UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

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

For the quarterly period ended December 31, 2016

or

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

For the transition period from _________ to _________

Commission file number 1-5667

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 **Boston, Massachusetts** **(Address of principal executive offices)**	**02210-2019** **(Zip Code)**

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

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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

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

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

Indicate the number of shares outstanding of each of the issuer's classes of Common Stock, as of the latest practicable date.

As of February 3, 2017 the Company had 62,191,740 shares of Common Stock, par value $1.00 per share, outstanding.

CABOT CORPORATION

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Part I. Financial Information

Item 1. Financial Statements

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
UNAUDITED

	Three Months Ended December 31, 2016	2015
	(In millions, except per share amounts)	
Net sales and other operating revenues	$ 611	$ 603
Cost of sales	454	504
Gross profit	157	99
Selling and administrative expenses	63	71
Research and technical expenses	12	16
Income (loss) from operations	82	12
Interest and dividend income	2	1
Interest expense	(13)	(13)
Other income (expense)	2	(8)
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	73	(8)
(Provision) benefit for income taxes	(17)	5
Equity in earnings of affiliated companies, net of tax	2	—
Net income (loss)	58	(3)
Net income (loss) attributable to noncontrolling interests, net of tax	4	4
Net income (loss) attributable to Cabot Corporation	54	(7)
Weighted-average common shares outstanding:		
Basic	62.2	62.5
Diluted	62.8	62.5
Income (loss) per common share:		
Basic:		
Net income (loss) attributable to Cabot Corporation	$ 0.85	$ (0.11)
Diluted:		
Net income (loss) attributable to Cabot Corporation	$ 0.85	$ (0.11)
Dividends per common share	$ 0.30	$ 0.22

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

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
UNAUDITED

	Three Months Ended December 31, 2016	2015
	(In millions)	
Net income (loss)	$ 58	$ (3)
Other comprehensive income (loss), net of tax		
Foreign currency translation adjustment (net of tax provision of $2 and $—)	(125)	(47)
Pension and other postretirement benefit liability adjustments		
Pension and other postretirement benefit liability adjustments arising during the period, net of tax	—	(1)
Amortization of net loss and prior service credit included in net periodic pension cost, net of tax	1	—
Other comprehensive income (loss)	(124)	(48)
Comprehensive income (loss)	(66)	(51)
Net income (loss) attributable to noncontrolling interests, net of tax	4	4
Noncontrolling interests foreign currency translation adjustment, net of tax	(4)	(3)
Comprehensive income (loss) attributable to noncontrolling interests, net of tax	—	1
Comprehensive income (loss) attributable to Cabot Corporation	$ (66)	$ (52)

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

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
ASSETS
UNAUDITED

	December 31, 2016	September 30, 2016
	(In millions)	
Current assets:		
Cash and cash equivalents	$ 189	$ 200
Accounts and notes receivable, net of reserve for doubtful accounts of $8 and $8	405	456
Inventories:		
Raw materials	73	66
Work in process	1	1
Finished goods	249	237
Other	37	38
Total inventories	360	342
Prepaid expenses and other current assets	47	49
Total current assets	1,001	1,047
Property, plant and equipment, net	1,236	1,290
Goodwill	147	152
Equity affiliates	52	53
Intangible assets, net	131	140
Assets held for rent	98	97
Deferred income taxes	219	216
Other assets	45	40
Total assets	$ 2,929	$ 3,035

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

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
LIABILITIES AND STOCKHOLDERS' EQUITY
UNAUDITED

	December 31, 2016	September 30, 2016
	(In millions, except share and per share amounts)	
Current liabilities:		
Notes payable	$ 7	$ 7
Accounts payable and accrued liabilities	369	364
Income taxes payable	20	25
Current portion of long-term debt	1	1
Total current liabilities	397	397
Long-term debt	913	914
Deferred income taxes	41	41
Other liabilities	275	285
Redeemable preferred stock	26	26
Commitments and contingencies (Note G)		
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: 62,419,896 and 62,449,425 shares		
Outstanding: 62,181,180 and 62,210,711 shares	62	62
Less cost of 238,716 and 238,714 shares of common treasury stock	(7)	(7)
Additional paid-in capital	—	—
Retained earnings	1,576	1,544
Accumulated other comprehensive income (loss)	(445)	(325)
Total Cabot Corporation stockholders' equity	1,186	1,274
Noncontrolling interests	91	98
Total stockholders' equity	1,277	1,372
Total liabilities and stockholders' equity	$ 2,929	$ 3,035

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

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
UNAUDITED

	Three Months Ended December 31,	
	2016	**2015**
Cash Flows from Operating Activities:		
Net income (loss)	$ 58	$ (3)
Adjustments to reconcile net income (loss) to cash provided by operating activities:		
Depreciation and amortization	38	41
Long-lived asset impairment charge	—	23
Deferred tax benefit	(2)	—
Equity in net income of affiliated companies	(2)	—
Non-cash compensation	5	3
Tax benefit from stock based compensation awards	(5)	—
Other non-cash (income) expense	—	8
Changes in assets and liabilities:		
Accounts and notes receivable	28	30
Inventories	(34)	16
Prepaid expenses and other current assets	2	(13)
Accounts payable and accrued liabilities	22	(6)
Income taxes payable	(4)	(6)
Other liabilities	(8)	(13)
Cash dividends received from equity affiliates	3	3
Other	1	—
Cash provided by operating activities	102	83
Cash Flows from Investing Activities:		
Additions to property, plant and equipment	(22)	(24)
Proceeds from the sale of land	—	7
Change in assets held for rent	(1)	(1)
Cash used in investing activities	(23)	(18)
Cash Flows from Financing Activities:		
Repayments under financing arrangements	(4)	(3)
Increase in notes payable, net	4	—
Proceeds from (repayments of) issuance of commercial paper, net	—	(11)
Purchases of common stock	(16)	(14)
Proceeds from sales of common stock	3	1
Tax benefit from stock based compensation awards	5	—
Cash dividends paid to common stockholders	(19)	(14)
Cash used in financing activities	(27)	(41)
Effects of exchange rate changes on cash	(63)	(17)
Increase (decrease) in cash and cash equivalents	(11)	7
Cash and cash equivalents at beginning of period	200	77
Cash and cash equivalents at end of period	$ 189	$ 84

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

A. Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting policies generally accepted in the United States and include the accounts of Cabot Corporation ("Cabot" or the "Company") 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. Intercompany transactions have been eliminated in consolidation.

The unaudited consolidated financial statements have been prepared in accordance with the requirements of Form 10-Q and consequently do not include all disclosures required by Form 10-K. Additional information may be obtained by referring to Cabot's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 ("2016 10-K").

The financial information submitted herewith is unaudited and reflects all adjustments which are, in the opinion of management, necessary to provide a fair statement of the results for the interim periods ended December 31, 2016 and 2015. All such adjustments are of a normal recurring nature. The results for interim periods are not necessarily indicative of the results to be expected for the fiscal year.

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. 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.

B. Significant Accounting Policies

Revenue Recognition and Accounts Receivable

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.

	Three Months Ended December 31,	
	2016	2015
Reinforcement Materials	51%	51%
Performance Chemicals	35%	36%
Purification Solutions	12%	12%
Specialty Fluids	2%	1%

Cabot derives the substantial majority of its revenues from the sale of products in the 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 certain of its customers cash discounts and volume rebates 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 revenue is recognized upon delivery of the fluid.

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.

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. 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 under the two-step impairment test. 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, the Company performs an analysis of the fair value of all assets and liabilities of the reporting unit. If the implied fair value of the reporting unit's goodwill is determined to be less than its carrying amount, an impairment is recognized for the difference. 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. Should the fair value of any of the Company's reporting units decline below its carrying amount because of reduced operating performance, market declines, changes in the discount rate, or other conditions, charges for impairment may be necessary.

Based on the Company's most recent annual goodwill impairment test performed as of May 31, 2016, 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 9%. The fair value of the Purification Solutions reporting unit includes certain growth assumptions that are primarily dependent on: (1) further growth in the mercury removal related portion of the business, which is largely dependent on the amount of coal-based power generation used in the United States and the continued regulation of those utilities under the Mercury and Air Toxics Standards and (2) growth in demand for Cabot's activated carbon products in other applications, while meeting the Company's margin expectations. Realizing these assumptions is generally driven by the macroeconomic environment, environmental regulations, and global and regional competition.

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.

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.

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. 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 Tax in Interim Periods

The Company records its tax provision or benefit on an interim basis using an estimated annual effective tax rate. This rate is applied to the current period ordinary income or loss to determine the income tax provision or benefit allocated to the interim period. Losses from jurisdictions for which no benefit can be recognized and the income tax effects of unusual or infrequent items are excluded from the estimated annual effective tax rate and are recognized in the impacted interim period.

Valuation allowances are provided against the future tax benefits that arise from the deferred tax assets in jurisdictions for which no benefit can be recognized. The estimated annual effective tax rate may be significantly impacted by nondeductible expenses and the Company's projected earnings mix by tax jurisdiction. Adjustments to the estimated annual effective income tax rate are recognized in the period when such estimates are revised.

Inventory Valuation

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. Had the Company used the first-in, first-out ("FIFO") method instead of the LIFO method for such inventories, the value of those inventories would have been $28 million and $27 million higher as of December 31, 2016 and September 30, 2016, respectively. The cost of Specialty Fluids inventories, which 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 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.

Pensions and Other Postretirement Benefits

The Company recognizes the funded status of defined benefit pension and other postretirement benefit plans as an asset or liability. This amount is defined as the difference between the fair value of plan assets and the benefit obligation. The Company is required to recognize as a component of other comprehensive income (loss), net of tax, the actuarial gains/losses and prior service costs/credits that arise but were not previously required to be recognized as components of net periodic benefit cost. Other comprehensive income (loss) is adjusted as these amounts are later recognized in income as components of net periodic benefit cost.

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.

Recent Accounting Pronouncements

In May 2014, the 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 expects to adopt this standard on October 1, 2018. The Company is currently evaluating the impact the adoption of this standard may have on its consolidated financial statements.

