to maintain a superior technological capability and to continue to identify, develop and commercialize new and innovative, high value-added products for existing and future customers. Increased competition from existing or newly developed products offered by our competitors or companies whose products offer a similar functionality as our products and could be substituted for our products, may negatively affect demand for our products. In addition, actions by our competitors could affect our ability to maintain or raise prices, successfully enter new markets or maintain or grow our market position.

Litigation or legal proceedings could expose us to significant liabilities and thus negatively affect our financial results.

As more fully described in "Legal Proceedings" in Item 3 below, we are a party to or the subject of lawsuits, claims, and proceedings, including, but not limited to, those involving environmental, and health and safety matters as well as product liability and personal injury claims relating to asbestosis, silicosis, and coal worker's pneumoconiosis. We are also a potentially responsible party in various environmental proceedings and remediation matters wherein substantial amounts are at issue. Adverse rulings, judgments or settlements in pending or future litigation (including liabilities associated with respirator claims) or in connection with environmental remediation activities could adversely affect our financial results or cause our results to differ materially from those expressed or forecasted in any forward-looking statements.

Fluctuations in foreign currency exchange and interest rates affect our financial results.

We earn revenues, pay expenses, own assets and incur liabilities in countries using currencies other than the U.S. dollar. In fiscal 2017, we derived a majority of our revenues from sales outside the U.S. Because our consolidated financial statements are presented in U.S. dollars, we must translate revenues and expenses, as well as assets and liabilities, into U.S. dollars at exchange rates in effect during or at the end of each reporting period. Therefore, increases or decreases in the value of the U.S. dollar against other currencies in countries where we operate will affect our results of operations and the value of balance sheet items denominated in foreign currencies. Due to the geographic diversity of our operations, weaknesses in some currencies might be offset by strengths in others over time. In addition, we are exposed to adverse changes in interest rates. We manage both these risks through normal operating and financing activities and, when deemed appropriate, through the use of derivative instruments as well as foreign currency debt. We cannot be certain, however, that we will be successful in reducing the risks inherent in exposures to foreign currency and interest rate fluctuations.

Further, we have exposure to foreign currency movements because certain foreign currency transactions need to be converted to a different currency for settlement. These conversions can have a direct impact on our cash flows.

Our tax rate is dependent upon a number of factors, a change in any of which could impact our future tax rates and net income.

Our future tax rates may be adversely affected by a number of factors, including: future changes in the jurisdictions in which our profits are determined to be earned and taxed; changes in the estimated realization of our net deferred tax assets; the repatriation of non-U.S. earnings for which we have not previously provided for U.S. income and non-U.S. withholding taxes; adjustments to estimated taxes upon finalization of various tax returns; increases in expenses that are not deductible for tax purposes, including charges from impairment of goodwill in connection with acquisitions; changes in available tax credits; the resolution of issues arising from tax audits with various tax authorities; and changes in tax laws or the interpretation of such tax laws. Losses for which no tax benefits can be recorded could materially impact our tax rate and its volatility from one quarter to another.

Information technology systems failures, data security breaches or network disruptions could compromise our information, disrupt our operations and expose us to liability, which may adversely impact our operations.

In the ordinary course of our business, we store sensitive data, including intellectual property, our proprietary business information and certain information of our customers, suppliers, business partners, and employees in our information technology systems. The secure processing, maintenance and transmission of this data is critical to our operations. Information technology systems failures, including risks associated with upgrading our systems or in successfully integrating information technology and other systems in connection with the integration of businesses we acquire, network disruptions or unauthorized access could disrupt our operations by impeding our processing of transactions and our financial reporting, and our ability to protect our customer or company information, which could have a material adverse effect on our business or results of operations. In addition, as with all enterprise information systems, our information technology systems could be penetrated by outside parties intent on extracting information, corrupting information, or disrupting business processes. Breaches of our security measures or the accidental loss, inadvertent disclosure, or unapproved dissemination of proprietary information or sensitive or confidential information about the Company, our employees, our vendors, or our customers, could result in legal claims or proceedings and potential liability for us, damage to our reputation, and could otherwise harm our business and our results of operations.

Our operations are subject to extensive safety, health and environmental requirements, which could increase our costs and/or reduce our profit.

Our ongoing operations are subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to safety, health and environmental matters, many of which provide for substantial monetary fines and criminal sanctions for violations. These include requirements to obtain and comply with various environmental-related permits for constructing any new facilities and operating all of our existing facilities. In addition, in certain geographic areas, our carbon black and activated carbon facilities are subject to greenhouse gas emission trading schemes under which we may be required to purchase emission credits if our emission levels exceed our allocations. The enactment of new environmental laws and regulations and/or the more aggressive interpretation of existing requirements could require us to incur significant costs for compliance or capital improvements or limit our current or planned operations, any of which could have a material adverse effect on our earnings or cash flow. We attempt to offset the effects of these compliance costs through price increases, productivity improvements and cost reduction efforts. Success in offsetting any such increased regulatory costs is largely influenced by competitive and economic conditions and could vary significantly depending on the segment served. Such increases may not be accepted by our customers, may not be sufficient to compensate for increased regulatory costs or may decrease demand for our products and our volume of sales. (See “Legal Proceedings” in Item 3 below).

Certain national and international health organizations have classified carbon black as a possible or suspected human carcinogen. To the extent that, in the future, (i) these organizations re-classify carbon black as a known or confirmed carcinogen, (ii) other organizations or government authorities in other jurisdictions classify carbon black or any of our other finished products, raw materials or intermediates as suspected or known carcinogens or otherwise hazardous, or (iii) there is discovery of adverse health effects attributable to production or use of carbon black or any of our other finished products, raw materials or intermediates, we could be required to incur significantly higher costs to comply with environmental, health and safety laws, or to comply with restrictions on sales of our products, be subject to legal claims, and our reputation and business could be adversely affected. In addition, chemicals that are currently classified as non-hazardous may be classified as hazardous in the future, and our products may have characteristics that are not recognized today but may be found in the future to impair human health or to be carcinogenic.

The elimination of tariffs placed on U.S. imports of Chinese activated carbon, or their failure to adequately address the impact of low-priced imports from China, could have a material adverse effect on our Purification Solutions segment.

Purification Solutions faces competition in the U.S. from low-priced imports of activated carbon products. If the amounts of these low-priced imports increase, especially if they are sold at less than fair value, our sales of competing products could decline, which could have an adverse effect on the earnings of Purification Solutions. In addition, sales of these low-priced imports may negatively impact our pricing. To limit these activities, regulators in the U.S. have enacted an antidumping duty order on steam activated carbon products from China. A proceeding that will evaluate whether to extend the order for an additional five years will be initiated in February 2018. The amount of antidumping duties collected on imports of steam activated carbon from China is reviewed annually by the U.S. Department of Commerce. To the extent the antidumping margins do not adequately address the degree to which imports are unfairly traded, the antidumping order may be less effective in reducing the volume of these low-priced activated carbon imports in the U.S., which could negatively affect demand and/or pricing for our products. In addition, if the antidumping order is not extended beyond its current term, the amount of low-priced imports from China may increase, which could have an adverse effect on our Purification Solutions business.

We have entered into a number of derivative contracts with financial counterparties. The effectiveness of these contracts is dependent on the ability of these financial counterparties to perform their obligations and their nonperformance could harm our financial condition.

We have entered into forward foreign currency contracts and cross-currency swaps as part of our financial risk management strategy. The effectiveness of our risk management program using these instruments is dependent, in part, upon the counterparties to these contracts honoring their financial obligations. If any of our counterparties are unable to perform their obligations in the future, we could be exposed to increased earnings and cash flow volatility due to an instrument's failure to hedge or adequately address a financial risk.

The continued protection of our patents, trade secrets and other proprietary intellectual property rights are important to our success.

Our patents, trade secrets and other intellectual property rights are important to our success and competitive position. We own various patents and other intellectual property rights in the U.S. and other countries covering many of our products, as well as processes and product uses. Where we believe patent protection is not appropriate or obtainable, we rely on trade secret laws and practices to protect our proprietary technology and processes, such as physical security, limited dissemination and access and confidentiality agreements with our employees, customers, consultants, business partners, potential licensees and others to protect our trade secrets and other proprietary information. However, trade secrets can be difficult to protect and the protective measures we have put in place may not prevent disclosure or unauthorized use of our proprietary information or provide an adequate remedy in the event of misappropriation or other violations of our proprietary rights. In addition, we are a licensee of various patents and intellectual property rights belonging to others in the U.S. and other countries. Because the laws and enforcement mechanisms of some countries may not allow us to protect our proprietary rights to the same extent as we are able to do in the U.S., the strength of our intellectual property rights will vary from country to country.

Irrespective of our proprietary intellectual property rights, we may be subject to claims that our products, processes or product uses infringe the intellectual property rights of others. These claims, even if they are without merit, could be expensive and time consuming to defend and if we were to lose such claims, we could be enjoined from selling our products or using our processes and/or be subject to damages, or be required to enter into licensing agreements requiring royalty payments and/or use restrictions. Licensing agreements may not be available to us, or if available, may not be available on acceptable terms.

Natural disasters could affect our operations and financial results.

We operate facilities in areas of the world that are exposed to natural hazards, such as floods, windstorms, hurricanes, and earthquakes. Such events could disrupt our supply of raw materials or otherwise affect production, transportation and delivery of our products or affect demand for our products.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Cabot's corporate headquarters are in leased office space in Boston, Massachusetts. We also own or lease office, manufacturing, storage, distribution, marketing and research and development facilities in the U.S. and in foreign countries. The locations of our principal manufacturing and/or administrative facilities are set forth in the table below. Unless otherwise indicated, all the properties are owned.

Location by Region	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids
Americas Region				
Alpharetta, Georgia*[(1)]	X	X	X	X
Tuscola, Illinois		X		
Canal, Louisiana	X	X		
Ville Platte, Louisiana	X			
Billerica, Massachusetts	X	X	X	X
Haverhill, Massachusetts		X		
Midland, Michigan		X		
Pryor, Oklahoma			X	
Marshall, Texas			X	
Pampa, Texas	X	X		
Campana, Argentina	X			
Maua, Brazil	X	X		
Sao Paulo, Brazil*[(1)]	X	X	X	X
Lac du Bonnet, Manitoba, Canada**				X
Saint-Jean-sur-Richelieu, Québec, Canada		X		
Sarnia, Ontario, Canada	X	X		
Cartagena, Colombia	X			
Altamira, Mexico	X			
Europe, Middle East and Africa Region				
Loncin, Belgium		X		
Pepinster, Belgium		X		
Valasske Mezirici (Valmez), Czech Republic**	X			
Port Jerome, France**	X			
Frankfurt, Germany*		X		
Rheinfelden, Germany		X		
Ravenna, Italy (2 plants)	X		X	
Riga, Latvia*[(1)]	X	X	X	X
Bergen, Norway*				X
Schaffhausen, Switzerland*	X	X	X	X
Botlek, Netherlands**	X	X		
Amersfoort, Netherlands*			X	
Klazienaveen, Netherlands			X	
Zaandam, Netherlands			X	
Dubai, United Arab Emirates*		X		
Purton, United Kingdom (England)			X	
Aberdeen, United Kingdom (Scotland)*				X
Glasgow, United Kingdom (Scotland)			X	
Barry, United Kingdom (Wales)**		X		

Location by Region	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids
Asia Pacific Region				
Jiangxi Province, China**		X		
Tianjin, China**	X	X		
Shanghai, China*[(1)]	X	X	X	X
Shanghai, China** (plant)	X			
Xingtai City, China**	X			
Mumbai, India*	X	X	X	
Cilegon, Indonesia**	X			
Jakarta, Indonesia*[(1)]	X	X	X	X
Chiba, Japan	X			
Shimonoseki, Japan**	X			
Tokyo, Japan*[(1)]	X	X	X	X
Port Dickson, Malaysia**	X			

(1) Business service center

* Leased premises

** Building(s) owned by Cabot on leased land

We conduct research and development for our various businesses primarily at facilities in Billerica, Massachusetts; Amersfoort, Netherlands; Pampa, Texas; Pepinster, Belgium; Frankfurt, Germany; and Shanghai, China.

Our existing manufacturing plants generally have sufficient production capacity to meet current requirements and expected near-term growth. These plants are generally well maintained, in good operating condition and suitable and adequate for their intended use. Our administrative offices and other facilities are suitable and adequate for their intended purposes.

Item 3. ***Legal Proceedings***

Cabot is a party in various lawsuits and environmental proceedings wherein substantial amounts are claimed. The following is a description of the significant proceedings pending on September 30, 2017, unless otherwise specified.

Environmental Proceedings

In November 2013, Cabot entered into a Consent Decree with the EPA and the Louisiana Department of Environmental Quality ("LDEQ") regarding Cabot's three carbon black manufacturing facilities in the U.S. This settlement is related to the EPA's national enforcement initiative focused on the U.S. carbon black manufacturing sector alleging non-compliance with certain regulatory and permitting requirements under The Clean Air Act, including the New Source Review ("NSR") construction permitting requirements. Pursuant to this settlement, Cabot is in the process of installing technology controls for sulfur dioxide and nitrogen oxide. We expect that the total capital costs to install these controls will be between $100 million and $150 million and will be incurred through calendar year 2021. Continental Carbon settled with the EPA on similar terms in 2015. It is expected that other carbon black manufacturers will also settle with the EPA on similar terms.

We continue to perform certain sampling and remediation activities at a former pine tar manufacturing site in Gainesville, Florida that we sold in the 1960s. Those activities are pursuant to a formal Record of Decision and 1991 Consent Decree with the EPA. Cabot installed a groundwater treatment system at the site in the early 1990s, and that system is still in operation. We have also been requested by the EPA and other stakeholders to carry out various other additional work at the site, the scope of which has yet to be fully determined. We continue to work cooperatively with the EPA, the Florida Department of Environmental Protection and the local authorities on this matter.

As of September 30, 2017, we had a $12 million reserve for environmental remediation costs at various sites. The operation and maintenance component of this reserve was $4 million. The $12 million reserve represents our current best estimate of costs likely to be incurred for remediation based on our analysis of the extent of cleanup required, alternative cleanup methods available, the ability of other responsible parties to contribute and our interpretation of laws and regulations applicable to each of our sites.

Other Proceedings

Respirator Liabilities

We have exposure in connection with a safety respiratory products business that a subsidiary acquired from American Optical Corporation ("AO") in an April 1990 asset purchase transaction. The subsidiary manufactured respirators under the AO brand and disposed of that business in July 1995. In connection with its acquisition of the business, the subsidiary agreed, in certain circumstances, to assume a portion of AO's liabilities, including costs of legal fees together with amounts paid in settlements and judgments, allocable to AO respiratory products used prior to the 1990 purchase by the Cabot subsidiary. In exchange for the subsidiary's assumption of certain of AO's respirator liabilities, AO agreed to provide to the subsidiary the benefits of: (i) AO's insurance coverage for the period prior to the 1990 acquisition and (ii) a former owner's indemnity of AO holding it harmless from any liability allocable to AO respiratory products used prior to May 1982.

Generally, these respirator liabilities involve claims for personal injury, including asbestosis, silicosis and coal worker's pneumoconiosis, allegedly resulting from the use of respirators that are alleged to have been negligently designed and/or labeled. Neither Cabot, nor its past or present subsidiaries, at any time manufactured asbestos or asbestos-containing products. At no time did this respiratory product line represent a significant portion of the respirator market.

The subsidiary transferred the business to Aearo Corporation ("Aearo") in July 1995. Cabot agreed to have the subsidiary retain certain liabilities associated with exposure to asbestos and silica while using respirators prior to the 1995 transaction so long as Aearo paid, and continues to pay, Cabot an annual fee of $400,000. Aearo can discontinue payment of the fee at any time, in which case it will assume the responsibility for and indemnify Cabot against those liabilities which Cabot's subsidiary had agreed to retain. We anticipate that we will continue to receive payment of the $400,000 fee from Aearo and thereby retain these liabilities for the foreseeable future. We have no liability in connection with any products manufactured by Aearo after 1995.

In addition to Cabot's subsidiary and as described above, other parties are responsible for significant portions of the costs of respirator liabilities, leaving Cabot's subsidiary with a portion of the liability in only some of the pending cases. These parties include Aearo, AO, AO's insurers, another former owner and its insurers, and a third-party manufacturer of respirators formerly sold under the AO brand and its insurers (collectively, with Cabot's subsidiary, the "Payor Group").

As of September 30, 2017 and 2016, there were approximately 37,000 and 38,000 claimants, respectively, in pending cases asserting claims against AO in connection with respiratory products. Cabot has contributed to the Payor Group's defense and settlement costs with respect to a percentage of pending claims depending on several factors, including the period of alleged product use. In order to quantify our estimated share of liability for pending and future respirator liability claims, we have engaged, through counsel, the assistance of Hamilton, Rabinovitz & Alschuler, Inc. ("HR&A"), a leading consulting firm in the field of tort liability valuation. The methodology used by HR&A addresses the complexities surrounding our potential liability by making assumptions about future claimants with respect to periods of asbestos, silica and coal mine dust exposure and respirator use. Using those and other assumptions, HR&A estimates the number of future asbestos, silica and coal mine dust claims that will be filed and the related costs that would be incurred in resolving both currently pending and future claims. On this basis, HR&A then estimates the value of the share of these liabilities that reflect our period of direct manufacture and our contractual obligations. Based on the HR&A estimates, as of September 30, 2017, we had $18 million reserved for our estimated share of liability for pending and future respirator claims. We made payments related to our respirator liability of $3 million in both fiscal 2017 and fiscal 2016 and $2 million in fiscal 2015.

Our current estimate of the cost of our share of existing and future respirator liability claims is based on facts and circumstances existing at this time. Developments that could affect our estimate include, but are not limited to, (i) significant changes in the number of future claims, (ii) changes in the rate of dismissals without payment of pending claims, (iii) significant changes in the average cost of resolving claims, (iv) significant changes in the legal costs of defending these claims, (v) changes in the nature of claims received, (vi) changes in the law and procedure applicable to these claims, (vii) the financial viability of members of the Payor Group, (viii) a change in the availability of the insurance coverage of the members of the Payor Group or the indemnity provided by AO's former owner, (ix) changes in the allocation of costs among the Payor Group, and (x) a determination that the assumptions that were used to estimate our share of liability are no longer reasonable. We cannot determine the impact of these potential developments on our current estimate of our share of liability for these existing and future claims. Accordingly, the actual amount of these liabilities for existing and future claims could be different than the reserved amount.

Other Matters

We have various other lawsuits, claims and contingent liabilities arising in the ordinary course of our business and with respect to our divested businesses. We do not believe that any of these matters will have a material adverse effect on our financial position; however, litigation is inherently unpredictable. We could incur judgments, enter into settlements or revise our expectations regarding the outcome of certain matters, and such developments could have a material impact on our results of operations in the period in which the amounts are accrued or our cash flows in the period in which the amounts are paid.

Item 4. ***Mine Safety Disclosures***

Not applicable.

Executive Officers of the Registrant

Set forth below is certain information about Cabot's executive officers as of November 22, 2017.

Sean D. Keohane, age 50, is President and Chief Executive Officer and a member of Cabot's Board of Directors, positions he has held since March 2016. Mr. Keohane joined Cabot in August 2002 and was named General Manager of Performance Chemicals in May 2008. From March 2012 until November 2014, he was Senior Vice President and President of Performance Chemicals, and from November 2014 until March 2016 he was Executive Vice President and President of Reinforcement Materials. He was appointed Vice President in March 2005, Senior Vice President in March 2012 and Executive Vice President in November 2014. He was a member of the Interim Office of the Chief Executive Officer (the "CEO Office"), which was in place from December 2015 until March 2016.

Eduardo E. Cordeiro, age 50, is Executive Vice President and Chief Financial Officer and President of the Americas region. Mr. Cordeiro joined Cabot in 1998 and has served in a variety of leadership positions, including Corporate Controller, General Manager of the Fumed Metal Oxides business and General Manager of the Company's former tantalum business. He was responsible for Corporate Strategy from May 2008 until February 2009, when he became Cabot's Chief Financial Officer. Mr. Cordeiro was appointed Vice President in March 2003 and Executive Vice President in March 2009. He was a member of the CEO Office, which was in place from December 2015 until March 2016.

Nicholas S. Cross, age 56, is Executive Vice President and President of Performance Chemicals and the Europe, Middle East and Africa ("EMEA") region. Mr. Cross joined Cabot in September 2009 as President of the EMEA region and was appointed President of Advanced Technologies in January 2013 and President of Performance Chemicals in November 2014. He was appointed Vice President upon joining Cabot in 2009, Senior Vice President in March 2012 and Executive Vice President in November 2014. Prior to joining Cabot, Mr. Cross held a variety of leadership positions in BP plc's Chemicals, Oil and Gas businesses, including Director of Chemicals Strategy and Head of International NGLs. He was a member of the CEO Office, which was in place from December 2015 until March 2016.

Brian A. Berube, age 55, is Senior Vice President and General Counsel. Mr. Berube joined Cabot in 1994 as an attorney in Cabot's law department and became Deputy General Counsel in June 2001, Business General Counsel in March 2002, and General Counsel in March 2003. He was interim Chief Human Resources Officer from July 2016 until March 2017. Mr. Berube was appointed Vice President in March 2002 and Senior Vice President in March 2012. He was a member of the CEO Office, which was in place from December 2015 until March 2016.

Hobart C. Kalkstein, age 47, is Senior Vice President and President of Reinforcement Materials. Mr. Kalkstein joined Cabot in 2005. Since joining the Company, he has held several key management positions. Prior to assuming his current role in April 2016, he was Vice President of Corporate Strategy and Development from December 2015 to April 2016. From October 2013 to December 2015, he served as Vice President of Global Business Operations for Purification Solutions and from November 2012 to December 2015 as General Manager of Global Emission Control Solutions for Purification Solutions, and from January 2012 to November 2012 he served as Vice President of Business Operations and Executive Director of Marketing and Business Strategy for Performance Chemicals. Prior to that, he served as General Manager of the Aerogel business from October 2007 to February 2010. He was appointed Senior Vice President in April 2016.

Friedrich von Gottberg, age 49, is Senior Vice President and President of Purification Solutions and interim Chief Technology Officer. Mr. von Gottberg joined Cabot in 1997. Since joining the Company, he has held a variety of leadership positions in Research and Development and Finance. Prior to assuming his current role in January 2013, he was Vice President of the New Business Group from March 2008 until March 2012, and Senior Vice President and President of Advanced Technologies from March 2012 until January 2013. He was appointed interim Chief Technology Officer in May 2017. Mr. von Gottberg was appointed Vice President in March 2005 and Senior Vice President in March 2012.

PART II

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

Cabot's common stock is listed for trading (symbol CBT) on the New York Stock Exchange. As of November 17, 2017, there were 697 holders of record of Cabot's common stock. The tables below show the high and low sales price for Cabot's common stock for each of the fiscal quarters ended December 31, March 31, June 30, and September 30 and the quarterly cash dividend paid on Cabot's common stock for the past two fiscal years.

Stock Price and Dividend Data

	Quarters Ended			
	December 31	March 31	June 30	September 30
Fiscal 2017				
Cash dividends per share	$ 0.30	$ 0.30	$ 0.315	$ 0.315
Price range of common stock:				
High	$ 54.24	$ 60.72	$ 61.34	$ 56.45
Low	$ 47.99	$ 50.67	$ 50.21	$ 50.56
Fiscal 2016				
Cash dividends per share	$ 0.22	$ 0.22	$ 0.30	$ 0.30
Price range of common stock:				
High	$ 44.23	$ 49.62	$ 50.68	$ 53.48
Low	$ 31.03	$ 36.12	$ 42.27	$ 43.95

Issuer Purchases of Equity Securities

The table below sets forth information regarding Cabot's purchases of its equity securities during the quarter ended September 30, 2017:

Period	Total Number of Shares Purchased[1]	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs[1]	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs[1]
July 1, 2017 — July 31, 2017	—	$ —	—	2,065,824
August 1, 2017 — August 31, 2017	205,000	$ 52.09	205,000	1,860,824
September 1, 2017 — September 30, 2017	145,000	$ 53.04	145,000	1,715,824
Total	350,000		350,000	

(1) On January 13, 2015, Cabot publicly announced that the Board of Directors authorized the Company to repurchase up to five million shares of its common stock on the open market or in privately negotiated transactions. The prior repurchase authorization was terminated at that time. The current authorization does not have a set expiration date.

Item 6. *Selected Financial Data*

On November 18, 2013, Cabot purchased all of its joint venture partner's common stock in NHUMO, S.A. de C.V. ("NHUMO"), which represented approximately 60% of the outstanding common stock of the joint venture. Prior to this transaction, the Company owned approximately 40% of the outstanding common stock of NHUMO, and the NHUMO entity was accounted for as an equity affiliate of the Company. The results of fiscal 2014 in the table below include 11 months of results at 100% consolidation and one month of results accounted for under the equity method at 40%. Results for fiscal 2013 are reported under the equity method at 40%.

The Company completed the sale of its Security Materials business on July 31, 2014. The results of operations for this business for all periods presented are reflected as discontinued operations in the Consolidated Statements of Operations.

	Years Ended September 30				
	2017	2016	2015	2014	2013
	(In millions, except per share amounts and ratios)				
Consolidated Net Income (Loss)					
Net sales and other operating revenues	$ 2,717	$ 2,411	$ 2,871	$ 3,647	$ 3,456
Gross profit	652	578	585	721	633
Selling and administrative expenses	260	275	282	326	297
Research and technical expenses	56	53	58	60	68
Purification Solutions long-lived assets impairment charge	—	—	210	—	—
Purification Solutions goodwill impairment charge	—	—	352	—	—
Income (loss) from operations	336	250	(317)	335	268
Net interest expense and other charges[1]	(48)	(56)	(60)	(27)	(58)
Income (loss) from continuing operations [2]	288	194	(377)	308	210
(Provision) benefit for income taxes [3]	(29)	(34)	45	(92)	(60)
Equity in earnings of affiliated companies	7	3	4	—	11
Income (loss) from discontinued operations, net of tax	—	1	2	2	(1)
Net income (loss)	266	164	(326)	218	160
Net income attributable to noncontrolling interests, net of tax	25	15	8	19	7
Net income (loss) attributable to Cabot Corporation	$ 241	$ 149	$ (334)	$ 199	$ 153
Common Share Data					
Diluted net income (loss) attributable to Cabot Corporation:					
Income (loss) from continuing operations	$ 3.80	$ 2.34	$ (5.29)	$ 3.01	$ 2.37
Income (loss) from discontinued operations	—	0.02	0.02	0.02	(0.01)
Net income (loss) attributable to Cabot Corporation	$ 3.80	$ 2.36	$ (5.27)	$ 3.03	$ 2.36
Dividends	$ 1.23	$ 1.04	$ 0.88	$ 0.84	$ 0.80
Closing prices	$ 55.80	$ 52.41	$ 31.56	$ 50.77	$ 42.71
Weighted-average diluted shares outstanding—millions	62.7	62.9	63.4	65.1	64.5
Shares outstanding at year end—millions	61.9	62.2	62.5	64.4	64.0
Consolidated Financial Position					
Current assets[4]	$ 1,262	$ 1,047	$ 1,004	$ 1,364	$ 1,495
Net property, plant, and equipment	1,305	1,290	1,383	1,581	1,600
Other assets[4]	747	698	676	1,139	1,138
Total assets	$ 3,314	$ 3,035	$ 3,063	$ 4,084	$ 4,233
Current liabilities[4]	$ 742	$ 397	$ 440	$ 630	$ 844
Long-term debt[4]	661	914	967	1,004	1,020
Other long-term liabilities[4]	310	352	318	386	286
Cabot Corporation stockholders' equity	1,480	1,274	1,234	1,942	1,951
Noncontrolling interests	121	98	104	122	132
Total liabilities and stockholders' equity	$ 3,314	$ 3,035	$ 3,063	$ 4,084	$ 4,233
Selected Financial Ratios					
Net debt to capitalization ratio[5]	29%	35%	41%	33%	36%
Adjusted return on net assets[6]	13%	11%	9%	10%	9%

(1) Net interest expense and other charges includes foreign currency activity as follows: a loss of $4 million for fiscal 2017, a gain of $5 million for fiscal 2016, a loss of $8 million for fiscal 2015, a loss of $2 million for fiscal 2014, and a gain of $2 million for fiscal 2013.

(2) Income (loss) from continuing operations includes certain items as presented in the table below. A discussion of certain items is included in Definition of Terms and Non-GAAP Financial Measures in Results of Operations.

	Years Ended September 30				
	2017	2016	2015	2014	2013
			(In millions)		
Global restructuring activities (Note N)	$ (3)	$ (47)	$ (21)	$ (29)	$ (35)
Legal and environmental matters and reserves	1	(17)	—	(18)	(1)
Acquisition and integration-related charges	—	—	(5)	(7)	(21)
Employee benefit plan settlement and other charges (Note L)	—	—	(21)	—	—
Impairment of goodwill and long-lived assets of Purification Solutions (Note E)	—	—	(562)	—	—
Non-recurring gain (loss) on foreign exchange	—	(11)	(2)	(3)	3
Gain on existing investment in NHUMO	—	—	—	29	—
Inventory adjustment (Note C)	—	—	(6)	—	—
Executive transition costs	—	(6)	—	—	—
Other certain items	(1)	—	—	—	—
Total certain items, pre-tax	(3)	(81)	(617)	(28)	(54)
Tax-related certain items:					
Tax impact of certain items[(a)]	1	31	94	17	10
Tax impact of certain foreign exchange gains (losses)	—	—	—	—	(12)
Discrete tax items	25	—	13	(17)	11
Total tax-related certain items	26	31	107	—	9
Total certain items, net of tax	$ 23	$ (50)	$ (510)	$ (28)	$ (45)

(a) The tax impact of certain items is determined by (1) starting with the current and deferred income tax expense or benefit, included in Net income attributable to Cabot Corporation, and (2) subtracting the tax expense or benefit on "adjusted earnings". Adjusted earnings is defined as the pre-tax income attributable to Cabot Corporation excluding certain items. The tax expense or benefit on adjusted earnings is calculated by applying the operating tax rate, as defined under the section Definition of Terms and Non-GAAP Financial Measures in Results of Operations, to adjusted earnings.

