UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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, 2019

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

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $1 par value per share	CBT	The New York Stock Exchange

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 every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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

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

The Company had 56,679,597 shares of common stock, $1.00 par value per share, outstanding as of February 4, 2020.

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Part I. Financial Information

Item 1. Financial Statements

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
UNAUDITED

	Three Months Ended December 31	
	2019	2018
	(In millions, except per share amounts)	
Net sales and other operating revenues	$ 727	$ 821
Cost of sales	586	655
Gross profit	141	166
Selling and administrative expenses	64	73
Research and technical expenses	14	16
Income (loss) from operations	63	77
Interest and dividend income	3	2
Interest expense	(14)	(15)
Other income (expense)	(2)	6
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	50	70
(Provision) benefit for income taxes	(4)	7
Equity in earnings of affiliated companies, net of tax	—	—
Net income (loss)	46	77
Net income (loss) attributable to noncontrolling interests, net of tax	5	8
Net income (loss) attributable to Cabot Corporation	$ 41	$ 69
Weighted-average common shares outstanding:		
Basic	56.9	59.9
Diluted	57.0	60.1
Earnings per common share:		
Basic	$ 0.71	$ 1.14
Diluted	$ 0.70	$ 1.14

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	
	2019	2018
	(In millions)	
Net income (loss)	$ 46	$ 77
Other comprehensive income (loss), net of tax		
Foreign currency translation adjustment, net of tax (provision) benefit of $(1) and $2	43	(24)
Derivatives: net investment hedges		
(Gains) losses reclassified to interest expense, net of tax provision (benefit) of $— and $—	(1)	(1)
Pension and other postretirement benefit liability adjustments		
Pension and other postretirement benefit liability adjustments arising during the period, net of tax	1	22
Other comprehensive income (loss)	43	(3)
Comprehensive income (loss)	89	74
Net income (loss) attributable to noncontrolling interests, net of tax	5	8
Foreign currency translation adjustment attributable to noncontrolling interests, net of tax	3	—
Comprehensive income (loss) attributable to noncontrolling interests, net of tax	8	8
Comprehensive income (loss) attributable to Cabot Corporation	$ 81	$ 66

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

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
ASSETS
UNAUDITED

	December 31, 2019	September 30, 2019
	(In millions)	
Current assets:		
Cash and cash equivalents	$ 173	$ 169
Accounts and notes receivable, net of reserve for doubtful accounts of $3 and $3	485	530
Inventories:		
Raw materials	110	107
Finished goods	313	305
Other	56	54
Total inventories	479	466
Prepaid expenses and other current assets	59	45
Total current assets	1,196	1,210
Property, plant and equipment, net	1,395	1,348
Goodwill	92	90
Equity affiliates	39	39
Intangible assets, net	97	96
Deferred income taxes	161	163
Other assets	171	58
Total assets	$ 3,151	$ 3,004

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

CABOT CORPORATION
CONSOLIDATED BALANCE SHEETS
LIABILITIES AND STOCKHOLDERS' EQUITY
UNAUDITED

	December 31, 2019	September 30, 2019
	(In millions, except share and per share amounts)	
Current liabilities:		
Short-term borrowings	$ 4	$ 33
Accounts payable and accrued liabilities	544	537
Income taxes payable	19	22
Current portion of long-term debt	7	7
Total current liabilities	574	599
Long-term debt	1,095	1,024
Deferred income taxes	41	41
Other liabilities	289	206
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: 56,825,282 and 57,250,454 shares		
Outstanding: 56,655,417 and 57,080,589 shares	57	57
Less cost of 169,865 and 169,865 shares of common treasury stock	(5)	(5)
Additional paid-in capital	—	—
Retained earnings	1,329	1,337
Accumulated other comprehensive income (loss)	(354)	(391)
Total Cabot Corporation stockholders' equity	1,027	998
Noncontrolling interests	125	136
Total stockholders' equity	1,152	1,134
Total liabilities and stockholders' equity	$ 3,151	$ 3,004