In April 2015, the FASB issued a new standard simplifying the presentation of debt issuance costs by requiring debt issuance costs to be presented as a reduction of the corresponding debt liability. This makes the presentation of debt issuance costs consistent with the presentation of debt discounts or premiums. This standard is applicable for fiscal years beginning after December 15, 2015 and for interim periods within those years. The Company adopted this standard on October 1, 2016. The standard required retrospective application, which 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.

In November 2015, the FASB issued a new standard that amends the existing accounting standard for income taxes and simplifies the presentation of deferred income taxes. This standard requires that deferred tax assets and liabilities be classified as noncurrent on the balance sheet. It is effective for fiscal years beginning after December 15, 2016 and for interim periods within those years and early adoption is permitted. The Company elected to early adopt this standard effective October 1, 2016 and retrospectively apply the standard, which resulted in the reclassification of $41 million of current deferred tax assets and $1 million of current deferred tax liabilities into noncurrent deferred tax accounts within the Consolidated Balance Sheets as of September 30, 2016.

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 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 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. 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.

C. Employee Benefit Plans

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

	Three Months Ended December 31,							
	2016		2015		2016		2015	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(Dollars in millions)							
Service cost	$ —	$ 2	$ —	$ 2	$ —	$ —	$ —	$ —
Interest cost	1	1	1	2	—	—	—	—
Expected return on plan assets	(3)	(3)	(3)	(3)	—	—	—	—
Amortization of prior service credit	—	—	—	—	—	—	(1)	—
Amortization of actuarial loss	—	1	—	1	—	—	—	—
Settlement and curtailment cost (credit)	—	—	—	—	—	—	(1)	—
Net periodic benefit (credit) cost	$ (2)	$ 1	$ (2)	$ 2	$ —	$ —	$ (2)	$ —

D. Goodwill and Intangible Assets

Cabot had goodwill balances of $147 million and $152 million at December 31, 2016 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 three month period ended December 31, 2016 are as follows:

	Reinforcement Materials	Performance Chemicals	Purification Solutions	Total
	(Dollars in millions)			
Balance at September 30, 2016	$ 52	$ 9	$ 91	$ 152
Foreign currency impact	(3)	(1)	(1)	(5)
Balance at December 31, 2016	$ 49	$ 8	$ 90	$ 147

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

	December 31, 2016			September 30, 2016		
	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets
	(Dollars in millions)					
Intangible assets with finite lives						
Developed technologies	$ 46	$ (5)	$ 41	$ 48	$ (4)	$ 44
Trademarks	15	(1)	14	16	(1)	15
Customer relationships	86	(10)	76	90	(9)	81
Total intangible assets	$ 147	$ (16)	$ 131	$ 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 nineteen years. Amortization expense for the three months ended both

December 31, 2016 and 2015 was $2 million, 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 $7 million each year for the next five fiscal years.

E. Stockholders' Equity

In January 2015, the Board of Directors authorized Cabot to repurchase up to five million shares of its common stock in the open market or in privately negotiated transactions. Cabot has repurchased 2,429,176 shares of its common stock under this authorization. As of December 31, 2016, 2,570,824 shares remain available for repurchase under the current authorization. The Company retired the repurchased shares and recorded the excess of the purchase price over par value to additional paid-in capital until such amount was reduced to zero and then charged the remainder against retained earnings.

During the first three months of fiscal 2017 and 2016, Cabot paid cash dividends in the amount of $0.30 and $0.22, respectively, per share of common stock, with a total cost of $19 million and $14 million, respectively.

Noncontrolling interest

The following table illustrates the noncontrolling interest activity for the periods presented:

	2016	2015
	(Dollars in millions)	
Balance at September 30	$ 98	$ 104
Net income (loss) attributable to noncontrolling interests	4	4
Noncontrolling interest foreign currency translation adjustment	(4)	(3)
Noncontrolling interest dividends declared	(7)	(9)
Balance at December 31	$ 91	$ 96

During the three months ended December 31, 2016, $7 million of dividends were declared to noncontrolling interests, none of which were paid during the period. During the three months ended December 31, 2015, $9 million of dividends were declared to noncontrolling interests, all of which were paid later in the fiscal year.

F. Accumulated Other Comprehensive Income (Loss)

Comprehensive income combines net income (loss) and other comprehensive income items, which are reported as components of stockholders' equity in the accompanying Consolidated Balance Sheets.

Changes in each component of AOCI, net of tax, were as follows:

	Currency Translation Adjustment	Unrealized Gains on Investments	Pension and Other Postretirement Benefit Liability Adjustments	Total
	(Dollars in millions)			
Balance at September 30, 2016, attributable to Cabot Corporation	$ (227)	$ 2	$ (100)	$ (325)
Other comprehensive income (loss) before reclassifications	(125)	—	1	(124)
Net other comprehensive items	(352)	2	(99)	(449)
Less: Noncontrolling interest	(4)	—	—	(4)
Balance at December 31, 2016, attributable to Cabot Corporation	$ (348)	$ 2	$ (99)	$ (445)

The amounts reclassified out of AOCI and into the Consolidated Statements of Operations in the three months ended December 31, 2016 and 2015 were as follows:

	Affected Line Item in the Consolidated Statements of Operations	Three Months Ended December 31, 2016	Three Months Ended December 31, 2015
		(Dollars in millions)	
Pension and other postretirement benefit liability adjustment			
Amortization of actuarial losses	Net Periodic Benefit Cost - see Note C for details	$ 1	$ 1
Amortization of prior service credit	Net Periodic Benefit Cost - see Note C for details	—	(1)
Settlement and curtailment (credit) cost	Net Periodic Benefit Cost - see Note C for details	—	(1)
Total before tax		1	(1)
Tax impact	Provision (benefit) for income taxes	—	—
Total after tax		$ 1	$ (1)

G. Commitments and Contingencies

Purchase 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. For those commitments, the amounts included in the table below are based on market prices at December 31, 2016.

	Payments Due by Fiscal Year						
	Remainder of Fiscal 2017	2018	2019	2020	2021	Thereafter	Total
	(Dollars in millions)						
Reinforcement Materials	$ 154	$ 189	$ 184	$ 118	$ 91	$ 1,202	$ 1,938
Performance Chemicals	34	43	30	23	21	109	260
Purification Solutions	7	8	6	6	—	—	27
Total	$ 195	$ 240	$ 220	$ 147	$ 112	$ 1,311	$ 2,225

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.

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 December 31, 2016 and September 30, 2016, Cabot had $13 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. Cash payments related to these environmental matters were less than $1 million in the first three months of both fiscal 2017 and 2016. 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.

Other Matters

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. As more fully described in the 2016 10-K, the respirator liabilities generally 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.

As of both December 31, 2016 and September 30, 2016, there were approximately 38,000 claimants in pending cases asserting claims against AO in connection with respiratory products. Cabot has a reserve to cover its expected share of liability for existing and future respirator liability claims. At December 31, 2016 and September 30, 2016, the reserve was $20 million and $21 million, respectively. Cash payments related to this liability were $1 million in the first three months of both fiscal 2017 and 2016.

Cabot'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 other parties which contribute to the settlement of respirator claims, (viii) a change in the availability of insurance coverage maintained by certain of the other parties which 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 Cabot'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

The Company has various other lawsuits, claims and contingent liabilities arising in the ordinary course of its business and with respect to the Company's divested businesses. In the opinion of the Company, although final disposition of some or all of these other suits and claims may impact the Company's consolidated financial statements in a particular period, they are not expected, in the aggregate, to have a material adverse effect on the Company's consolidated financial statements.

H. Income Tax

Effective Tax Rate

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Provision (benefit) for income taxes	$ 17	$ (5)
Effective tax rate	24%	74%

During the three months ended December 31, 2016, the Company recorded a tax provision of $17 million resulting in an effective tax rate of 24%. This amount included a net discrete tax benefit of less than $1 million, primarily comprised of a tax benefit from releases of reserves for uncertain tax positions, partially offset by a net tax charge from excludible foreign exchange gains and losses. During the three months ended December 31, 2015, the Company recorded a tax benefit of $5 million, resulting in an effective tax rate of 74%. This amount included net discrete tax benefits of $6 million, primarily comprised of the net tax benefit from certain foreign exchange gains and losses, the renewal of the U.S. Research and Experimentation credit and releases of reserves for uncertain tax positions.

Uncertainties

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 also 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 2012 through 2014 tax years generally remain subject to examination by the United States Internal Revenue Service and various tax years from 2005 through 2014 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 December 31, 2016, Cabot’s significant non-U.S. jurisdictions include Canada, China, France, Germany, Italy, Japan, and the Netherlands.

During both the three months ended December 31, 2016 and 2015, Cabot released uncertain tax positions of $2 million due to the expirations of statutes of limitations in various jurisdictions.

I. Earnings Per Share

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

	Three Months Ended December 31, 2016	Three Months Ended December 31, 2015
	(Dollars and shares in millions, except per share amounts)	
Basic EPS:		
Net income (loss) attributable to Cabot Corporation	$ 54	$ (7)
Less: Dividends and dividend equivalents to participating securities	—	—
Less: Undistributed earnings allocated to participating securities(1)	—	—
Earnings (loss) allocated to common shareholders (numerator)	$ 54	$ (7)
Weighted average common shares and participating securities outstanding	62.7	62.9
Less: Participating securities(1)	0.5	0.4
Adjusted weighted average common shares (denominator)	62.2	62.5
Amounts per share - basic:		
Net income (loss) attributable to Cabot Corporation	$ 0.85	$ (0.11)
Diluted EPS:		
Earnings (loss) allocated to common shareholders	$ 54	$ (7)
Plus: Earnings (loss) allocated to participating securities	—	—
Less: Adjusted earnings allocated to participating securities(2)	—	—
Earnings (loss) allocated to common shareholders (numerator)	$ 54	$ (7)
Adjusted weighted average common shares outstanding	62.2	62.5
Effect of dilutive securities:		
Common shares issuable(3)	0.6	—
Adjusted weighted average common shares (denominator)	62.8	62.5
Amounts per share - diluted:		
Net income (loss) attributable to Cabot Corporation	$ 0.85	$ (0.11)

(1) Participating securities consist of shares 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:

	Three Months Ended December 31, 2016	2015
	(Dollars in millions)	
Calculation of undistributed earnings (loss):		
Net income (loss) attributable to Cabot Corporation	$ 54	$ (7)
Less: Dividends declared on common stock	19	14
Less: Dividends declared on participating securities	—	—
Undistributed earnings (loss)	$ 35	$ (21)
Allocation of undistributed earnings (loss):		
Undistributed earnings (loss) allocated to common shareholders	$ 35	$ (21)
Undistributed earnings (loss) allocated to participating shareholders	—	—
Undistributed earnings (loss)	$ 35	$ (21)

(2) Undistributed earnings 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 Supplemental 401(K) Plan; and (iii) assumed issuance of shares under outstanding performance-based restricted stock unit awards issued under Cabot's equity incentive plans. For the three months ended December 31, 2016 and 2015, respectively, 173,927 and 1,083,358, incremental shares of common stock were excluded from the calculation of diluted earnings per share because the inclusion of these shares would have been antidilutive.