(3) The Company's effective tax rate for fiscal 2017 was a provision of 10% which includes net discrete tax benefits of $25 million, composed of net tax benefits of $16 million associated with the generation of excess foreign tax credits upon repatriation of previously taxed foreign earnings and the accrual of U.S. tax on certain foreign earnings, a net tax benefit of $6 million from a change in valuation allowance on a beginning of year tax balance, net tax benefits of $4 million for various return to provision adjustments related to tax return filings and net tax charges of $1 million related to other miscellaneous tax items. The Company's effective tax rate for fiscal 2016 was a provision of 18%, which included less than $1 million of discrete tax charges, composed of charges of $5 million for valuation allowances on beginning of the year tax balances, partially offset by benefits of $3 million for a currency loss and $1 million each for the renewal of the U.S. research and experimentation credit and net tax settlements. The Company's effective tax rate for fiscal 2015 was a benefit of 12%, which included $13 million of discrete tax benefits composed of $7 million for tax settlements, $4 million for repatriation, and $2 million for the renewal of the U.S. research and experimentation credit. The Company's effective tax rate for fiscal 2014 was a provision of 30% which included net discrete charges of $17 million, composed of a $20 million charge for a valuation allowance, offset by $3 million of net tax benefit primarily related to tax settlements. The Company's effective tax rate for fiscal 2013 was a provision of 28% which included net discrete charges of $3 million, composed of a $13 million foreign currency related charge, offset by $10 million of net tax benefit related to tax settlements, renewal of the U.S. research and experimentation ("R&E") credit, and other miscellaneous tax items in the tax provision.

(4) In fiscal 2017, the Company adopted two new accounting standards that impact the presentation of debt issuance costs and the classification of deferred taxes on the Consolidated Balance Sheets. These new standards were applied retrospectively and fiscal 2016 and 2015 balances have been updated as discussed in Note A of our Notes to the Consolidated Financial Statements ("Note A"). Fiscal 2014 and 2013 have not been updated to reflect these new standards and may not be comparable to the other years presented.

(5) Net debt to capitalization ratio is calculated by dividing total debt (the sum of short-term and long-term debt less cash and cash equivalents) by total capitalization (the sum of Total stockholders' equity plus total debt).

(6) Adjusted return on net assets ("adjusted RONA") measures how effectively and efficiently the Company uses its operating assets to generate earnings. Return on net assets ("RONA") and adjusted RONA are not measures of financial performance under accounting principles generally accepted ("GAAP") in the United States and should not be considered substitutes for measures of performance reported under GAAP. We believe adjusted RONA provides useful supplemental information to our investors because it allows investors to understand the basis on which management evaluates the Company's operational effectiveness and because it is a performance metric used in our equity incentive compensation program. We calculate adjusted RONA by dividing the most recent twelve months' adjusted net income (loss) (a non-GAAP numerator) by adjusted net assets (a non-GAAP denominator). In the numerator, we exclude "certain items" net of tax from income (loss) from continuing operations as calculated under GAAP. The items of expense and income we consider "certain items" are described in the discussion of Definition of Terms and Non-GAAP Financial Measures in Results of Operations. The denominator consists of our operating assets, which are: net property, plant and equipment; adjusted net working capital; assets held for rent; and investments in equity affiliates. We calculate the items in adjusted net assets using the most recent five quarters' average to normalize the impact of large inter-period movements (e.g. working capital movements caused by feedstock price volatility). Our calculation of adjusted RONA is as follows:

	Years Ended September 30				
	2017	2016	2015	2014	2013
	(In millions, except ratios)				
Return on Net Assets					
Income (loss) from continuing operations[(a)]	$ 266	$ 163	$ (328)	$ 216	$ 161
Net assets[(b)]	$ 1,601	$ 1,372	$ 1,338	$ 2,064	$ 2,083
Return on net assets	17%	12%	(25)%	10%	8%
Adjusted Return on Net Assets					
Adjusted net income (loss)[(a)]:					
Income (loss) from continuing operations	$ 266	$ 163	$ (328)	$ 216	$ 161
Less: Total certain items, net of tax[(c)]	23	(50)	(510)	(28)	(45)
Adjusted net income (loss)	$ 243	$ 213	$ 182	$ 244	$ 206
Adjusted net assets[(d)]:					
Adjusted net working capital[(e)]	$ 471	$ 439	$ 607	$ 680	$ 661
Net property, plant and equipment	1,267	1,322	1,416	1,612	1,567
Assets held for rent	101	92	67	54	49
Equity affiliates	55	55	63	82	117
Adjusted net assets	$ 1,894	$ 1,908	$ 2,153	$ 2,428	$ 2,394
Adjusted return on net assets	13%	11%	8%	10%	9%

(a) Income (loss) from continuing operations and Adjusted net income (loss) are aggregated four quarter rolling amounts.

(b) Net assets represents Total stockholders' equity.

(c) Total certain items, net of tax is detailed in the table in note (2) above.

(d) Each component of adjusted net assets is calculated by averaging previous five quarter ending balances.

(e) Adjusted net working capital is the average of the previous five quarter ending balances of Accounts receivable plus Inventory less Accounts payable and accruals.

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

Critical Accounting Policies

The preparation of our financial statements is in conformity with GAAP. This preparation of our financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses and related disclosure of contingent assets and liabilities. We consider an accounting estimate to be critical to the financial statements if (i) the estimate is complex in nature or requires a high degree of judgment and (ii) different estimates and assumptions were used, the results could have a material impact on the consolidated financial statements. On an ongoing basis, we evaluate our estimates and the application of our policies. We base our estimates on historical experience, current conditions and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. The policies that we believe are critical to the preparation of the consolidated financial statements are presented below.

Revenue Recognition and Accounts and Notes Receivable

We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured. We generally are able to ensure that products meet customer specifications prior to shipment. If we are unable to determine that the product has met the specified objective criteria prior to shipment or if title has not transferred because of sales terms, the revenue is considered "unearned" and is deferred until the revenue recognition criteria are met.

Shipping and handling charges related to sales transactions are recorded as sales revenue when billed to customers or included in the sales price. Taxes collected on sales to customers are excluded from revenues.

The following table shows the relative size of the revenue recognized in each of our reportable segments:

	Years Ended September 30		
	2017	2016	2015
Reinforcement Materials	53%	48%	54%
Performance Chemicals	35%	37%	33%
Purification Solutions	11%	13%	11%
Specialty Fluids	1%	2%	2%

We derive the substantial majority of our revenues from the sale of products in our Reinforcement Materials, Performance Chemicals, and Purification Solutions segments. Revenue from these products is typically recognized when the product is shipped and title and risk of loss have passed to the customer. We offer cash discounts and volume rebates to certain customers as sales incentives. The discounts and volume rebates are recorded as a reduction in sales at the time revenue is recognized and are estimated based on historical experience and contractual obligations. We periodically review the assumptions underlying estimates of discounts and volume rebates and adjust revenues accordingly.

For major activated carbon injection systems projects in Purification Solutions, revenue is recognized using the percentage-of-completion method.

Revenue in Specialty Fluids arises primarily from the rental of cesium formate. This revenue is recognized throughout the rental period based on the contracted rental terms. Customers are also billed and revenue is recognized, typically at the end of the job, for cesium formate product that is not returned. We also generate revenues from cesium formate sold outside of a rental process and the sale of fine cesium chemicals in which revenue is recognized upon delivery of the product.

We maintain allowances for doubtful accounts based on an assessment of the collectability of specific customer accounts, the aging of accounts receivable and other economic information on both a historical and prospective basis. Customer account balances are charged against the allowance when it is probable the receivable will not be recovered. There are no material changes in the allowance for any of the years presented. There is no material off-balance sheet credit exposure related to customer receivable balances.

Inventory Valuation

The cost of all carbon black inventories in the U.S. is determined using the last-in, first-out ("LIFO") method. Total U.S. inventories utilizing this cost flow assumption were $28 million at both September 30, 2017 and 2016. These inventories represent 7% and 8% of total worldwide inventories at September 30, 2017 and 2016, respectively. Had we used the first-in, first-out ("FIFO") method instead of the LIFO method for such inventories, the value of those inventories would have been $37 million and $27 million higher as of September 30, 2017 and 2016, respectively. The cost of Specialty Fluids inventories that are classified as assets held for rent is determined using the average cost method. The cost of other U.S. and all non-U.S. inventories is determined using the FIFO method. In periods of rapidly rising or declining raw material costs, the inventory method we employ can have a significant impact on our profitability. Under our current LIFO method, when raw material costs are rising, our most recent higher priced purchases are the first to be charged to Cost of sales. If, however, we were using a FIFO method, our purchases from earlier periods, which were at lower prices, would instead be the first charged to Cost of sales. The opposite result could occur during a period of rapid decline in raw material costs.

At certain times, we may decrease inventory levels to the point where layers of inventory recorded under the LIFO method that were purchased in preceding years are liquidated. The inventory in these layers may be valued at an amount that is different than our current costs. If there is a liquidation of an inventory layer, there may be an impact to our Cost of sales and Net income for that period. If the liquidated inventory is at a cost lower than our current cost, there would be a reduction in our Cost of sales and an increase to our Net income during the period. Conversely, if the liquidated inventory is at a cost higher than our current cost, there will be an increase in our Cost of sales and a reduction to our net income during the period.

We periodically review inventory for both potential obsolescence and potential declines in anticipated selling prices. In this review, we make assumptions about the future demand for and market value of the inventory, and based on these assumptions estimate the amount of any obsolete, unmarketable, slow moving or overvalued inventory. We write down the value of our inventories by an amount equal to the difference between the cost of the inventory and its estimated net realizable value. Historically, such write-downs have not been material. If actual market conditions are less favorable than those projected by management at the time of the assessment, however, additional inventory write-downs may be required, which could reduce our gross profit and our earnings.

Intangible Assets and Goodwill Impairment

We record tangible and intangible assets acquired and liabilities assumed in business combinations under the acquisition method of accounting. Amounts paid for an acquisition are allocated to the assets acquired and liabilities assumed based on their fair values at the date of acquisition. We use assumptions and estimates in determining the fair value of assets acquired and liabilities assumed in a business combination. The determination of the fair value of intangible assets requires the use of significant judgment with regard to assumptions used in the valuation model. We estimate the fair value of identifiable acquisition-related intangible assets principally based on projections of cash flows that will arise from these assets. The projected cash flows are discounted to determine the fair value of the assets at the dates of acquisition.

Definite-lived intangible assets, which are comprised of trademarks, customer relationships and developed technologies, are amortized over their estimated useful lives and are reviewed for impairment when indication of potential impairment exists, such as a significant reduction in cash flows associated with the assets. We recognized an impairment on intangible assets associated with the Purification Solutions business in the third fiscal quarter of 2015, and no events have been subsequently identified that would require an additional impairment evaluation.

Goodwill is comprised of the purchase price of business acquisitions in excess of the fair value assigned to the net tangible and identifiable intangible assets acquired. Goodwill is not amortized, but is reviewed for impairment annually as of May 31, or when events or changes in the business environment indicate that the carrying value of the reporting unit may exceed its fair value. A reporting unit, for the purpose of the impairment test, is at or below the operating segment level, and constitutes a business for which discrete financial information is available and regularly reviewed by segment management. The reporting units with goodwill balances are Reinforcement Materials, Purification Solutions, and Fumed Metal Oxides. The separate businesses included within Performance Chemicals are considered separate reporting units. As such, the goodwill balance relative to Performance Chemicals is recorded in the Fumed Metal Oxides reporting unit.

For the purpose of the goodwill impairment test, we first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If an initial qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit exceeds its estimated fair value, an additional quantitative evaluation is performed. Alternatively, we may elect to proceed directly to the quantitative goodwill impairment test. If based on the quantitative evaluation the fair value of the reporting unit is less than its carrying amount, a goodwill impairment loss would result. The goodwill impairment loss would be the amount by which the carrying value of the reporting unit, including goodwill, exceeds its fair value, limited to the total amount of goodwill allocated to that reporting unit. The fair value of a reporting unit is based on discounted estimated future cash flows. The fair value is also benchmarked against a market approach using the guideline public companies method. The assumptions used to estimate fair value include management's best estimates of future growth rates, operating cash flows, capital expenditures and discount rates over an estimate of the remaining operating period at the reporting unit level.

When we performed our annual goodwill impairment test in the third quarter of fiscal 2015, the fair value of the Purification Solutions reporting unit was less than its carrying amount and we recorded impairment charges as a result. A discussion of this assessment and the charges recorded is included below under the heading "Purification Solutions Goodwill and Long-Lived Assets Impairment Charges".

Based on our most recent annual goodwill impairment test performed as of May 31, 2017, the fair values of the Reinforcement Materials and Fumed Metal Oxides reporting units were substantially in excess of their carrying values. The fair value of the Purification Solutions reporting unit exceeded its carrying amount by 13%. The fair value of the Purification Solutions reporting unit includes certain growth assumptions that are primarily dependent on: (1) growth in demand for our existing portfolio of activated carbon products and new products developed for environmental and specialty applications; and (2) stable demand in the mercury removal related portion of the business, which is largely dependent on the amount of coal-based power generation used in the U.S. and the continued regulation of those utilities under the U.S. Mercury and Air Toxics Standards regulation ("MATS"). In April 2017, the EPA indicated that it intends to review the cost benefit analysis previously prepared by the EPA in support of MATS to determine if the EPA should reconsider MATS or some part of it. This continues to be under review by the EPA. Failure to achieve our projected growth in environmental and/or specialty applications and/or actions taken by the EPA related to MATS that decrease demand for our products for mercury removal could have a negative impact on the financial results and fair value of the Purification Solutions reporting unit, which may lead to impairment.

Long-lived Assets Impairment

Our long-lived assets primarily include property, plant and equipment, intangible assets, long-term investments and assets held for rent. The carrying values of long-lived assets are reviewed for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be recoverable.

To test for impairment of assets, we generally use a probability-weighted estimate of the future undiscounted net cash flows of the assets over their remaining lives to determine if the value of the asset is recoverable. Long-lived assets are grouped with other assets and liabilities at the lowest level for which independent identifiable cash flows are determinable.

An asset impairment is recognized when the carrying value of the asset is not recoverable based on the analysis described above, in which case the asset is written down to its fair value. If the asset does not have a readily determinable market value, a discounted cash flow model may be used to determine the fair value of the asset. In circumstances when an asset does not have separate identifiable cash flows, an impairment charge is recorded when we no longer intend to use the asset.

Purification Solutions Goodwill and Long-Lived Assets Impairment Charges

During fiscal 2015 and as a result of the impairment tests performed on goodwill and long-lived assets of the Purification Solutions reporting unit, we recorded impairment charges and an associated tax benefit in the Consolidated Statements of Operations as follows:

	September 30, 2015
	(In millions)
Goodwill impairment charge	$ 352
Long-lived assets impairment charge	210
Benefit for income taxes	(80)
Impairment charges, net of tax	$ 482

In determining the fair value of the Purification Solutions reporting unit, we used an income approach (a discounted cash flow analysis) which incorporated significant estimates and assumptions related to future periods, including the timing of the MATS implementation, the anticipated size of the mercury removal application, and growth rates and pricing assumptions of activated carbon, among others. In addition, an estimate of the reporting unit's weighted average cost of capital ("WACC") was used to discount future estimated cash flows to their present value. The WACC was based upon externally available data considering market participants' cost of equity and debt, optimal capital structure and risk factors specific to the Purification Solutions reporting unit. Based on these estimates and as part of step one of the annual impairment test, we determined that the estimated fair value of the Purification Solutions reporting unit was lower than the reporting unit's carrying value. As such, the reporting unit failed step one of the goodwill impairment test. We then proceeded to step two.

Step two of the goodwill impairment test requires us to perform a theoretical purchase price allocation for the reporting unit to determine the implied fair value of goodwill and to compare the implied fair value of goodwill to the recorded amount of goodwill. The estimate of fair value is complex and requires significant judgment. Accounting guidance provides that we should recognize an estimated impairment charge to the extent that we determine that it is probable that an impairment loss has occurred and such impairment can be reasonably estimated. Based on our best estimate as of June 30, 2015, we recorded a pre-tax goodwill impairment charge of $353 million. We completed the step two analysis in the fourth quarter of fiscal 2015, which resulted in recording a credit of $1 million to the pre-tax goodwill impairment charge.

Based on the same factors leading to the goodwill impairment, we also considered whether the reporting unit's carrying values of definite-lived intangible assets and property, plant and equipment may not be recoverable or whether the carrying value of certain indefinite-lived intangible assets were impaired. We used the income approach to determine the fair value of the indefinite-lived intangible assets, which are the trademarks of Purification Solutions, and determined that the fair value of these intangible assets was lower than their carrying value. As such, an impairment loss was recorded in the amount of $39 million. Subsequent to this impairment analysis, we concluded that such assets no longer had an indefinite life and began amortizing these assets over their estimated useful life. We also performed an impairment analysis to assess if definite-lived intangible assets and property, plant and equipment were recoverable based on the estimated undiscounted cash flows of the reporting unit, and determined that these cash flows were not sufficient to recover the carrying value of the long-lived assets over their remaining useful lives. Accordingly, an impairment charge was recorded based on the lower of the carrying amount or fair value of the long-lived assets. We used the income approach to determine the fair value of the definite-lived intangible assets and a combination of the cost and market approaches to determine the fair value of our property, plant and equipment. We recorded impairment charges of $119 million and $51 million, to our definite-lived intangible assets and property, plant and equipment, respectively, in the quarter ended June 30, 2015. We completed the impairment analysis in the fourth quarter of fiscal 2015 which resulted in increasing the property, plant and equipment impairment charge by $1 million to $52 million. Therefore, for the year ended September 30, 2015, the long-lived assets impairment charge was $210 million. In connection with the long-lived assets impairment charges, we recorded a deferred tax benefit of $80 million to our income tax provision.

Pensions and Other Postretirement Benefits

We maintain both defined benefit and defined contribution plans for our employees. In addition, we provide certain postretirement health care and life insurance benefits for our retired employees. Plan obligations and annual expense calculations are based on a number of key assumptions. The assumptions, which are specific for each of our U.S. and foreign plans, are related to both the assets we hold to fund our plans (where applicable) and the characteristics of the benefits that will ultimately be provided to our employees. The most significant assumptions relative to our plan assets include the anticipated rates of return on these assets. Assumptions relative to our pension obligations are more varied; they include estimated discount rates, rates of compensation increases for employees, and mortality, employee turnover and other related demographic data. Projected health care and life insurance obligations also rely on the above mentioned demographic assumptions and assumptions surrounding health care cost trends. Actual results that differ from the assumptions are generally accumulated and amortized over future periods and could therefore affect the recognized expense and recorded obligation in such future periods. However, cash flow requirements may be different from the amounts of expense that are recorded in the consolidated financial statements.

Litigation and Contingencies

We are involved in litigation in the ordinary course of business, including personal injury and environmental litigation. After consultation with counsel, as appropriate, we accrue a liability for litigation when it is probable that a liability has been incurred and the amount can be reasonably estimated. The estimated reserves are recorded based on our best estimate of the liability associated with such matters or the low end of the estimated range of liability if we are unable to identify a better estimate within that range. Our best estimate is determined through the evaluation of various information, including claims, settlement offers, demands by government agencies, estimates performed by independent third parties, identification of other responsible parties and an assessment of their ability to contribute, and our prior experience. Litigation is highly uncertain and there is always the possibility of an unusual result in any particular case that may reduce our earnings and cash flows.

The most significant reserves that we have established are for environmental remediation and respirator litigation claims. The amount accrued for environmental matters reflects our assumptions about remediation requirements at the contaminated sites, the nature of the remedies, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number and financial viability of other potentially responsible parties. These liabilities can be affected by the availability of new information, changes in the assumptions on which the accruals are based, unanticipated government enforcement action or changes in applicable government laws and regulations, which could result in higher or lower costs.

Our current estimate of the cost of our share of existing and future respirator liability claims is based on facts and circumstances existing at this time. Developments that could affect our estimate include, but are not limited to, (i) significant changes in the number of future claims, (ii) changes in the rate of dismissals without payment of pending claims, (iii) significant changes in the average cost of resolving claims, (iv) significant changes in the legal costs of defending these claims, (v) changes in the nature of claims received, (vi) changes in the law and procedure applicable to these claims, (vii) the financial viability of other parties that contribute to the settlement of respirator claims, (viii) a change in the availability of insurance coverage maintained by certain of the other parties that contribute to the settlement of respirator claims, or the indemnity provided by a former owner of the business, (ix) changes in the allocation of costs among the various parties paying legal and settlement costs and (x) a determination that the assumptions that were used to estimate our share of liability are no longer reasonable. We cannot determine the impact of these potential developments on our current estimate of our share of liability for these existing and future claims. Accordingly, the actual amount of these liabilities for existing and future claims could be different than the reserved amount.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation of property, plant and equipment is calculated using the straight-line method over the estimated useful lives of the related assets. The depreciable lives for buildings, machinery and equipment, and other fixed assets are twenty to twenty-five years, ten to twenty-five years, and three to twenty-five years, respectively. The cost and accumulated depreciation for property, plant and equipment sold, retired, or otherwise disposed of are removed from the Consolidated Balance Sheets and resulting gains or losses are included in earnings in the Consolidated Statements of Operations. Expenditures for repairs and maintenance are charged to expenses as incurred. Expenditures for major renewals and betterments, which significantly extend the useful lives of existing plant and equipment, are capitalized and depreciated.

Income Taxes

Our business operations are global in nature, and we are subject to taxes in numerous jurisdictions. Tax laws and tax rates vary substantially in these jurisdictions and are subject to change based on the political and economic climate in those countries. We file our tax returns in accordance with our interpretations of each jurisdiction's tax laws.

Significant judgment is required in determining our worldwide provision for income taxes and recording the related tax assets and liabilities. In the ordinary course of our business, there are operational decisions, transactions, facts and circumstances, and calculations which make the ultimate tax determination uncertain. Furthermore, our tax positions are periodically subject to challenge by taxing authorities throughout the world. We have recorded reserves for taxes and associated interest and penalties that may become payable in future years as a result of audits by tax authorities. Any significant impact as a result of changes in underlying facts, law, tax rates, tax audit, or review could lead to adjustments to our income tax expense, our effective tax rate, and/or our cash flow.

We record benefits for uncertain tax positions based on an assessment of whether the position is more likely than not to be sustained by the taxing authorities. If this threshold is not met, no tax benefit of the uncertain tax position is recognized. If the threshold is met, the tax benefit that is recognized is the largest amount that is greater than 50% likely of being realized upon ultimate settlement. This analysis presumes the taxing authorities' full knowledge of the positions taken and all relevant facts, but does not consider the time value of money. We also accrue for interest and penalties on these uncertain tax positions and include such charges in the income tax provision in the Consolidated Statements of Operations.

Additionally, we have established valuation allowances against a variety of deferred tax assets, including net operating loss carry-forwards, foreign tax credits, and other income tax credits. Valuation allowances take into consideration our ability to use these deferred tax assets and reduce the value of such items to the amount that is deemed more likely than not to be recoverable. Our ability to utilize these deferred tax assets is dependent on achieving our forecast of future taxable operating income over an extended period of time. We review our forecast in relation to actual results and expected trends on a quarterly basis. Failure to achieve our operating income targets may change our assessment regarding the recoverability of our net deferred tax assets and such change could result in a valuation allowance being recorded against some or all of our net deferred tax assets. An increase in a valuation allowance would result in additional income tax expense, while a release of valuation allowances in periods when these tax attributes become realizable would reduce our income tax expense.

Significant Accounting Policies

We have other significant accounting policies that are discussed in Note A in Item 8 below. Certain of these policies include the use of estimates, but do not meet the definition of critical because they generally do not require estimates or judgments that are as difficult or subjective to measure. However, these policies are important to an understanding of the consolidated financial statements.

Results of Operations

Cabot is organized into four reportable business segments: Reinforcement Materials, Performance Chemicals, Purification Solutions, and Specialty Fluids. Cabot is also organized for operational purposes into three geographic regions: the Americas; Europe, Middle East and Africa; and Asia Pacific. The discussions of our results of operations for the periods presented reflect these structures.

Our analysis of financial condition and operating results should be read with our consolidated financial statements and accompanying notes. Unless a calendar year is specified, all references to years in this discussion are to our fiscal years ended September 30.

Definition of Terms and Non-GAAP Financial Measures

When discussing our results of operations, we use several terms as described below.

The term "product mix" refers to the mix of types and grades of products sold or the mix of geographic regions where products are sold, and the positive or negative impact this has on the revenue or profitability of the business and/or segment.

The term "LIFO" includes two factors: (i) the impact of current inventory costs being recognized immediately in Cost of sales under a last-in first-out method, compared to the older costs that would have been included in Cost of sales under a first-in first-out method ("Cost of sales impact"); and (ii) the impact of reductions in inventory quantities, causing historical inventory costs to flow through Cost of sales ("liquidation impact").

Our discussion under the heading "Provision (Benefit) for Income Taxes and Reconciliation of Effective Tax Rate to Operating Tax Rate" includes a discussion of our "effective tax rate" and our "operating tax rate" and includes a reconciliation of the two rates. Our operating tax rate is a non-GAAP financial measure and should not be considered as an alternative to our effective tax rate, the most comparable GAAP financial measure. In calculating our operating tax rate, we exclude discrete tax items, which include: i) unusual or infrequent items such as a significant release or establishment of a valuation allowance, ii) items related to uncertain tax positions such as the tax impact of audit settlements, interest on tax reserves, and the release of tax reserves from the expiration of statutes of limitations, and iii) other discrete tax items, such as the tax impact of legislative changes and, on a quarterly basis, the timing of losses in certain jurisdictions and the cumulative rate adjustment, if applicable. We also exclude the tax impact of certain items, as defined below in the discussion of Total segment EBIT, on both operating income and the tax provision. Our definition of the operating tax rate may not be comparable to the definition used by other companies. Management believes that the non-GAAP financial measure is useful supplemental information because it helps our investors compare our tax rate year to year on a consistent basis and understand what our tax rate on current operations would be without the impact of these items.

Our discussion under the heading "Fiscal 2017 compared to Fiscal 2016 and Fiscal 2016 compared to Fiscal 2015—By Business Segment" includes a discussion of Total segment EBIT, which is a non-GAAP financial measure defined as Income (loss) from continuing operations before income taxes and equity in earnings from affiliated companies less certain items and other unallocated items. Our Chief Operating Decision Maker, who is our President and Chief Executive Officer, uses segment EBIT to evaluate the operating results of each segment and to allocate resources to the segments. We believe Total segment EBIT, which reflects the sum of EBIT from our four reportable segments, provides useful supplemental information for our investors as it is an important indicator of our operational strength and performance, allows investors to see our results through the eyes of management, and provides context for our discussion of individual business segment performance. Total segment EBIT should not be considered an alternative for Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies, which is the most directly comparable GAAP financial measure. A reconciliation of Total segment EBIT to Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies is provided under the heading "Fiscal 2017 compared to Fiscal 2016 and Fiscal 2016 compared to Fiscal 2015—By Business Segment". Investors should consider the limitations associated with this non-GAAP measure, including the potential lack of comparability of this measure from one company to another.

In calculating Total segment EBIT, we exclude from our Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies (i) items of expense and income that management does not consider representative of our fundamental on-going segment results, which we refer to as "certain items", and (ii) items that, because they are not controlled by the business segments and primarily benefit corporate objectives, are not allocated to our business segments, such as interest expense and other corporate costs, which include unallocated corporate overhead expenses such as certain corporate salaries and headquarter expenses, plus costs related to special projects and initiatives, which we refer to as "other unallocated items". Management believes excluding the items identified as certain items facilitates operating performance comparisons from period to period by eliminating differences caused by the existence and timing of certain expense and income items that would not otherwise be apparent on a GAAP basis and also facilitates an evaluation of our operating performance without the impact of these costs or benefits. The items of income and expense that we have excluded from Total segment EBIT, as applicable, but that are included in our GAAP Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies, as applicable, are described below.

- Global restructuring activities include costs or benefits associated with cost reduction initiatives or plant closures, which primarily relate to (i) employee termination costs, (ii) asset impairment charges associated with restructuring actions, (iii) costs to close facilities, including environmental costs and contract termination penalties and (iv) gains realized on the sale of land or equipment associated with restructured plants or locations.
- Non-recurring gains (losses) on foreign exchange, which primarily relate to the impact of controlled currency devaluations on our net monetary assets denominated in that currency.
- Legal and environmental reserves and matters, which consist of costs or benefits for matters typically related to former businesses or that are otherwise incurred outside of the ordinary course of business.
- Executive transition costs, which include incremental charges, including stock compensation charges, associated with the retirement or termination of employment of senior executives of the Company.
- Asset impairment charges, which primarily include charges associated with an impairment of goodwill or other long-lived assets.
- Acquisition and integration-related charges, which include transaction costs, redundant costs incurred during the period of integration, and costs associated with transitioning certain management and business processes to our processes.
- Employee benefit plan settlement charges, which consist of the costs associated with transferring the obligations and assets held by one of our defined benefit plans to a multi-employer plan.

Drivers of Demand and Key Factors Affecting Profitability

Drivers of demand and key factors affecting our profitability differ by segment. In Reinforcement Materials, longer term demand is driven primarily by: i) the number of vehicle miles driven globally; ii) the number of original equipment and replacement tires produced; and iii) the number of automotive builds. Over the past several years, operating results have been driven by a number of factors, including: i) increases or decreases in our sales volumes driven by changes in production levels for tires or industrial rubber products and the level at which we service that demand; ii) changes in raw material costs and our ability to adjust the sales price for our products commensurate with changes in raw material costs; iii) changes in pricing and product mix, which includes customer pricing as well as the mix of products sold or the region in which they are sold; iv) global and regional capacity utilization for carbon black; v) fixed cost savings achieved through restructuring and other cost saving activities; vi) the growth of our volumes and market position in emerging economies; vii) capacity management and technology investments, including the impact of energy utilization and yield improvement technologies at our manufacturing facilities; and viii) royalties and technology payments related to our patented elastomer composites technology that is used in tire applications.

In Performance Chemicals, longer term demand is driven primarily by the construction and infrastructure, automotive, electronics and consumer products industries. In recent years, operating results in Performance Chemicals have been driven by: i) increases or decreases in sales volumes to the industries previously noted; ii) our ability to deliver differentiated products that drive enhanced performance in customers' applications; iii) our ability to obtain value pricing for this differentiation; iv) the cost of new capacity; v) changes in selling prices relative to variations in the cost of raw materials; and vi) the adoption of new products for use in our customers' applications.