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	
	2019	2018
	(In millions)	
Cash Flows from Operating Activities:		
Net income (loss)	$ 46	$ 77
Adjustments to reconcile net income (loss) to cash provided by operating activities:		
Depreciation and amortization	39	35
Deferred tax provision (benefit)	(6)	(23)
Employee benefit plan settlement	—	6
Non-cash compensation	1	5
Changes in assets and liabilities:		
Accounts and notes receivable	54	47
Inventories	(7)	(83)
Prepaid expenses and other current assets	(21)	(2)
Accounts payable and accrued liabilities	3	(75)
Income taxes payable	(3)	(15)
Other liabilities	(2)	(12)
Cash dividends received from equity affiliates	1	1
Cash provided (used) by operating activities	105	(39)
Cash Flows from Investing Activities:		
Additions to property, plant and equipment	(68)	(54)
Cash paid for acquisition of business (Note C)	(8)	—
Other	(1)	—
Cash provided (used) by investing activities	(77)	(54)
Cash Flows from Financing Activities:		
Borrowings under financing arrangements	—	18
Proceeds from (repayments of) issuance of commercial paper, net	(29)	248
Proceeds from long-term debt	97	—
Repayments of long-term debt	(48)	(74)
Repayments of redeemable preferred stock	—	(25)
Purchases of common stock	(34)	(62)
Proceeds from sales of common stock	1	—
Cash dividends paid to noncontrolling interests	(11)	(11)
Cash dividends paid to common stockholders	(20)	(20)
Cash provided (used) by financing activities	(44)	74
Effects of exchange rate changes on cash	20	(14)
Increase (decrease) in cash and cash equivalents	4	(33)
Cash and cash equivalents at beginning of period	169	175
Cash and cash equivalents at end of period	$ 173	$ 142

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

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
UNAUDITED

	Common Stock, Net of Treasury Stock		Additional Paid-in	Retained	Accumulated Other Comprehensive	Total Cabot Corporation Stockholders'	Noncontrolling	Total Stockholders'
	Shares	Cost	Capital	Earnings	Income (Loss)	Equity	Interests	Equity
	(In millions, except share amounts)							
Balance at September 30, 2019	57,081	$ 52	$ —	$ 1,337	$ (391)	$ 998	$ 136	$ 1,134
Adoption of accounting standards				3	$ (3)	—		—
Net income (loss)				41		41	5	46
Total other comprehensive income (loss)					40	40	3	43
Cash dividends paid:								
Common stock, $0.35 per share				(20)		(20)		(20)
Cash dividends declared to noncontrolling interests							(19)	(19)
Issuance of stock under equity compensation plans	273	—	1			1		1
Amortization of share-based compensation			1			1		1
Purchase and retirement of common stock	(699)	—	(2)	(32)		(34)		(34)
Balance at December 31, 2019	56,655	$ 52	$ —	$ 1,329	$ (354)	$ 1,027	$ 125	$ 1,152

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

CABOT CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
UNAUDITED

	Common Stock, Net of Treasury Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Cabot Corporation Stockholders' Equity	Noncontrolling Interests	Total Stockholders' Equity
	Shares	Cost						
	(In millions, except share amounts)							
Balance at September 30, 2018	60,367	$ 54	$ —	$ 1,417	$ (317)	$ 1,154	$ 125	$ 1,279
Net income (loss)				69		69	8	77
Total other comprehensive income (loss)					(3)	(3)	—	(3)
Cash dividends paid:								
Common stock, $0.33 per share				(20)		(20)		(20)
Cash dividends declared to noncontrolling interests							—	—
Issuance of stock under equity compensation plans	344	—	—			—		
Amortization of share-based compensation			5			5		5
Purchase and retirement of common stock	(1,201)	(1)	(5)	(56)		(62)		(62)
Balance at December 31, 2018	59,510	$ 53	$ —	$ 1,410	$ (320)	$ 1,143	$ 133	$ 1,276

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

A. Basis of Presentation

The consolidated financial statements have been prepared in conformity with accounting policies generally accepted in the United States ("U.S.") 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 its fiscal year ended September 30, 2019 ("2019 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, 2019 and 2018. 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.

In June 2019, the Company completed the sale of its Specialty Fluids business. The transaction did not meet the criteria to be reported as a discontinued operation. Therefore, prior periods' consolidated financial statements and disclosures have not been recast.

Effective October 1, 2019, the Company adopted the accounting standard for leases issued by the Financial Accounting Standards Board ("FASB") in February 2016. The Company used a modified retrospective optional transition method, which is discussed in detail in Note B.