J. Restructuring

Cabot recorded a net benefit of less than $1 million related to restructuring activities in Cost of Sales in its Consolidated Statement of Operations for the three months ended December 31, 2016. Cabot's restructuring activities were recorded in the Consolidated Statements of Operations in the three months ended December 31, 2015 as follows:

	Three Months Ended December 31, 2015
	(Dollars in millions)
Cost of sales	$ 37
Selling and administrative expenses	6
Research and technical expenses	5
Total	$ 48

Details of all restructuring activities and the related reserves during the three months ended December 31, 2016 were as follows:

	Severance and Employee Benefits	Environmental Remediation	Total
	(Dollars in millions)		
Reserve at September 30, 2016	$ 3	$ 2	$ 5
Cash paid	(1)	—	(1)
Reserve at December 31, 2016	$ 2	$ 2	$ 4

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 termination of employment for approximately 300 employees across the Company's global locations. These actions are intended to result in a more competitive cost structure.

Total charges related to these actions are expected to be $30 million, of which approximately $29 million was recorded in fiscal 2016. The Company recorded pre-tax charges of less than $1 million for the first three months of fiscal 2017 and expects to record approximately $1 million through the rest of fiscal 2017 related to these actions. The Company recorded pre-tax charges of approximately $24 million in the first three months of fiscal 2016 related to these actions. The charges recorded and anticipated 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 December 31, 2016, the Company has made $28 million in cash payments related to this plan, of which $27 million was paid in fiscal 2016, and expects to make $2 million in cash payments through the remainder of fiscal 2017.

As of December 31, 2016, Cabot has $1 million of accrued severance charges in the Consolidated Balance Sheet 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 past several years. Manufacturing operations ceased at the end of January 2016 and the employment of approximately 50 employees was terminated.

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 a net pre-tax benefit of less than $1 million in the three months ended December 31, 2016 and charges of $24 million in the three months ended December 31, 2015. The charges in the first quarter of fiscal 2016 were comprised of $22 million of asset impairments and accelerated depreciation and $2 million of severance and employee benefits.

Future anticipated site closure costs for the Merak facility, comprised mainly of site demolition, clearing and environmental remediation charges, and other miscellaneous costs, are expected to total approximately $1 million in the remainder of fiscal 2017 and approximately $2 million thereafter.

Total net cash outlays related to this closure are expected to be approximately $6 million, comprised of $3 million of severance payments, $3 million of site demolition, clearing and environmental costs, and less than $1 million for other charges. Through December 31, 2016, the Company has made $2 million in cash payments related to this plan, mainly for severance, and expects to pay approximately $1 million through the remainder of fiscal 2017 and $3 million thereafter mainly for site demolition, clearing and environmental remediation costs.

As of December 31, 2016, Cabot has approximately $1 million of accrued severance costs in the Consolidated Balance Sheet related to the Merak facility closure.

Other Actions

In previous years, the Company has entered into other various restructuring actions which have been substantially completed, pending the sale of assets from certain closed sites, including the sale of a former manufacturing site in Thane, India. The Company has recorded a total net benefit of less than $1 million related to these plans in the three months ended December 31, 2016 and a net charge of less than $1 million in the three months ended December 31, 2015.

Cabot expects to pay $2 million related to these actions in the remainder of fiscal 2017 and thereafter mainly for accrued environmental and other closure related costs. As of December 31, 2016, Cabot has approximately $2 million of accrued environmental and other closure related costs in the Consolidated Balance Sheets related to these activities.

K. Financial Instruments and Fair Value Measurements

The FASB authoritative guidance on fair value measurements defines fair value, provides a framework for measuring fair value in generally accepted accounting principles, 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 and there were no Level 3 investments during the first three months of either fiscal 2017 or 2016.

At December 31, 2016 and September 30, 2016, Cabot had derivatives relating to foreign currency risks carried at fair value and included in Prepaid expenses and other current assets, Other assets, and Accounts payable and accrued liabilities of $8 million and $1 million, respectively. These derivatives are classified as Level 2 instruments within the fair value hierarchy as the fair value determination was based on observable inputs.

At December 31, 2016 and September 30, 2016, the fair value of guaranteed investment contracts, included in Other assets on the Consolidated Balance Sheets, was $11 million and $12 million, respectively. 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 December 31, 2016 and September 30, 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 December 31, 2016 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 and capital lease obligations 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.

L. Derivatives

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 December 31, 2016 and September 30, 2016 to manage foreign currency risk.

		Notional Amount		
Description	**Borrowing**	**December 31, 2016**	**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 primarily in the Indonesian rupiah, Czech koruna, and British pound sterling.

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 Accumulated other comprehensive income (loss) 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 for the quarter ended December 31, 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 the three months ended December 31, 2016, the Company recognized a gain of $7 million related to these swaps through Foreign currency translation adjustment in other comprehensive income (loss). As of

December 31, 2016 and September 30, 2016, the fair value of these swaps was $8 million and $1 million, respectively, and was included in Prepaid expenses and other current assets and Other assets on the Consolidated Balance Sheets. As of December 31, 2016 and September 30, 2016, cumulative gain included in AOCI was $8 million and $1 million, respectively. There were no gains or losses reclassified from AOCI into earnings during the first three months of 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 December 31, 2016 and September 30, 2016, the fair value of derivative instruments not designated as hedges were immaterial and were presented in Accounts payable and accrued liabilities and Prepaid expenses and other current assets, respectively, on the Consolidated Balance Sheets.

M. Venezuela

Cabot owns 49% of an operating carbon black 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 December 31, 2016, these subsidiaries carried the operating affiliate investment of $13 million.

During the three month periods ended December 31, 2016 and 2015, the Company received dividends in the amounts of $1 million and $2 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 December 31, 2016 was 674 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.

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 or opening of additional parallel markets 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.

N. Financial Information by Segment

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 represents 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 net sales from each of these businesses for the three months ended December 31, 2016 and 2015 were as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Specialty Carbons and Formulations	$ 138	$ 140
Metal Oxides	67	67
Total Performance Chemicals	$ 205	$ 207

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.

Reportable segment Income (loss) from continuing operation before taxes and equity in earnings from affiliated companies ("Segment EBIT") is presented for each reportable segment in the financial information by reportable segment table below. 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 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.

Financial information by reportable segment is as follows:

	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids	Segment Total	Unallocated and Other[1]	Consolidated Total
				(Dollars in millions)			
Three Months Ended December 31, 2016							
Revenues from external customers[2]	$ 295	$ 205	$ 69	$ 11	$ 580	$ 31	$ 611
Income (loss) from continuing operations before taxes and equity in earnings from affiliated companies[3]	$ 40	$ 49	$ 4	$ 2	$ 95	$ (22)	$ 73
Three Months Ended December 31, 2015							
Revenues from external customers[2]	$ 288	$ 207	$ 66	$ 7	$ 568	$ 35	$ 603
Income (loss) from continuing operations before taxes and equity in earnings from affiliated companies[3]	$ 26	$ 50	$ (5)	$ —	$ 71	$ (79)	$ (8)

(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) Revenue from external customers that are categorized as Unallocated and Other reflects royalties, other operating revenues, 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:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Royalties, other operating revenues, the impact of unearned revenue, the removal of 100% of the sales of an equity method affiliate and discounting charges for certain notes receivable	$ 5	$ 9
Shipping and handling fees	26	26
Total	$ 31	$ 35

(3) Income (loss) from continuing operations before taxes and equity in earnings from affiliated companies that are categorized as Unallocated and Other includes:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Interest expense	$ (13)	$ (13)
Total certain items, pre-tax[a]	—	(58)
Unallocated corporate costs[b]	(12)	(13)
General unallocated income (expense)[c]	5	5
Less: Equity in earnings of affiliated companies, net of tax[d]	(2)	—
Total	$ (22)	$ (79)

(a) Certain items are items of expense and income that management does not consider representative of the Company's fundamental on-going segment results and they are, therefore, excluded from Segment EBIT. Certain items, pre-tax, for the three months ended December 31, 2016 included charges of less than $1 million. Certain items, pre-tax, for the three months ended December 31, 2015 included charges of $48 million related to global restructuring activities, $8 million related to foreign currency loss on the devaluation of the Argentine peso, and $2 million related to legal and environmental matters and reserves.

(b) Unallocated corporate costs are costs that 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 in Unallocated and other to reconcile to income (loss) from operations before taxes and equity in earnings from affiliated companies.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies

The preparation of our financial statements is in accordance with accounting principles generally accepted in the United States ("GAAP"). The 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 under different assumptions or conditions. Our critical accounting policies have not substantially changed from those described in the 2016 Form 10-K.

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 our financial condition and operating results should be read with our consolidated financial statements and accompanying notes.

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 this 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 to understand what our tax rate on current operations would be without the impact of these items.

Our discussion under the heading "First Quarter of Fiscal 2017 versus First Quarter of Fiscal 2016—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 the

Company's 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 "First Quarter of Fiscal 2017 versus First Quarter of Fiscal 2016—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 the Company's operating performance without the impact of these costs or benefits. The items of income and expense that we have excluded from Total segment EBIT in prior periods, 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, which include costs or benefits associated with cost reduction initiatives or plant closures and are primarily related 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.
- Foreign currency loss on devaluation, which represents the impact of controlled currency devaluations on our net monetary assets denominated in that currency. In fiscal 2016, this applied to currency exchange rate changes in Argentina and Venezuela.
- 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 Cabot's processes.