In Purification Solutions, longer term demand is driven primarily by the demand for activated carbon based solutions for water, gas and air, pharmaceuticals, food and beverages, catalysts and other chemical applications. Operating results in Purification Solutions have been influenced by: i) changes in our sales volumes in the various applications previously noted; ii) the amount of coal-based power generation utilized in the U.S. and the regulation of those utilities; iii) management of our operations, including inventory levels, and the commensurate costs; iv) changes in price and product mix; and v) industry capacity utilization.

In Specialty Fluids, longer term demand is primarily driven by: i) the level of drilling activity utilizing cesium formate for high pressure oil and gas wells; ii) the petroleum industry's acceptance of cesium formate as a drilling and completion fluid for this application; and iii) continued use of fine cesium chemicals in a variety of applications. Operating results in Specialty Fluids are influenced by the number of drilling projects as well as the size, type and duration of those drilling jobs and demand for fine cesium chemicals.

Overview of Results for Fiscal 2017

During fiscal 2017, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased compared to fiscal 2016 largely due to strong EBIT growth in the Reinforcement Materials segment. In addition, our results for fiscal 2016 include charges for global restructuring that did not reoccur in fiscal 2017.

Fiscal 2017 compared to Fiscal 2016 and Fiscal 2016 compared to Fiscal 2015—Consolidated

Net Sales and Other Operating Revenues and Gross Profit

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Net sales and other operating revenues	$ 2,717	$ 2,411	$ 2,871
Gross profit	$ 652	$ 578	$ 585

The $306 million increase in net sales from fiscal 2016 to fiscal 2017 was due primarily to a more favorable price and product mix (combined $248 million), an increase in volumes ($77 million), partially offset by an unfavorable impact from foreign currency translation ($24 million). The favorable price and product mix impact was primarily due to higher selling prices during the year from price adjustments to customers for increases in raw materials costs. The $460 million decrease in net sales from fiscal 2015 to fiscal 2016 was due primarily to a less favorable price and product mix (combined $398 million) and an unfavorable impact from foreign currency translation ($63 million). The less favorable price and product mix impact was primarily due to lower selling prices during the year from price adjustments to customers for decreases in raw materials costs.

Gross profit increased by $74 million in fiscal 2017 when compared to fiscal 2016 driven by higher margins and volumes in Reinforcement Materials. Gross profit decreased by $7 million in fiscal 2016 when compared to fiscal 2015 driven by lower unit margins in Reinforcement Materials and Purification Solutions, partially offset by fixed cost savings.

Selling and Administrative Expenses

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Selling and administrative expenses	$ 260	$ 275	$ 282

Selling and administrative expenses decreased by $15 million in fiscal 2017 when compared to fiscal 2016 primarily due to lower spending on global restructuring activities in fiscal 2017 and a charge to the respirator reserve in fiscal 2016 that did not reoccur in fiscal 2017. Selling and administrative expenses decreased by $7 million in fiscal 2016 when compared to fiscal 2015.The decrease was principally driven by restructuring actions taken to reduce fixed costs across the Company, partially offset by an increase in the reserve for respirator liability matters and higher incentive compensation expense.

Research and Technical Expenses

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Research and technical expenses	$ 56	$ 53	$ 58

Research and technical expenses increased by $3 million in fiscal 2017 when compared to fiscal 2016 due to continued spending on projects across the segments. Research and technical expenses decreased by $5 million in fiscal 2016 when compared to fiscal 2015 primarily due to restructuring actions taken to reduce fixed costs across the Company, partially offset by $5 million of costs associated with these actions.

Purification Solutions Long-Lived Assets and Goodwill Impairment Charges

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Purification Solutions long-lived assets impairment charge	$ —	$ —	$ 210
Purification Solutions goodwill impairment charge	$ —	$ —	$ 352

The Purification Solutions long-lived assets and goodwill impairment charges recorded during fiscal 2015 are described in Note E of our Notes to the Consolidated Financial Statements ("Note E").

Interest and Dividend Income

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Interest and dividend income	$ 9	$ 5	$ 4

Interest and dividend income increased by $4 million in fiscal 2017 when compared to fiscal 2016 and by $1 million in fiscal 2016 when compared to fiscal 2015 due primarily to interest earned on higher cash balances.

Interest Expense

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Interest expense	$ 53	$ 54	$ 53

Interest expense decreased by $1 million in fiscal 2017 as compared to fiscal 2016. The decrease was primarily due to lower interest rates on long-term debt partially offset by higher rates on commercial paper borrowings. Interest expense increased by $1 million in fiscal 2016 as compared to fiscal 2015. The increase was primarily due to higher interest rates on commercial paper borrowings.

Other Income (Expense)

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Other income (expense)	$ (4)	$ (7)	$ (11)

Other income (expense) changed by $3 million during fiscal 2017 as compared to fiscal 2016 due primarily to the impact of foreign currency movements. Other income (expense) changed during fiscal 2016 by $4 million as compared to fiscal 2015 due to a variety of items, none of which were individually material.

Provision (Benefit) for Income Taxes and Reconciliation of Effective Tax Rate to Operating Tax Rate

	Years Ended September 30		
	2017	2016	2015
		(Dollars in millions)	
Provision (benefit) for income taxes	$ 29	$ 34	$ (45)
Effective tax rate	10%	18%	12%
Impact of discrete tax items:			
Unusual or infrequent items	6%	2%	(2)%
Items related to uncertain tax positions	(1)%	1%	(2)%
Other discrete tax items	4%	(2)%	1%
Impact of certain items	—%	5%	17%
Operating tax rate	19%	24%	26%

The provision for income taxes was $29 million for fiscal 2017, resulting in an effective tax rate of 10% (refer to the reconciliation of computed tax expense at the federal statutory rate to the Provision (benefit) for income taxes in Note Q of our Notes to the Consolidated Financial Statements ("Note Q")). This amount included net discrete tax benefits of $25 million and net tax benefits from certain items of $1 million. The operating tax rate for fiscal 2017 was 19%.

The provision for income taxes was $34 million for fiscal 2016, resulting in an effective tax rate of 18% (refer to the reconciliation of computed tax expense at the federal statutory rate to the Provision (benefit) for income taxes in Note Q). This amount included net tax benefits of $31 million, principally comprised of $31 million of tax benefits from certain items, partially offset by a net charge of less than $1 million for discrete tax items. The operating tax rate for fiscal 2016 was 24%. The decrease in the operating tax rate from fiscal 2015 was largely driven by a change in the geographic mix of earnings.

The benefit for income taxes was $45 million for fiscal 2015, resulting in an effective tax rate of 12% (refer to the reconciliation of computed tax expense at the federal statutory rate to the Provision (benefit) for income taxes in Note Q). This amount included net tax benefits of $107 million, principally comprised of an $80 million benefit from the impairment of the Purification Solutions segment, $14 million of benefits from other certain items and $13 million of benefits from discrete tax items. Refer to Note E for details of the impairment. The operating tax rate for fiscal 2015 was 26%.

The nature of the discrete tax items for the periods ended September 30, 2017, 2016, and 2015 were as follows:

(i) Unusual or infrequent items during fiscal 2017 included the net tax impacts from excess foreign tax credits upon repatriation of previously taxed foreign earnings and the accrual of U.S. tax on certain foreign earnings. Unusual or infrequent items during fiscal 2016 and 2015 included the net tax impacts from the renewal of the U.S. Research and Experimentation credit, extraordinary dividends from subsidiaries (fiscal 2016 only), a claim for U.S. tax benefit (fiscal 2016 only), certain dividends from high-tax jurisdictions (fiscal 2015 only), and other non-routine items;

(ii) Items related to uncertain tax positions during fiscal 2017, 2016 and 2015 included net tax impacts from the reversal of accruals for uncertain tax positions due to the expiration of statutes of limitations and settlement of tax audits, the accrual of interest on uncertain tax positions, and the accrual of a prior year uncertain tax position (fiscal 2017 and fiscal 2016), and;

(iii) Other discrete tax items during fiscal 2017, 2016 and 2015 included net tax impacts from various return to provision adjustments related to tax return filings, changes in tax laws, and changes in valuation allowances on beginning of year tax balances (fiscal 2017 and fiscal 2016).

Our anticipated effective and operating tax rates for fiscal 2018 are both 22%. Tax reform legislation has been proposed in the U.S. that would produce significant changes to the U.S. tax code which, if enacted as proposed, could impact these rates. At this point in time, no estimate of the impact can be made.

Cabot files U.S. federal and state and non-U.S. income tax returns in jurisdictions with varying statutes of limitations. Cabot and certain subsidiaries are under audit in a number of jurisdictions. It is possible that some of these audits will be resolved in fiscal 2018 and could impact our anticipated effective tax rate. We have filed our tax returns in accordance with the tax laws in each jurisdiction and maintain tax reserves for uncertain tax positions.

Equity in Earnings of Affiliated Companies and Net Income (Loss) Attributable to Noncontrolling Interest, Net of Tax

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Equity in earnings of affiliated companies, net of tax	$ 7	$ 3	$ 4
Net income (loss) attributable to noncontrolling interests, net of tax	$ 25	$ 15	$ 8

Equity in earnings of affiliated companies, net of tax, increased by $4 million in fiscal 2017 compared to fiscal 2016 and decreased by $1 million in fiscal 2016 compared to fiscal 2015. The changes in both periods were primarily due to changes in earnings from our Venezuelan equity affiliate.

Net income (loss) attributable to noncontrolling interests, net of tax, increased by $10 million in fiscal 2017 compared to fiscal 2016 due to the higher profitability of our joint ventures in China and the Czech Republic and increased by $7 million in fiscal 2016 compared to fiscal 2015 due to the higher profitability of our joint venture in Malaysia.

Net Income (Loss) Attributable to Cabot Corporation

In fiscal 2017, we reported net income of $241 million ($3.80 per diluted common share). In fiscal 2016, we reported net income of $149 million ($2.36 per diluted common share). In fiscal 2015, we reported a net loss of $334 million ($5.27 per diluted common share). The loss was driven by the Purification Solutions long-lived asset and goodwill impairment charges more fully discussed in Note E.

Fiscal 2017 compared to Fiscal 2016 and Fiscal 2016 compared to Fiscal 2015—By Business Segment

Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies, certain items, other unallocated items and Total segment EBIT for fiscal 2017, 2016 and 2015 are set forth in the table below. The details of certain items and other unallocated items are shown below and in Note S.

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	$ 288	$ 194	$ (377)
Less: Certain items	(3)	(81)	(617)
Less: Other unallocated items	(118)	(95)	(92)
Total segment EBIT	$ 409	$ 370	$ 332

In fiscal 2017, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased by $94 million and Total segment EBIT increased by $39 million when compared to fiscal 2016. The increases were primarily driven by higher volumes across all segments except Specialty Fluids ($43 million), higher unit margins in Reinforcement Materials ($62 million), and a favorable impact from changing inventory levels ($23 million), partially offset by higher fixed costs ($49 million), and lower unit margins in Performance Chemicals ($33 million). In addition, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased due to lower spending on global restructuring activities ($44 million) and lower non-recurring losses on foreign exchange ($11 million) compared to fiscal 2016 and lower legal and environmental matters and reserves ($18 million) which was primarily driven by a charge to the respirator reserve in fiscal 2016 that did not reoccur in fiscal 2017.

In fiscal 2016, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased by $571 million and Total segment EBIT increased by $38 million when compared to fiscal 2015. The increases were driven by lower fixed costs ($64 million) and the favorable impact of foreign currency translation ($10 million), partially offset by the unfavorable impact from reducing inventory levels ($36 million). In addition, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased primarily due to the impairment of goodwill and long-lived assets of Purification Solutions ($562 million) and employee benefit plan settlement and other charges ($21 million) in fiscal 2015 that did not reoccur in fiscal 2016. These benefits were partially offset by higher spending on global restructuring activities ($26 million), legal and environmental matters and reserves ($17 million) which was primarily driven by a charge to the respirator reserve and non-recurring losses on foreign exchange ($9 million) compared to fiscal 2015.

Certain Items:

Details of the certain items for fiscal 2017, 2016, and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Global restructuring activities (Note N)	$ (3)	$ (47)	$ (21)
Legal and environmental matters and reserves	1	(17)	—
Acquisition and integration-related charges	—	—	(5)
Employee benefit plan settlement and other charges (Note L)	—	—	(21)
Impairment of goodwill and long-lived assets of Purification Solutions (Note E)	—	—	(562)
Non-recurring gain (loss) on foreign exchange	—	(11)	(2)
Inventory adjustment (Note C)	—	—	(6)
Executive transition costs	—	(6)	—
Other certain items	(1)	—	—
Total certain items, pre-tax	(3)	(81)	(617)
Tax-related certain items:			
Tax impact of certain items	1	31	94
Discrete tax items	25	—	13
Total tax-related certain items	26	31	107
Total certain items, net of tax	$ 23	$ (50)	$ (510)

An explanation of these items of expense and income is included in our discussion under the heading "Definition of Terms and Non-GAAP Financial Measures". Additional information concerning several of these items is included in our Notes to the Consolidated Financial Statements as follows: Impairment of goodwill and long-lived assets (Note E); Global restructuring activities (Note N); Employee benefit plan settlements (Note L); and Inventory reserve adjustment (Note C). Acquisition and integration-related charges include legal and professional fees, the incremental value of inventory as a result of purchase accounting adjustments and other expenses related to the completion of the acquisitions and the integrations of Purification Solutions and NHUMO. Tax-related certain items include discrete tax items, the nature of which are discussed under the heading "Provision (Benefit) for Income Taxes and Reconciliation of Effective Tax Rate to Operating Tax Rate", and the tax impact of certain foreign exchange losses.

The tax impact of certain items is determined by (1) starting with the current and deferred income tax expense or benefit, included in Net income (loss) attributable to Cabot Corporation, and (2) subtracting the tax expense or benefit on "adjusted earnings". Adjusted earnings is defined as the pre-tax income attributable to Cabot Corporation excluding certain items. The tax expense or benefit on adjusted earnings is calculated by applying the operating tax rate, as defined under the section Definition of Terms and Non-GAAP Financial Measures, to adjusted earnings.

Other Unallocated Items:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Interest expense	$ (53)	$ (54)	$ (53)
Unallocated corporate costs	(50)	(45)	(46)
General unallocated income (expense)	(8)	7	11
Less: Equity in earnings of affiliated companies, net of tax	7	3	4
Total other unallocated items	$ (118)	$ (95)	$ (92)

A discussion of items that we refer to as "other unallocated items" can be found under the heading "Definition of Terms and Non-GAAP Financial Measures". The balances of unallocated corporate costs are primarily comprised of expenditures related to managing a public company that are not allocated to the segments and corporate business development costs related to new technology efforts. The balances of General unallocated income (expense) consists of gains (losses) arising from foreign currency transactions, net of other foreign currency risk management activities, the impact of accounting for certain inventory on a LIFO basis, the profit or loss related to the corporate adjustment for unearned revenue, and the impact of including the full operating results of an equity affiliate in Purification Solutions segment EBIT.

In fiscal 2017, Total other unallocated items changed by $23 million when compared to fiscal 2016, primarily driven by a change of $15 million of General unallocated income (expense). This was primarily due to the cost of sales impact of LIFO accounting from changes in carbon black raw material costs that resulted in an unfavorable comparison ($14 million). In addition, Unallocated corporate costs changed by $5 million primarily associated with higher expenses related to incentive compensation.

In fiscal 2016, Total other unallocated items changed by $3 million when compared to fiscal 2015, primarily driven by a change of $4 million in General unallocated income (expense). This was due to the cost of sales impact of LIFO accounting from changes in carbon black raw material costs that resulted in an unfavorable comparison ($19 million), partially offset by the favorable impact of changes in foreign currency movements ($13 million).

Reinforcement Materials

Sales and EBIT for Reinforcement Materials for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Reinforcement Materials Sales	$ 1,381	$ 1,108	$ 1,507
Reinforcement Materials EBIT	$ 193	$ 137	$ 143

In fiscal 2017, sales in Reinforcement Materials increased by $273 million when compared to fiscal 2016. The increase was principally driven by a more favorable price and product mix (combined $260 million) and higher volumes ($27 million), partially offset by the unfavorable comparison of foreign currency translation ($12 million). The more favorable price and product mix was primarily driven by benefits from contract gains and spot pricing in addition to a more favorable regional mix. Higher volumes were driven by an increase in rubber blacks volumes from higher contractual volumes in the Americas.

In fiscal 2016, sales in Reinforcement Materials decreased by $399 million when compared to fiscal 2015. The decrease was principally driven by less favorable price and product mix (combined $335 million), lower volumes ($27 million) and an unfavorable comparison from foreign currency translation ($37 million). The less favorable price and product mix was primarily due to lower selling prices from price adjustments to customers for decreases in raw material costs. Lower volumes were driven by lower demand in South America and Asia due to a challenging macro-economic environment and the closure of our Merak, Indonesia manufacturing plant.

In fiscal 2017, Reinforcement Materials EBIT increased by $56 million when compared to fiscal 2016 driven principally by higher rubber blacks unit margins ($62 million), higher rubber blacks volumes ($13 million) and the favorable impact from a change in inventory levels ($6 million), partially offset by higher fixed costs ($21 million) and an unfavorable comparison of foreign currency translation ($2 million). The favorable rubber blacks unit margins were due to benefits from contract pricing gains and spot pricing as well as a more favorable regional mix, with higher sales in North America and lower sales in Asia. Higher rubber blacks fixed costs were primarily associated with the timing of required maintenance costs.

In fiscal 2016, Reinforcement Materials EBIT decreased by $6 million when compared to fiscal 2015 driven principally by lower unit margins ($23 million) and lower volumes ($10 million). The decrease was partially offset by lower fixed costs ($19 million) and a favorable comparison from foreign currency translation ($9 million). Lower unit margins were driven primarily by lower year over year contract pricing in the first quarter of fiscal 2016, increased competition in Asia, unfavorable feedstock-related effects, and lower benefits generated from our energy efficiency investments as a result of lower energy prices. The favorable foreign currency impact was mainly due to the translation of our local currency fixed costs in South America to U.S. dollars. Lower fixed costs were due to cost reductions as a result of restructuring actions and reduced maintenance costs.

Performance Chemicals

Sales and EBIT for Performance Chemicals for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Specialty Carbons and Formulations Sales	$ 623	$ 578	$ 630
Metal Oxides Sales	285	287	297
Performance Chemicals Sales	$ 908	$ 865	$ 927
Performance Chemicals EBIT	$ 201	$ 225	$ 178

In fiscal 2017, sales in Performance Chemicals increased by $43 million when compared to fiscal 2016 primarily due to an increase in sales from Specialty Carbons and Formulations ($45 million). The increase in sales from Specialty Carbons and Formulations was due to higher volumes ($31 million) and a favorable price and product mix (combined $18 million), partially offset by an unfavorable comparison of foreign currency translation ($5 million). The higher volumes were mainly driven by growth from sales in Asia and North America. In addition, overall product mix was more favorable in all regions driven by growth in automotive, coatings, and energy materials.

In fiscal 2016, sales in Performance Chemicals decreased by $62 million when compared to fiscal 2015 due to a less favorable price and product mix (combined $51 million) and the unfavorable comparison from foreign currency translation ($21 million), partially offset by higher volumes ($10 million). The change in price and product mix was mainly driven by price adjustments to customers for decreases in raw material costs.

In fiscal 2017, EBIT in Performance Chemicals decreased by $24 million when compared to fiscal 2016 due to lower unit margins ($33 million), higher fixed costs ($23 million) and the unfavorable impact of foreign currency translation ($2 million). The decrease in unit margins was driven by higher raw material costs. Higher fixed costs were a result of increased maintenance, higher activity levels and growth investments. These decreases in EBIT were partially offset by higher volumes ($32 million) and the favorable impact from changing inventory levels ($2 million). The increase in volumes were primarily driven by growth across all Performance Chemicals segments during fiscal 2017 with increases in volumes from Asia, North America and Europe.

In fiscal 2016, EBIT in Performance Chemicals was $47 million higher when compared to fiscal 2015 primarily due to higher unit margins ($34 million) and lower fixed costs ($22 million), partially offset by the unfavorable impact of reducing inventory levels ($6 million) and the unfavorable impact of foreign currency translation ($2 million). Unit margins improved primarily due to lower raw material costs. Lower fixed costs were primarily due to cost reductions as a result of restructuring actions taken earlier in the fiscal year.

Purification Solutions

Sales and EBIT for Purification Solutions for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Purification Solutions Sales	$ 281	$ 290	$ 296
Purification Solutions EBIT	$ 6	$ (5)	$ 5

Sales in Purification Solutions decreased by $9 million in fiscal 2017 when compared to fiscal 2016 due to a less favorable price and product mix (combined $16 million) and an unfavorable comparison of foreign currency translation ($1 million), partially offset by higher volumes ($8 million). The less favorable price and product mix was primarily due to price competition in North America for powder activated carbon and weaker mix in specialty applications. The increase in volumes during fiscal 2017 was primarily due to volume growth within mercury removal and specialty applications.

Sales in Purification Solutions decreased by $6 million in fiscal 2016 when compared to fiscal 2015 primarily due to a less favorable price and product mix (combined $10 million) and the unfavorable impact of foreign currency translation ($6 million), partially offset by an increase in volumes ($10 million). The less favorable price and product mix was due to competitive factors in certain gas and air and water applications as well as increased demand for lower priced products. Higher volumes were driven by higher demand for activated carbon in gas and air applications as the MATS regulation took full effect in April 2016.

EBIT in Purification Solutions increased by $11 million in fiscal 2017 when compared to fiscal 2016 driven by the favorable impact of changing inventory levels ($15 million), higher volumes ($5 million) and the favorable comparison of foreign currency translation ($2 million). These improvements were partially offset by lower unit margins ($5 million) and higher fixed costs ($6 million). Higher volumes were due to sales to mercury removal and specialty customers. Higher fixed costs were a result of a plant disruption during the third quarter of fiscal 2017 and investment in research and development, marketing and sales resources as we focus on growing the specialty portion of the portfolio.

EBIT in Purification Solutions decreased by $10 million in fiscal 2016 when compared to fiscal 2015 driven by the unfavorable impact from reducing inventory levels ($29 million) and lower unit margins ($12 million) due to a less favorable price and product mix and higher raw material costs, partially offset by lower fixed costs due to cost reduction efforts ($19 million), higher volumes ($9 million), and the favorable impact of foreign currency exchange ($3 million).

Specialty Fluids

Sales and EBIT for Specialty Fluids for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Specialty Fluids Sales	$ 41	$ 47	$ 42
Specialty Fluids EBIT	$ 9	$ 13	$ 6

Sales in Specialty Fluids decreased by $6 million in fiscal 2017 when compared to fiscal 2016. The decrease was primarily due to lower volumes ($9 million) from lower project activity levels that resulted in lower rental and sales volumes for our drilling fluids. The decrease in volumes was partially offset by a more favorable price and product mix (combined $2 million).

Sales in Specialty Fluids increased by $5 million in fiscal 2016 when compared to fiscal 2015. The increase was primarily due to higher volumes ($5 million). The increase in volumes was driven by a higher level of project activity that resulted in higher rental and sales volumes for our drilling fluids in both the North Sea and Asia.

EBIT in Specialty Fluids decreased by $4 million in fiscal 2017 when compared to fiscal 2016. The decrease was primarily due to lower volumes ($6 million), which was partially offset by an improved price and product mix ($2 million).

EBIT in Specialty Fluids increased by $7 million in fiscal 2016 when compared to fiscal 2015. The increase is primarily due to higher volumes ($4 million) and lower fixed costs ($4 million), partially offset by a less favorable price and product mix ($1 million).

Outlook

Looking forward to 2018, we remain focused on our strategy of investing for growth in the core, driving application innovation with our customers, and generating strong cash flows through efficiency and optimization. The global market for Reinforcement Materials generally remains favorable. We continue to see strength in Europe driven by increasing demand and high utilization rates. In China, both demand and pricing remain firm, and the long-term fundamentals for tire growth in North America remain solid with growth rates expected to be in line with gross domestic product ("GDP"). In terms of emerging markets, South America continues to gain momentum across all product categories as the local economies slowly recover. In Performance Chemicals, the end markets remain robust with growth rates in excess of global GDP and we continue to develop the foundation for future growth in Fumed Metal Oxides with our announced investments in Wuhai, China and Carrollton, Kentucky and in Specialty Compounds with our acquisition of Tech Blend. In addition, we have numerous expansion and debottleneck projects underway around the world to support capacity growth for our carbon black businesses. In Purification Solutions, we anticipate continued momentum in specialty applications, while competition will remain intense in our mercury removal business in North America. The Specialty Fluids segment continues to make progress in the expansion of the customer base in the Asia, Middle East and Africa region. In addition, in 2018, we will continue to invest in new product and process technology, seek to capture the operating leverage from improving utilizations, and pursue growth investments including acquisitions in our existing businesses.

Cash Flows and Liquidity

Overview

Our liquidity position, as measured by cash and cash equivalents plus borrowing availability, increased by $80 million during fiscal 2017. The increase was attributable to an increase in our cash balances due to strong cash flow from operations. As of September 30, 2017, we had cash and cash equivalents of $280 million and borrowing availability under our revolving credit agreement of $1 billion. Our revolving credit agreement, which was amended in October 2017 to extend the maturity to October 2022, supports our commercial paper program and may be used for working capital, letters of credit and other general corporate purposes.

At September 30, 2017, we were in compliance with all applicable covenants under our revolving credit facility including the total consolidated debt to consolidated EBITDA (earnings before interest, taxes, depreciation and amortization) covenant.

A significant portion of our business occurs outside the U.S. and our cash generation does not always align geographically with our cash needs. The vast majority of our cash and cash equivalent holdings tend to be held outside the U.S. Cash held by foreign subsidiaries is generally used to finance the subsidiaries' operational activities and future investments. We use commercial paper throughout the year to manage short term U.S. cash needs. The commercial paper balance is generally paid down at quarter-end using cash derived from customer collections, settlement of intercompany balances and short-term intercompany loans. In the unusual event that additional funds are needed in the U.S., we have the ability to repatriate additional funds. Such repatriation could result in an adjustment to our tax liability.

We generally manage our cash and debt on a global basis to provide for working capital requirements as needed by region or site. Cash and debt are generally denominated in the local currency of the subsidiary holding the assets or liabilities, except where there are operational cash flow reasons to hold non-functional currency or debt.

We anticipate sufficient liquidity from (i) cash on hand; (ii) cash flows from operating activities; and (iii) cash available from our revolving credit agreement and our commercial paper program to meet our operational and capital investment needs and financial obligations for the foreseeable future. The liquidity we derive from cash flows from operations is, to a large degree, predicated on our ability to collect our receivables in a timely manner, the cost of our raw materials, and our ability to manage inventory levels.

We issued $250 million of 2.55% fixed rate debt in fiscal 2012 that matures on January 15, 2018. We intend to refinance this debt, and are evaluating all of our refinancing options, including a public bond, commercial paper, and various forms of bank debt.

Our Consolidated Statements of Cash Flows have been presented to include discontinued operations with continuing operations. Therefore, unless noted otherwise, the following discussion of our cash flows and liquidity position include both continuing and discontinued operations.

The following discussion of the changes in our cash balance refers to the various sections of our Consolidated Statements of Cash Flows.

Cash Flows from Operating Activities

Cash provided by operating activities, which consists of net income adjusted for the various non-cash items included in income, changes in working capital and changes in certain other balance sheet accounts, totaled $340 million in fiscal 2017. Operating activities provided $392 million and $499 million in fiscal 2016 and 2015, respectively.

Cash provided by operating activities in fiscal 2017 was driven primarily by net income of $266 million plus $155 million of non-cash depreciation and amortization. In addition, there was an increase in accounts payable and accruals and dividends from equity affiliates. These sources of cash were partially offset by increases in accounts receivable and inventories due to higher sales and raw material costs.

Cash provided by operating activities in fiscal 2016 was driven primarily by net income of $164 million plus $161 million of non-cash depreciation and amortization. In addition, there was a net decrease in accounts receivable and inventories largely driven by lower raw material costs and associated price reductions. These sources of cash were partially offset by a decrease in accounts payable.

Cash provided by operating activities in fiscal 2015 was driven primarily by our non-cash charges for depreciation and amortization and asset impairments, which more than offset our net loss for the period. In addition, there was a net decrease in accounts receivable and inventories largely driven by lower raw material costs and associated price reductions.

In addition to the factors noted above, the following other elements of operations have a bearing on operating cash flows:

Restructurings — As of September 30, 2017, we had $3 million of total restructuring costs in accrued expenses in the Consolidated Balance Sheets related to our global restructuring activities. We made cash payments of $6 million during fiscal 2017. In fiscal 2018 and thereafter, we expect to make cash payments totaling approximately $6 million related to these restructuring plans.

We may receive cash in the future from the sale of certain assets and land relating to restructured sites, which is not included in these amounts.

Environmental Reserves and Litigation Matters—As of September 30, 2017, we had a $12 million reserve for environmental remediation costs at various sites. These sites are primarily associated with businesses divested in prior years. Additionally, as of September 30, 2017, we had a $18 million reserve for respirator claims. Expenditures for each of these reserves will be incurred over many years. We also have other litigation costs arising in the ordinary course of business.

Cash Flows from Investing Activities

In fiscal 2017, capital expenditures were $147 million. Capital expenditures were primarily related to sustaining and compliance capital projects at our operating facilities. In fiscal 2016, capital expenditures were $112 million. Major capital project expenditures were related to sustaining and compliance activities. In fiscal 2015, capital expenditures were $141 million. Major capital project expenditures were related to the completion of our lignite mine development project in the Purification Solutions segment, mine development activities for our Specialty Fluids segment, and sustaining and compliance capital projects at our operating facilities.

Capital expenditures for fiscal 2018 are expected to be between $225 million and $250 million. Our planned capital spending program for fiscal 2018 is primarily for sustaining, compliance and improvement capital projects at our operating facilities as well as expansion capital expenditures, primarily for the construction of our fumed silica manufacturing plants in Carrollton, Kentucky and Wuhai, China.