B. Significant Accounting Policies

Revenue Recognition

Cabot recognizes revenue when its customers obtain control of promised goods or services. The revenue recognized is the amount of consideration that the Company expects to receive in exchange for those goods or services. The Company's contracts with customers are generally for products only and do not include other performance obligations. Generally, Cabot considers purchase orders, which in some cases are governed by master supply agreements, to be contracts with customers. The transaction price as specified on the purchase order or sales contract is considered the standalone selling price for each distinct product. To determine the transaction price at the time when revenue is recognized, the Company evaluates whether the price is subject to adjustments, such as for returns, discounts or volume rebates, which are stated in the customer contract, to determine the net consideration to which the Company expects to be entitled. Revenue from product sales is recognized based on a point in time model when control of the product is transferred to the customer, which typically occurs upon shipment or delivery of the product to the customer and title, risk and rewards of ownership have passed to the customer. The Company has an immaterial amount of revenue that is recognized over time. Payment terms typically range from zero to ninety days.

Shipping and handling costs incurred after the transfer of control of a product to the customer are billed to the customer and are recorded as sales revenue, as the Company considers these to be fulfillment costs. Shipping and handling costs are expensed in the period incurred and included in Cost of sales within the Consolidated Statement of Operations. Taxes collected on sales to customers are excluded from the transaction price.

The Company generally provides a warranty that its products will substantially conform to the identified specifications. The Company's liability typically is limited to either a credit equal to the purchase price or replacement of the non-conforming product. Returns under warranty have historically been immaterial.

The Company does not have contract assets or liabilities that are material.

As permitted by the FASB's revenue recognition standard, *Revenue from Contracts with Customers*, when the period of time between the transfer of control of the goods and the time the customer pays for the goods is one year or less, the Company does not consider there to be a significant financing component associated with the contract.

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

Definite-lived intangible assets, which are comprised of trademarks, customer relationships and developed technologies, are amortized over their estimated useful lives and are reviewed for impairment when indication of potential impairment exists, such as a significant reduction in cash flows associated with the assets.

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 August 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. Reinforcement Materials, and the fumed metal oxides and specialty compounds product lines within Performance Chemicals, which are considered separate reporting units, carry the Company’s goodwill balances as of December 31, 2019.

For the purpose of the goodwill impairment test, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If an initial qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit exceeds its estimated fair value, an additional quantitative evaluation is performed. Alternatively, the Company may elect to proceed directly to the quantitative goodwill impairment test. If based on the quantitative evaluation the fair value of the reporting unit is less than its carrying amount, a goodwill impairment loss would result. The goodwill impairment loss would be the amount by which the carrying value of the reporting unit, including goodwill, exceeds its fair value, limited to the total amount of goodwill allocated to that reporting unit. The fair value of a reporting unit is based on discounted estimated future cash flows. The fair value is also benchmarked against a market approach using the guideline public company 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. Based on the Company’s most recent annual goodwill impairment test performed as of August 31, 2019, the fair values of the Reinforcement Materials, Fumed Metal Oxides and Specialty Compounds reporting units were substantially in excess of their carrying values.

Long-lived Assets Impairment

The Company’s long-lived assets primarily include property, plant and equipment, intangible assets and long-term investments. 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 fair 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 separately identifiable cash flows, an impairment charge is recorded when the Company no longer intends to use the asset.

The Company continues to consider strategic options for its Purification Solutions business. Depending on the actions taken, there could be a negative impact on the fair value of the Purification Solutions reporting unit, which may lead to an impairment.

Property, Plant and Equipment

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

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 net realizable value. The cost of inventory is determined using the FIFO method.

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

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. Pension and post-retirement benefit costs other than service cost are included in Other income (expense) in the Consolidated Statement of Operations. 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 derivative instruments, currency translation adjustments in foreign subsidiaries, translation adjustments on foreign equity securities and minimum pension liability adjustments.

Recently Adopted Accounting Standards

In February 2016, the FASB issued a new standard for the accounting for leases. This 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 historical accounting treatment for leases. The Company adopted the standard on October 1, 2019 using the modified retrospective optional transition method. Accordingly, leases in the prior period continue to be reported and disclosed in accordance with the Company’s historical accounting treatment. The Company elected the package of practical expedients that permits the Company to not reassess the identification, classification and initial direct costs of leases commencing before the October 1, 2019 effective date and to exclude short-term leases from the balance sheet. The Company did not elect the hindsight practical expedient to determine the lease term for existing leases or the practical expedient to not separate lease and non-lease components to existing leases, as well as new leases, through transition. The Company allocates the total consideration to the lease components and non-lease components on an observable stand-alone price basis to all asset classes.