Overview

During the first quarter of fiscal 2017, income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies increased compared to the first quarter of fiscal 2016 primarily due to charges associated with restructuring plans that we recorded in the first quarter of fiscal 2016, including the planned closure of our carbon black manufacturing plant in Merak, Indonesia. In addition, results in the first quarter of fiscal 2017 improved compared to the first quarter of fiscal 2016 due to higher volumes across all segments and higher unit margins in Reinforcement Materials.

First Quarter of Fiscal 2017 versus First Quarter of Fiscal 2016—Consolidated

Net Sales and Other Operating Revenues and Gross Profit

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Net sales and other operating revenues	$ 611	$ 603
Gross profit	$ 157	$ 99

The $8 million increase in net sales in the first quarter of fiscal 2017 compared to the first quarter of fiscal 2016 was primarily driven by higher volumes ($20 million) in the Performance Chemicals, Purification Solutions and Specialty Fluids segments. The increase in volumes was partially offset by a less favorable price and product mix ($6 million), an unfavorable impact from foreign currency translation ($3 million), and a decrease in revenue from unallocated sources ($4 million).

Gross profit increased by $58 million in the first quarter of fiscal 2017 compared to the first quarter of fiscal 2016 primarily due to charges taken in fiscal 2016 associated with restructuring plans, including the closure of our Merak, Indonesia carbon black manufacturing plant. In addition, gross profit improved due to higher volumes and the favorable impact from increasing inventory levels.

Selling and Administrative Expenses

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Selling and administrative expenses	$ 63	$ 71

Selling and administrative expenses decreased by $8 million in the first quarter of fiscal 2017 compared to the same period of fiscal 2016 primarily as a result of charges recorded in fiscal 2016 for restructuring actions taken to reduce fixed costs across the Company.

Research and Technical Expenses

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Research and technical expenses	$ 12	$ 16

Research and technical expenses decreased by $4 million in the first quarter of fiscal 2017 compared to the same period of fiscal 2016 primarily as a result of charges recorded in fiscal 2016 for restructuring actions taken to reduce fixed costs across the Company.

Interest and Dividend Income, Interest Expense and Other Income (Expense)

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Interest and dividend income	$ 2	$ 1
Interest expense	(13)	(13)
Other income (expense)	2	(8)

Interest and dividend income increased by $1 million in the first three months of fiscal 2017 compared to the same period of fiscal 2016 due to interest earned on higher cash balances.

Interest expense was consistent in the first quarter of fiscal 2017 as compared to the same period in fiscal 2016.

Other income (expense) changed by $10 million in the first quarter of fiscal 2017 compared to the first quarter of fiscal 2016 due to a favorable comparison of foreign currency movements, primarily the devaluation of the Argentine peso in fiscal 2016, which resulted in a loss of $8 million.

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

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Provision (benefit) for income taxes	$ 17	$ (5)
Effective tax rate	24%	74%
Impact of discrete tax items[a]:		
Unusual or infrequent items	(1)%	(14)%
Items related to uncertain tax positions	2%	(20)%
Other discrete tax items	(1)%	(5)%
Impact of certain items	—%	(9)%
Operating tax rate	24%	26%

During the three months ended December 31, 2016, we recorded a tax provision of $17 million, resulting in an effective tax rate of 24%. This amount included a net discrete tax benefit of less than $1 million. The operating tax rate for the three months ended December 31, 2016 was also 24%. During the three months ended December 31, 2015, we recorded a tax benefit of $5 million, resulting in an effective tax rate of 74%. This amount included net discrete tax benefits of $3 million, primarily comprised of the net tax benefit from certain foreign exchange gains and losses, the renewal of the U.S. Research and Experimentation credit and releases of reserves for uncertain tax positions. The operating tax rate for the three months ended December 31, 2015 was 26%.

(a) The nature of the discrete tax items for the periods ended December 31, 2016 and 2015 were as follows:

(i) Unusual or infrequent items during the three months ended December 31, 2016 and 2015 included the tax impact of excludible foreign exchange gains and losses in certain jurisdictions. Unusual or infrequent items during the three months ended December 31, 2015 also included tax benefits from the renewal of the U.S. Research and Experimentation credit and extraordinary dividends from subsidiaries;

(ii) Items related to uncertain tax positions included tax benefits during the three months ended December 31, 2016 and 2015 from the reversal of accruals for uncertain tax positions due to the expiration of statutes of limitations and the settlement of tax audits (fiscal 2016 only), partially offset by a charge for the accrual of interest on uncertain tax positions, and;

(iii) Other discrete tax items during the three months ended December 31, 2016 included tax charges for various return to provision true ups related to tax return filings. Other discrete tax items during the three months ended December 31, 2015 included tax charges for a change in valuation allowance on beginning of year tax balances, partially offset by tax benefits for changes in tax laws.

We expect our effective and operating tax rates for fiscal 2017 to be 24%.

Cabot files U.S. federal and state and non-U.S. income tax returns in jurisdictions with varying statutes of limitations. The 2012 through 2014 tax years generally remain subject to examination by the IRS and various tax years from 2005 through 2014 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 December 31, 2016, Cabot's significant non-U.S. jurisdictions include Canada, China, France, Germany, Italy, Japan, and the Netherlands.

Equity in Earnings of Affiliated Companies and Net Income Attributable to Noncontrolling Interests

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Equity in earnings of affiliated companies, net of tax	$ 2	$ —
Net income (loss) attributable to noncontrolling interests, net of tax	4	4

Equity in earnings of affiliated companies, net of tax, increased by $2 million in the first quarter fiscal 2017 compared to the first quarter of fiscal 2016 primarily due to higher earnings from our Venezuelan equity affiliate.

Net income attributable to noncontrolling interests, net of tax, remained consistent in the first quarter of fiscal 2017 as compared to the same period in fiscal 2016.

Net Income Attributable to Cabot Corporation

In the first quarter of fiscal 2017, we reported net income (loss) attributable to Cabot Corporation of $54 million ($0.85 per diluted common share). This is compared to net income (loss) attributable to Cabot Corporation of $(7) million (($0.11) per diluted common share) in the first quarter of fiscal 2016.

First Quarter of Fiscal 2017 versus First Quarter of Fiscal 2016—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 the three months ended December 31, 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 N of our consolidated financial statements.

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	$ 73	$ (8)
Less: Certain items	—	(58)
Less: Other unallocated items	(22)	(21)
Total segment EBIT	$ 95	$ 71

In the first quarter of fiscal 2017, total segment EBIT increased by $24 million when compared to the same period of fiscal 2016. The increase was primarily driven by higher volumes ($13 million), the favorable impact of increasing inventory levels ($9 million), higher unit margins ($6 million), and the favorable impact of foreign currency translation ($3 million), partially offset by higher fixed costs ($7 million).

Certain Items

Details of the certain items for the first quarter of fiscal 2017 and 2016 are as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Global restructuring activities	$ —	$ (48)
Net foreign currency loss on devaluations	—	(8)
Legal and environmental matters and reserves	—	(2)
Total certain items, pre-tax	—	(58)
Tax-related certain items		
Tax impact of certain items	—	15
Discrete tax items	—	3
Total tax-related certain items	—	18
Total certain items, after tax	—	(40)

Certain items for the first quarter of fiscal 2017 included charges of less than $1 million. Certain items for the first quarter of fiscal 2016 included charges primarily related to restructuring activities, a foreign currency loss from the devaluation of the Argentine peso, and tax-related certain items. Details of restructuring activities are included in Note J of the consolidated financial statements. Tax-related certain items included discrete tax items, which are unusual and infrequent, 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

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Interest expense	$ (13)	$ (13)
Unallocated corporate costs	(12)	(13)
General unallocated income (expense)	5	5
Less: Equity in earnings of affiliated companies, net of tax	2	—
Total other unallocated items	$ (22)	$ (21)

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.

Costs from Total other unallocated items changed by $1 million in the first quarter of fiscal 2017 as compared to the same period in fiscal 2016. Equity in earnings of affiliated companies changed by $2 million primarily due to an increase in earnings from our Venezuelan equity affiliate.

Reinforcement Materials

Sales and EBIT for Reinforcement Materials for the first quarter of fiscal 2017 and fiscal 2016 were as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Reinforcement Materials Sales	$ 295	$ 288
Reinforcement Materials EBIT	$ 40	$ 26

In the first quarter of fiscal 2017, sales in Reinforcement Materials increased by $7 million when compared to the first quarter of fiscal 2016. The increase was principally driven by a more favorable price and product mix (combined $5 million) and higher volumes ($2 million). The favorable price and product mix impact was primarily due to higher selling prices in the quarter from price adjustments to customers for increases in raw material costs and higher contract prices.

EBIT in Reinforcement Materials increased by $14 million in the first quarter of fiscal 2017 when compared to the same period of fiscal 2016. The increase was principally driven by higher unit margins ($11 million), the favorable impact of foreign currency translation ($2 million), and the favorable impact of increasing inventory levels ($2 million), partially offset by higher fixed costs ($2 million). Higher unit margins were driven by higher calendar year 2016 customer agreements and spot pricing in China.

Performance Chemicals

Sales and EBIT for Performance Chemicals for the first quarter of fiscal 2017 and fiscal 2016 were as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Specialty Carbons and Formulations Sales	$ 138	$ 140
Metal Oxides Sales	67	67
Performance Chemicals Sales	$ 205	$ 207
Performance Chemicals EBIT	$ 49	$ 50

In the first quarter of fiscal 2017, sales in Performance Chemicals decreased by $2 million when compared to the first quarter of fiscal 2016. The decrease was due to a less favorable price and product mix (combined $5 million) and the unfavorable impact of foreign currency translation ($2 million), partially offset by higher volumes ($5 million). The price and product mix impact was primarily driven by an unfavorable mix of sales by application, with lower Metal Oxides sales into electronics, as well as lower prices in Specialty Carbons associated with lower raw material costs and an unfavorable regional mix. Overall volumes increased in the Metal Oxides business driven by stronger China sales in the automotive and infrastructure sectors, which more than offset the decline in sales to the electronics market.