Cash Flows from Financing Activities

Financing activities consumed $125 million of cash in fiscal 2017 compared to $184 million in fiscal 2016 and $256 million in fiscal 2015. The use of cash in fiscal 2017 was primarily related to cash dividends paid to common stockholders of $77 million, purchases of common stock of $61 million, and cash dividends paid to noncontrolling interests of $14 million. Partially offsetting these uses of cash was $21 million of proceeds from the exercise of stock options granted under our incentive compensation plans.

The use of cash in fiscal 2016 was primarily related to cash dividends paid to common stockholders of $65 million, purchases of common stock of $45 million, cash dividends paid to noncontrolling interests of $16 million, and a decrease in our overall debt balance of $68 million. The decrease in debt was driven primarily by our redemption of our $300 million 5% fixed rate debt and a reduction in our outstanding commercial paper, partially offset by the issuance of $250 million in registered notes with a coupon of 3.4% that mature on September 15, 2026.

At September 30, 2017, we had $1 billion of availability under our credit agreement. Although generally we have an outstanding commercial paper balance during the quarter, we pay down the balance at quarter-end through cash receipts from collections, settlement of intercompany balances and short-term intercompany loans. As such, there was no commercial paper outstanding at September 30, 2017 or 2016.

Our long-term total debt, of which $256 million is current, matures at various times as presented in Note H of our Notes to the Consolidated Financial Statements. The weighted-average interest rate on our fixed rate long-term debt was 3.54% as of September 30, 2017.

Share Repurchases

During fiscal 2017, 2016, and 2015, we repurchased approximately 1.1 million, 0.8 million, and 2.3 million shares of our common stock on the open market for an aggregate purchase price of $59 million, $39 million, and $96 million, respectively. As of September 30, 2017, we had approximately 1.7 million shares available for repurchase under the Board of Directors' share repurchase authorization.

Dividend Payments

In fiscal 2017, 2016 and 2015, we paid cash dividends on our common stock of $1.23, $1.04 and $0.88 per share, respectively. These cash dividend payments totaled $77 million in fiscal 2017, $65 million in fiscal 2016, and $56 million in fiscal 2015.

Employee Benefit Plans

As of September 30, 2017, we had a consolidated pension obligation, net of the fair value of plan assets, of $115 million, comprised of $62 million for pension benefit plan liabilities and $53 million for postretirement benefit plan liabilities.

The $62 million of unfunded pension benefit plan liabilities is derived as follows:

	U.S.	Foreign	Total
		(In millions)	
Fair Value of Plan Assets	$ 156	$ 318	$ 474
Benefit Obligation	160	376	536
Unfunded Status	$ (4)	$ (58)	$ (62)

In fiscal 2017, we made cash contributions totaling approximately $9 million to our foreign pension benefit plans. In fiscal 2018, we expect to make cash contributions of $8 million to our foreign pension plans.

The $53 million of unfunded postretirement benefit plan liabilities is comprised of $33 million for our U.S. and $20 million for our foreign postretirement benefit plans. These postretirement benefit plans provide certain health care and life insurance benefits for retired employees. Typical of such plans, our postretirement plans are unfunded and, therefore, have no plan assets. We fund these plans as claims or insurance premiums come due. In fiscal 2017, we paid postretirement benefits of $3 million under our U.S. postretirement plans and less than $1 million under our foreign postretirement plans. For fiscal 2018, our benefit payments for our postretirement plans are expected to be immaterial.

Off-Balance Sheet Arrangements

We had no material transactions that meet the definition of an off-balance sheet arrangement.

Contractual Obligations

The following table sets forth our long-term contractual obligations.

	Payments Due by Fiscal Year						
	2018	2019	2020	2021	2022	Thereafter	Total
				(In millions)			
Purchase Commitments	$ 304	$ 298	$ 193	$ 146	$ 134	$ 1,858	$ 2,933
Long-term debt	255	30	—	—	365	258	908
Capital lease obligations[1]	3	2	2	2	2	9	20
Fixed interest on long-term debt	28	24	23	23	20	37	155
Operating leases	25	16	10	9	8	68	136
Total	$ 615	$ 370	$ 228	$ 180	$ 529	$ 2,230	$ 4,152

(1) Capital lease obligations include interest.

Purchase Commitments

We have entered into long-term, volume-based purchase agreements primarily for the purchase of raw materials and natural gas with various key suppliers in Reinforcement Materials, Performance Chemicals, and Purification Solutions. Under certain of these agreements the quantity of material being purchased is fixed, but the price we pay changes as market prices change. For purposes of the table above, current purchase prices have been used to quantify total commitments.

Capital Leases

We have capital lease obligations primarily for certain equipment and buildings. These obligations are payable over the next 16 years.

Operating Leases

We have operating leases primarily comprised of leases for transportation vehicles, warehouse facilities, office space, and machinery and equipment.

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

We are exposed to changes in interest rates and foreign currency exchange rates because we finance certain operations through long- and short-term borrowings and denominate our transactions in a variety of foreign currencies. Changes in these rates may have an impact on future cash flows and earnings. We manage these risks through normal operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments.

We have policies governing our use of derivative instruments, and we do not enter into financial instruments for trading or speculative purposes.

By using derivative instruments, we are subject to credit and market risk. The derivative instruments are booked in our balance sheet at fair value and reflect the asset or liability position as of September 30, 2017. If a counterparty fails to fulfill its performance obligations under a derivative contract, our exposure will equal the fair value of the derivative. Generally, when the fair value of a derivative contract is positive, the counterparty owes Cabot, thus creating a payment risk for Cabot. We minimize counterparty credit or repayment risk by entering into these transactions with major financial institutions of investment grade credit rating. Our exposure to market risk is not hedged in a manner that completely eliminates the effects of changing market conditions on earnings or cash flow.

Foreign Currency Risk

Our international operations are subject to certain risks, including currency exchange rate fluctuations and government actions. In the fourth quarter of fiscal 2016, we entered into cross-currency swaps designated as hedges of our net investments in certain Euro denominated subsidiaries. The following table summarizes the principal terms of our cross-currency swaps, including the aggregate notional amount of the swaps, the interest rate payment we receive from and pay to our swap counterparties, the term and fair value at September 30, 2017.

Description	Notional Amount	Interest Rate Received	Interest Rate Paid	Fiscal Year Entered Into	Maturity Year	Fair Value at September 30, 2017
Cross-Currency Swaps	USD 250 million swapped to EUR 223 million	3.40%	1.94%	2016	2026	$(13) million

We also have foreign currency exposures arising from the denomination of monetary assets and liabilities in foreign currencies other than the functional currency of a given subsidiary as well as the risk that currency fluctuations could affect the dollar value of future cash flows generated in foreign currencies. Accordingly, we use short-term forward contracts to minimize the exposure to foreign currency risk. At September 30, 2017, we had $5 million in net notional foreign currency contracts, which were denominated in Indonesian rupiah and Czech koruna. These forwards had a fair value of less than $1 million as of September 30, 2017.

In certain situations where we have forecasted purchases under a long-term commitment or forecasted sales denominated in a foreign currency we may enter into appropriate financial instruments in accordance with our risk management policy to hedge future cash flow exposures.

The primary currencies for which we have exchange rate exposure are the Euro, Japanese Yen, Brazilian Real, and Argentine Peso. In fiscal year 2017, foreign currency translations in the aggregate decreased our business segment EBIT by $2 million, the majority of which affected the results of the Reinforcement Materials and Performance Chemicals segments, partially offset by a favorable impact to the Purification Solutions segment. The overall unfavorable impact was largely from the translation of local currency denominated operating costs to U.S. dollars in China and Brazil, where the average exchange rates increased in value versus the U.S. dollar during fiscal 2017. In addition, we recognized a $4 million expense in Other income (expense) in fiscal 2017 from the revaluation of monetary assets and liabilities from transactional currencies to functional currency, largely attributable to changes in the value of the Argentine Peso and the Colombian Peso during the year.

Item 8. Financial Statements and Supplementary Data

INDEX TO FINANCIAL STATEMENTS

Description		Page
(1)	Consolidated Statements of Operations	44
(2)	Consolidated Statements of Comprehensive Income	45
(3)	Consolidated Balance Sheets	46
(4)	Consolidated Statements of Cash Flows	48
(5)	Consolidated Statements of Changes in Stockholders' Equity	49
(6)	Notes to the Consolidated Financial Statements	50
(7)	Reports of Independent Registered Public Accounting Firm	87

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended September 30		
	2017	2016	2015
	(In millions, except per share amounts)		
Net sales and other operating revenues	$ 2,717	$ 2,411	$ 2,871
Cost of sales	2,065	1,833	2,286
Gross profit	652	578	585
Selling and administrative expenses	260	275	282
Research and technical expenses	56	53	58
Purification Solutions long-lived assets impairment charge (Note E)	—	—	210
Purification Solutions goodwill impairment charge (Note E)	—	—	352
Income (loss) from operations	336	250	(317)
Interest and dividend income	9	5	4
Interest expense	(53)	(54)	(53)
Other income (expense)	(4)	(7)	(11)
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	288	194	(377)
(Provision) benefit for income taxes	(29)	(34)	45
Equity in earnings of affiliated companies, net of tax	7	3	4
Income (loss) from continuing operations	266	163	(328)
Income (loss) from discontinued operations, net of tax of $—, $1 and $—	—	1	2
Net income (loss)	266	164	(326)
Net income (loss) attributable to noncontrolling interests, net of tax of $6, $4 and $5	25	15	8
Net income (loss) attributable to Cabot Corporation	$ 241	$ 149	$ (334)
Weighted-average common shares outstanding:			
Basic	62.3	62.4	63.4
Diluted	62.7	62.9	63.4
Earnings per common share:			
Basic:			
Income (loss) from continuing operations attributable to Cabot Corporation	$ 3.83	$ 2.36	$ (5.29)
Income (loss) from discontinued operations	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ 3.83	$ 2.38	$ (5.27)
Diluted:			
Income (loss) from continuing operations attributable to Cabot Corporation	$ 3.80	$ 2.34	$ (5.29)
Income (loss) from discontinued operations	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ 3.80	$ 2.36	$ (5.27)
Dividends per common share	$ 1.23	$ 1.04	$ 0.88

The accompanying notes are an integral part of these consolidated financial statements.

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Net income (loss)	$ 266	$ 164	$ (326)
Other comprehensive income (loss), net of tax			
Foreign currency translation adjustment, net of tax (provision) benefit of $4, $—, $3	25	7	(270)
Pension and other postretirement benefit liability adjustments			
Pension and other postretirement benefit liability adjustments arising during the period, net of tax	41	(38)	28
Amortization of net loss and prior service credit included in net periodic pension cost, net of tax	2	—	3
Other comprehensive income (loss)	68	(31)	(239)
Comprehensive income (loss)	334	133	(565)
Net income (loss) attributable to noncontrolling interests, net of tax	25	15	8
Foreign currency translation adjustment attributable to noncontrolling interests, net of tax	2	(5)	(4)
Comprehensive income (loss) attributable to noncontrolling interests	27	10	4
Comprehensive income (loss) attributable to Cabot Corporation	$ 307	$ 123	$ (569)

The accompanying notes are an integral part of these consolidated financial statements.

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
ASSETS

	September 30	
	2017	2016
	(In millions, except share and per share amounts)	
Current assets:		
Cash and cash equivalents	$ 280	$ 200
Accounts and notes receivable, net of reserve for doubtful accounts of $9 and $8	527	456
Inventories	396	342
Prepaid expenses and other current assets	59	49
Total current assets	1,262	1,047
Property, plant and equipment	3,602	3,433
Accumulated depreciation	(2,297)	(2,143)
Net property, plant and equipment	1,305	1,290
Goodwill	154	152
Equity affiliates	56	53
Intangible assets, net	137	140
Assets held for rent	104	97
Deferred income taxes	250	216
Other assets	46	40
Total assets	$ 3,314	$ 3,035

The accompanying notes are an integral part of these consolidated financial statements.

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
LIABILITIES AND STOCKHOLDERS' EQUITY

	September 30	
	2017	2016
	(In millions, except share and per share amounts)	
Current liabilities:		
Notes payable	$ 7	$ 7
Accounts payable and accrued liabilities	457	364
Income taxes payable	22	25
Current portion of long-term debt	256	1
Total current liabilities	742	397
Long-term debt	661	914
Deferred income taxes	38	41
Other liabilities	245	285
Redeemable preferred stock	27	26
Commitments and contingencies (Note R)		
Stockholders' equity:		
Preferred stock:		
Authorized: 2,000,000 shares of $1 par value		
Issued and Outstanding: None and none	—	—
Common stock:		
Authorized: 200,000,000 shares of $1 par value		
Issued: 62,087,627 and 62,449,425 shares		
Outstanding 61,884,347 and 62,210,711 shares	62	62
Less cost of 203,280 and 238,714 shares of common treasury stock	(6)	(7)
Additional paid-in capital	—	—
Retained earnings	1,683	1,544
Accumulated other comprehensive income (loss)	(259)	(325)
Total Cabot Corporation stockholders' equity	1,480	1,274
Noncontrolling interests	121	98
Total stockholders' equity	1,601	1,372
Total liabilities and stockholders' equity	$ 3,314	$ 3,035

The accompanying notes are an integral part of these consolidated financial statements.

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Cash Flows from Operating Activities:			
Net income (loss)	$ 266	$ 164	$ (326)
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Depreciation and amortization	155	161	183
Long-lived asset impairment charge	—	23	210
Goodwill impairment charge	—	—	352
Deferred tax provision (benefit)	(35)	(35)	(86)
Employee benefit plan settlement	—	—	18
Equity in net income of affiliated companies	(7)	(3)	(4)
Non-cash compensation	16	17	12
Tax benefit from stock based compensation awards	(8)	—	(2)
Other non-cash (income) expense	(3)	5	6
Changes in assets and liabilities:			
Accounts and notes receivable	(64)	25	154
Inventories	(50)	51	58
Prepaid expenses and other current assets	(14)	1	16
Accounts payable and accrued liabilities	91	(27)	(75)
Income taxes payable	(2)	(4)	(19)
Other liabilities	(16)	5	(12)
Cash dividends received from equity affiliates	11	9	14
Cash provided by operating activities	340	392	499
Cash Flows from Investing Activities:			
Additions to property, plant and equipment	(147)	(112)	(141)
Proceeds from the sale of land	—	16	—
Change in assets held for rent	(6)	(8)	(21)
Other	4	—	—
Cash used in investing activities	(149)	(104)	(162)
Cash Flows from Financing Activities:			
Borrowings under financing arrangements	1	—	—
Repayments under financing arrangements	(3)	(3)	(3)
Increase in notes payable, net	2	—	—
Repayments from issuance of commercial paper, net	—	(12)	(18)
Proceeds from long-term debt, net of issuance costs	—	248	—
Repayments of long-term debt	(2)	(301)	(57)
Purchases of common stock	(61)	(45)	(101)
Proceeds from sales of common stock	21	10	4
Tax benefit from stock based compensation awards	8	—	2
Cash dividends paid to noncontrolling interests	(14)	(16)	(27)
Cash dividends paid to common stockholders	(77)	(65)	(56)
Cash used in financing activities	(125)	(184)	(256)
Effects of exchange rate changes on cash	14	19	(71)
Increase (decrease) in cash and cash equivalents	80	123	10
Cash and cash equivalents at beginning of year	200	77	67
Cash and cash equivalents at end of year	$ 280	$ 200	$ 77
Income taxes paid	$ 69	$ 66	$ 78
Interest paid	$ 48	$ 51	$ 42

The accompanying notes are an integral part of these consolidated financial statements

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(In millions, except shares in thousands)

	Common Stock, Net of Treasury Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Cabot Corporation Stockholders' Equity	Noncontrolling Interests	Total Stockholders' Equity
	Shares	Cost						
Balance at September 30, 2014	64,383	$ 57	$ 49	$ 1,900	$ (64)	$ 1,942	$ 122	$ 2,064
Net income (loss) attributable to Cabot Corporation				(334)		(334)		(334)
Net income (loss) attributable to noncontrolling interests							8	8
Total other comprehensive income (loss)					(235)	(235)	(4)	(239)
Cash dividends paid to noncontrolling interests							(22)	(22)
Cash dividends paid to common stockholders				(56)		(56)		(56)
Issuance of stock under equity compensation plans	450	—	6			6		6
Amortization of share-based compensation			12			12		12
Purchase and retirement of common stock	(2,375)	(2)	(67)	(32)		(101)		(101)
Balance at September 30, 2015	62,458	55	—	1,478	(299)	1,234	104	1,338
Net income (loss) attributable to Cabot Corporation				149		149		149
Net income (loss) attributable to noncontrolling interests							15	15
Total other comprehensive income (loss)					(26)	(26)	(5)	(31)
Cash dividends paid to noncontrolling interests							(16)	(16)
Cash dividends paid to common stockholders				(65)		(65)		(65)
Issuance of stock under equity compensation plans	737	1	9			10		10
Amortization of share-based compensation			17			17		17
Purchase and retirement of common stock	(984)	(1)	(26)	(18)		(45)		(45)
Balance at September 30, 2016	62,211	55	—	1,544	(325)	1,274	98	1,372
Net income (loss) attributable to Cabot Corporation				241		241		241
Net income (loss) attributable to noncontrolling interests							25	25
Total other comprehensive income (loss)					66	66	2	68
Contributions from noncontrolling interest							4	4
Acquisition of noncontrolling interest			(6)			(6)	6	—
Cash dividends paid to noncontrolling interests							(14)	(14)
Cash dividends paid to common stockholders				(77)		(77)		(77)
Issuance of stock under equity compensation plans	833	2	25			27		27
Amortization of share-based compensation			16			16		16
Purchase and retirement of common stock	(1,160)	(1)	(35)	(25)		(61)		(61)
Balance at September 30, 2017	61,884	$ 56	$ —	$ 1,683	$ (259)	$ 1,480	$ 121	$ 1,601

The accompanying notes are an integral part of these consolidated financial statements.

Note A. Significant Accounting Policies

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States ("U.S."). The significant accounting policies of Cabot Corporation ("Cabot" or "the Company") are described below.

Unless otherwise indicated, all disclosures and amounts in the Notes to the Consolidated Financial Statements relate to the Company's continuing operations.

Effective October 1, 2016, the Company adopted a new accounting standard simplifying the presentation of debt issuance costs by presenting debt issuance costs as a reduction of the corresponding debt liability. In addition, the Company early adopted a new accounting standard that simplifies the presentation of deferred income taxes by classifying all deferred taxes as noncurrent assets or liabilities. These new standards were applied retrospectively. The retrospective application of the standard that simplifies the presentation of debt issuance costs resulted in the reclassification of $1 million and $3 million of unamortized debt issuance costs from Prepaid expenses and other current assets and Other assets, respectively, to Long-term debt within the Consolidated Balance Sheets as of September 30, 2016 and $1 million and $2 million of unamortized debt issuance costs from Prepaid expenses and other current assets and Other assets, respectively, to Long-term debt within the Consolidated Balance Sheets as of September 30, 2015. The retrospective application of the standard that simplifies the presentation of deferred income taxes resulted in the reclassification of $41 million of current deferred tax assets and $1 million of current deferred tax liabilities to noncurrent deferred tax accounts within the Consolidated Balance Sheets as of September 30, 2016 and $43 million of current deferred tax assets and $1 million of current deferred tax liabilities to noncurrent deferred tax accounts within the Consolidated Balance Sheets as of September 30, 2015.

Principles of Consolidation

The consolidated financial statements include the accounts of Cabot and its wholly-owned subsidiaries and majority-owned and controlled U.S. and non-U.S. subsidiaries. Additionally, Cabot considers consolidation of entities over which control is achieved through means other than voting rights, of which there were none in the periods presented. Intercompany transactions have been eliminated in consolidation.

Cash and Cash Equivalents

Cash equivalents include all highly liquid investments with a maturity of three months or less at date of acquisition. Cabot continually assesses the liquidity of cash equivalents and, as of September 30, 2017, has determined that they are readily convertible to cash.

Inventories

Inventories are stated at the lower of cost or market. The cost of all carbon black inventories in the U.S. is determined using the last-in, first-out ("LIFO") method. The cost of Specialty Fluids inventories that are classified as assets held for rent is determined using the average cost method. The cost of other U.S. and non-U.S. inventories is determined using the first-in, first-out ("FIFO") method.

Cabot periodically reviews inventory for both potential obsolescence and potential declines in anticipated selling prices. In this review, the Company makes assumptions about the future demand for and market value of the inventory, and based on these assumptions estimates the amount of any obsolete, unmarketable, slow moving, or overvalued inventory. Cabot writes down the value of these inventories by an amount equal to the difference between the cost of the inventory and its estimated net realizable value.

Investments

The Company has investments in equity affiliates and marketable securities. As circumstances warrant, all investments are subject to periodic impairment reviews. Unless consolidation is required, investments in equity affiliates, where Cabot generally owns between 20% and 50% of the affiliate, are accounted for using the equity method. Cabot records its share of the equity affiliate's results of operations based on its percentage of ownership of the affiliate. Dividends declared from equity affiliates are a return on investment and are recorded as a reduction to the equity investment value. At September 30, 2017 and 2016, Cabot had equity affiliate investments of $56 million and $53 million, respectively. Dividends declared and received from these investments were $11 million, $9 million and $14 million in fiscal 2017, 2016 and 2015, respectively.

All investments in marketable securities are classified as available-for-sale and are recorded at fair value with the corresponding unrealized holding gains or losses, net of taxes, recorded as a separate component of Other comprehensive income (loss). Unrealized losses that are determined to be other-than-temporary, based on current and expected market conditions, are recognized in earnings. The fair value of marketable securities is determined based on quoted market prices at the balance sheet dates. The cost of marketable securities sold is determined by the specific identification method. The Company's investment in marketable securities was $3 million and $2 million as of September 30, 2017 and 2016, respectively.

Intangible Assets and Goodwill Impairment

The Company records tangible and intangible assets acquired and liabilities assumed in business combinations under the acquisition method of accounting. Amounts paid for an acquisition are allocated to the assets acquired and liabilities assumed based on their fair values at the date of acquisition. The Company uses assumptions and estimates in determining the fair value of assets acquired and liabilities assumed in a business combination. The determination of the fair value of intangible assets requires the use of significant judgment with regard to assumptions used in the valuation model. The Company estimates the fair value of identifiable acquisition-related intangible assets principally based on projections of cash flows that will arise from these assets. The projected cash flows are discounted to determine the fair value of the assets at the dates of acquisition.

Definite-lived intangible assets, which are comprised of trademarks, customer relationships and developed technologies, are amortized over their estimated useful lives and are reviewed for impairment when indication of potential impairment exists, such as a significant reduction in cash flows associated with the assets. The Company recognized an impairment on intangible assets associated with the Purification Solutions business in the third fiscal quarter of 2015, and no events have been subsequently identified that would require an additional impairment evaluation.

Goodwill is comprised of the purchase price of business acquisitions in excess of the fair value assigned to the net tangible and identifiable intangible assets acquired. Goodwill is not amortized, but is reviewed for impairment annually as of May 31, or when events or changes in the business environment indicate that the carrying value of the reporting unit may exceed its fair value. A reporting unit, for the purpose of the impairment test, is at or below the operating segment level, and constitutes a business for which discrete financial information is available and regularly reviewed by segment management. The reporting units with goodwill balances are Reinforcement Materials, Purification Solutions, and Fumed Metal Oxides. The separate businesses included within Performance Chemicals are considered separate reporting units. As such, the goodwill balance relative to Performance Chemicals is recorded in the Fumed Metal Oxides reporting unit.

For the purpose of the goodwill impairment test, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If an initial qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit exceeds its estimated fair value, an additional quantitative evaluation is performed. Alternatively, the Company may elect to proceed directly to the quantitative goodwill impairment test. If based on the quantitative evaluation the fair value of the reporting unit is less than its carrying amount, a goodwill impairment loss would result. The goodwill impairment loss would be the amount by which the carrying value of the reporting unit, including goodwill, exceeds its fair value, limited to the total amount of goodwill allocated to that reporting unit. The fair value of a reporting unit is based on discounted estimated future cash flows. The fair value is also benchmarked against a market approach using the guideline public companies method. The assumptions used to estimate fair value include management's best estimates of future growth rates, operating cash flows, capital expenditures and discount rates over an estimate of the remaining operating period at the reporting unit level.

When the Company performed its annual goodwill impairment test in the third quarter of fiscal 2015, the fair value of the Purification Solutions reporting unit was less than its carrying amount and the Company recorded impairment charges as a result. A discussion of this assessment and the charges recorded is included under Note E.

Based on the Company's most recent annual goodwill impairment test performed as of May 31, 2017, the fair values of the Reinforcement Materials and Fumed Metal Oxides reporting units were substantially in excess of their carrying values. The fair value of the Purification Solutions reporting unit exceeded its carrying amount by 13%. The fair value of the Purification Solutions reporting unit includes certain growth assumptions that are primarily dependent on: (1) growth in demand for Cabot's existing portfolio of activated carbon products and new products developed for environmental and specialty applications; and (2) stable demand in the mercury removal related portion of the business, which is largely dependent on the amount of coal-based power generation used in the U.S. and the continued regulation of those utilities under the U.S. Mercury and Air Toxics Standards regulation ("MATS"). In April 2017, the U.S. Environmental Protection Agency ("EPA") indicated that it intends to review the cost benefit analysis previously prepared by the EPA in support of MATS to determine if the EPA should reconsider MATS or some part of it. This continues to be under review by the EPA. Failure to achieve the Company's projected growth in environmental and/or specialty applications and/or actions taken by the EPA related to MATS that decrease demand for the Company's products for mercury removal could have a negative impact on the financial results and fair value of the Purification Solutions reporting unit, which may lead to impairment.

Long-lived Assets Impairment

The Company's long-lived assets primarily include property, plant and equipment, intangible assets, long-term investments and assets held for rent. The carrying values of long-lived assets are reviewed for impairment whenever events or changes in business circumstances indicate that the carrying amount of an asset may not be recoverable.

To test for impairment of assets, the Company generally uses a probability-weighted estimate of the future undiscounted net cash flows of the assets over their remaining lives to determine if the value of the asset is recoverable. Long-lived assets are grouped with other assets and liabilities at the lowest level for which independent identifiable cash flows are determinable.

An asset impairment is recognized when the carrying value of the asset is not recoverable based on the analysis described above, in which case the asset is written down to its fair value. If the asset does not have a readily determinable market value, a discounted cash flow model may be used to determine the fair value of the asset. In circumstances when an asset does not have separate identifiable cash flows, an impairment charge is recorded when the Company no longer intends to use the asset. Refer to Note E regarding the results of the impairment test performed in 2015 on the long-lived assets of the Purification Solutions segment.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation of property, plant and equipment is calculated using the straight-line method over the estimated useful lives of the related assets. The depreciable lives for buildings, machinery and equipment, and other fixed assets are between twenty and twenty-five years, ten and twenty-five years, and three and twenty-five years, respectively. The cost and accumulated depreciation for property, plant and equipment sold, retired, or otherwise disposed of are removed from the Consolidated Balance Sheets and resulting gains or losses are included in earnings in the Consolidated Statements of Operations. Expenditures for repairs and maintenance are charged to expenses as incurred. Expenditures for major renewals and betterments, which significantly extend the useful lives of existing plant and equipment, are capitalized and depreciated.

Cabot capitalizes interest costs when they are part of the historical cost of acquiring and constructing certain assets that require a period of time to prepare for their intended use. During fiscal 2017, 2016 and 2015, Cabot capitalized $1 million, $1 million and less than $1 million of interest costs, respectively. These amounts are amortized over the lives of the related assets when they are placed in service.

Assets Held for Rent

Assets held for rent represent Specialty Fluids cesium formate product that is available to customers in the normal course of business and at September 30, 2017 and 2016 also include $5 million and $10 million, respectively, of ore that has been mined and will be converted into cesium formate. Assets held for rent are stated at average cost.

Asset Retirement Obligations

Cabot estimates incremental costs for special handling, removal and disposal of materials that may or will give rise to conditional asset retirement obligations ("ARO") and then discounts the expected costs back to the current year using a credit adjusted risk free rate. Cabot recognizes ARO liabilities and costs when the timing and/or settlement can be reasonably estimated. The ARO reserves were $26 million and $22 million at September 30, 2017 and 2016, respectively, and are included in Accounts payable and accrued liabilities and Other liabilities on the Consolidated Balance Sheets.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) ("AOCI"), which is included as a component of stockholders' equity, includes unrealized gains or losses on available-for-sale marketable securities and derivative instruments, currency translation adjustments in foreign subsidiaries, translation adjustments on foreign equity securities and minimum pension liability adjustments.

Foreign Currency Translation

The functional currency of the majority of Cabot's foreign subsidiaries is the local currency in which the subsidiary operates. Assets and liabilities of foreign subsidiaries are translated into U.S. dollars at exchange rates in effect at the balance sheet dates. Income and expense items are translated at average monthly exchange rates during the year. Unrealized currency translation adjustments are included as a separate component of AOCI within stockholders' equity.

Realized and unrealized foreign currency gains and losses arising from transactions denominated in currencies other than the subsidiary's functional currency are reflected in earnings with the exception of (i) intercompany transactions considered to be of a long-term investment nature; and (ii) foreign currency borrowings designated as net investment hedges. Gains or losses arising from these transactions are included as a component of Other comprehensive income (loss). In fiscal 2017, 2016 and 2015, net foreign currency transaction losses of $4 million, $7 million, and $8 million, respectively, are included in Other income (expense) in the Consolidated Statements of Operations.

Financial Instruments

Cabot's financial instruments consist primarily of cash and cash equivalents, accounts and notes receivable, investments, accounts payable and accrued liabilities, short-term and long-term debt, and derivative instruments. The carrying values of Cabot's financial instruments approximate fair value with the exception of fixed rate long-term debt, which is recorded at amortized cost. The fair values of the Company's financial instruments are based on quoted market prices, if such prices are available. In situations where quoted market prices are not available, the Company relies on valuation models to derive fair value. Such valuation takes into account the ability of the financial counterparty to perform and the Company's own credit risk.

Cabot uses derivative financial instruments primarily for purposes of hedging the exposures to fluctuations in foreign currency exchange rates, which exist as part of its on-going business operations. Cabot does not enter into derivative contracts for speculative purposes, nor does it hold or issue any derivative contracts for trading purposes. All derivatives are recognized on the Consolidated Balance Sheets at fair value. Where Cabot has a legal right to offset derivative settlements under a master netting agreement with a counterparty, derivatives with that counterparty are presented on a net basis. The changes in the fair value of derivatives are recorded in either earnings or AOCI, depending on whether or not the instrument is designated as part of a hedge transaction and, if designated as part of a hedge transaction, the type of hedge transaction. The gains or losses on derivative instruments reported in AOCI are reclassified to earnings in the period in which earnings are affected by the underlying hedged item. The ineffective portion of all hedges is recognized in earnings during the period in which the ineffectiveness occurs.