Adoption of the new lease standard resulted in the recognition of operating lease right-of-use (“ROU”) assets and operating lease liabilities of approximately $106 million and $111 million, respectively, as of October 1, 2019. Refer to Note H for further details regarding the balance sheet classification of these items. The difference between the operating lease ROU assets and operating lease liabilities reflects the reclassification of historical deferred rent balances of approximately $5 million. The effects of transition to the new standard resulted in no cumulative adjustment to retained earnings in the period of adoption. The standard did not materially impact the Company's Consolidated Statement of Operations or Consolidated Statement of Cash Flows. The new standard did not have a material impact on the Company's liquidity or debt-covenant compliance under its current debt agreements.

In February 2018, the FASB issued a new standard that allows entities to reclassify from AOCI to Retained earnings stranded tax effects resulting from changes made as a result of the Tax Cuts and Jobs Act of 2017 (the "Act"). The Company adopted this standard on October 1, 2019 which resulted in the reclassification of a $2 million net gain from AOCI to Retained earnings. The reclassification was primarily related to the Company's pension plans and derivative instruments.

Recent Accounting Pronouncements

In June 2016, the FASB issued a new standard on measurement of credit losses. The standard introduces an "expected loss" impairment model that applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables and other financial assets. Entities are required to estimate expected credit losses over the life of financial assets and record an allowance against the assets' amortized cost basis to present them at the amount expected to be collected. The new standard is effective for fiscal years beginning after December 15, 2019 and early adoption is permitted. The Company is evaluating this standard and the timing of its adoption. The Company does not expect the adoption of this standard to materially impact the Company's consolidated financial statements.

C. Acquisitions

NSCC Carbon (Jiangsu) Co. Ltd

In September 2018, the Company acquired NSCC Carbon (Jiangsu) Co. Ltd, a carbon black manufacturing facility in Pizhou, Jiangsu Province, China for a purchase price of $8 million, subject to certain conditions. The purchase price conditions were satisfied in September 2019 and the purchase price was paid in the first quarter of fiscal 2020. The Company has commenced plans to modify this facility to produce specialty carbons and therefore the plant is temporarily mothballed. The modifications are expected to be completed, and production is expected to commence, in 2021. During the first three months of fiscal 2020 and 2019, the Company incurred less than $1 million and $2 million, respectively, of transition-related costs associated with this acquisition.

Shenzhen Sanshun Nano New Materials Co., Ltd

In December 2019, the Company entered into an agreement to purchase Shenzhen Sanshun Nano New Materials Co., Ltd (SUSN), a leading carbon nanotube producer, for approximately $115 million through cash considerations of $100 million and debt assumed of $15 million. The transaction is expected to close in the second quarter of fiscal 2020 and will be accounted for as a business combination. Upon closing, the operating results of the business will be included in the Company's Performance Chemicals segment.

D. Employee Benefit Plans

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

	Three Months Ended December 31							
	2019		2018		2019		2018	
	Pension Benefits				Postretirement Benefits			
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
	(In millions)							
Service cost	$ —	$ 1	$ —	$ 2	$ —	$ —	$ —	$ —
Interest cost	1	1	1	2	—	—	—	—
Expected return on plan assets	(1)	(2)	(2)	(4)	—	—	—	—
Amortization of prior service credit	—	—	—	—	—	—	—	—
Amortization of actuarial loss	—	1	—	1	—	—	—	—
Settlement and curtailment gain	—	—	—	(6)	—	—	—	—
Net periodic benefit (credit) cost	$ —	$ 1	$ (1)	$ (5)	$ —	$ —	$ —	$ —

U.S. Cash Balance Plan Termination

In fiscal 2019, the Company's Board of Directors approved a resolution to terminate the Company's U.S. pension plan. The Company commenced the U.S. plan termination process during the third quarter of fiscal 2019 and expects to complete the transfer of the U.S. plan's assets to participants in fiscal year 2020, pending an Internal Revenue Service ("IRS") determination letter. The pension liability will be settled through a combination of lump-sum payments and purchased annuities. Upon settlement of the benefit liabilities accrued in the plan, the Company will recognize a loss associated with the release of approximately $13 million from AOCI in the Consolidated Balance Sheet to Other income (expense) in the Consolidated Statement of Operations.