EBIT in Performance Chemicals decreased by $1 million in the first quarter of fiscal 2017 when compared to the same quarter of fiscal 2016 principally due to higher fixed costs ($5 million), partially offset by higher volumes ($4 million). Higher fixed costs were primarily due to increased maintenance costs from plant turnarounds.

Purification Solutions

Sales and EBIT for Purification Solutions for the first quarter of fiscal 2017 and fiscal 2016 were as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Purification Solutions Sales	$ 69	$ 66
Purification Solutions EBIT	$ 4	$ (5)

Sales in Purification Solutions increased by $3 million in the first quarter of fiscal 2017 when compared to the same period of fiscal 2016 due to higher volumes ($9 million), partially offset by lower selling prices and a less favorable product mix (combined $6 million). Higher volumes were driven by higher demand for activated carbon in gas and air applications as coal fired utilities were required to be in compliance with the U.S. Mercury and Air Toxics Standards regulation ("MATS") beginning in April 2016. The less favorable price and product mix was primarily due to lower selling prices as well as a less favorable product mix.

EBIT in Purification Solutions increased by $9 million in the first quarter of fiscal 2017 when compared to the same quarter of fiscal 2016 due to the favorable impact from higher volumes ($5 million) and an increase in inventory levels this year compared to a reduction in inventory levels last year ($5 million), partially offset by lower unit margins ($2 million).

Specialty Fluids

Sales and EBIT for Specialty Fluids for the first quarter of fiscal 2017 and 2016 were as follows:

	Three Months Ended December 31,	
	2016	2015
	(Dollars in millions)	
Specialty Fluids Sales	$ 11	$ 7
Specialty Fluid EBIT	$ 2	$ —

Sales in Specialty Fluids increased by $4 million in the first quarter of fiscal 2017 when compared to the same period of fiscal 2016, primarily due to higher volumes ($4 million). The increase in volumes was driven by a higher level of project activity in Asia during the first quarter of fiscal 2017.

EBIT in Specialty Fluids increased by $2 million in the first quarter of fiscal 2017 when compared to the same period of fiscal 2016. The increase was due to higher volumes ($3 million) partially offset by lower unit margins ($1 million).

Outlook

We anticipate solid volume comparisons to continue into our second quarter of fiscal 2017. Reinforcement Materials is expected to benefit from the calendar year 2017 customer agreements, and we are beginning to see the business environment in China improve. Purification Solutions is expected to benefit from a full year of MATS volumes and favorable inventory comparisons. Demand in our Performance Chemicals end markets remains robust; however, margin comparisons are likely to be impacted with rising oil prices. We do not expect the inventory benefits that we experienced in the first quarter of fiscal 2017 to repeat in the second quarter of fiscal 2017.

Cash Flows and Liquidity

Overview

Our liquidity position, as measured by cash and cash equivalents plus borrowing availability, decreased by $11 million during the first three months of fiscal 2017 which was attributable to a lower cash balance at December 31, 2016. As of December 31, 2016, we had cash and cash equivalents of $189 million and borrowing availability under our revolving credit agreement of $1 billion. Borrowings under our revolving credit agreement may be used for working capital, letters of credit and other general corporate purposes. There was no outstanding balance of commercial paper as of December 31, 2016. At December 31, 2016, 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.

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. The vast majority of our cash and cash equivalent holdings tend to be held outside the U.S., as excess cash balances in the U.S. are generally used to repay commercial paper issued during the period.

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.

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 $102 million in the first three months of fiscal 2017 compared to $83 million during the same period of fiscal 2016.

Cash provided by operating activities in the first three months of fiscal 2017 was driven primarily by net income excluding the non-cash impact of depreciation and amortization of $38 million. In addition, there was a decrease in accounts receivable and an increase in accounts payable and accrued liabilities. Partially offsetting these cash inflows was an increase in inventories.

Cash provided by operating activities in the first three months of fiscal 2016 was driven primarily by net income excluding the non-cash impact of certain long-lived asset write-offs ($23 million) and depreciation and amortization ($41 million). In addition, there was a decrease in accounts receivable and inventories, largely driven by lower raw material costs and associated price reductions as well as overall lower volumes. Partially offsetting these cash inflows were lower accounts payable and accrued liabilities.

Cash Flows from Investing Activities

In the three months ended December 31, 2016, investing activities consumed $23 million of cash which was primarily driven by capital expenditures of $22 million. These capital expenditures were primarily for sustaining and compliance capital projects at our operating facilities. In the three months ended December 31, 2015, investing activities consumed $18 million of cash and were primarily driven by capital expenditures of $24 million, offset by $7 million of proceeds from the sale of land in Port Dickson, Malaysia.

Capital expenditures for fiscal 2017 are expected to be $150 million. Our planned capital spending program for fiscal 2017 is primarily for sustaining and compliance capital projects at our operating facilities.

Cash Flows from Financing Activities

Financing activities consumed $27 million of cash in the first three months of fiscal 2017 compared to $41 million of cash consumed in the first three months of fiscal 2016. In the first three months of fiscal 2017, we used our cash for share repurchases and dividend distributions.

In the first three months of fiscal 2016, we used our cash for share repurchases, dividend distributions and to repay debt.

Purchase Commitments

We have 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. For those commitments, the amounts included in the table below are based on market prices at December 31, 2016.

	Payments Due by Fiscal Year						
	Remainder of Fiscal 2017	2018	2019	2020	2021	Thereafter	Total
	(Dollars in millions)						
Reinforcement Materials	$ 154	$ 189	$ 184	$ 118	$ 91	$ 1,202	$ 1,938
Performance Chemicals	34	43	30	23	21	109	260
Purification Solutions	7	8	6	6	—	—	27
Total	$ 195	$ 240	$ 220	$ 147	$ 112	$ 1,311	$ 2,225

Off-balance sheet arrangements

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

Forward-Looking Information

This report on Form 10-Q contains “forward-looking statements” under the Federal securities laws. These forward-looking statements address expectations or projections about the future, including our expectations for future financial performance; demand for our products and our overall expectations for segment results in the second quarter of fiscal 2017; the amount and timing of the charge to earnings we will record and the cash outlays we will make in connection with the closing of certain manufacturing facilities and restructuring initiatives; our estimated future amortization expenses for our intangible assets; the sufficiency of our cash on hand, cash provided from operations and cash available under our credit facilities to fund our cash requirements; uses of available cash including anticipated capital spending and future cash outlays associated with long-term contractual obligations; our expected tax rate for fiscal 2017; 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 based on our current expectations, assumptions, estimates and projections about Cabot’s businesses and strategies, market trends and conditions, economic conditions and other factors. These 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, or should underlying assumptions prove inaccurate, our actual results could differ materially from those expressed in the forward-looking statements.

In addition to factors described elsewhere in this report, the following are some of the factors that could cause our actual results to differ materially from those expressed in the forward-looking statements: changes in raw material costs; lower than expected demand for our products; the loss of one or more of our important customers; our inability to complete capacity expansions or other development projects; the availability of raw materials; our failure to develop new products or to keep pace with technological developments; fluctuations in currency exchange rates; patent rights of others; stock and credit market conditions; the timely commercialization of products under development (which may be disrupted or delayed by technical difficulties, market acceptance, competitors’ new products, as well as difficulties in moving from the experimental stage to the production stage); demand for our customers’ products; competitors’ reactions to market conditions; delays in the successful integration of structural changes, including acquisitions or joint ventures; severe weather events that cause business interruptions, including plant and power outages or disruptions in supplier or customer operations; the accuracy of the assumptions we used in establishing reserves for environmental matters and for our share of liability for respirator claims; and the outcome of pending litigation. Other factors and risks are discussed in our 2016 10-K.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued a new standard, the “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. We expect to adopt this standard on October 1, 2018. We are currently evaluating the impact the adoption of this standard may have on our consolidated financial statements.

In April 2015, the FASB issued a new standard simplifying the presentation of debt issuance costs by requiring debt issuance costs to be presented as a reduction of the corresponding debt liability. This makes the presentation of debt issuance costs consistent with the presentation of debt discounts or premiums. This standard is applicable for fiscal years beginning after December 15, 2015 and for interim periods within those years. We adopted this standard on October 1, 2016. The standard required retrospective application, which 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.

In November 2015, the FASB issued a new standard that amends the existing accounting standard for income taxes and simplifies the presentation of deferred income taxes. This standard requires that deferred income tax assets and liabilities be classified as noncurrent on the balance sheet. It is effective for fiscal years beginning after December 15, 2016 and for interim periods within those years and early adoption is permitted. We elected to early adopt this standard effective October 1, 2016 and retrospectively apply the standard, which resulted in the reclassification of $41 million of current deferred tax assets and $1 million of current deferred tax liabilities into noncurrent deferred tax accounts within the Consolidated Balance Sheets as of September 30, 2016.

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. We expect to adopt the standard on October 1, 2019. We are currently evaluating the impact of the adoption of this standard on our 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. We are evaluating this standard and the timing of its adoption. The adoption of this standard is not expected to materially impact our 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. 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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Information about market risks for the period ended December 31, 2016 does not differ materially from that discussed under Item 7A of our 2016 10-K.

Item 4. Controls and Procedures

As of December 31, 2016, we carried out an evaluation, under the supervision and with the participation of our management, including our Principal Executive Officer and our Executive Vice President and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon that evaluation, our Principal Executive Officer and our Executive Vice President and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of that date.

There were no changes in our internal control over financial reporting that occurred during our fiscal quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information

Item I. Legal 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. As more fully described in our 2016 10-K, the respirator liabilities generally 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.

As of both December 31, 2016 and September 30, 2016, there were approximately 38,000 claimants in pending cases asserting claims against AO in connection with respiratory products. We have a reserve to cover our expected share of liability for existing and future respirator liability claims. At December 31, 2016 and September 30, 2016, the reserve was $20 million and $21 million, respectively. Cash payments related to this liability were $1 million in the first three months of both fiscal 2017 and 2016.