In accordance with Cabot's risk management strategy, the Company may enter into certain derivative instruments that may not be designated as hedges for hedge accounting purposes. Although these derivatives are not designated as hedges, the Company believes that such instruments are closely correlated with the underlying exposure, thus managing the associated risk. The Company records in earnings the gains or losses from changes in the fair value of derivative instruments that are not designated as hedges. Cash movements associated with these instruments are presented in the Consolidated Statements of Cash Flows as Cash Flows from Operating Activities because the derivatives are designed to mitigate risk to the Company's cash flow from operations. The cash flows related to the principal amount of outstanding debt instruments are presented in the Cash Flows from Financing Activities section of the Consolidated Statements of Cash Flows.

Revenue Recognition

Cabot recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured. Cabot generally is able to ensure that products meet customer specifications prior to shipment. If the Company is unable to determine that the product has met the specified objective criteria prior to shipment or if title has not transferred because of sales terms, the revenue is considered "unearned" and is deferred until the revenue recognition criteria are met.

Shipping and handling charges related to sales transactions are recorded as sales revenue when billed to customers or included in the sales price. Taxes collected on sales to customers are excluded from revenues.

The following table shows the relative size of the revenue recognized in each of the Company's reportable segments:

	Years Ended September 30		
	2017	2016	2015
Reinforcement Materials	53%	48%	54%
Performance Chemicals	35%	37%	33%
Purification Solutions	11%	13%	11%
Specialty Fluids	1%	2%	2%

Cabot derives the substantial majority of its revenues from the sale of products in its Reinforcement Materials, Performance Chemicals, and Purification Solutions segments. Revenue from these products is typically recognized when the product is shipped and title and risk of loss have passed to the customer. The Company offers cash discounts and volume rebates to certain of its customers as sales incentives. The discounts and volume rebates are recorded as a reduction in sales at the time revenue is recognized and are estimated based on historical experience and contractual obligations. Cabot periodically reviews the assumptions underlying its estimates of discounts and volume rebates and adjusts its revenues accordingly.

For major activated carbon injection systems projects in Purification Solutions, revenue is recognized using the percentage-of-completion method.

Revenue in Specialty Fluids arises primarily from the rental of cesium formate. This revenue is recognized throughout the rental period based on the contracted rental terms. Customers are also billed and revenue is recognized, typically at the end of the job, for cesium formate product that is not returned. The Company also generates revenues from cesium formate sold outside of a rental process and the sale of fine cesium chemicals in which revenue is recognized upon delivery of the product.

Cost of Sales

Cost of sales consists of the cost of raw and packaging materials, direct manufacturing costs, depreciation, internal transfer costs, inspection costs, inbound and outbound freight and shipping and handling costs, plant purchasing and receiving costs and other overhead expenses necessary to manufacture the products.

Accounts and Notes Receivable

Trade receivables are recorded at the invoiced amount and generally do not bear interest. Trade receivables in China may at certain times be settled with the receipt of bank issued non-interest bearing notes. These notes totaled 73 million Chinese Renminbi ("RMB") ($11 million) and 102 million RMB ($15 million) as of September 30, 2017 and 2016, respectively, and are included in Accounts and notes receivable on the Company's Consolidated Balance Sheets. Cabot periodically sells a portion of these bank notes and other customer receivables at a discount and such sales are accounted for as asset sales. The Company does not have any continuing involvement with these notes or other customer receivables after the sale. The difference between the proceeds from the sale and the carrying value of these assets is recognized as a loss on the sale of receivables and is included in Other income (expense) in the accompanying Consolidated Statements of Operations. During fiscal 2017, 2016 and 2015, the Company recorded charges of $2 million, $1 million, and $3 million, respectively, for the sale of these assets.

Cabot maintains allowances for doubtful accounts based on an assessment of the collectability of specific customer accounts, the aging of accounts receivable and other economic information on both a historical and prospective basis. Customer account balances are charged against the allowance when it is probable the receivable will not be recovered. There were no material changes in the allowance for any of the years presented. There is no material off-balance sheet credit exposure related to customer receivable balances.

Stock-based Compensation

Cabot recognizes compensation expense for stock-based awards granted to employees using the fair value method. Under the fair value recognition provisions, stock-based compensation cost is measured at the grant date based on the fair value of the award, and is recognized as expense over the service period, which generally represents the vesting period, and includes an estimate of the awards that will be forfeited, and an estimate of what level of performance the Company will achieve for Cabot's performance-based stock awards. Cabot calculates the fair value of its stock options using the Black-Scholes option pricing model. The fair value of restricted stock units is determined using the closing price of Cabot stock on the day of the grant.

Selling and Administrative Expenses

Selling and administrative expenses consist of salaries and fringe benefits of sales and office personnel, general office expenses and other expenses not directly related to manufacturing operations.

Research and Technical Expenses

Research and technical expenses include salaries, equipment and material expenditures, and contractor fees and are expensed as incurred.

Income Taxes

Deferred income taxes are determined based on the estimated future tax effects of differences between financial statement carrying amounts and the tax bases of existing assets and liabilities. Deferred tax assets are recognized to the extent that realization of those assets is considered to be more likely than not.

A valuation allowance is established for deferred taxes when it is more likely than not that all or a portion of the deferred tax assets will not be realized. Provisions are made for the U.S. income tax liability and additional non-U.S. taxes on the undistributed earnings of non-U.S. subsidiaries, except for amounts Cabot has designated to be indefinitely reinvested.

Cabot records benefits for uncertain tax positions based on an assessment of whether the position is more likely than not to be sustained by the taxing authorities. If this threshold is not met, no tax benefit of the uncertain tax position is recognized. If the threshold is met, the tax benefit that is recognized is the largest amount that is greater than 50% likely of being realized upon ultimate settlement. This analysis presumes the taxing authorities' full knowledge of the positions taken and all relevant facts, but does not consider the time value of money. The Company also accrues for interest and penalties on its uncertain tax positions and includes such charges in its income tax provision in the Consolidated Statements of Operations.

Environmental Costs

Cabot accrues environmental costs when it is probable that a liability has been incurred and the amount can be reasonably estimated. When a single liability amount cannot be reasonably estimated, but a range can be reasonably estimated, Cabot accrues the amount that reflects the best estimate within that range or the low end of the range if no estimate within the range is better. The amount accrued reflects Cabot's assumptions about remediation requirements at the contaminated site, the nature of the remedy, the outcome of discussions with regulatory agencies and other potentially responsible parties at multi-party sites, and the number and financial viability of other potentially responsible parties. Cabot does not reduce its estimated liability for possible recoveries from insurance carriers. Proceeds from insurance carriers are recorded when realized by either the receipt of cash or a contractual agreement.

Use of Estimates

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

Note B. Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued a new standard, "Revenue from Contracts with Customers", which amends the existing accounting standards for revenue recognition. The standard requires entities to recognize revenue when they transfer promised goods or services to customers in an amount that reflects the consideration the entity expects to be entitled to in exchange for those goods or services. This standard is applicable for fiscal years beginning after December 15, 2017 and for interim periods within those years, and early adoption is permitted for the fiscal years beginning after December 15, 2016. The Company has completed its preliminary assessment of the new standard, which included review of a sample of contracts across the Company's four business segments. Based on this assessment, the Company does not expect a material impact on how it recognizes revenue. The Company is continuing to review additional contracts to determine the final impact that the new standard will have on its revenue recognition policy, controls processes and financial statement disclosures. The Company will adopt this standard on October 1, 2018 and expects to apply a modified retrospective approach.

In February 2016, the FASB issued a new standard for the accounting for leases. This new standard requires lessees to recognize assets and liabilities for most leases, but recognize expenses on their income statements in a manner that is similar to the current accounting treatment for leases. The standard is applicable for fiscal years beginning after December 15, 2018 and for interim periods within those years, and early adoption is permitted. The Company expects to adopt the standard on October 1, 2019. The Company is currently evaluating the impact of the adoption of this standard on its consolidated financial statements.

In March 2016, the FASB issued a new standard that amends the accounting standard for stock compensation by simplifying several aspects of the accounting for employee share-based payment transactions, including the related accounting for income taxes, forfeitures, and the withholding of shares to satisfy the employer's tax withholding requirements, as well as classification in the statements of cash flows. The new standard is effective for fiscal years beginning after December 15, 2016, including interim periods within those years, and early adoption is permitted. The Company will adopt the standard on October 1, 2017. The adoption of this standard is not expected to materially impact the Company's consolidated financial statements.

In August 2016, the FASB issued final amendments to clarify how entities should classify certain cash receipts and cash payments on the statement of cash flows such as distributions received from equity method investees, proceeds from settlement of insurance claims, and proceeds from the settlement of corporate-owned life insurance policies. The new standard is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, and early adoption is permitted. The Company is evaluating this standard and the timing of its adoption. The adoption of this standard is not expected to materially impact the Company's consolidated financial statements.

In January 2017, the FASB issued a new standard that amends and simplifies the accounting standard for goodwill impairment. The new standard removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, limited to the total amount of goodwill allocated to that reporting unit. The new standard is effective for annual and any interim impairment tests for periods beginning after December 15, 2019, and early adoption is permitted for any impairment tests performed after January 1, 2017. The Company adopted this standard on January 1, 2017. The adoption of this standard had no impact on the Company's consolidated financial statements.

In March 2017, the FASB issued a new standard that amends the requirements on the presentation of net periodic pension and postretirement benefit cost. Currently, net benefit costs are reported as employee costs within operating income. The new standard requires the service cost component to be presented with other employee compensation costs. The other components will be reported separately outside of operations. The new standard is effective for fiscal years beginning after December 15, 2017, including interim periods within those years, and early adoption is permitted as of the beginning of any annual period for which an entity's financial statements (interim or annual) have not been issued. The Company will adopt this standard on October 1, 2018. The adoption of this standard is not expected to materially impact the Company's consolidated financial statements.

In August 2017, the FASB issued a new standard that amends the hedge accounting recognition and presentation requirements under hedge accounting. The new standard will make more financial and nonfinancial hedging strategies eligible for hedge accounting, amends the presentation and disclosure requirements, and simplifies how companies assess effectiveness. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those years, and early adoption is permitted. The Company expects to adopt this standard in the first quarter of fiscal 2018. The adoption of this standard is not expected to materially impact the Company's consolidated financial statements.

Note C. Inventories

Inventories, net of LIFO, obsolete, unmarketable and slow moving reserves, are as follows:

	September 30	
	2017	2016
	(In millions)	
Raw materials	$ 83	$ 66
Work in process	2	1
Finished goods	268	237
Other	43	38
Total	$ 396	$ 342

Inventories valued under the LIFO method comprised approximately 7% and 8% of total inventories at September 30, 2017 and 2016, respectively. At September 30, 2017 and 2016, the LIFO reserve was $37 million and $27 million, respectively. Other inventory is comprised of certain spare parts and supplies.

During fiscal 2015, inventory quantities carried on a LIFO basis were decreased at the Company's U.S. carbon black sites. These reductions led to liquidations of LIFO inventory quantities and resulted in an increase of Cost of sales of $1 million and a decrease in consolidated Net income of $1 million ($0.01 per diluted common share). No such reductions occurred in fiscal 2017 or 2016.

Cabot periodically reviews inventory for both obsolescence and loss of value. In this review, Cabot makes assumptions about the future demand for and market value of the inventory and, based on these assumptions, estimates the amount of obsolete, unmarketable or slow moving inventory. At September 30, 2017 and 2016, total inventory reserves were $19 million and $20 million, respectively. During fiscal year 2015, the Company recorded a lower of cost or market reserve in the amount of $6 million related to its Purification Solutions inventory held in Marshall, Texas. As of September 30, 2017, the remaining balance of this reserve was $4 million.

Note D. Property, Plant and Equipment

Property, plant and equipment consists of the following:

	September 30	
	2017	2016
	(In millions)	
Land and land improvements	$ 151	$ 150
Buildings	531	512
Machinery and equipment	2,527	2,446
Other	243	237
Construction in progress	150	88
Total property, plant and equipment	3,602	3,433
Less: accumulated depreciation	(2,297)	(2,143)
Net property, plant and equipment	$ 1,305	$ 1,290

Depreciation expense was $147 million, $154 million and $169 million for fiscal 2017, 2016 and 2015, respectively.

Note E. Purification Solutions Goodwill and Long-Lived Assets Impairment Charges

During the third quarter of fiscal 2015 and as a result of the impairment tests performed on goodwill and long-lived assets of the Purification Solutions reporting unit, the Company recorded impairment charges and an associated tax benefit in the Consolidated Statements of Operations as follows:

	Year Ended September 30, 2015
	(In millions)
Purification Solutions goodwill impairment charge	$ 352
Purification Solutions long-lived assets impairment charge	210
Benefit for income taxes	(80)
Impairment charges, after tax	$ 482

In determining the fair value of the Purification Solutions reporting unit, the Company used an income approach (a discounted cash flow analysis) which incorporated significant estimates and assumptions related to future periods, including the timing of the MATS implementation, the anticipated size of the mercury removal industry, and growth rates and pricing assumptions of activated carbon, among others. In addition, an estimate of the reporting unit's weighted average cost of capital ("WACC") was used to discount future estimated cash flows to their present value. The WACC was based upon externally available data considering market participants' cost of equity and debt, optimal capital structure and risk factors specific to the Purification Solutions reporting unit. Based on these estimates and as part of step one of the annual impairment test, the Company determined that the estimated fair value of the Purification Solutions reporting unit was lower than the reporting unit's carrying value. As such, the reporting unit failed step one of the goodwill impairment test. The Company then proceeded to step two.

Step two of the goodwill impairment test requires the Company to perform a theoretical purchase price allocation for the reporting unit to determine the implied fair value of goodwill and to compare the implied fair value of goodwill to the recorded amount of goodwill. The estimate of fair value is complex and requires significant judgment. Accounting guidance provides that a company should recognize an estimated impairment charge to the extent that it determines that it is probable that an impairment loss has occurred and such impairment can be reasonably estimated. Based on the best estimate as of June 30, 2015, the Company recorded a pre-tax goodwill impairment charge of $353 million. The Company completed the step two analysis in the fourth quarter of fiscal 2015, which resulted in recording a credit of $1 million to the pre-tax goodwill impairment charge.

Based on the same factors leading to the goodwill impairment, the Company also considered whether the reporting unit's carrying values of definite-lived intangible assets and property, plant and equipment may not be recoverable or whether the carrying value of certain indefinite-lived intangible assets were impaired. The Company used the income approach to determine the fair value of the indefinite-lived intangible assets, which are the trademarks of Purification Solutions, and determined that the fair value of these intangible assets was lower than their carrying value. As such, an impairment loss was recorded in the amount of $39 million. Subsequent to this impairment analysis, the Company concluded that such assets no longer had an indefinite life and began amortizing these assets over their estimated useful life. The Company also performed an impairment analysis to assess if definite-lived intangible assets and property, plant and equipment were recoverable based on the estimated undiscounted cash flows of the reporting unit, and determined that these cash flows were not sufficient to recover the carrying value of the long-lived assets over their remaining useful lives. Accordingly, an impairment charge was recorded based on the lower of the carrying amount or fair value of the long-lived assets. The Company used the income approach to determine the fair value of the definite-lived intangible assets and a combination of the cost and market approaches to determine the fair value of its property, plant and equipment. The Company recorded impairment charges of $119 million and $51 million, to its definite-lived intangible assets and property, plant and equipment, respectively, in the quarter ended June 30, 2015. The Company completed the impairment analysis in the fourth quarter of fiscal 2015 which resulted in increasing the property, plant and equipment impairment charge by $1 million to $52 million. Therefore, for the year ended September 30, 2015, the long-lived assets impairment charge was $210 million.

In connection with the long-lived assets impairment charges, the Company recorded a deferred tax benefit of $80 million to its income tax provision in fiscal 2015.

Note F. Goodwill and Intangible Assets

Cabot had goodwill balances of $154 million and $152 million at September 30, 2017 and September 30, 2016, respectively. The carrying amount of goodwill attributable to each reportable segment with goodwill balances and the changes in those balances during the period ended September 30, 2017 are as follows:

	Reinforcement Materials	Performance Chemicals	Purification Solutions	Total
	(In millions)			
Balance at September 30, 2016	$ 52	$ 9	$ 91	$ 152
Foreign currency impact	1	—	1	2
Balance at September 30, 2017	$ 53	$ 9	$ 92	$ 154

	Reinforcement Materials	Performance Chemicals	Purification Solutions	Total
	(In millions)			
Accumulated impairment losses at September 30, 2016	$ —	$ —	$ (352)	$ (352)
Accumulated impairment losses at September 30, 2017	$ —	$ —	$ (352)	$ (352)

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

	September 30, 2017			September 30, 2016		
	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets
	(In millions)					
Intangible assets with finite lives						
Developed technologies	$ 49	$ (7)	$ 42	$ 48	$ (4)	$ 44
Trademarks	16	(1)	15	16	(1)	15
Customer relationships	94	(14)	80	90	(9)	81
Total intangible assets	$ 159	$ (22)	$ 137	$ 154	$ (14)	$ 140

Intangible assets are amortized over their estimated useful lives, which range from fourteen to twenty-five years, with a weighted average amortization period of approximately 19 years. Amortization expense for the years ended September 30, 2017, 2016 and 2015 was $8 million, $7 million and $14 million, respectively, and is included in Cost of sales and Selling and administrative expenses in the Consolidated Statements of Operations. Total amortization expense is estimated to be approximately $8 million each year for the next five fiscal years.

Note G. Accounts Payable, Accrued Liabilities and Other Liabilities

Accounts payable and accrued liabilities included in current liabilities consist of the following:

	September 30	
	2017	2016
	(In millions)	
Accounts payable	$ 339	$ 259
Accrued employee compensation	51	42
Other accrued liabilities	67	63
Total	$ 457	$ 364

Other long-term liabilities consist of the following:

	September 30	
	2017	2016
	(In millions)	
Employee benefit plan liabilities	$ 122	$ 173
Non-current tax liabilities	19	19
Other accrued liabilities	104	93
Total	$ 245	$ 285

Note H. Debt and Other Obligations

Long-term Obligations

The Company's long-term obligations, the fiscal year in which they mature and their respective interest rates are summarized below:

	September 30	
	2017	2016
	(In millions)	
Variable Rate Debt:		
Revolving Credit Facility, expires 2022	$ —	$ —
Total variable rate debt	—	—
Fixed Rate Debt:		
2.55% Notes due 2018	250	250
3.7% Notes due 2022	350	350
3.4% Notes due 2026	250	250
Medium Term Notes:		
Notes due 2019, 7.42%	30	30
Notes due 2022, 8.34% — 8.47%	15	15
Notes due 2028, 6.57% — 7.28%	8	8
Total Medium Term Notes	53	53
Chinese Renminbi Debt, due 2018, 4.75%	5	4
Total fixed rate debt	908	907
Capital lease obligations, due through 2033	13	13
Unamortized debt issuance costs and debt discount[1]	(4)	(5)
Total debt	917	915
Less current portion of long-term debt	(256)	(1)
Total long-term debt	$ 661	$ 914

[1] In fiscal 2017, the Company adopted a new accounting standard that impacts the presentation of debt issuance costs on the Consolidated Balance Sheets. This new standard was applied retrospectively and fiscal 2016 balances have been updated as discussed in Note A.

Revolving Credit Facility—The amount available for borrowing under the revolving credit agreement was $1 billion as of September 30, 2017. The revolving credit agreement, which matures on October 23, 2022, subsequent to the exercise of the two one-year options to extend the maturity on the first and second anniversaries of the effective date, supports the Company's commercial paper program. Borrowings may be used for working capital, letters of credit and other general corporate purposes. The revolving credit agreement contains affirmative and negative covenants, a single financial covenant (consolidated total debt to consolidated EBITDA, as defined in the credit agreement) and events of default customary for financings of this type.

Chinese Renminbi Debt due fiscal 2018—The Company's consolidated Chinese subsidiaries had $5 million and $4 million of unsecured long-term debt outstanding with a noncontrolling shareholder of a consolidated subsidiary as of September 30, 2017 and September 30, 2016, respectively.

2.55% Notes due fiscal 2018—In July 2012, Cabot issued $250 million in registered notes with a coupon of 2.55% that mature on January 15, 2018. These notes are unsecured and pay interest on January 15 and July 15. The net proceeds of this offering were $248 million after deducting discounts and issuance costs. The discount of less than $1 million was recorded at issuance and is being amortized over the life of the notes.

3.7% Notes due fiscal 2022—In July 2012, Cabot issued $350 million in registered notes with a coupon of 3.7% that mature on July 15, 2022. These notes are unsecured and pay interest on January 15 and July 15. The net proceeds of this offering were $347 million after deducting discounts and issuance costs. The discount of less than $1 million was recorded at issuance and is being amortized over the life of the notes.

3.4% Notes due fiscal 2026—In September 2016, Cabot issued $250 million in registered notes with a coupon of 3.4% that mature on September 15, 2026. These notes are unsecured and pay interest on March 15 and September 15. The net proceeds of this offering were $248 million after deducting discounts and issuance costs. The discount of less than $1 million was recorded at issuance and is being amortized over the life of the notes.

Medium Term Notes—At both September 30, 2017 and 2016, there were $53 million of unsecured medium term notes outstanding issued to numerous lenders with various fixed interest rates and maturity dates. The weighted average maturity of the total outstanding medium term notes is 4 years with a weighted average interest rate of 7.65%.

Capital Lease Obligations—Cabot had capital lease obligations for certain equipment and buildings with a recorded value of $13 million at both September 30, 2017 and 2016. Cabot will make payments totaling $20 million over the next 16 years, including $7 million of imputed interest. At September 30, 2017 and 2016, the original cost of capital lease assets was $20 million and $18 million, respectively, and the associated accumulated depreciation of assets under capital leases was $12 million and $10 million, respectively. The amortization related to those assets under capital lease is included in depreciation expense.

Future Years Payment Schedule

The aggregate principal amounts of long-term debt and capital lease obligations due in each of the five years from fiscal 2018 through 2022 and thereafter are as follows:

Years Ending September 30	Principal Payments on Long-Term Debt	Payments on Capital Lease Obligations	Total
		(In millions)	
2018	$ 255	$ 3	$ 258
2019	30	2	32
2020	—	2	2
2021	—	2	2
2022	365	2	367
Thereafter	258	9	267
Less: Interest	—	(7)	(7)
Total	$ 908	$ 13	$ 921

Standby letters of credit—At September 30, 2017, the Company had provided standby letters of credit that were outstanding and not drawn totaling $12 million, which expire through fiscal 2018.

Short-term Obligations

Short-term Notes Payable—The Company had unsecured notes with maturities of less than one year of $7 million at both September 30, 2017 and 2016. The weighted-average interest rate on short-term notes payable was 8.1% and 9.5% as of September 30, 2017 and 2016, respectively.

The Company has a commercial paper program and the maximum aggregate balance of commercial paper notes outstanding and the amounts borrowed under the revolving credit facility may not exceed the borrowing capacity of $1 billion under the revolving credit facility. The proceeds from the issuance of the commercial paper have been used for general corporate purposes, which may include working capital, refinancing existing indebtedness, capital expenditures, share repurchases, and acquisitions. The revolving credit facility is available to repay the outstanding commercial paper, if necessary.

There was no outstanding balance of commercial paper as of September 30, 2017 or 2016.

Redeemable Preferred Stock

In November 2013, the Company purchased all of its joint venture partner's common stock in the former NHUMO, S.A. de C.V. ("NHUMO") joint venture. At the close of the transaction, NHUMO issued redeemable preferred stock to the joint venture partner with a redemption value of $25 million. The preferred stock accumulates dividends at a fixed rate of 6% annually and is redeemable at the option of the former joint venture partner or the Company for $25 million starting in November 2018 or upon the occurrence of certain other conditions. Annual payment of the dividends by NHUMO is contingent on NHUMO achieving a minimum EBITDA (earnings before interest, taxes, depreciation and amortization) level and if such minimum EBITDA is not achieved in any year, the dividend will be accumulated and paid at the time the preferred shares are redeemed. The minimum EBITDA was achieved in all fiscal years since the close of the transaction and dividend payments of $1.5 million were paid for each fiscal year with the exception of the fiscal 2017 payment, which was accrued as of September 30, 2017 and is due in December 2017. The preferred stock issued in connection with the transaction is not mandatorily redeemable and has embedded put and call rights at the fixed redemption price. Accordingly, the instrument is accounted for as a financing obligation and has been separately presented in the Consolidated Balance Sheets as a long-term liability.

Note I. Financial Instruments and Fair Value Measurements

The FASB authoritative guidance on fair value measurements defines fair value, provides a framework for measuring fair value, and requires certain disclosures about fair value measurements. The disclosures focus on the inputs used to measure fair value. The guidance establishes the following hierarchy for categorizing these inputs:

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

Level 2 — Significant other observable inputs (e.g., quoted prices for similar items in active markets, quoted prices for identical or similar items in markets that are not active, inputs other than quoted prices that are observable such as interest rate and yield curves, and market-corroborated inputs)

Level 3 — Significant unobservable inputs

There were no transfers of financial assets or liabilities measured at fair value between Level 1 and Level 2, or transfers into or out of Level 3, during fiscal 2017 or 2016.

At both September 30, 2017 and 2016, Cabot had derivatives relating to foreign currency risks carried at fair value. At September 30, 2017, the fair value of these derivatives was a net liability of $13 million and was included in Prepaid expenses and other current assets and Other liabilities on the Consolidated Balance Sheets. At September 30, 2016, the fair value of these derivatives was a net asset of $1 million and was included in Prepaid expenses and other current assets and Other assets on the Consolidated Balance Sheets. These derivatives are classified as Level 2 instruments within the fair value hierarchy as the fair value determination was based on observable inputs.

At both September 30, 2017 and 2016, the fair value of Guaranteed investment contracts, included in Other assets on the Consolidated Balance Sheets, was $12 million. Guaranteed investment contracts were classified as Level 2 instruments within the fair value hierarchy as the fair value determination was based on other observable inputs.

At both September 30, 2017 and 2016, the fair values of cash and cash equivalents, accounts and notes receivable, accounts payable and accrued liabilities, and notes payable and variable rate debt approximated their carrying values due to the short-term nature of these instruments. The carrying value and fair value of the long-term fixed rate debt were $0.91 billion and $0.94 billion, respectively, as of September 30, 2017 and $0.91 billion and $0.98 billion, respectively, as of September 30, 2016. The fair values of Cabot's fixed rate long-term debt are estimated based on comparable quoted market prices at the respective period ends. The carrying amounts of Cabot's floating rate long-term debt and capital lease obligations approximate their fair values. All such measurements are based on observable inputs and are classified as Level 2 within the fair value hierarchy. The valuation technique used is the discounted cash flow model.

Note J. Derivatives

Risk Management

Cabot's business operations are exposed to changes in interest rates, foreign currency exchange rates and commodity prices because Cabot finances certain operations through long and short-term borrowings, denominates transactions in a variety of foreign currencies and purchases certain commoditized raw materials. Changes in these rates and prices may have an impact on future cash flows and earnings. The Company manages these risks through normal operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments.

The Company has policies governing the use of derivative instruments and does not enter into financial instruments for trading or speculative purposes.

By using derivative instruments, Cabot is subject to credit and market risk. If a counterparty fails to fulfill its performance obligations under a derivative contract, Cabot's credit risk will equal the fair value of the derivative. Generally, when the fair value of a derivative contract is positive, the counterparty owes Cabot, thus creating a payment risk for Cabot. The Company minimizes counterparty credit (or repayment) risk by entering into transactions with major financial institutions of investment grade credit rating. Cabot's exposure to market risk is not hedged in a manner that completely eliminates the effects of changing market conditions on earnings or cash flow. No significant concentration of credit risk existed at September 30, 2017.

Interest Rate Risk Management

Cabot's objective is to maintain a certain fixed-to-variable interest rate mix on the Company's debt obligations. Cabot may enter into interest rate swaps as a hedge of the underlying debt instruments to effectively change the characteristics of the interest rate without changing the debt instrument. As of both September 30, 2017 and 2016, there were no derivatives held to manage interest rate risk.

Foreign Currency Risk Management

Cabot's international operations are subject to certain risks, including currency exchange rate fluctuations and government actions. Cabot endeavors to match the currency in which debt is issued to the currency of the Company's major, stable cash receipts. In some situations, Cabot has issued debt denominated in U.S. dollars and then entered into cross-currency swaps that exchange the dollar principal and interest payments into Euro denominated principal and interest payments.

Additionally, the Company has foreign currency exposure arising from its net investments in foreign operations. Cabot may enter into cross-currency swaps to mitigate the impact of currency rate changes on the Company's net investments.

The Company also has foreign currency exposure arising from the denomination of monetary assets and liabilities in foreign currencies other than the functional currency of a given subsidiary as well as the risk that currency fluctuations could affect the dollar value of future cash flows generated in foreign currencies. Accordingly, Cabot uses short-term forward contracts to minimize the exposure to foreign currency risk. In certain situations where the Company has forecasted purchases under a long-term commitment or forecasted sales denominated in a foreign currency, Cabot may enter into appropriate financial instruments in accordance with the Company's risk management policy to hedge future cash flow exposures.

The following table provides details of the derivatives held as of September 30, 2017 and 2016 to manage foreign currency risk.

		Notional Amount		
Description	**Borrowing**	**September 30, 2017**	**September 30, 2016**	**Hedge Designation**
Cross-Currency Swaps	3.4% Notes	USD 250 million swapped to EUR 223 million	USD 250 million swapped to EUR 223 million	Net investment
Forward Foreign Currency Contracts[1]	N/A	USD 5 million	USD 4 million	No designation

(1) Cabot's forward foreign exchange contracts are denominated in the Indonesian rupiah and Czech koruna.

Accounting for Derivative Instruments and Hedging Activities

The Company determines 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 Company uses standard models with market-based inputs, which take into account the present value of estimated future cash flows and the ability of Cabot or the financial counterparty to perform. For interest rate and cross-currency swaps, the significant inputs to these models are interest rate curves for discounting future cash flows and are adjusted for credit risk. For forward foreign currency contracts, the significant inputs are interest rate curves for discounting future cash flows, and exchange rate curves of the foreign currency for translating future cash flows.