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 which contribute to the settlement of respirator claims, (viii) a change in the availability of insurance coverage maintained by certain of the other parties which 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 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 are subject to various other lawsuits, claims and contingent liabilities arising in the ordinary course of our business and with respect to our divested businesses. In our opinion, although final disposition of some or all of these other suits and claims may impact our consolidated financial statements in a particular period, they are not expected, in the aggregate, to have a material adverse effect on our consolidated financial statements.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The table below sets forth information regarding Cabot's purchases of its equity securities during the quarter ended December 31, 2016:

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased(1)(2)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs(1)
October 1, 2016 - October 31, 2016	—	$ —	—	2,822,324
November 1, 2016 - November 30, 2016	90,000	$ 51.60	90,000	2,732,324
December 1, 2016 - December 31, 2016	161,500	$ 52.28	161,500	2,570,824
Total	251,500		251,500	

(1) On January 13, 2015, the Company announced that the Board of Directors authorized us to repurchase up to five million shares of our common stock on the open market or in privately negotiated transactions. This authorization does not have a set expiration date.

(2) Total number of shares purchased does not include 53,092 shares withheld to pay taxes on the vesting of equity awards made under the company's equity incentive plans or to pay the exercise price of options exercised during the period.

Item 6. Exhibits

The following Exhibits are filed herewith:

Exhibit No.	Description
Exhibit 10.1*	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.
Exhibit 10.2*†	Form of Performance-Based Restricted Stock Unit Award Certificate under the Cabot Corporation 2009 Long-Term Incentive Plan.
Exhibit 10.3*†	Summary of Compensation Program for Non-Employee Directors.
Exhibit 31.1*	Certification of Principal Executive Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act.
Exhibit 31.2*	Certification of Principal Financial Officer required by Rule 13a-14(a) or Rule 15d-14(a) of the Exchange Act.
Exhibit 32**	Certifications of the Principal Executive Officer and the Principal Financial Officer pursuant to 18 U.S.C. Section 1350.
Exhibit 101.INS*	XBRL Instance Document.
Exhibit 101.SCH*	XBRL Taxonomy Extension Schema Document.
Exhibit 101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
Exhibit 101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.
Exhibit 101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.
Exhibit 101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.

* Filed herewith.

** Furnished herewith.

† Management contract or compensatory plan or arrangement.

Attached as Exhibit 101 to this report are the following documents formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Operations for the three months ended December 31, 2016 and 2015; (ii) the Consolidated Statements of Comprehensive Income for the three months ended December 31, 2016 and 2015; (iii) the Consolidated Balance Sheets as of December 31, 2016 and September 30, 2016; (iv) the Consolidated Statements of Cash Flows for the three months ended December 31, 2016 and 2015; and (v) Notes to Consolidated Financial Statements, December 31, 2016.

SIGNATURES

Pursuant to the requirements 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

Date: February 7, 2017	By:	/s/ Eduardo E. Cordeiro
		Eduardo E. Cordeiro
		Executive Vice President and Chief Financial Officer
		(Duly Authorized Officer)
Date: February 7, 2017	By:	/s/ James P. Kelly
		James P. Kelly
		Vice President and Controller
		(Chief Accounting Officer)

Exhibit Index

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Exhibit 10.1
Execution Version

EXTENSION AGREEMENT TO CREDIT AGREEMENT

This **EXTENSION AGREEMENT TO CREDIT AGREEMENT** (this "Extension Agreement") is made and entered into as of December 14, 2016, by and among **CABOT CORPORATION**, a Delaware corporation (the "Company"), the Designated Borrowers as of the date hereof (together with the Company, collectively, the "Borrowers"), **JPMORGAN CHASE BANK, N.A.**, as Administrative Agent, and Lenders constituting Required Lenders as of the date hereof.

WHEREAS, the Borrowers are party to that certain Credit Agreement, dated as of October 23, 2015 (as the same may be amended and in effect from time to time, the "Credit Agreement"), among the Borrowers, the Lenders from time to time party thereto and the Administrative Agent; and

WHEREAS, the Borrowers have requested that the Maturity Date be extended from October 23, 2020 to October 23, 2021 pursuant to Section 2.24 of the Credit Agreement (the "Extension") and that the Required Lenders waive the notice requirements set forth in Section 2.24 of the Credit Agreement (the "Waiver"); and

WHEREAS, certain Lenders constituting Required Lenders under the terms of the Credit Agreement and the Agent are willing to agree to the Extension and the Waiver provided that Borrower agrees to certain amendments to the Credit Agreement as set forth herein, and certain Lenders constituting Required Lenders under the terms of the Credit Agreement have agreed, on the terms and subject to the conditions set forth herein, to grant the Extension, the Waiver and make certain amendments to the Credit Agreement; and

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. **Definitions; Loan Document**. Capitalized terms used in this Extension Agreement without definition shall have the meaning assigned to such terms in the Credit Agreement. This Extension Agreement shall constitute a Loan Document for all purposes of the Credit Agreement and the other Loan Documents.

2. **Extension of Scheduled Maturity Date.**

a. Consent; Extension Effective Date. Subject to the satisfaction of the conditions precedent set forth in Section 9 below, each Lender that executes a signature page to this Extension Agreement (each, a "Extending Lender", and each Lender declining to agree to the requested extension being called a "Non-Extending Lender"), (i) hereby consents to the Extension and (ii) agrees that the Maturity Date with respect to each Extending Lender shall be October 23, 2021. With respect to each Non-Extending Lender, the existing Maturity Date of October 23, 2020 shall remain in effect.

b. Waiver of Notice Requirement. The parties hereto agree that the Company's notice requirements set forth in Section 2.24(a) of the Credit Agreement are hereby waived and shall not be applicable to the Extension.

3. **Amendments to Section 1.01 (Defined Terms)**. Section 1.01 of the Credit Agreement is hereby amended as follows:

a. New Definitions. Section 1.01 of the Credit Agreement is hereby amended by adding the following new definitions in alphabetical order:

""***Bail-In Action***" means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution."

""***Bail-In Legislation***" means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule."

""***EEA Financial Institution***" means (a) any institution established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent."

""***EEA Member Country***" means any of the member states of the European Union, Iceland, Liechtenstein and Norway."

""***EEA Resolution Authority***" means any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution."

""***EU Bail-In Legislation Schedule***" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time."

""***Write-Down and Conversion Powers***" means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule."

b. Amended Definitions. Section 1.01 of the Credit Agreement is hereby amended by:

i. Amending subclause (d) of the definition of "***Defaulting Lender***" by replacing the words "Bankruptcy Event" with the following: "(A) Bankruptcy Event or (B) a Bail-In Action".

ii. Amending and restating the following definitions in their entirety to read as follows:

""***Sanctioned Person***" means, at any time, (a) any Person listed in any Sanctions-related list of designated Persons maintained by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State, or by the United Nations Security Council, the European Union, any European Union member state, Her Majesty's Treasury of the United Kingdom, or other relevant sanctions authority, (b) any Person operating, organized or resident in a Sanctioned Country or (c) any Person owned or controlled by any such Person or Persons described in the foregoing clauses (a) or (b)."

""***Sanctions***" means all economic or financial sanctions or trade embargoes imposed, administered or enforced from time to time by (a) the U.S. government, including those administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury or the U.S. Department of State, or (b) the United Nations Security Council, the European Union, any European Union member state, Her Majesty's Treasury of the United Kingdom, or other relevant sanctions authority."

4. **Amendment to Section 2.05 (Swingline Loans)**. Section 2.05 of the Credit Agreement is hereby amended by adding new subclauses (e) and (f) thereof to read as follows:

"(e) Any Swingline Lender may be replaced at any time by written agreement among the Company, the Administrative Agent, the replaced Swingline Lender and the successor Swingline Lender. The Administrative Agent shall notify the Lenders of any such replacement of a Swingline Lender. At the time any such replacement shall become effective, the Company shall pay all unpaid interest accrued for the account of the replaced Swingline Lender pursuant to Section 2.13(a). From and after the effective date of any such replacement, (x) the successor Swingline Lender shall have all the rights and obligations of the replaced Swingline Lender under this Agreement with respect to Swingline Loans made thereafter and (y) references herein to the term "Swingline Lender" shall be deemed to refer to such successor or to any previous Swingline Lender, or to such successor and all previous Swingline Lenders, as the context shall require. After the replacement of a Swingline Lender hereunder, the replaced Swingline Lender shall remain a party hereto and shall continue to have all the rights and obligations of a Swingline Lender under this Agreement with respect to Swingline Loans made by it prior to its replacement, but shall not be required to make additional Swingline Loans.

(f) Subject to the prior appointment and acceptance of a successor Swingline Lender, any Swingline Lender may resign as a Swingline Lender at any time upon thirty days' prior written notice to the Administrative Agent, the Company and the Lenders, in which case, such Swingline Lender shall be replaced in accordance with Section 2.05(e) above."

5.**Amendment to Section 2.06 (Letters of Credit)**. Section 2.06(i) of the Credit Agreement is hereby amended by adding the following sentence at the end thereof: "Subject to the prior appointment and acceptance of a successor Issuing Bank, any Issuing Bank may resign as an Issuing Bank at any time upon 30 days' prior written notice to the Administrative Agent, the Company and the Lenders, in which case, such Issuing Bank shall be replaced in accordance with this Section 2.06(i)."

6. **Amendment to add new Section 3.15 (EEA Financial Institutions)**. The Credit Agreement is hereby amended by adding a new Section 3.15, in appropriate numerical order, to read as follows:

"SECTION 3.15. EEA Financial Institutions. No Borrower is an EEA Financial Institution."

7. **Amendment to add new Section 9.16 (Acknowledgement and Consent to Bail-In of EEA Financial Institutions)**. The Credit Agreement is hereby amended by adding a new Section 9.16, in appropriate numerical order, to read as follows:

"SECTION 9.16. Acknowledgement and Consent to Bail-In of EEA Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent entity, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority."

8. **No Waiver.** Nothing contained in this Extension Agreement shall be deemed to (i) constitute a waiver of any Default or Event of Default that may heretofore or hereafter occur or have occurred and be continuing or to otherwise modify any provision of the Credit Agreement or any other Loan Document (except as a result of the amendments expressly set forth in Paragraphs 2 through 7 of this Extension Agreement), or (ii) give rise to any defenses or counterclaims to the Administrative Agent's or any of the Lenders' right to compel payment of the Obligations when due or to otherwise enforce their respective rights and remedies under the Credit Agreement and the other Loan Documents.

9. **Conditions to Effectiveness**. This Extension Agreement shall become effective on the date upon which the Administrative Agent (or its counsel) shall have received, in form and substance reasonably satisfactory to the Administrative Agent:

a. Counterparts of this Extension Agreement executed by each of the Borrowers and each of the Lenders constituting Required Lenders (which may include telecopy or any other electronic transmission of a signed signature page of this Extension Agreement);

b. Such documents and certificates as the Administrative Agent or its counsel may reasonably request relating to the organization, existence, corporate power and authority and good standing of each Borrower, the authorization of the extension and transactions hereunder and any other legal matters relating to the Borrowers, the Loan Documents, Extension Agreement, and the transactions hereunder, all in form and substance satisfactory to the Administrative Agent and its counsel; and

c. A certificate executed by a Financial Officer of the Company, dated as of the effective date hereof, stating that (A) as of such date, no Default has occurred and is continuing or would result from such extension of the Maturity Date and (B) the representations and warranties of the Borrowers set forth in the Loan Documents are true in all material respects (or in all respects if the applicable representation or warranty is already qualified by concepts of materiality) on and as of such date (except to the extent any such representations or warranties are limited to an earlier date, in which case such representations and warranties shall be true in all material respects as of such earlier date).

10. **Legal Fees**. The Company agrees to pay promptly, upon receiving an invoice therefor, all fees, charges and disbursements of Goulston & Storrs, PC, counsel to the Administrative Agent (directly to such counsel if requested by the Administrative Agent) incurred in connection with this Extension Agreement.

11. **Representations and Warranties**. The Borrowers represent and warrant to the Administrative Agent and the Lenders as follows:

(a) The execution, delivery and performance of this Extension Agreement and the transactions contemplated hereby (i) are within each Borrower's corporate powers, (ii) have been duly authorized by all necessary corporate and, if required, stockholder action, (iii) been duly executed and delivered by each Borrower, (iv) do not and will not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority or any other Person, (v) do not and will not violate any applicable law, rule or regulation of any Governmental Authority or any Organization Document of any Borrower, and (vi) do not and will not conflict with or result in any material breach or contravention of, or the creation of any material Lien under, or require any material payment to be made under (A) any material Contractual Obligation to which any Borrower is a party or affecting any Borrower or the properties of any Borrower or any of its Subsidiaries or (B) any order, injunction, writ or decree of any Governmental Authority or any arbitral award to which any Borrower or the properties of any Borrower or any of its Subsidiaries is subject.

(b) This Extension Agreement has been duly executed and delivered by each Borrower that is party hereto and constitutes a legal, valid and binding obligation of each Borrower, enforceable in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

(c) The representations and warranties made by the Borrowers in the Loan Documents are true and correct in all material respects (or in all respects if the applicable representation or warranty is already qualified by concepts of materiality) on and as of the date hereof, as though made on the date hereof.

(d) After giving effect to this Extension Agreement, no Default or Event of Default has occurred and is continuing or would result therefrom.

12. **Ratification, etc**. Except for certain provisions that are expressly amended or waived by this Extension Agreement, the Credit Agreement, the other Loan Documents and all documents, instruments and agreements related thereto are hereby ratified and confirmed in all respects and shall continue in full force and effect. This Extension Agreement and the Credit Agreement shall hereafter be read and construed together as a single document, and all references in the Credit Agreement, any other Loan Document or any agreement or instrument related to the Credit Agreement shall hereafter refer to the Credit Agreement as amended by this Extension Agreement.

13. **Reaffirmation of Guarantee**. The Company hereby reaffirms its guarantee contained in Article IX of the Credit Agreement of the payment when and as due of the Obligations of the Designated Borrowers, and acknowledges and agrees that such guarantee is and shall remain in full force and effect after giving effect to this Extension Agreement.

14. **GOVERNING LAW. THIS EXTENSION AGREEMENT SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAW OF THE STATE OF NEW YORK.**

15. **Counterparts**. This Extension Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Extension Agreement by telecopy, emailed .pdf or any other electronic means that reproduces an image of the actual executed signature page shall be effective as delivery of a manually executed counterpart of this Extension Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has duly executed this Extension Agreement to Credit Agreement as a sealed instrument as of the date first set forth above.

CABOT CORPORATION, as the Company and a Borrower

By: /s/Steven Delahunt
Name: Steven Delahunt
Title: Vice President and Treasurer

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent, an Issuing Lender,
a Lender and an Extending Lender

By: /s/D. Scott Farquhar
Name: D. Scott Farquhar
Title: Executive Director

CITIBANK, N.A., as an Issuing Bank, an
Extending Lender and a Lender

By: /s/Michael Vondriska
Name: Michal Vondriska
Title: Vice President

Mizuho Bank, Ltd.,
as an Extending Lender

By: /s/Donna MeMagistris
Name: Donna MeMagistris
Title: Authorized Signatory

TD BANK, N.A.
as an Extending Lender

By: /s/Alan Garson
Name: Alan Garson
Title: Senior Vice President

Bank of America, N.A.,
as an Extending Lender

By: /s/Molly Kropp
Name: Molly Kropp
Title: Vice President

Wells Fargo Bank, N.A.,
as an Extending Lender

By: /s/Christopher S. Allen
Name: Christopher S. Allen
Title: Senior Vice President

BANK OF CHINA, NEW YORK BRANCH,
as an Extending Lender

By: /s/Raymond Qiao
Name: Raymond Qiao
Title: Managing Director

U.S. BANK NATIONAL ASSOCIATION,
as an Extending Lender

By: /s/Mark Irey
Name: Mark Irey
Title: Vice President

Citizens Bank, N.A.,
as an Extending Lender

By: /s/Caroline Conole
Name: Caroline Conole
Title: Officer

PNC Bank, National Association,
as an Extending Lender

By: /s/Michael Richards
Name: Michael Richards
Title: Senior Vice President and Managing Director

GOLDMAN SACHS BANK USA,
as an Extending Lender

By: /s/Josh Rosenthal
Name: Josh Rosenthal
Title:Authorized Signatory

Exhibit 10.2

11/18/16

For use for any participant under the Severance Protection Plan

Cabot Corporation
2009 Long-Term Incentive Plan

Performance-Based Restricted Stock Unit Award Certificate

Employee Name

This Certificate evidences the grant to you by Cabot Corporation (the "Company"), subject to the terms provided herein and in the 2009 Long-Term Incentive Plan (as amended from time to time, the "2009 Plan"), of the performance-based restricted stock units set forth in the table below (such units referred to as your "Award"). The principal terms of your Award are described below. Except as otherwise expressly provided, all capitalized terms used that are not defined herein shall have the same meaning as in the 2009 Plan.

Performance-Based Restricted Stock Unit	**[# PSUs]**
Date of Grant	**[Date]**

General Terms of your Award.

Performance-Based Restricted Stock Unit. The performance-based restricted stock units (the "PSUs") give you the conditional right to receive, without payment, upon the Compensation Committee of the Company's Board of Directors determining the Company's achievement of the performance metrics outlined in Appendix A attached to this Certificate and subject to the vesting and other conditions set forth in this Certificate and in the 2009 Plan, (i) shares of Common Stock representing from 0% to 200% of the number of PSUs granted, with the actual number of shares to be delivered determined in accordance with the provisions of Appendix A and rounded to the nearest whole number, it being understood that the Compensation Committee has discretion to adjust the performance metrics outlined in Appendix A to account for, or to take into account in determining whether any performance metric set forth in Appendix A has been achieved, the occurrence of unanticipated events and circumstances during the performance period of this Award as the Compensation Committee deems necessary or advisable, and (ii) following the certification by the Compensation Committee of the performance on which shares will be delivered for a performance period of this Award in accordance with the provisions of Appendix A, dividend equivalents payable in cash, to the extent dividends are paid on the outstanding shares of Common Stock, and equal in value to the dividends that would have been paid in respect of the Common Stock deliverable for such performance period had such common stock been issued to you. Dividend equivalents will only be paid to you with respect to shares underlying PSUs that have not vested as of the applicable Common Stock dividend record date. Any dividend equivalents payable to you will be paid through the payroll system as soon as administratively possible after the applicable Common Stock dividend payment date, subject to your continued employment through the date that such dividend equivalents are paid.

Vesting of Your Award. Except as otherwise provided in the Plan, and subject to the achievement of the performance metrics outlined in Appendix A, your Award shall vest on the third anniversary of the date of grant, unless it is earlier terminated or forfeited, provided you are on such date, and will have been at all times since the date of grant, an employee of the Company or a subsidiary or affiliate of the Company. The conditions under which your Award may be forfeited are explained below.

Circumstances that may lead to the forfeiture of your Award. If your employment with Cabot ends for any reason before your Award vests, other than because of your death or Disability or because within two years following a Change in Control Cabot or any successor employer terminates your employment other than for Cause or you terminate your employment for Good Reason as more fully described below, you will forfeit your Award immediately. If your employment ceases because of your death or Disability, the following rules will apply:

- any portion of your Award as to which at the time your employment ceases the performance criteria have been satisfied (other than the passage of time necessary for vesting) will vest; and

- any portion of your Award which is conditioned upon satisfaction of performance criteria with respect to a current or future performance period that have not been satisfied at the time your employment ceases will terminate.

If your Award remains outstanding following a Change in Control (either because of assumption, substitution or otherwise as provided for in Section 7(a)(y)(i) of the 2009 Plan), and within two years following such Change in Control Cabot or any successor employer terminates your employment other than for Cause, or you terminate your employment for Good Reason, the following rules will apply:

- any portion of your Award as to which at the time your employment ceases the performance criteria have been satisfied (other than the passage of time necessary for vesting) will vest; and

- any portion of your Award which is conditioned upon satisfaction of performance criteria with respect to a current or future performance period that have not been satisfied at the time your employment ceases will vest as if target performance had been achieved.