Fair Value Hedge

For derivative instruments that are designated and qualify as fair value hedges, the gain or loss on the derivative as well as the offsetting gain or loss on the hedged item attributable to the hedged risk are recognized in current period earnings.

Cash Flow Hedge

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative is recorded in AOCI and reclassified to earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current period earnings.

Net Investment Hedge

For net investment hedges, changes in the fair value of the effective portion of the derivatives' gains or losses are reported as foreign currency translation gains or losses in AOCI while changes in the ineffective portion are reported in earnings. Effectiveness is assessed based on the hypothetical derivative method. There was no ineffectiveness in either of the years ended September 30, 2017 or 2016. The gains or losses on derivative instruments reported in AOCI are reclassified to earnings in the period in which earnings are affected by the underlying item, such as a disposal or substantial liquidations of the entities being hedged.

During the fourth quarter of fiscal 2016, the Company entered into cross-currency swaps with a notional amount of $250 million, which are designated as hedges of its net investments in certain Euro denominated subsidiaries. Cash settlements periodically occur for fixed rate interest payments and a cash exchange of the notional currency amount will occur at the end of the term in 2026 under these cross-currency swaps. During fiscal 2017, the Company received net cash interest of $4 million and recognized a loss of $10 million related to these swaps through Foreign currency translation adjustment in Other comprehensive income (loss). As of September 30, 2017, the fair value of these swaps was a net liability of $13 million and was included in Prepaid expenses and other current assets and Other Liabilities, and the cumulative loss of $9 million was included in AOCI on the Consolidated Balance Sheets. As of September 30, 2016, the fair value of and cumulative gain related to these swaps was $1 million and was included in Other assets and AOCI, respectively, on the Consolidated Balance Sheets. There were no gains or losses reclassified from AOCI into earnings during either fiscal 2017 or fiscal 2016.

Other Derivative Instruments

From time to time, the Company may enter into certain derivative instruments that may not be designated as hedges for accounting purposes, which may include cross-currency swaps, foreign currency forward contracts and commodity derivatives. For cross-currency swaps and foreign currency forward contracts not designated as hedges, the Company uses standard models with market-based inputs. The significant inputs to these models are interest rate curves for discounting future cash flows, and exchange rate curves of the foreign currency for translating future cash flows. In determining the fair value of the commodity derivatives, the significant inputs to valuation models are quoted market prices of similar instruments in active markets. Although these derivatives do not qualify for hedge accounting, Cabot believes that such instruments are closely correlated with the underlying exposure, thus managing the associated risk. The gains or losses from changes in the fair value of derivative instruments that are not accounted for as hedges are recognized in current period earnings.

At both September 30, 2017 and 2016, the fair value of derivative instruments not designated as hedges were immaterial and were presented in Prepaid expenses and other current assets on the Consolidated Balance Sheets.

Note K. Venezuela

Cabot owns 49% of a carbon black operating affiliate in Venezuela, which is accounted for as an equity affiliate, through wholly-owned subsidiaries that carry the investment and receive its dividends. As of September 30, 2017, these subsidiaries carried the operating affiliate investment of $15 million.

During fiscal 2017, 2016 and 2015, the Company received dividends in the amounts of $4 million, $2 million and $6 million, respectively, which were paid in U.S. dollars.

A significant portion of the Company's operating affiliate's sales are exports denominated in U.S. dollars. The Venezuelan government mandates that a certain percentage of the dollars collected from these sales be converted into bolivars. The exchange rate made available to the Company as of September 30, 2017 was 3,345 bolivars to the U.S. dollar. The operating affiliate and the Company's wholly-owned subsidiaries remeasured their bolivar denominated monetary accounts to reflect the current rate. During fiscal 2017, the exchange rate devalued from 656 bolivars to the U.S. dollar to 3,345 bolivars to the U.S. dollar. The impact of the exchange rate devaluations on the operating affiliate's results was a net gain of $1 million during fiscal 2017.

The operating entity has generally been profitable. The Company continues to closely monitor developments in Venezuela and their potential impact on the recoverability of its equity affiliate investment. Any future change in the exchange rate made available to the Company could cause the Company to change the exchange rate it uses and result in gains or losses on the bolivar denominated assets held by its operating affiliate and wholly-owned subsidiaries.

Note L. Employee Benefit Plans

The information below provides detail concerning the Company's benefit obligations under the defined benefit and postretirement benefit plans it sponsors.

Defined benefit plans provide pre-determined benefits to employees that are distributed upon retirement. Cabot is making all sponsor required contributions to these plans. The accumulated benefit obligation was $160 million for the U.S. defined benefit plans and $351 million for the foreign plans as of September 30, 2017 and $175 million for the U.S. defined benefit plans and $373 million for the foreign plans as of September 30, 2016.

In addition to benefits provided under the defined benefit and postretirement benefit plans, the Company provides benefits under defined contribution plans. Cabot recognized expenses related to these plans of $18 million in fiscal 2017, $17 million in fiscal 2016 and $20 million in fiscal 2015.

The following provides information about projected benefit obligations, plan assets, the funded status and weighted-average assumptions of the defined benefit pension and postretirement benefit plans:

	Years Ended September 30							
	2017		2016		2017		2016	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)							
Change in Benefit Obligations:								
Benefit obligation at beginning of year	$ 175	$ 400	$ 170	$ 348	$ 37	$ 20	$ 38	$ 15
Service cost	1	10	1	8	—	—	—	—
Interest cost	4	6	4	8	1	1	1	1
Plan participants' contribution	—	2	—	2	—	—	—	—
Foreign currency exchange rate changes	—	16	—	(9)	—	—	—	(1)
(Gain) Loss from changes in actuarial assumptions and plan experience	(7)	(42)	14	62	(2)	(1)	1	5
Benefits paid	(7)	(12)	(7)	(14)	(3)	—	(3)	—
Settlements or curtailments	(5)	(3)	(6)	(4)	—	—	—	—
Other	(1)	(1)	(1)	(1)	—	—	—	—
Benefit obligation at end of year	$ 160	$ 376	$ 175	$ 400	$ 33	$ 20	$ 37	$ 20

	Years Ended September 30							
	2017		2016		2017		2016	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)							
Change in Plan Assets:								
Fair value of plan assets at beginning of year	$ 157	$ 305	$ 153	$ 279	$ —	$ —	$ —	$ —
Actual return on plan assets	12	6	18	43	—	—	—	—
Employer contribution	1	9	—	10	3	—	3	1
Plan participants' contribution	—	2	—	2	—	—	—	—
Foreign currency exchange rate changes	—	12	—	(11)	—	—	—	—
Benefits paid	(7)	(12)	(7)	(14)	(3)	—	(3)	(1)
Settlements	(6)	(3)	(6)	(3)	—	—	—	—
Expenses paid from assets	(1)	(1)	(1)	(1)	—	—	—	—
Fair value of plan assets at end of year	$ 156	$ 318	$ 157	$ 305	$ —	$ —	$ —	$ —
Funded status	$ (4)	$ (58)	$ (18)	$ (95)	$ (33)	$ (20)	$ (37)	$ (20)
Recognized liability	$ (4)	$ (58)	$ (18)	$ (95)	$ (33)	$ (20)	$ (37)	$ (20)

Pension Assumptions and Strategy

The following assumptions were used to determine the pension benefit obligations and periodic benefit costs as of and for the years ended September 30:

	2017		2016		2015	
	Pension Benefits					
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
Actuarial assumptions as of the year-end measurement date:						
Discount rate	3.6%	2.4%	3.4%	1.8%	4.2%	2.9%
Rate of increase in compensation	N/A	2.7%	N/A	2.8%	N/A	2.8%
Actuarial assumptions used to determine net periodic benefit cost during the year:						
Discount rate - benefit obligation	3.4%	1.8%	4.2%	2.9%	4.0%	3.0%
Discount rate - service cost	N/A	1.8%	N/A	2.8%	N/A	3.0%
Discount rate - interest cost	2.7%	1.5%	3.3%	2.4%	4.0%	3.0%
Expected long-term rate of return on plan assets	6.8%	4.7%	7.5%	5.1%	7.5%	5.4%
Rate of increase in compensation	N/A	2.8%	N/A	2.8%	N/A	2.8%

Postretirement Assumptions and Strategy

The following assumptions were used to determine the postretirement benefit obligations and net costs as of and for the years ended September 30:

	2017		2016		2015	
	Postretirement Benefits					
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
Actuarial assumptions as of the year-end measurement date:						
Discount rate	3.4%	3.1%	3.0%	2.8%	3.7%	3.9%
Initial health care cost trend rate	7.0%	7.1%	7.0%	6.1%	6.5%	6.8%
Actuarial assumptions used to determine net cost during the year:						
Discount rate - benefit obligation	3.0%	2.8%	3.7%	3.9%	3.8%	3.9%
Discount rate - service cost	2.6%	3.2%	3.4%	4.1%	3.8%	3.9%
Discount rate - interest cost	2.4%	2.6%	2.8%	3.7%	3.8%	3.9%
Initial health care cost trend rate	7.0%	6.1%	6.5%	6.8%	7.0%	7.1%

Cabot uses discount rates as of September 30, the plans' measurement date, to determine future benefit obligations under its U.S. and foreign defined benefit plans. The discount rates for the defined benefit plans in Canada, the Eurozone, Japan, Mexico, Switzerland, the United Arab Emirates, the United Kingdom and the U.S. are derived from yield curves that reflect high quality corporate bond yield or swap rate information in each region and reflect the characteristics of Cabot's employee benefit plans. The discount rates for the defined benefit plans in the Czech Republic and Indonesia are based on government bond indices that best reflect the durations of the plans, adjusted for credit spreads presented in selected AA corporate bond indices. The rates utilized are selected because they represent long-term, high quality, fixed income benchmarks that approximate the long-term nature of Cabot's pension obligations and related payouts.

Amounts recognized in the Consolidated Balance Sheets at September 30, 2017 and 2016 related to the Company's defined benefit pension and postretirement benefit plans were as follows:

	September 30							
	2017		2016		2017		2016	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)							
Noncurrent assets	$ 1	$ 12	$ —	$ 8	$ —	$ —	$ —	$ —
Current liabilities	$ (1)	$ (1)	$ —	$ (1)	$ (3)	$ (1)	$ (3)	$ (1)
Noncurrent liabilities	$ (4)	$ (69)	$ (18)	$ (102)	$ (30)	$ (19)	$ (34)	$ (19)

Amounts recognized in AOCI at September 30, 2017 and 2016 related to the Company's defined benefit pension and postretirement benefit plans were as follows:

	September 30							
	2017		2016		2017		2016	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)							
Net actuarial (gain) loss	$ 3	$ 52	$ 12	$ 92	$ (6)	$ 5	$ (4)	$ 6
Net prior service credit	—	(1)	—	(1)	(5)	—	(7)	—
Balance in accumulated other comprehensive income (loss), pretax	$ 3	$ 51	$ 12	$ 91	$ (11)	$ 5	$ (11)	$ 6

In fiscal 2018, the Company expects an estimated net loss of $3 million will be amortized from AOCI to net periodic benefit cost. In addition, the Company expects prior service credits of $3 million for other postretirement benefits will be amortized from AOCI to net periodic benefit costs in fiscal 2018.

Estimated Future Benefit Payments

The Company expects that the following benefit payments will be made to plan participants in the years from 2018 to 2027:

	Pension Benefits		Postretirement Benefits	
Years Ended September 30	U.S.	Foreign	U.S.	Foreign
	(In millions)			
2018	$ 13	$ 13	$ 3	$ 1
2019	$ 12	$ 14	$ 3	$ 1
2020	$ 10	$ 13	$ 3	$ 1
2021	$ 10	$ 17	$ 3	$ 1
2022	$ 10	$ 16	$ 3	$ 1
2023 - 2027	$ 50	$ 86	$ 12	$ 5

Postretirement medical benefits are unfunded and impact Cabot's cash flows as benefits become due, which is expected to be insignificant in fiscal 2018. The Company expects to contribute $8 million to its foreign pension plans in fiscal 2018.

Net periodic defined benefit pension and other postretirement benefit costs include the following components:

	Years Ended September 30											
	2017		2016		2015		2017		2016		2015	
	Pension Benefits						Postretirement Benefits					
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)											
Service cost	$ 1	$ 10	$ 1	$ 8	$ 1	$ 9	$ —	$ —	$ —	$ —	$ —	$ —
Interest cost	4	6	4	8	7	11	1	1	1	1	2	1
Expected return on plan assets	(9)	(14)	(10)	(14)	(11)	(14)	—	—	—	—	—	—
Amortization of prior service cost	—	—	—	—	—	3	(3)	—	(3)	—	(4)	—
Net losses	—	5	—	3	—	4	—	—	—	—	—	—
Settlements or Curtailments cost	—	—	—	1	—	18	—	—	(1)	—	—	—
Net periodic (benefit) cost	$ (4)	$ 7	$ (5)	$ 6	$ (3)	$ 31	$ (2)	$ 1	$ (3)	$ 1	$ (2)	$ 1

Other changes in plan assets and benefit obligations recognized in Other comprehensive income (loss) are as follows:

	Years Ended September 30											
	2017		2016		2015		2017		2016		2015	
	Pension Benefits						Postretirement Benefits					
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)											
Net (gains) losses	$ (9)	$ (35)	$ 7	$ 31	$ 14	$ (8)	$ (3)	$ (1)	$ 2	$ 5	$ 1	$ —
Prior service (credit) cost	—	—	—	—	—	(2)	—	—	—	—	(11)	—
Amortization of prior service credit	—	—	—	—	—	—	3	—	3	—	—	—
Amortization of prior unrecognized loss	—	(5)	—	(3)	—	(4)	—	—	—	—	4	—
Other	—	—	—	(1)	—	(27)	—	—	1	—	—	—
Net changes recognized in Total other comprehensive (income) loss [1]	$ (9)	$ (40)	$ 7	$ 27	$ 14	$ (41)	$ —	$ (1)	$ 6	$ 5	$ (6)	$ —

(1) The tax impact on pension and other postretirement benefit liability adjustments arising during the period was a tax provision of $7 million, tax benefit of $7 million, and tax provision of $5 million for fiscal years 2017, 2016, and 2015, respectively.

Curtailments and Settlements of Employee Benefit Plans

In recent years, the Company incurred curtailments and settlements of certain of its employee benefit plans. Associated with these curtailments and settlements, the Company recognized net losses of less than $1 million, less than $1 million, and $17 million in fiscal 2017, 2016 and 2015, respectively.

Effective October 1, 2014, the Company transferred the defined benefit obligations and pension plan assets in one of its foreign defined benefit plans to a multi-employer plan. This action effectively moves the administrative, asset custodial, asset investment, actuarial, communication and benefit payment obligations to the multi-employer fund administrator. Cabot is required to make contributions to the multi-employer plan, which is over 80% funded. Contributed assets by one participating employer may be used to provide benefits to employees of other participating employers since assets contributed by an employer are not segregated in a separate account or restricted to provide benefits only to employees of that employer. As a result of the transfer, a pre-tax charge of $18 million was recorded in the first quarter of fiscal 2015. In addition, there was an approximately $85 million reduction in plan assets and plan obligations as a result of the transfer of assets and obligations of this foreign plan.

Sensitivity Analysis

Measurement of postretirement benefit expense is based on actuarial assumptions used to value the postretirement benefit liability at the beginning of the year. Assumed health care cost trend rates have an effect on the amounts reported for the health care plans. The fiscal 2017 weighted-average assumed health care cost trend rate is 7.0% for U.S. plans and 6.1% for foreign plans. A one percentage point change in the 2017 assumed health care cost trend rate would have an immaterial impact to the aggregate of the service and interest cost components of the net periodic postretirement benefit and would have the following effect on the postretirement benefit obligation:

	1-Percentage-Point			
	Increase		Decrease	
	U.S.	Foreign	U.S.	Foreign
	(In millions)			
Effect on postretirement benefit obligation	$ —	$ 3	$ —	$ (3)

Plan Assets

The Company's defined benefit pension plans weighted-average asset allocations at September 30, 2017 and 2016, by asset category, are as follows:

	September 30			
	2017		2016	
	Pension Assets			
	U.S.	Foreign	U.S.	Foreign
Equity securities	48%	39%	50%	39%
Debt securities	5%	53%	50%	53%
Cash and other securities[1]	47%	8%	—%	8%
Total	100%	100%	100%	100%

(1) Prior to year-end, within the U.S. defined benefit pension plan, the Company transitioned the majority of its fixed income assets held in a mutual fund investment to a separately managed account. This transition process temporarily resulted in a larger percentage of the assets being held in cash or cash equivalents on September 30, 2017.

To develop the expected long-term rate of return on plan assets assumption, the Company used a capital asset pricing model. The model considers the current level of expected returns on risk-free investments comprised of government bonds, the historical level of the risk premium associated with the other asset classes in which the portfolio is invested, and the expectations for future returns for each asset class. The expected return for each asset class was then weighted based on the target asset allocation to develop the expected long-term rate of return for each plan.

Cabot's investment strategy for each of its defined benefit plans in the U.S. and abroad is generally based on a set of investment objectives and policies that cover time horizons and risk tolerance levels consistent with plan liabilities. Periodic studies are performed to determine the asset mix that will meet pension obligations at a reasonable cost to the Company. The assets of the defined benefit plans are comprised principally of investments in equity and high quality fixed income securities, which are broadly diversified across the capitalization and style spectrum and are managed using both active and passive strategies. The weighted average target asset allocation for the U.S. plans is 50% in equity and 50% in fixed income and for the foreign plans is 38% in equity, 54% in fixed income, 3% in real estate and 5% in cash and other securities.

For pension plan assets classified as Level 1 measurements (measured using quoted prices in active markets), 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 pension plan 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/quality checks.

The fair value of the Company's pension plan assets at September 30, 2017 and 2016 by asset category is as follows:

	September 30					
	2017			2016		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Observable Inputs (Level 2)	Total
	(In millions)					
Cash	$ 1	$ —	$ 1	$ 1	$ —	$ 1
Direct investments:						
U.S. equity securities	—	—	—	18	—	18
Total direct investments	—	—	—	18	—	18
Investment funds:						
Equity funds[1]	75	124	199	59	119	178
Fixed income funds[2]	8	168	176	79	162	241
Real estate funds[3]	—	9	9	1	8	9
Cash equivalent funds	74	—	74	—	1	1
Total investment funds	157	301	458	139	290	429
Alternative investments:						
Insurance contracts[4]	—	15	15	—	14	14
Total alternative investments	—	15	15	—	14	14
Total pension plan assets	$ 158	$ 316	$ 474	$ 158	$ 304	$ 462

(1) The equity funds asset class includes funds that invest in U.S. equities as well as equity securities issued by companies incorporated, listed or domiciled in countries in developed and/or emerging markets. These companies may be in the small-, mid- or large-cap categories.

(2) The fixed income funds asset class includes investments in high quality funds. High quality fixed income funds primarily invest in low risk U.S. and non-U.S. government securities, investment-grade corporate bonds, mortgages and asset-backed securities. A significant portion of the fixed income funds include investment in long-term bond funds.

(3) The real estate funds asset class includes funds that primarily invest in entities which are principally engaged in the ownership, acquisition, development, financing, sale and/or management of income-producing real estate properties, both commercial and residential. These funds typically seek long-term growth of capital and current income that is above average relative to public equity funds.

(4) Insurance contracts held by the Company's non-U.S. plans are issued by well-known, highly rated insurance companies.

Note M. Stock-Based Compensation

The Company has established equity compensation plans that provide stock-based compensation to eligible employees. The 2009 Long-Term Incentive Plan (the "2009 Plan") authorized the issuance of up to 8,854,000 shares of common stock. The 2017 Long-Term Incentive Plan (the "2017 Plan") was approved by Cabot's stockholders on March 9, 2017 and authorizes the issuance of up to 5,375,000 shares of common stock. The Company ceased granting awards under the 2009 Plan when the 2017 Plan was approved and, accordingly, the 2017 Plan is the only equity incentive plan under which the Company may grant equity awards to employees.

The terms of awards made under Cabot's equity compensation plans are generally determined by the Compensation Committee of Cabot's Board of Directors. The awards made in fiscal 2017, 2016 and 2015 consist of grants of stock options, time-based restricted stock units, performance-based restricted stock units, and restricted stock units that will be settled in cash. The options were issued with an exercise price equal to 100% of the market price of Cabot's common stock on the date of grant, generally vest over a three year period (30% on each of the first and second anniversaries of the date of grant and 40% on the third anniversary of the date of grant) and have a ten-year term. The restricted stock units generally vest three years from the date of the grant. The number of shares issuable, if any, when a performance-based restricted stock unit award vests will depend on the degree of achievement of the corporate performance metrics for each year within the three-year performance period of the award. Accordingly, future compensation costs associated with outstanding awards of performance-based restricted stock units may increase or decrease based on the probability of the Company achieving the performance metrics.

As of September 30, 2017, there were 12,047 outstanding time-based and performance-based restricted stock units which will be settled by the payment of cash in November 2017. Compensation expense related to these awards is remeasured throughout the vesting period and through settlement of the award. Cumulative compensation expense and the associated liability is recorded in an amount equal to the fair value of Cabot common stock multiplied by the applicable vesting percentage. The Company recorded liabilities associated with these cash settled awards of less than $1 million at both September 30, 2017 and 2016.

Stock-based employee compensation expense was $10 million, $10 million and $8 million, after tax, for fiscal 2017, 2016 and 2015, respectively. The expense recognized in fiscal 2016 includes a $5 million charge recorded in connection with the modification of the outstanding equity awards held by the Company's former CEO under the terms of his transition and separation agreement with the Company.

The Company recognized the full impact of its stock-based employee compensation expense in the Consolidated Statements of Operations for fiscal 2017, 2016 and 2015 and did not capitalize any such costs on the Consolidated Balance Sheets because those that qualified for capitalization were not material. The following table presents stock-based compensation expenses included in the Company's Consolidated Statements of Operations:

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Cost of sales	$ 1	$ 1	$ 4
Selling and administrative expenses	14	15	7
Research and technical expenses	1	1	1
Stock-based compensation expense	16	17	12
Income tax benefit	(6)	(7)	(4)
Net stock-based compensation expense	$ 10	$ 10	$ 8

As of September 30, 2017, Cabot has $18 million and $2 million of total unrecognized compensation cost related to restricted stock units and options, respectively, granted under the Company's equity incentive plans. These costs are expected to be recognized over a weighted-average period of 1.3 years and 1.0 year for restricted stock units and options, respectively.

Equity Incentive Plan Activity

The following table summarizes the total stock option and restricted stock unit activity in the equity incentive plans for fiscal 2017:

	Stock Options			Restricted Stock Units	
	Total Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value	Restricted Stock Units[1]	Weighted Average Grant Date Fair Value
	(Shares in thousands)				
Outstanding at September 30, 2016	1,522	$ 37.72	$ 12.53	732	$ 43.54
Granted	275	$ 50.57	$ 12.76	303	$ 51.03
Performance-based adjustment[2]	—	$ —	$ —	10	$ 46.02
Exercised / Vested	(639)	$ 32.18	$ 11.05	(147)	$ 47.60
Cancelled / Forfeited	(14)	$ 48.96	$ 13.41	(22)	$ 45.52
Outstanding at September 30, 2017	1,144	$ 43.76	$ 13.40	876	$ 45.43
Exercisable at September 30, 2017	654	$ 41.58			
Vested and expected to vest[3]	1,134	$ 43.74			

(1) The number granted represents the number of shares issuable upon vesting of time-based restricted stock units and performance-based restricted stock units, assuming the Company performs at the target performance level in each year of the three-year performance period.

(2) Represents the net incremental number of shares issuable upon vesting of performance-based restricted stock units based upon the achievement of the annual financial performance metrics for fiscal 2017.

(3) Stock options vested and expected to vest in the future, net of estimated forfeitures, have a weighted average remaining contractual life of 6.05 years.

Stock Options

The following table summarizes information related to the outstanding and vested options on September 30, 2017:

	Total Options Outstanding	Exercisable Options	Vested and Expected to Vest
Aggregate Intrinsic Value (in millions of dollars)	$ 14	$ 9	$ 14
Weighted Average Remaining Contractual Term (in years)	6.07	4.20	6.05

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value, based on the Company's closing common stock price of $55.80 on September 30, 2017, which would have been received by the option holders had all option holders exercised their options and immediately sold their shares on that date.

The intrinsic value of options exercised during fiscal 2017, 2016 and 2015 was $16 million, $8 million and $2 million, respectively, and the Company received cash of $21 million, $8 million and $4 million, respectively, from these exercises.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of the options at the grant date. The weighted average grant date fair values of options granted during fiscal 2017, 2016 and 2015 was $12.76, $11.12, and $15.68 per option, respectively. The fair values on the grant date were calculated using the following weighted-average assumptions:

	Years Ended September 30		
	2017	2016	2015
Expected stock price volatility	32%	33%	41%
Risk free interest rate	1.8%	2.0%	2.0%
Expected life of options (years)	6	6	6
Expected annual dividends per year	$ 1.20	$ 1.20	$ 0.88

The expected stock price volatility assumption was determined using the historical volatility of the Company's common stock over the expected life of the option. The expected term reflects the anticipated time period between the measurement date and the exercise date or post-vesting cancellation date.

Restricted Stock Units

The value of restricted stock unit awards is the closing stock price at the date of the grant. The weighted average grant date fair values of restricted stock unit awards granted during fiscal 2017, 2016 and 2015 was $51.03, $40.51, and $45.85, respectively. The intrinsic value of restricted stock units (meaning the fair value of the units on the date of vesting) that vested during fiscal 2017, 2016 and 2015 was $7 million, $15 million and $14 million, respectively.

Supplemental 401(k) Plan

Cabot's Deferred Compensation and Supplemental Retirement Plan ("SERP 401(k)") provides benefits to highly compensated employees when the retirement plan limits established under the Internal Revenue Code prevent them from receiving all of the Company matching and retirement contributions that would otherwise be provided under the qualified 401(k) plan. The SERP 401(k) is non-qualified and unfunded. Contributions under the SERP 401(k) are treated as if invested in Cabot common stock. The majority of the distributions made under the SERP 401(k) are required to be paid with shares of Cabot common stock. The remaining distributions, which relate to certain grandfathered accounts, will be paid in cash based on the market price of Cabot common stock at the time of distribution. The aggregate value of the accounts that will be paid out in stock, which is equivalent to approximately 109,000 and 143,000 shares of Cabot common stock as of September 30, 2017 and 2016, respectively, is reflected at historic cost in stockholders' equity, and the aggregate value of the accounts that will be paid in cash, which is $2 million and $1 million as of September 30, 2017 and 2016, respectively, is reflected in other long-term liabilities and marked-to-market quarterly.

Note N. Restructuring

Cabot's restructuring activities were recorded in the Consolidated Statements of Operations as follows:

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Cost of sales	$ 2	$ 33	$ 10
Selling and administrative expenses	1	9	11
Research and development expenses	—	5	—
Total	$ 3	$ 47	$ 21

Details of all restructuring activities and the related reserves for fiscal 2015, 2016, and 2017 were as follows:

	Severance and Employee Benefits	Environmental Remediation	Non-Cash Asset Impairment and Accelerated Depreciation	Asset Sales	Other	Total
	(In millions)					
Reserve at September 30, 2014	$ 16	$ 2	$ —	$ —	$ 1	$ 19
Charges	9	—	5	—	7	21
Costs charged against liabilities (assets)	—	—	(5)	—	—	(5)
Cash paid	(18)	—	—	—	(6)	(24)
Foreign currency translation adjustment	(2)	—	—	—	—	(2)
Reserve at September 30, 2015	5	2	—	—	2	9
Charges	28	—	23	(9)	5	47
Costs charged against liabilities (assets)	—	—	(23)	(7)	—	(30)
Cash paid	(30)	—	—	16	(7)	(21)
Foreign currency translation adjustment	—	—	—	—	—	—
Reserve at September 30, 2016	3	2	—	—	—	5
Charges	1	1	—	—	1	3
Costs charged against liabilities (assets)	—	—	—	—	1	1
Cash (paid) received	(3)	(1)	—	—	(2)	(6)
Foreign currency translation adjustment	—	—	—	—	—	—
Reserve at September 30, 2017	$ 1	$ 2	$ —	$ —	$ —	$ 3

Cabot's severance and employee benefit reserves and other closure related reserves are reflected in Accounts payable and accrued liabilities on the Company's Consolidated Balance Sheets. Cabot's environmental remediation reserves related to restructuring activities are reflected in Other liabilities on the Company's Consolidated Balance Sheets.

2016 Plan

In October 2015, in response to challenging macroeconomic conditions, the Company announced its intention to restructure its operations subject to local consultation requirements and processes in certain locations. Cabot's plan resulted in the termination of employment for approximately 300 employees across the Company's global locations.

Total charges related to these actions are expected to be $30 million, of which $29 million was recorded in fiscal 2016. The Company has recorded pre-tax cash charges of approximately $1 million for fiscal 2017 related to these actions and expects to incur charges of less than $1 million in fiscal 2018. The charges recorded are comprised of severance, employee benefits and other transition costs.

Cumulative net cash outlays related to these actions are expected to be approximately $30 million, comprised of severance, employee benefits and other transition costs. Through September 30, 2017, the Company has made $30 million in cash payments related to this plan, of which $27 million was paid in fiscal 2016.

As of September 30, 2017, Cabot had less than $1 million of accrued severance charges in the Consolidated Balance Sheets related to these actions.

Additionally, in fiscal 2016, Cabot closed its carbon black manufacturing facility in Merak, Indonesia to consolidate production in Asia using the Company's Cilegon, Indonesia and other Asian and global carbon black production sites to meet regional demand. The decision was driven by the financial performance at the Merak facility in the years preceding the closure. Manufacturing operations ceased at the end of January 2016.

Total charges related to the Merak closure are expected to be $27 million, of which $25 million was recorded in fiscal 2016. The Company has recorded net charges of less than $1 million in fiscal 2017 of transition related costs. The charges in fiscal 2016 were comprised of $22 million of non-cash asset impairments and accelerated depreciation and $3 million of severance and other transition costs.

Future anticipated site closure costs for the Merak facility, comprised mainly of site demolition and clearing and environmental remediation charges are expected to total approximately $2 million in fiscal 2018 when these activities are expected to be substantially complete. Future anticipated costs do not include any benefit from the potential proceeds related to the sale of land on which the facility was located.

Total net cash outlays related to this closure are expected to be approximately $6 million, comprised of $3 million of severance payments, and $3 million of site demolition, clearing, environmental, and other costs. Through September 30, 2017, the Company has made $3 million in cash payments related to this plan, mainly for severance and expects to pay approximately $3 million in fiscal 2018 mainly for site demolition, clearing, environmental, and severance costs. Total net cash outlays do not include any benefit from the potential proceeds related to the sale of land on which the facility was located.

As of September 30, 2017, Cabot has approximately $1 million of accrued severance costs in the Consolidated Balance Sheets related to the Merak facility closure.

Other Actions

Cabot has recorded approximately $2 million of severance charges in fiscal 2017, nearly all of which has been paid.

Additionally, in previous years, the Company has entered into other various restructuring actions that have been substantially completed, other than the sale of assets from certain closed sites that remain to be completed. The Company has recorded a total charge of approximately $2 million related to these plans in fiscal 2017 and a net benefit of $8 million in fiscal 2016, driven by gains from the sale of certain assets.

Cabot expects to pay approximately $3 million related to these actions in fiscal 2018 and thereafter mainly for accrued environmental and other closure related costs. As of September 30, 2017, Cabot has approximately $2 million of accrued environmental costs in the Consolidated Balance Sheets related to these activities.

Note O. Accumulated Other Comprehensive Income (Loss)

Changes in each component of AOCI, net of tax, are as follows for fiscal 2016 and 2017:

	Currency Translation Adjustment	Unrealized Gains on Investment	Pension and Other Postretirement Benefit Liability Adjustment	Total
	(In millions)			
Balance at September 30, 2015 attributable to Cabot Corporation	$ (239)	$ 2	$ (62)	$ (299)
Other comprehensive income (loss)	7	—	(38)	(31)
Less: Other comprehensive income (loss) attributable to noncontrolling interests	(5)	—	—	(5)
Balance at September 30, 2016 attributable to Cabot Corporation	(227)	2	(100)	(325)
Other comprehensive income (loss) before reclassifications	25	—	41	66
Amounts reclassified from AOCI	—	—	2	2
Less: Other comprehensive income (loss) attributable to noncontrolling interests	2	—	—	2
Balance at September 30, 2017 attributable to Cabot Corporation	$ (204)	$ 2	$ (57)	$ (259)

The amounts reclassified out of AOCI and into the Consolidated Statements of Operations for the fiscal year ended September 30, 2017, 2016 and 2015 are as follows:

	Affected Line Item in the Consolidated Statements of Operations	September 30 2017	2016	2015
			(In Millions)	
Pension and other postretirement benefit liability adjustment				
Amortization of actuarial losses (gains)	Net Periodic Benefit Cost - see Note L for details	$ 5	$ 3	$ (1)
Amortization of prior service (credit) cost	Net Periodic Benefit Cost - see Note L for details	(3)	(3)	4
Settlement and curtailment (credit) cost	Net Periodic Benefit Cost - see Note L for details	—	—	27
Total before tax		2	—	30
Tax impact	Provision for income taxes	—	—	(6)
Total after tax		$ 2	$ —	$ 24

Note P. Earnings Per Share

The following tables summarize the components of the basic and diluted earnings per common share ("EPS") computations:

	Years Ended September 30		
	2017	2016	2015
	(In millions, except per share amounts)		
Basic EPS:			
Net income (loss) attributable to Cabot Corporation	$ 241	$ 149	$ (334)
Less: Dividends and dividend equivalents to participating securities	—	—	—
Less: Undistributed earnings allocated to participating securities[1]	2	1	—
Earnings (loss) allocated to common shareholders (numerator)	$ 239	$ 148	$ (334)
Weighted average common shares and participating securities outstanding	62.8	62.9	63.9
Less: Participating securities[1]	0.5	0.5	0.5
Adjusted weighted average common shares (denominator)	62.3	62.4	63.4
Per share amounts—basic:			
Income (loss) from continuing operations attributable to Cabot Corporation	$ 3.83	$ 2.36	$ (5.29)
Income (loss) from discontinued operations	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ 3.83	$ 2.38	$ (5.27)
Diluted EPS:			
Earnings (loss) allocated to common shareholders	$ 239	$ 148	$ (334)
Plus: Earnings (loss) allocated to participating securities	2	1	—
Less: Adjusted earnings allocated to participating securities[2]	2	1	—
Earnings (loss) available to common shares (numerator)	$ 239	$ 148	$ (334)
Adjusted weighted average common shares outstanding	62.3	62.4	63.4
Effect of dilutive securities:			
Common shares issuable[3]	0.4	0.5	—
Adjusted weighted average common shares (denominator)	62.7	62.9	63.4
Per share amounts—diluted:			
Income (loss) from continuing operations attributable to Cabot Corporation	$ 3.80	$ 2.34	$ (5.29)
Income (loss) from discontinued operations	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ 3.80	$ 2.36	$ (5.27)

(1) Participating securities consist of unvested time-based restricted stock units.

Undistributed earnings are the earnings which remain after dividends declared during the period are assumed to be distributed to the common and participating shareholders. Undistributed earnings are allocated to common and participating shareholders on the same basis as dividend distributions. The calculation of undistributed earnings is as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Calculation of undistributed earnings:			
Net income (loss) attributable to Cabot Corporation	$ 241	$ 149	$ (334)
Less: Dividends declared on common stock	77	65	56
Less: Dividends and dividend equivalents to participating securities	—	—	—
Undistributed earnings (loss)	$ 164	$ 84	$ (390)
Allocation of undistributed earnings:			
Undistributed earnings (loss) allocated to common shareholders	$ 162	$ 83	$ (390)
Undistributed earnings allocated to participating securities	2	1	—
Undistributed earnings (loss)	$ 164	$ 84	$ (390)

(2) Undistributed earnings (loss) are adjusted for the assumed distribution of dividends to the dilutive securities, which are described in (3) below, and then reallocated to participating securities.

(3) Represents incremental shares of common stock from the (i) assumed exercise of stock options issued under Cabot's equity incentive plans; (ii) assumed issuance of shares to employees pursuant to the Company's SERP 401(k) Plan; and (iii) assumed issuance of shares for outstanding and achieved performance-based stock unit awards issued under Cabot's equity incentive plans using the treasury stock method. For fiscal 2017, 2016 and 2015, respectively, 179,052, 634,168 and 897,056 incremental shares of common stock were not included in the calculation of diluted earnings per share because the inclusion of these shares would have been antidilutive.

Note Q. Income Taxes

Income from continuing operations before income taxes and equity in net earnings of affiliated companies was as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Domestic	$ (19)	$ (26)	$ (439)
Foreign	307	220	62
Income from continuing operations before income taxes and equity in earnings of affiliated companies	$ 288	$ 194	$ (377)

Tax provision (benefit) for income taxes consisted of the following:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
U.S. federal and state:			
Current	$ 5	$ 7	$ (7)
Deferred	(30)	(33)	(74)
Total	(25)	(26)	(81)
Foreign:			
Current	59	62	48
Deferred	(5)	(2)	(12)
Total	54	60	36
Provision (benefit) for income taxes	$ 29	$ 34	$ (45)

The provision (benefit) for income taxes differed from the provision for income taxes as calculated using the U.S. statutory rate as follows:

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Computed tax expense at the federal statutory rate	$ 101	$ 68	$ (132)
Foreign income:			
Impact of taxation at different rates, repatriation, losses and other	(75)	(37)	(24)
Impact of increase (decrease) in valuation allowance on deferred taxes	(7)	7	(7)
Impact of foreign losses for which a current tax benefit is not available	1	—	9
Impact of non-deductible net currency losses	—	2	(1)
U.S. and state benefits from research and experimentation activities	(2)	(2)	(2)
Provision (settlement) of unrecognized tax benefits	7	1	(7)
Benefit from prior currency loss	—	(3)	—
Impact of goodwill impairment charge	—	—	123
Permanent differences, net	5	—	—
State taxes, net of federal effect	(1)	(2)	(4)
Provision (benefit) for income taxes	$ 29	$ 34	$ (45)

Significant components of deferred income taxes were as follows:

	September 30	
	2017	2016
	(In millions)	
Deferred tax assets:		
Deferred expenses	$ 22	$ 25
Intangible assets	43	45
Inventory	14	13
Other	14	4
Pension and other benefits	59	83
Net operating loss carry-forwards	149	144
Foreign tax credit carry-forwards	132	63
R&D credit carry-forwards	38	35
Other business credit carry-forwards	37	41
Subtotal	508	453
Valuation allowance	(168)	(177)
Total deferred tax assets	$ 340	$ 276

	September 30	
	2017	2016
	(In millions)	
Deferred tax liabilities:		
Property, plant and equipment	$ (116)	$ (101)
Unremitted earnings of non-U.S. subsidiaries	(12)	—
Total deferred tax liabilities	$ (128)	$ (101)

In the fiscal 2017 tax provision, Cabot recorded $25 million of net discrete tax benefits, composed of net tax benefits of $16 million associated with the generation of excess foreign tax credits upon repatriation of previously taxed foreign earnings and the accrual of U.S. tax on certain foreign earnings, a net tax benefit of $6 million from a change in valuation allowance on a beginning of year tax balance, net tax benefits of $4 million for various return to provision adjustments related to tax return filings and net tax charges of $1 million related to other miscellaneous tax items.

In the fiscal 2016 tax provision, Cabot recorded less than $1 million of discrete tax charges composed of charges of $5 million for valuation allowances on beginning of the year tax balances, partially offset by benefits of $3 million for a currency loss and $1 million each for the renewal of the U.S. research and experimentation credit and net tax settlements.

In the fiscal 2015 tax benefit, Cabot recorded $13 million of discrete tax benefits including benefits of $7 million for tax settlements, $4 million for repatriation, and $2 million for the renewal of the U.S. research and experimentation credit.

Approximately $798 million of net operating loss carryforwards ("NOLs") and $212 million of other tax credit carryforwards remain at September 30, 2017. The benefits of these carryforwards are dependent upon taxable income during the carryforward period in the jurisdictions in which they arose. Accordingly, a valuation allowance has been provided where management has determined that it is more likely than not that the carryforwards will not be utilized. The following table provides detail surrounding the expiration dates of these carryforwards:

Years Ended September 30	NOLs	Credits
	(In millions)	
2018 to 2024	$ 235	$ 55
2025 and thereafter	226	136
Indefinite carry-forwards	337	21
Total	$ 798	$ 212

As of September 30, 2017, provisions have not been made for U.S. income taxes or non-U.S. withholding taxes on approximately $1.9 billion of undistributed earnings of non-U.S. subsidiaries, as these earnings are considered indefinitely reinvested. Cabot continually reviews the financial position and forecasted cash flows of its U.S. consolidated group and foreign subsidiaries in order to reaffirm the Company's intent and ability to continue to indefinitely reinvest earnings of its foreign subsidiaries or whether such earnings will need to be repatriated in the foreseeable future. Such review encompasses operational needs and future capital investments. From time to time, however, the Company's intentions relative to specific indefinitely reinvested amounts change because of certain unique circumstances. These earnings could become subject to U.S. income taxes and non-U.S. withholding taxes if they were remitted as dividends, were loaned to Cabot Corporation or a U.S. subsidiary, or if Cabot should sell its stock in the subsidiaries with the reinvested earnings.

As of September 30, 2017, net deferred tax assets of $220 million are in the U.S. Management believes that the Company's history of generating domestic profits provides adequate evidence that it is more likely than not that all of the U.S. net deferred tax assets will be realized in the normal course of business. U.S. income from continuing operations adjusted for U.S. permanent differences was a profit of $210 million for the year ended September 30, 2017 and was a cumulative profit of $89 million for the three years ended September 30, 2017 including dividends from non-U.S. subsidiaries. Realization of deferred tax assets is dependent upon future taxable income generated over an extended period of time.

As of September 30, 2017, the Company needs to generate approximately $629 million in cumulative future U.S. taxable income at various times over approximately 20 years to realize all of its net U.S. deferred tax assets. The Company reviews its forecast in relation to actual results and expected trends on a quarterly basis. Failure to achieve operating income targets may change the Company's assessment regarding the realization of Cabot's deferred tax assets and such change could result in a valuation allowance being recorded against some or all of the Company's deferred tax assets. Any increase in a valuation allowance would result in additional income tax expense, lower stockholders' equity and could have a significant impact on Cabot's earnings in future periods.

The valuation allowances at September 30, 2017 and 2016 represent management's best estimate of the non-realizable portion of the deferred tax assets. The valuation allowance decreased by $9 million in 2017 due to net increases in the value of certain future tax benefits and net operating losses generated that are included in deferred tax assets. The valuation allowance increased by $16 million in 2016 due to net reductions in value of certain future tax benefits and net operating losses generated that are included in deferred tax assets.

Cabot has filed its tax returns in accordance with the tax laws in each jurisdiction and recognizes tax benefits for uncertain tax positions when the position would more likely than not be sustained based on its technical merits and recognizes measurement adjustments when needed. As of September 30, 2017, the total amount of unrecognized tax benefits was $36 million, of which $25 million was recorded in the Company's Consolidated Balance Sheets and $11 million of deferred tax assets, principally related to state net operating loss carry-forwards, have not been recorded. In addition, accruals of $1 million and $8 million have been recorded for penalties and interest, respectively, as of both September 30, 2017 and 2016. Total penalties and interest recorded in the tax provision in the Consolidated Statements of Operations was $2 million in each of the years ended September 30, 2017, 2016, and 2015. If the unrecognized tax benefits were recognized at a given point in time, there would be approximately $34 million favorable impact on the Company's tax provision before consideration of the impact of the potential need for valuation allowances.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for fiscal years 2017, 2016 and 2015 is as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Balance at beginning of the year	$ 30	$ 30	$ 41
Additions based on tax provisions related to the current year	2	2	1
Additions for tax positions of prior years	8	5	—
Reductions of tax provisions of prior years	(1)	(3)	(1)
Reductions related to settlements	(2)	—	(9)
Reductions from lapse of statute of limitations	(1)	(4)	(2)
Balance at end of the year	$ 36	$ 30	$ 30

Cabot and certain subsidiaries are under audit in a number of jurisdictions. In addition, certain statutes of limitations are scheduled to expire in the near future. It is reasonably possible that a further change in the unrecognized tax benefits may occur within the next twelve months related to the settlement of one or more of these audits or the lapse of applicable statutes of limitations; however, an estimated range of the impact on the unrecognized tax benefits cannot be quantified at this time.

Cabot files U.S. federal and state and non-U.S. income tax returns in jurisdictions with varying statutes of limitations. The 2013 through 2015 tax years generally remain subject to examination by the IRS and various tax years from 2005 through 2015 remain subject to examination by the respective state tax authorities. In significant non-U.S. jurisdictions, various tax years from 2002 through 2015 remain subject to examination by their respective tax authorities. As of September 30, 2017, Cabot's significant non-U.S. jurisdictions include Canada, China, France, Germany, Italy, Japan, and the Netherlands.

Note R. Commitments and Contingencies

Operating Lease Commitments

Cabot leases certain transportation vehicles, warehouse facilities, office space, machinery and equipment under cancelable and non-cancelable operating leases, most of which expire within ten years and may be renewed by Cabot. Escalation clauses, lease payments dependent on existing rates/indexes and other lease incentives are included in the minimum lease payments and such lease payments are recognized on a straight-line basis over the minimum lease term. Rent expense under such arrangements for fiscal 2017, 2016 and 2015 totaled $33 million, $31 million and $29 million, respectively. Future minimum rental commitments under non-cancelable leases are as follows:

Years Ended September 30	(In millions)
2018	$ 25
2019	16
2020	10
2021	9
2022	8
2023 and thereafter	68
Total future minimum rental commitments	$ 136

Other Long-Term Commitments

Cabot has entered into long-term purchase agreements primarily for the purchase of raw materials. Under certain of these agreements, the quantity of material being purchased is fixed, but the price paid changes as market prices change. Raw materials purchased under these agreements by segment for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Reinforcement Materials	$ 281	$ 193	$ 276
Performance Chemicals	43	68	62
Purification Solutions	7	7	14
Total	$ 331	$ 268	$ 352

Included in the table above are raw materials purchases from noncontrolling shareholders of consolidated subsidiaries. These purchases were $116 million, $92 million and $169 million during fiscal 2017, 2016 and 2015, respectively, and accounts payable and accrued liabilities owed to noncontrolling shareholders as of September 30, 2017 and 2016, were $12 million and $9 million, respectively.

For these purchase commitments, the amounts included in the table below are based on market prices as of September 30, 2017 which may differ from actual market prices at the time of purchase.

	Payments Due by Fiscal Year						
	2018	2019	2020	2021	2022	Thereafter	Total
	(In millions)						
Reinforcement Materials	$ 253	$ 250	$ 148	$ 108	$ 108	$ 1,487	$ 2,354
Performance Chemicals	41	41	39	37	26	371	555
Purification Solutions	10	7	6	1	—	—	24
Total	$ 304	$ 298	$ 193	$ 146	$ 134	$ 1,858	$ 2,933

Guarantee Agreements

Cabot has provided certain indemnities pursuant to which it may be required to make payments to an indemnified party in connection with certain transactions and agreements. In connection with certain acquisitions and divestitures, Cabot has provided routine indemnities with respect to such matters as environmental, tax, insurance, product and employee liabilities. In connection with various other agreements, including service and supply agreements with customers, Cabot has provided indemnities for certain contingencies and routine warranties. Cabot is unable to estimate the maximum potential liability for these types of indemnities as a maximum obligation is not explicitly stated in most cases and the amounts, if any, are dependent upon the outcome of future contingent events, the nature and likelihood of which cannot be reasonably estimated. The duration of the indemnities vary, and in many cases are indefinite. Cabot has not recorded any liability for these indemnities in the consolidated financial statements, except as otherwise disclosed.

Self-Insurance and Retention for Certain Contingencies

The Company is partially self-insured for certain third-party liabilities globally, as well as workers' compensation and employee medical benefits in the United States. The third-party and workers' compensation liabilities are managed through a wholly-owned insurance captive and the related liabilities are included in the consolidated financial statements. The employee medical obligations are managed by a third-party provider and the related liabilities are included in the consolidated financial statements. To limit Cabot's potential liabilities for these risks, however, the Company purchases insurance from third-parties that provides stop-loss protection. The self-insured liability in fiscal 2017 for third-party liabilities was $500,000 per accident for auto, $2 million per occurrence for all other, $1 million per accident for U.S. workers' compensation, and the retention for medical costs in the United States is at most $225,000 per person per annum.

Contingencies

Cabot is a defendant, or potentially responsible party, in various lawsuits and environmental proceedings wherein substantial amounts are claimed or at issue.

Environmental Matters

As of September 30, 2017 and 2016, Cabot had $12 million and $14 million, respectively, reserved for environmental matters. These environmental matters mainly relate to former operations. These reserves represent Cabot's best estimates of the probable costs to be incurred at those sites where costs are reasonably estimable based on the Company's analysis of the extent of clean up required, alternative clean-up methods available, abilities of other responsible parties to contribute and its interpretation of laws and regulations applicable to each site. In both fiscal 2017 and 2016, there was $2 million in Accounts payable and accrued liabilities in the Consolidated Balance Sheets for environmental matters. In fiscal 2017 and 2016, there was $10 million and $12 million, respectively in Other liabilities in the Consolidated Balance Sheets for environmental matters. Cabot reviews the adequacy of the reserves as circumstances change at individual sites and adjusts the reserves as appropriate. Almost all of Cabot's environmental issues relate to sites that are mature and have been investigated and studied and, in many cases, are subject to agreed upon remediation plans. However, depending on the results of future testing, changes in risk assessment practices, remediation techniques and regulatory requirements, newly discovered conditions, and other factors, it is reasonably possible that the Company could incur additional costs in excess of environmental reserves currently recorded. Management estimates, based on the latest available information, that any such future environmental remediation costs that are reasonably possible to be in excess of amounts already recorded would be immaterial to the Company's consolidated financial statements.

Charges for environmental expense were less than $1 million in each of fiscal 2017 and 2016 and $1 million in fiscal 2015, respectively, which are included in Cost of sales in the Consolidated Statements of Operations. Cash payments related to these environmental matters were $2 million in each of fiscal 2017, 2016 and 2015. The Company anticipates that expenditures related to these environmental matters will be made over a number of years, and will not be concentrated in any one year, with the exception of fiscal 2019, when we expect to perform additional environmental remediation activities at one of our former manufacturing sites.

The operation and maintenance component of the $12 million reserve for environmental matters was $4 million at September 30, 2017.

In November 2013, Cabot entered into a Consent Decree with the EPA and the Louisiana Department of Environmental Quality ("LDEQ") regarding Cabot's three carbon black manufacturing facilities in the U.S. This settlement is related to EPA's national enforcement initiative focused on the U.S. carbon black manufacturing sector alleging non-compliance with certain regulatory and permitting requirements under The Clean Air Act, including the New Source Review ("NSR") construction permitting requirements. Pursuant to this settlement, Cabot is in the process of installing technology controls for reduction of sulfur dioxide and nitrogen oxide emissions at certain of its carbon black plants.

Respirator Liabilities

Cabot has exposure in connection with a safety respiratory products business that a subsidiary acquired from American Optical Corporation ("AO") in an April 1990 asset purchase transaction. The subsidiary manufactured respirators under the AO brand and disposed of that business in July 1995. In connection with its acquisition of the business, the subsidiary agreed, in certain circumstances, to assume a portion of AO's liabilities, including costs of legal fees together with amounts paid in settlements and judgments, allocable to AO respiratory products used prior to the 1990 purchase by the Cabot subsidiary. In exchange for the subsidiary's assumption of certain of AO's respirator liabilities, AO agreed to provide to the subsidiary the benefits of: (i) AO's insurance coverage for the period prior to the 1990 acquisition and (ii) a former owner's indemnity of AO holding it harmless from any liability allocable to AO respiratory products used prior to May 1982.

Generally, these respirator liabilities involve claims for personal injury, including asbestosis, silicosis and coal worker's pneumoconiosis, allegedly resulting from the use of respirators that are alleged to have been negligently designed and/or labeled. Neither Cabot, nor its past or present subsidiaries, at any time manufactured asbestos or asbestos-containing products. At no time did this respiratory product line represent a significant portion of the respirator market.

The subsidiary transferred the business to Aearo Corporation ("Aearo") in July 1995. Cabot agreed to have the subsidiary retain certain liabilities associated with exposure to asbestos and silica while using respirators prior to the 1995 transaction so long as Aearo paid, and continues to pay, Cabot an annual fee of $400,000. Aearo can discontinue payment of the fee at any time, in which case it will assume the responsibility for and indemnify Cabot against those liabilities which Cabot's subsidiary had agreed to retain. The Company anticipates that it will continue to receive payment of the $400,000 fee from Aearo and thereby retain these liabilities for the foreseeable future. Cabot has no liability in connection with any products manufactured by Aearo after 1995.

In addition to Cabot's subsidiary and as described above, other parties are responsible for significant portions of the costs of respirator liabilities, leaving Cabot's subsidiary with a portion of the liability in only some of the pending cases. These parties include Aearo, AO, AO's insurers, another former owner and its insurers and a third-party manufacturer of respirators formerly sold under the AO brand and its insurers (collectively, with the Company's subsidiary, the "Payor Group").

As of September 30, 2017 and 2016, there were approximately 37,000 and 38,000 claimants, respectively, in pending cases asserting claims against AO in connection with respiratory products. Cabot has contributed to the Payor Group's defense and settlement costs with respect to a percentage of pending claims depending on several factors, including the period of alleged product use. In order to quantify Cabot's estimated share of liability for pending and future respirator liability claims, Cabot has engaged, through counsel, the assistance of Hamilton, Rabinovitz & Alschuler, Inc. ("HR&A"), a leading consulting firm in the field of tort liability valuation. The methodology used by HR&A addresses the complexities surrounding Cabot's potential liability by making assumptions about future claimants with respect to periods of asbestos, silica and coal mine dust exposure and respirator use. Using those and other assumptions, HR&A estimates the number of future asbestos, silica and coal mine dust claims that will be filed and the related costs that would be incurred in resolving both currently pending and future claims. On this basis, HR&A then estimates the value of the share of these liabilities that reflect Cabot's period of direct manufacture and Cabot's contractual obligations. Based on the HR&A estimates, as of September 30, 2017 and 2016, the Company had $18 million and $21 million, respectively, reserved for its estimated share of liability for pending and future respirator claims. The Company recorded a charge of $13 million related to the respirator liability in fiscal 2016, which is included in Selling and administrative expenses in the Consolidated Statements of Operations. No charges related to the respirator liability were recorded in either fiscal 2017 or fiscal 2015. The Company made payments related to its respirator liability of $3 million in both fiscal 2017 and 2016 and $2 million in fiscal 2015.

The Company's current estimate of the cost of its share of existing and future respirator liability claims is based on facts and circumstances existing at this time. Developments that could affect the Company's estimate include, but are not limited to, (i) significant changes in the number of future claims, (ii) changes in the rate of dismissals without payment of pending claims, (iii) significant changes in the average cost of resolving claims, (iv) significant changes in the legal costs of defending these claims, (v) changes in the nature of claims received, (vi) changes in the law and procedure applicable to these claims, (vii) the financial viability of members of the Payor Group, (viii) a change in the availability of the insurance coverage of the members of the Payor Group or the indemnity provided by AO's former owner, (ix) changes in the allocation of costs among the Payor Group and (x) a determination that the assumptions that were used to estimate the Company's share of liability are no longer reasonable. The Company cannot determine the impact of these potential developments on its current estimate of its share of liability for existing and future claims. Accordingly, the actual amount of these liabilities for existing and future claims could be different than the reserved amount.

Other Matters

The Company has various other lawsuits, claims and contingent liabilities arising in the ordinary course of its business and with respect to its divested businesses. The Company does not believe that any of these matters will have a material adverse effect on its financial position; however, litigation is inherently unpredictable. Cabot could incur judgments, enter into settlements or revise its expectations regarding the outcome of certain matters, and such developments could have a material impact on its results of operations in the period in which the amounts are accrued or its cash flows in the period in which the amounts are paid.

Note S. Financial Information by Segment & Geographic Area

Segment Information

The Company identifies a business as an operating segment if: i) it engages in business activities from which it may earn revenues and incur expenses; ii) its operating results are regularly reviewed by the Chief Operating Decision Maker ("CODM"), who is Cabot's President and Chief Executive Officer, to make decisions about resources to be allocated to the segment and assess its performance; and iii) it has available discrete financial information. The Company has determined that all of its businesses are operating segments. The CODM reviews financial information at the operating segment level to allocate resources and to assess the operating results and financial performance for each operating segment. Operating segments are aggregated into a reportable segment if the operating segments are determined to have similar economic characteristics and if the operating segments are similar in the following areas: i) nature of products and services; ii) nature of production processes; iii) type or class of customer for their products and services; iv) methods used to distribute the products or provide services; and v) if applicable, the nature of the regulatory environment.

The Company has four reportable segments: Reinforcement Materials, Performance Chemicals, Purification Solutions, and Specialty Fluids.

The Reinforcement Materials segment combines the rubber blacks and elastomer composites product lines.

The Performance Chemicals segment combines the specialty carbons and compounds and inkjet colorants product lines into the Specialty Carbons and Formulations business, and combines the fumed metal oxides and aerogel product lines into the Metal Oxides business. These businesses are similar in terms of economic characteristics, nature of products, processes, customer class and product distribution methods, and therefore have been aggregated into one reportable segment.

The Purification Solutions segment represents the Company's activated carbon business and the Specialty Fluids segment includes cesium formate oil and gas drilling fluids and high-purity fine cesium chemicals product lines.

Income (loss) from continuing operations before income taxes ("Segment EBIT") is presented for each reportable segment in the financial information by the reportable segment table below on the line entitled Income (loss) from continuing operations before taxes. Segment EBIT excludes certain items, meaning items management does not consider representative of on-going operating segment results. In addition, Segment EBIT includes Equity in earnings of affiliated companies, net of tax, the full operating results of a contractual joint venture in Purification Solutions, royalties, Net income (loss) attributable to noncontrolling interests, net of tax, and discounting charges for certain Notes receivable, but excludes Interest expense, foreign currency transaction gains and losses, interest income, dividend income, unearned revenue, the effects of LIFO accounting for inventory, general unallocated expense and unallocated corporate costs. Segment assets exclude cash, short-term investments, cost investments, income taxes receivable, deferred taxes and headquarters' assets, which are included in unallocated and other. Expenditures for additions to long-lived assets include total equity and other investments (including available-for-sale securities) and property, plant and equipment.

Reinforcement Materials

Carbon black is a form of elemental carbon that is manufactured in a highly controlled process to produce particles and aggregates of varied structure and surface chemistry, resulting in many different performance characteristics for a wide variety of applications. Rubber grade carbon blacks are used to enhance the physical properties of the systems and applications in which they are incorporated.

The Company's rubber blacks products are used in tires and industrial products. Rubber blacks have traditionally been used in the tire industry as a rubber reinforcing agent to increase tread durability and are also used as a performance additive to reduce rolling resistance and improve traction. In industrial products such as hoses, belts, extruded profiles and molded goods, rubber blacks are used to improve the physical performance of the product, including the product's physical strength, fluid resistance, conductivity and resistivity.

In addition to its rubber blacks products, the Company manufactures compounds of carbon black and rubber using its patented elastomer composites manufacturing process. These compounds improve abrasion/wear resistance, reduce fatigue of rubber parts and reduce rolling resistance compared to carbon black/rubber compounds made by conventional dry mix methods.

Performance Chemicals

Performance Chemicals is composed of two businesses: (i) the Company's Specialty Carbons and Formulations business, which manufactures and sells specialty grades of carbon black, specialty compounds and inkjet colorants, and (ii) its Metal Oxides business, which manufactures and sells fumed silica, fumed alumina and dispersions thereof and aerogel. In Performance Chemicals, the Company designs, manufactures and sells materials that deliver performance in a broad range of customer applications across the automotive, construction, infrastructure, energy, inkjet printing, electronics, and consumer products sectors. The net sales from each of these businesses for fiscal 2017, 2016 and 2015 are as follows:

	Years Ended September 30		
	2017	2016	2015
	(In millions)		
Specialty Carbons and Formulations	$ 623	$ 578	$ 630
Metal Oxides	285	287	297
Total Performance Chemicals	$ 908	$ 865	$ 927

Specialty Carbons and Formulations Business

The Company's specialty grades of carbon black are used to impart color, provide rheology control, enhance conductivity and static charge control, provide UV protection, enhance mechanical properties, and provide formulation flexibility through surface treatment. These specialty carbon products are used in a wide variety of applications, such as inks, coatings, cables, plastics, adhesives, toners, batteries and displays.