For purposes of this award agreement, “Cause” means (i) your willful and continued failure to perform substantially your reasonably assigned duties with the Company or any successor entity or any of their respective Affiliates (other than any such failure resulting from your physical or mental incapacity or any such actual, alleged or anticipated failure after you issue a notice of termination for Good Reason) after a written demand for substantial performance is delivered to you by the Company which demand specifically identifies the manner in which the Company believes you have not substantially performed your duties; or (ii) your willfully engaging in conduct which is demonstrably and materially injurious to the Company, monetarily or otherwise. For purposes of this definition (i) no act, or failure to act, on your part shall be deemed “willful” unless done, or omitted to be done, by you not in good faith and without reasonable belief that your actions or omission was in the best interest of the Company and (ii) your good faith errors in judgment shall not constitute Cause or be considered in any determination of whether Cause exists.

For purposes of this award agreement, “Good Reason” means the occurrence after a Change in Control, without your prior written consent, of any of the following events or conditions:

(a) a change in your status, title, position or responsibilities (including reporting responsibilities) which represents a material adverse change from your status, title, position or responsibilities as in effect immediately prior thereto; the assignment to you of any duties or responsibilities which are materially inconsistent with your status, title, position or responsibilities; or your removal from or the failure to reappoint or reelect you to any of such offices or positions, except in connection with the termination of your employment for Disability, Cause, as a result of your death or by you other than for Good Reason;

(b) a reduction in the rate of your annual base salary or target annual cash bonus, or a material reduction in your total compensation;

(c) the relocation of the offices at which you are principally employed to a location more than twenty-five (25) miles from the location of such office immediately prior to the Change in Control, or the Company’s requiring you to be based at a location more than twenty-five (25) miles from such office, except to the extent you were not previously assigned to a principal location and except for required travel on the Company’s business to an extent substantially consistent with your business travel obligations at the time of the Change in Control;

(d) the failure by the Company to pay to you any portion of your then current base salary or annual cash bonus or any other compensation, or to pay to you any portion of an installment of deferred compensation under any deferred compensation program of the Company in which you participated, in each case, within fourteen (14) days of the date such compensation is due and payable in accordance with the terms of the applicable agreement or plan or applicable law; or

(e) any material reduction in the retirement or welfare benefits or other material benefit or compensation plan made available to you or any materially adverse change in the terms on which those benefits are made available.

In order for a termination for Good Reason to be effective, you must (a) provide notice to the Company specifying in reasonable detail the condition giving rise to the Good Reason no later than the one-hundred and eightieth (180th) day following the occurrence of that condition; (b) provide the Company a period of thirty (30) days to remedy the condition; and (c) terminate your employment for Good Reason within sixty (60) days following the expiration of the Company's period to remedy if the Company fails to remedy the condition.

Delivery of Shares. The Company shall, as soon as practicable upon the vesting of your Award (but in no event later than March 15 of the year following the year such Award vests) deliver the shares with respect to such vested Award to you (or, in the event of your death, to the person to whom the Award has passed by will or the laws of descent and distribution). No shares will be issued pursuant to this Award unless and until all legal requirements applicable to the issuance or transfer of such shares have been complied with to the satisfaction of the Administrator and you have made arrangements to pay to Cabot any applicable withholding taxes due upon the vesting and/or settlement of your Award.

Rights as a Shareholder; Dividends. The Award shall not be interpreted to bestow upon you any equity interest or ownership in the Company or any Affiliate prior to the date on which the Company delivers shares to you. You are not entitled to vote any shares by reason of the granting of this Award. You shall have the rights of a shareholder only as to those shares, if any, that are actually delivered under this Award at the time such shares are delivered. You will be entitled to receive dividend equivalents as provided for in this Certificate.

Certain Tax Matters. You are responsible for understanding the general tax consequences of the Award and for seeking advice from your own tax and financial advisors with respect to the consequences of the Award to the extent you require or desire such advice.

You must pay to Cabot any applicable withholding taxes due upon the vesting and/or settlement of your Award. To satisfy federal, state and local withholding requirements arising in connection with the vesting and/or settlement of this Award, Cabot will automatically withhold shares of stock from the shares otherwise deliverable to you, up to the greatest number of whole shares with an aggregate fair market value not exceeding the minimum required withholding applicable to the amount so vesting. If you decide to satisfy your withholding requirements with a cash payment, you must make this election through the Stock Plan Administrator and make arrangements to deposit the appropriate funds into your account, at least ten (10) calendar days before the date the Award is scheduled to vest. For U.S. employees, if you wish to increase your tax withholding with respect to taxes due upon the vesting and/or settlement of this Award, you must notify the Corporate Compensation Department at least ten (10) calendar days before the date the Award is scheduled to vest. The Corporate Compensation Department will provide you with an election form at your request and any notification will need to be made using such form.

Nontransferability. Neither this Award nor any rights with respect thereto may be sold, assigned, transferred (other than by will or the laws of descent and distribution), pledged or otherwise encumbered, except as the Administrator may otherwise determine.

Effect on Employment Rights. This Award shall not confer upon you any right to continue as an employee of the Company or any of its subsidiaries or affiliates and shall not affect in any way the right of the Company or any subsidiary or affiliate of the Company to terminate your employment at any time. Further, any benefits you receive from the grant or vesting of your Award shall not be considered a component of your salary for any purpose, including, without limitation, any salary-related calculations for holiday, sick pay, termination payments, overtime or similar payments.

Provisions of the 2009 Plan. The terms specified in this Certificate are governed by the terms of the 2009 Plan, a copy of which has been provided to you. Information about the 2009 Plan is also included in the Prospectus for the 2009 Plan, a copy of which has also been provided to you. The Compensation Committee of Cabot's Board of Directors has the exclusive authority to interpret the 2009 Plan and this Award, including whether and to what extent the performance metrics outlined in Appendix A have been achieved. Any interpretation of the Award by the Committee and any decision made by it with respect to the Award are final and binding on all persons. To the extent there is a conflict between the terms of this Certificate, the 2009 Plan or any employment agreement between you and Cabot or any of its subsidiaries, the 2009 Plan shall govern.

Recoupment Policy. This Award is subject to the terms of the Company's Recoupment Policy as in effect at the time of this Award.

Amendments. No amendment of any provision of this Certificate (other than an adjustment in the performance metrics set forth in Appendix A made in accordance with the terms herein, which shall not be deemed an amendment of this Certificate) shall be valid unless the same shall be in writing.

Governing Law. This Certificate shall be governed and construed by and determined in accordance with the laws of The Commonwealth of Massachusetts, without giving effect to any choice of law or conflict of law provision or rule (whether of The Commonwealth of Massachusetts or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than The Commonwealth of Massachusetts.

You hereby accept your Award subject to the terms set forth herein and in the 2009 Plan. You acknowledge and consent to the collection, use, processing and transfer of personal data as described herein. The Company or any affiliate of Cabot, in particular the Cabot entity employing you, hold certain personal information, including your name, home address and telephone number, date of birth, identification number, salary, nationality, job title, any shares awarded, cancelled, purchased, vested, unvested or outstanding in your favor, for the purpose of managing and administering the Plan ("Data"). The Company and its affiliates will transfer Data to any third parties assisting the Company in the implementation, administration and management of the Plan. These recipients may be located within countries that do not offer the same level of protection of personal data as in the country where you reside. You authorize them to receive, possess, use, retain and transfer the Data in electronic or other form, for the purposes of implementing, administering and managing your participation in the Plan, including any requisite transfer of such Data as may be required for the administration of the Plan and/or the subsequent holding of shares on your behalf to a broker or other third party with whom you may elect to deposit any shares acquired pursuant to the Plan. You may, at any time, review Data, require any necessary amendments to it or withdraw the consent herein in writing by contacting the Company; however, withdrawing the consent may affect your ability to participate in the Plan.

You and Cabot hereby expressly agree that the use of electronic media to indicate confirmation, consent, signature, acceptance, agreement, and delivery shall be legally valid and have the same legal force and effect as if you and Cabot executed this Certificate in paper form. In addition, you understand that this Award is discretionary, and that eligibility for an award under the 2009 Plan is established at the time awards are made. Therefore, your receiving this Award does not mean that you are guaranteed an award in the future.

Exhibit 10.3

Cabot Corporation

Summary of Compensation for Non-Employee Directors

The cash compensation payable to Cabot's non-employee directors consists of separate annual cash retainers for serving on the Board and on each Committee on which a director serves, and an annual cash retainer for serving as non-Executive Chairman of the Board or as a Committee chair. Effective January 1, 2013, the annual cash compensation payable to Cabot's non-employees directors consists of the following payments:

- An annual retainer of $75,000 for service on the Board of Directors
- An annual retainer of $16,000 for service on the Audit Committee
- An annual retainer of $7,000 for service on each of the Compensation, Safety, Health and Environmental Affairs, or Governance and Nominating Committees
- An annual retainer of $110,000 for service as Non-Executive Chairman of the Board of Directors
- An annual retainer of $25,000 for service as Chair of the Audit Committee
- An annual retainer of $10,000 for service as Chair of the Compensation, Safety, Health and Environmental Affairs, or Governance and Nominating Committees

In addition, under Cabot's 2015 Directors' Stock Compensation Plan (the "Directors' Stock Plan"), each non-employee director receives shares of Cabot common stock as a portion of his or her compensation for services performed in the calendar year. The dollar value of the award, or the number of shares awarded, is set each year by the Governance and Nominating Committee and, for calendar years beginning with calendar year 2017, the dollar value of the awards set by the Governance and Nominating Committee is $110,000. A pro rata grant is provided to any director who joins the Board during the calendar year.

Exhibit 31.1

Principal Executive Officer Certification

I, Sean D. Keohane, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: February 7, 2017

/s/ Sean D. Keohane

Sean D. Keohane
President and
Chief Executive Officer

Exhibit 31.2

Principal Financial Officer Certification

I, Eduardo E. Cordeiro, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: February 7, 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 Quarterly Report on Form 10-Q for the quarter ended December 31, 2016 (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.

Date: February 7, 2017

/s/ Sean D. Keohane
Sean D. Keohane
President and Chief Executive Officer

Date: February 7, 2017

/s/ Eduardo E. Cordeiro
Eduardo E. Cordeiro
Executive Vice President and
Chief Financial Officer