Cabot's masterbatch and conductive compound products, which Cabot refers to as "specialty compounds", are formulations derived from specialty grades of carbon black mixed with polymers and other additives. These products are generally used by plastic resin producers and converters in applications for the automotive, industrial, packaging, consumer products, and electronics industries. As an alternative to directly mixing specialty carbon blacks, these formulations offer greater ease of handling and help customers achieve their desired levels of dispersion and color and manage the addition of small doses of additives. In addition, Cabot's electrically conductive compound products generally are used to reduce risks associated with electrostatic discharge in plastics applications.

The Company's inkjet colorants are high-quality pigment-based black and color dispersions based on its patented carbon black surface modification technology. The dispersions are used in aqueous inkjet inks to impart color, sharp print characteristics and durability, while maintaining high printhead reliability. These products are used in various inkjet printing applications, including commercial printing, small office/home office and corporate office, and niche applications that require a high level of dispersibility and colloidal stability. Cabot's inkjet inks, which utilize its pigment-based colorant dispersions, are used in the commercial printing segment for digital print.

Metal Oxides Business

Fumed silica is an ultra-fine, high-purity particle used as a reinforcing, thickening, abrasive, thixotropic, suspending or anti-caking agent in a wide variety of products for the automotive, construction, microelectronics, batteries, and consumer products industries. These products include adhesives, sealants, cosmetics, batteries, inks, toners, silicone elastomers, coatings, polishing slurries and pharmaceuticals. Fumed alumina, also an ultra-fine, high-purity particle, is used as an abrasive, absorbent or barrier agent in a variety of products, such as inkjet media, lighting, coatings, cosmetics and polishing slurries.

Aerogel is a hydrophobic, silica-based particle with a high surface area that is used in a variety of thermal insulation and specialty chemical applications. In the building and construction industry, the product is used in insulative sprayable plasters and composite building products, as well as translucent skylight, window, wall and roof systems for insulating eco-daylighting applications. In the specialty chemicals industry, the product is used to provide matte finishing, insulating and thickening properties for use in a variety of applications.

Purification Solutions

The Company's activated carbon products are used for the purification of water, air, food and beverages, pharmaceuticals and other liquids and gases, as either a colorant or a decolorizing agent in the production of products for food and beverage applications and as a chemical carrier in slow release applications. In gas and air applications, one of the uses of activated carbon is for the removal of mercury in flue gas streams. In certain applications, used activated carbon can be reactivated for further use by removing the contaminants from the pores of the activated carbon product. The most common applications for the Company's reactivated carbon are water treatment and food and beverage purification. In addition to activated carbon production and reactivation, the Company also provides activated carbon solutions through on-site equipment and services, including delivery systems for activated carbon injection in coal-fired utilities, mobile water filter units and carbon reactivation services.

Specialty Fluids

The Specialty Fluids segment produces and markets a range of cesium products that include cesium formate brines and other fine cesium chemicals.

Cesium formate brines are used as a drilling and completion fluid for use primarily in high pressure and high temperature oil and gas well construction. Cesium formate products are solids-free, high-density fluids that have a low viscosity, enabling safe and efficient well construction and workover operations. The fluid is resistant to high temperatures, minimizes damage to producing reservoirs and is readily biodegradable in accordance with the testing guidelines set by the Organization for Economic Cooperation and Development. In a majority of applications, cesium formate is blended with other formates or products.

Fine cesium chemicals are used across a wide range of industries and applications that include catalysts, doping agents and brazing fluxes. Fine cesium chemicals enable process performance benefits and yield improvements, and help prevent or mitigate pollution in the applications they serve.

Financial information by reportable segment is as follows:

Years Ended September 30	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids	Segment Total	Unallocated and Other[1], [3]	Consolidated Total
				(In millions)			
2017							
Revenues from external customers[2]	$ 1,381	$ 908	$ 281	$ 41	$ 2,611	$ 106	$ 2,717
Depreciation and amortization	$ 69	$ 46	$ 39	$ 2	$ 156	$ (1)	$ 155
Equity in earnings of affiliated companies	$ 6	$ —	$ 6	$ —	$ 12	$ (5)	$ 7
Income (loss) from continuing operations before income taxes[3]	$ 193	$ 201	$ 6	$ 9	$ 409	$ (121)	$ 288
Assets[4]	$ 1,189	$ 708	$ 741	$ 140	$ 2,778	$ 536	$ 3,314
Total expenditures for additions to long-lived assets[5]	$ 68	$ 47	$ 19	$ 5	$ 139	$ 8	$ 147
2016							
Revenues from external customers[2]	$ 1,108	$ 865	$ 290	$ 47	$ 2,310	$ 101	$ 2,411
Depreciation and amortization	$ 74	$ 48	$ 39	$ 3	$ 164	$ (3)	$ 161
Equity in earnings of affiliated companies	$ —	$ 1	$ 7	$ —	$ 8	$ (5)	$ 3
Income (loss) from continuing operations before income taxes[3]	$ 137	$ 225	$ (5)	$ 13	$ 370	$ (176)	$ 194
Assets[4]	$ 1,093	$ 629	$ 736	$ 139	$ 2,597	$ 438	$ 3,035
Total expenditures for additions to long-lived assets[5]	$ 46	$ 33	$ 30	$ 1	$ 110	$ 2	$ 112
2015							
Revenues from external customers[2]	$ 1,507	$ 927	$ 296	$ 42	$ 2,772	$ 99	$ 2,871
Depreciation and amortization	$ 83	$ 54	$ 45	$ 2	$ 184	$ (1)	$ 183
Equity in earnings of affiliated companies	$ 2	$ 1	$ 6	$ —	$ 9	$ (5)	$ 4
Income (loss) from continuing operations before income taxes[3]	$ 143	$ 178	$ 5	$ 6	$ 332	$ (709)	$ (377)
Assets[4]	$ 1,220	$ 625	$ 789	$ 119	$ 2,753	$ 310	$ 3,063
Total expenditures for additions to long-lived assets[5]	$ 44	$ 29	$ 48	$ 16	$ 137	$ 4	$ 141

(1) Unallocated and Other includes certain items and eliminations necessary to reflect management's reporting of operating segment results. These items are reflective of the segment reporting presented to the CODM.

(2) Consolidated Total Revenues from external customers reconciles to Net sales and other operating revenues on the Consolidated Statements of Operations. Revenues from external customers that are categorized as Unallocated and Other reflects royalties, external shipping and handling fees, the impact of unearned revenue, the removal of 100% of the sales of an equity method affiliate and discounting charges for certain Notes receivable. Details are provided in the table below.

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Royalties, the impact of unearned revenue, the removal of 100% of the sales of an equity method affiliate and discounting charges for certain Notes receivable	$ 11	$ 13	$ 9
Shipping and handling fees	95	88	90
Total	$ 106	$ 101	$ 99

(3) Consolidated Total Income (loss) from continuing operations before income taxes reconciles to Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies on the Consolidated Statements of Operations. Total Income (loss) from continuing operations before income taxes that are categorized as Unallocated and Other includes:

	Years Ended September 30		
	2017	2016	2015
		(In millions)	
Interest expense	$ (53)	$ (54)	$ (53)
Certain Items:[a]			
Global restructuring activities (Note N)	(3)	(47)	(21)
Legal and environmental matters and reserves	1	(17)	—
Acquisition and integration-related charges	—	—	(5)
Employee benefit plan settlement and other charges (Note L)	—	—	(21)
Impairment of goodwill and long-lived assets of Purification Solutions (Note E)	—	—	(562)
Non-recurring gain (loss) on foreign exchange	—	(11)	(2)
Inventory adjustment (Note C)	—	—	(6)
Executive transition costs	—	(6)	—
Other certain items	(1)	—	—
Total certain items, pre-tax	(3)	(81)	(617)
Unallocated corporate costs[b]	(50)	(45)	(46)
General unallocated income (expense)[c]	(8)	7	11
Less: Equity in earnings of affiliated companies, net of tax[d]	7	3	4
Total	$ (121)	$ (176)	$ (709)

[a] Certain items are items that management does not consider representative of operating segment results and they are, therefore, excluded from Segment EBIT.

[b] Unallocated corporate costs are not controlled by the segments and primarily benefit corporate interests.

[c] General unallocated income (expense) consists of gains (losses) arising from foreign currency transactions, net of other foreign currency risk management activities, the impact of accounting for certain inventory on a LIFO basis, the profit or loss related to the corporate adjustment for unearned revenue, and the impact of including the full operating results of an equity affiliate in Purification Solutions Segment EBIT.

[d] Equity in earnings of affiliated companies, net of tax is included in Segment EBIT and is removed from Unallocated and other to reconcile to income (loss) from operations before taxes.

(4) Unallocated and Other assets includes cash, marketable securities, cost investments, income taxes receivable, deferred taxes, headquarters' assets, and current and non-current assets held for sale. In fiscal 2017, the Company adopted two new accounting standards that impact the presentation of debt issuance costs and the classification of deferred taxes on the Consolidated Balance Sheets. These new standards were applied retrospectively and fiscal 2016 and fiscal 2015 balances have been updated as discussed in Note A.

(5) Expenditures for additions to long-lived assets include total equity and other investments (including available-for-sale securities) and property, plant and equipment.

Geographic Information

Sales are attributed to the U.S. and to all foreign countries based on the location from which the sale originated. Revenues from external customers and long-lived assets attributable to an individual country, other than the U.S., China and the Netherlands, were not material for disclosure.

Revenues from external customers and long-lived asset information by geographic area are summarized as follows:

Years Ended September 30	U.S.	China	The Netherlands	Other Foreign Countries	Consolidated Total
			(In millions)		
2017					
Revenues from external customers	$ 645	$ 573	$ 162	$ 1,337	$ 2,717
Net property, plant and equipment	$ 493	$ 261	$ 161	$ 390	$ 1,305
2016					
Revenues from external customers	$ 605	$ 482	$ 162	$ 1,162	$ 2,411
Net property, plant and equipment	$ 490	$ 266	$ 152	$ 382	$ 1,290
2015					
Revenues from external customers	$ 705	$ 548	$ 176	$ 1,442	$ 2,871
Net property, plant and equipment	$ 480	$ 311	$ 157	$ 435	$ 1,383

Note T. Unaudited Quarterly Financial Information

Unaudited financial results by quarter for fiscal 2017 and 2016 are summarized below:

	Quarters Ended				Year Ended
	December 31	March 31	June 30	September 30	September 30
			2017		
			(In millions, except per share amounts)		
Net sales and other operating revenues	$ 611	$ 678	$ 705	$ 723	$ 2,717
Gross profit	$ 157	$ 169	$ 159	$ 167	$ 652
Net income (loss)	$ 58	$ 80	$ 53	$ 75	$ 266
Net income (loss) attributable to Cabot Corporation	$ 54	$ 74	$ 45	$ 68	$ 241
Earnings per common share—basic	$ 0.85	$ 1.19	$ 0.71	$ 1.08	$ 3.83
Earnings per common share—diluted	$ 0.85	$ 1.18	$ 0.71	$ 1.06	$ 3.80

	Quarters Ended				Year Ended
	December 31	March 31	June 30	September 30	September 30
			2016		
			(In millions, except per share amounts)		
Net sales and other operating revenues	$ 603	$ 568	$ 621	$ 619	$ 2,411
Gross profit	$ 99	$ 150	$ 160	$ 169	$ 578
Income (loss) from discontinued operations, net of tax	$ —	$ —	$ —	$ 1	$ 1
Net income (loss)	$ (3)	$ 52	$ 60	$ 55	$ 164
Net income (loss) attributable to Cabot Corporation	$ (7)	$ 48	$ 56	$ 52	$ 149
Earnings per common share—basic:					
Income (loss) from continuing operations	$ (0.11)	$ 0.76	$ 0.90	$ 0.81	$ 2.36
Income (loss) from discontinued operations	—	—	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ (0.11)	$ 0.76	$ 0.90	$ 0.83	$ 2.38
Earnings per common share—diluted:					
Income (loss) from continuing operations	$ (0.11)	$ 0.76	$ 0.88	$ 0.81	$ 2.34
Income (loss) from discontinued operations	—	—	—	0.02	0.02
Net income (loss) attributable to Cabot Corporation	$ (0.11)	$ 0.76	$ 0.88	$ 0.83	$ 2.36

Note U. Subsequent Event

In November 2017, Cabot purchased Tech Blend, a leading North American producer of black masterbatch, for approximately $64 million in cash. Goodwill is expected to be generated from the acquisition, which will not be deductible for tax purposes.

Tech Blend produces black masterbatches (also known as concentrates) for applications in the automotive, infrastructure and agricultural industries at its manufacturing facility in Saint-Jean-sur-Richelieu, Québec, Canada. The acquisition extends Cabot's global footprint in black masterbatch and compounds and provides a platform to serve global customers and grow in conductive formulations.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Cabot Corporation
Boston, Massachusetts

We have audited the accompanying consolidated balance sheets of Cabot Corporation and subsidiaries (the "Company") as of September 30, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, changes in stockholders' equity and cash flows for each of the three years in the period ended September 30, 2017. These consolidated financial statements are the responsibility of the Company'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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Cabot Corporation and subsidiaries as of September 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of September 30, 2017, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 22, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
November 22, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Cabot Corporation
Boston, Massachusetts

We have audited the internal control over financial reporting of Cabot Corporation and subsidiaries (the "Company") as of September 30, 2017, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2017, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended September 30, 2017 of the Company and our report dated November 22, 2017 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
November 22, 2017

PART II

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

None.

Item 9A. *Controls and Procedures*

Disclosure Controls and Procedures

Cabot carried out an evaluation, under the supervision and with the participation of its management, including the Company's President and Chief Executive Officer and its Executive Vice President and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of September 30, 2017. Based on that evaluation, Cabot's President and Chief Executive Officer and its Executive Vice President and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective with respect to the recording, processing, summarizing and reporting, within the time periods specified in the Securities and Exchange Commission's rules and forms, of information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act and such information is accumulated and communicated to management to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

Cabot's management is responsible for establishing and maintaining adequate internal control over financial reporting for Cabot. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act as a process designed by, or under the supervision of, a company's principal executive and principal financial officers, and effected by the company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and 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 company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

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

Cabot's management assessed the effectiveness of Cabot's internal control over financial reporting as of September 30, 2017 based on the framework established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, Cabot's management concluded that Cabot's internal control over financial reporting was effective as of September 30, 2017.

Cabot's internal control over financial reporting as of September 30, 2017 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report above.

Changes in Internal Control Over Financial Reporting

There were no changes in the Company's internal control over financial reporting that occurred during the Company's fiscal quarter ending September 30, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. *Other Information*

None.

PART III

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

Certain information regarding our executive officers is included at the end of Part I of this annual report under the heading "Executive Officers of the Registrant."

Cabot has adopted a Code of Business Ethics that applies to all of the Company's employees and directors, including the Chief Executive Officer, the Chief Financial Officer, the Controller and other senior financial officers. The Code of Business Ethics is posted on our website, www.cabotcorp.com (under the "About Cabot" caption under "Company"). We intend to satisfy the disclosure requirement regarding any amendment to, or waiver of, a provision of the Code of Business Ethics applicable to the Chief Executive Officer, the Chief Financial Officer, the Controller or other senior financial officers by posting such information on our website.

The other information required by this item will be included in our Proxy Statement for the 2018 Annual Meeting of Stockholders ("Proxy Statement") and is herein incorporated by reference.

Item 11. *Executive Compensation*

The information required by this item will be included in our Proxy Statement and is incorporated herein by reference.

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

The information relating to security ownership of certain beneficial owners of our common stock, and information relating to the security ownership of our management required by this item will be included in our Proxy Statement and is incorporated herein by reference.

The following table provides information as of September 30, 2017 about: (i) the number of shares of common stock that may be issued upon exercise of outstanding options and vesting of restricted stock units; (ii) the weighted-average exercise price of outstanding options; and (iii) the number of shares of common stock available for future issuance under our active plans: the 2017 Long-Term Incentive Plan and the 2015 Directors' Stock Compensation Plan. All of our equity compensation plans have been approved by our stockholders.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)[1]	Weighted-average exercise price of outstanding option, warrants and rights (b)[2]	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)[3]
Equity compensation plans approved by security holders	2,151,090	$ 43.76	5,926,731
Equity compensation plans not approved by security holders	N/A	N/A	N/A

(1) Includes (i) 1,143,912 shares issuable upon exercise of outstanding stock options, (ii) 502,144 shares issuable upon vesting of time-based restricted stock units, (iii) 243,146 shares issuable upon vesting of performance-based restricted stock units based upon the achievement of the annual financial performance metrics for the three years within the three-year performance period of the fiscal 2015 awards, the first two years within the three-year performance period of the fiscal 2016 awards, and the first year within the three-year performance period of the fiscal 2017 awards; and (iv) 261,888 shares issuable upon vesting of the performance-based stock units attributable to year three of the 2016 awards and years two and three of the 2017 awards, assuming Cabot performs at the maximum performance level in each of those years. If, instead, Cabot performs at the target level of performance in those years, a total of 130,944 shares would be issuable for year three of the 2016 awards and years two and three of the 2017 awards.

(2) The weighted-average exercise price includes all outstanding stock options but does not include restricted stock units which do not have an exercise price.

(3) Of these shares, (i) 5,616,049 shares remain available for future issuance under our 2017 Long-Term Incentive Plan, and (ii) 310,682 remain available for future issuance under our 2015 Directors' Stock Compensation Plan.

The other information required by this item will be included in our Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be included in our Proxy Statement and is incorporated herein by reference.

Item 14. *Principal Accounting Fees and Services*

The information required by this item will be included in our Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) *Financial Statements*.

See "Index to Financial Statements" under Item 8 of this Form 10-K.

(b) *Schedules*.

The Schedules have been omitted since the required information is not applicable or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the consolidated financial statements and notes thereto included in this Form 10-K.

(c) *Exhibits*. (Certain exhibits not included in copies of the Form 10-K sent to stockholders.)

The exhibit numbers in the Exhibit Index correspond to the numbers assigned to such exhibits in the Exhibit Table of Item 601 of Regulation S-K. Cabot will furnish to any stockholder, upon written request, any exhibit listed in the Exhibit Index, upon payment by such stockholder of the Company's reasonable expenses in furnishing such exhibit.

Exhibit Number	Description
3(a)	Restated Certificate of Incorporation of Cabot Corporation effective January 9, 2009 (incorporated herein by reference to Exhibit 3.1 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2008, file reference 1-5667, filed with the SEC on February 9, 2009).
3(b)	The By-laws of Cabot Corporation as amended January 8, 2016 (incorporated herein by reference to Exhibit 3.1 of Cabot's Corporation's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2015, file reference 1-5667, filed with the SEC on February 5, 2016).
4(a)(i)†	Indenture, dated as of December 1, 1987, between Cabot Corporation and The First National Bank of Boston, Trustee (the "Indenture").
4(a)(ii)†	First Supplemental Indenture, dated as of June 17, 1992, to the Indenture.
4(a)(iii)	Second Supplemental Indenture, dated as of January 31, 1997, between Cabot Corporation and State Street Bank and Trust Company, Trustee (incorporated herein by reference to Exhibit 4 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 1996, file reference 1-5667, filed with the SEC on February 14, 1997).
4(a)(iv)	Third Supplemental Indenture, dated as of November 20, 1998, between Cabot Corporation and State Street Bank and Trust Company, Trustee (incorporated herein by reference to Exhibit 4.1 of Cabot's Current Report on Form 8-K, dated November 20, 1998, file reference 1-5667, filed with the SEC on November 20, 1998).
4(a)(v)	Indenture, dated as of September 21, 2009, between Cabot Corporation and U.S. Bank National Association, as Trustee (incorporated herein by reference to Exhibit 4.1 of Cabot's Registration Statement on Form S-3 ASR, Registration Statement No. 333-162021, filed with the SEC on September 21, 2009).
4(a)(vi)	Second Supplemental Indenture, dated as of July 12, 2012 between Cabot Corporation, as Issuer, and U.S. Bank National Association, as Trustee, including the form of Global Note attached as Annex A thereto, supplementing the Indenture dated as of September 21, 2009 (incorporated herein by reference to Exhibit 4.1 of Cabot's Current Report on Form 8-K dated July 9, 2012, file reference 1-5667, filed with the SEC on July 12, 2012).
4(a)(vii)	Indenture, dated as of September 15, 2016, between Cabot Corporation and U.S. Bank National Association, as Trustee (incorporated herein by reference to Exhibit 4.1 of Cabot Corporation's Current Report on Form 8-K dated September 15, 2016, file reference 1-5667, filed with the SEC on September 15, 2016).
4(a)(viii)	First Supplemental Indenture, dated as of September 15, 2016, between Cabot Corporation and U.S. Bank National Association, as Trustee, including the form of Global Note attached as Annex A thereto, supplementing the Indenture dated as of September 15, 2016 (incorporated herein by reference to Exhibit 4.2 of Cabot Corporation's Current Report on Form 8-K dated September 15, 2016, file reference 1-5667, filed with the SEC on September 15, 2016).
10(a)	Credit Agreement, dated October 23, 2015, among Cabot Corporation, JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, Citigroup Global Markets Inc., Citibank, N.A., Bank of America, N.A., Mizuho Bank, Ltd., TD Bank, N.A., and Wells Fargo Bank, National Association, and the other lenders party thereto (incorporated herein by reference to Exhibit 10(a) of Cabot's Annual Report on Form 10-K for its fiscal year ended September 30, 2015, file reference 1-5667, filed with the SEC on November 25, 2015).

Exhibit Number	Description
10(b)	Extension Agreement dated December 14, 2016 to the Credit Agreement, dated October 23, 2015, among Cabot Corporation, JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLS, Citigroup Global Markets Inc., Citibank, N.A., Bank of America, N.A., Mizuho Bank, Ltd., TD Bank, N.A., and Wells Fargo Bank, National Association, and the other lenders party thereto (incorporated herein by reference to Exhibit 10.1 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2016, file reference 1-5667, filed with the SEC on February 7, 2017).
10(b)(i)*	2009 Long-Term Incentive Plan (incorporated herein by reference to Appendix B of Cabot's Proxy Statement on Schedule 14A relating to the 2012 Annual Meeting of Stockholders, file reference 1-5667, filed with the SEC on January 30, 2012).
10(b)(ii)*	2017 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.1 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2017, file reference 1-5667, filed with the SEC on May 8, 2017).
10(b)(iii)*	2015 Directors' Stock Compensation Plan (incorporated herein by reference to Appendix B of Cabot's Proxy Statement on Schedule 14A relating to the 2015 Annual Meeting of Stockholders, file reference 1-5667, filed with the SEC on January 28, 2015).
10(b)(iv)*	Cabot Corporation Short-Term Incentive Compensation Plan (incorporated herein by reference to Appendix B of Cabot Corporation's Proxy Statement on Schedule 14A relating to the 2016 Annual Meeting of Stockholders, file reference 1-5667, filed with the SEC on January 28, 2016).
10(c)*	Summary of Compensation for Non-Employee Directors (incorporated herein by reference to Exhibit 10.3 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2016, file reference 1-5667, filed with the SEC on February 7, 2017).
10(d)*	Cabot Corporation Amended and Restated Senior Management Severance Protection Plan, dated March 9, 2012 (incorporated herein by reference to Exhibit 10.5 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012, file reference 1-5667, filed with the SEC on May 7, 2012).
10(e)*	Form of Performance-Based Restricted Stock Unit Award Certificate under the Cabot Corporation 2017 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.1 of Cabot Corporation's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, file reference 1-5667, filed with the SEC on August 7, 2017).
10(f)*	Form of Time-Based Restricted Stock Unit Award Certificate under the Cabot Corporation 2017 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.2 of Cabot Corporation's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, file reference 1-5667, filed with the SEC on August 7, 2017).
10(g)*	Form of Stock Option Award Certificate under the Cabot Corporation 2017 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.3 of Cabot Corporation's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017, file reference 1-5667, filed with the SEC on August 7, 2017).
10(h)*	Cabot Corporation Deferred Compensation and Supplemental Retirement Plan, amended and restated January 1, 2014 (incorporated herein by reference to Exhibit 10.1 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2013, file reference 1-5667, filed with the SEC on February 6, 2014).
10(i)*	Cabot Corporation Non-Employee Directors' Deferral Plan, amended and restated January 1, 2014 (incorporated herein by reference to Exhibit 10.2 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2013, file reference 1-5667, filed with the SEC on February 6, 2014).
21†	Subsidiaries of Cabot Corporation.
23†	Consent of Deloitte & Touche LLP.
31(i)†	Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act.
31(ii)†	Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act.
32††	Certifications of the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350.
101.INS†	XBRL Instance Document.
101.SCH†	XBRL Taxonomy Extension Schema Document.
101.CAL†	XBRL Taxonomy Calculation Linkbase Document.

Exhibit Number	Description
101.DEF†	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB†	XBRL Taxonomy Label Linkbase Document.
101.PRE†	XBRL Taxonomy Presentation Linkbase Document.

* Management contract or compensatory plan or arrangement.

† Filed herewith.

†† Furnished herewith.

SIGNATURES

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

CABOT CORPORATION

BY: /s/ SEAN D. KEOHANE
Sean D. Keohane
President and Chief Executive Officer

Date: November 22, 2017

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

Signatures	Title	Date
/s/ SEAN D. KEOHANE Sean D. Keohane	Director, President and Chief Executive Officer	November 22, 2017
/s/ EDUARDO E. CORDEIRO Eduardo E. Cordeiro	Executive Vice President and Chief Financial Officer (principal financial officer)	November 22, 2017
/s/ JAMES P. KELLY James P. Kelly	Vice President and Controller (principal accounting officer)	November 22, 2017
/s/ JOHN F. O'BRIEN John F. O'Brien	Director, Non-Executive Chairman of the Board	November 22, 2017
/s/ JUAN ENRIQUEZ Juan Enriquez	Director	November 22, 2017
/s/ WILLIAM C. KIRBY William C. Kirby	Director	November 22, 2017
/s/ RODERICK C.G. MACLEOD Roderick C.G. MacLeod	Director	November 22, 2017
/s/ JOHN K. MCGILLICUDDY John K. McGillicuddy	Director	November 22, 2017
/s/ MICHAEL M. MORROW Michael M. Morrow	Director	November 22, 2017
/s/ PATRICK M. PREVOST Patrick M. Prevost	Director	November 22, 2017
/s/ SUE H. RATAJ Sue H. Rataj	Director	November 22, 2017
/s/ MATTHIAS L. WOLFGRUBER Matthias L. Wolfgruber	Director	November 22, 2017
/s/ MARK S. WRIGHTON Mark S. Wrighton	Director	November 22, 2017

Exhibit 31(i)

Principal Executive Officer Certification

I, Sean D. Keohane, certify that:

1. I have reviewed this annual report on Form 10-K of Cabot 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(s) 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(s) 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 the registrant's board of directors (or persons performing the equivalent functions):

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: November 22, 2017

/s/ SEAN D. KEOHANE

Sean D. Keohane
President and
Chief Executive Officer

Exhibit 31(ii)

Principal Financial Officer Certification

I, Eduardo E. Cordeiro, certify that:

1. I have reviewed this annual report on Form 10-K of Cabot 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(s) 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(s) 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 the registrant's board of directors (or persons performing the equivalent functions):

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: November 22, 2017

/s/ EDUARDO E. CORDEIRO

Eduardo E. Cordeiro
Executive Vice President and
Chief Financial Officer

Exhibit 32

Certifications Pursuant to 18 U.S.C. Section 1350,
as Adopted Pursuant to Section 906 of the
Sarbanes-Oxley Act of 2002

In connection with the filing of the Annual Report on Form 10-K for the year ended September 30, 2017 (the "Report") by Cabot Corporation (the "Company"), each of the undersigned hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

1. The Report fully complies with the requirements of section 13 (a) or 15 (d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

November 22, 2017

/s/ SEAN D. KEOHANE

Sean D. Keohane
President and
Chief Executive Officer

November 22, 2017

/s/ EDUARDO E. CORDEIRO

Eduardo E. Cordeiro
Executive Vice President and
Chief Financial Officer

Corporate Headquarters

Cabot Corporation
Two Seaport Lane, Suite 1300
Boston, Massachusetts 02210-2019
617 345 0100

Investor Relations

Investor inquiries are welcome and individuals are invited to contact us through our investor website at **cabotcorp.com/investors** or by telephone at 617 342 6255.

Stock Listing

Cabot Corporation common stock is listed on the New York Stock Exchange under the symbol CBT.

Annual Meeting

The Annual Meeting of Stockholders will be held on Thursday, March 8, 2018 at 4:00 p.m. ET, at the company's corporate headquarters at Two Seaport Lane, Suite 1300, Boston, Massachusetts. All stockholders are invited to attend.

Stock Transfer Agent and Registrar

Registered shareholders may contact the transfer agent by Internet or by phone for information or assistance with receiving proxy materials electronically by internet, direct deposit of dividend payments, dividend check replacements, account history, lost stock certificates, taxable income or to report address changes. The transfer agent provides telephone assistance Monday through Friday, 9:00 a.m. to 5:00 p.m. ET. Extended service is available 24 hours a day, seven days a week to callers with touch-tone telephones through the transfer agent's Interactive Voice Response System.

When using the IVR system, mention Cabot Corporation as your stock holding and be prepared to provide your name, Social Security number, if applicable, or your Computershare account number. Please include your address and telephone number in all correspondence with the transfer agent.

Computershare Trust Company, N.A.
c/o Computershare
P.O. Box 505000
Louisville, KY 40233

Overnight correspondence should be sent to:
Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

Stockholder Inquiries:
781 575 3170 or 800 730 4001

For the hearing impaired: 800 952 9245 (TTY/TDD)

Stockholder Website: **computershare.com/investor**
Click on "Contact Us" link at the top or bottom of the webpage for online stockholder inquiries.

For more information about Cabot Corporation and our businesses, please visit our website at: cabotcorp.com

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