Curtailments and Settlements of Employee Benefit Plans

In fiscal 2019, the Company transferred the majority of the defined benefit obligations and pension plan assets in one of its foreign defined benefit plans to a multi-employer plan. This action moved the administrative, asset custodial, asset investment, actuarial, communication and benefit payment obligations to the multi-employer fund administrator. As a result of the transfer, a pre-tax gain of $6 million was recorded in the first quarter of fiscal 2019, which is included in Other income (expense) in the Consolidated Statement of Operations. In addition, as part of the transfer, the Company recorded a $3 million charge in the first quarter of fiscal 2019 reflecting the Company's agreement to fund the actuarial loss gap between the terminated plan and the multi-employer plan. This charge is included in Other income (expense) in the Consolidated Statement of Operations.

E. Goodwill and Intangible Assets

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, 2019 are as follows:

	Reinforcement Materials	Performance Chemicals	Total
		(In millions)	
Balance at September 30, 2019	$ 50	$ 40	$ 90
Foreign currency impact	1	1	2
Balance at December 31, 2019	$ 51	$ 41	$ 92

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

	December 31, 2019			September 30, 2019		
	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets	Gross Carrying Value	Accumulated Amortization	Net Intangible Assets
			(In millions)			
Intangible assets with finite lives						
Developed technologies	$ 51	$ (5)	$ 46	$ 50	$ (5)	$ 45
Trademarks	8	—	8	8	—	8
Customer relationships	58	(15)	43	57	(14)	43
Total intangible assets	$ 117	$ (20)	$ 97	$ 115	$ (19)	$ 96

Intangible assets are amortized over their estimated useful lives, which range between twelve and twenty-five years, with a weighted average amortization period of approximately nineteen years. Amortization expense for both of the three month periods ended December 31, 2019 and 2018 was $1 million and is included in Cost of sales, Selling and administrative expenses, and Research and technical expenses in the Consolidated Statements of Operations. Total amortization expense is estimated to be approximately $6 million each year for the next five fiscal years.

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
		(In millions)		
Balance at September 30, 2019, attributable to Cabot Corporation	$ (338)	$ 1	$ (54)	$ (391)
Other comprehensive income (loss) before reclassifications	43	—	—	43
Amounts reclassified from AOCI	(1)	—	1	—
Adoption of accounting standards	(3)	(1)	1	(3)
Less: Other comprehensive income (loss) attributable to noncontrolling interests	3	—	—	3
Balance at December 31, 2019, attributable to Cabot Corporation	$ (302)	$ —	$ (52)	$ (354)

The amounts reclassified out of AOCI and into the Consolidated Statements of Operations in the three months ended December 31, 2019 and 2018 were as follows:

	Affected Line Item in the Consolidated Statements of Operations	Three Months Ended December 31 2019	2018
		(In millions)	
Derivatives: net investment hedges			
(Gains) losses reclassified to interest expense	Interest expense	$ (1)	$ (1)
Pension and other postretirement benefit liability adjustment			
Amortization of actuarial losses	Net Periodic Benefit Cost - see Note D for details	1	1
Settlement and curtailment gain	Net Periodic Benefit Cost - see Note D for details	—	(6)
Total before tax		—	(6)
Tax impact	Provision (benefit) for income taxes	—	(3)
Total after tax		$ —	$ (9)

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 these purchase commitments, the amounts included in the table below are based on market prices at December 31, 2019, which may differ from actual market prices at the time of purchase.

	Payments Due by Fiscal Year						
	Remainder of Fiscal 2020	2021	2022	2023	2024	Thereafter	Total
				(In millions)			
Reinforcement Materials	$ 174	$ 132	$ 117	$ 107	$ 106	$ 1,211	$ 1,847
Performance Chemicals	50	57	55	36	31	405	634
Purification Solutions	3	1	—	—	—	—	4
Total	$ 227	$ 190	$ 172	$ 143	$ 137	$ 1,616	$ 2,485

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, 2019 and September 30, 2019, Cabot had $12 million and $13 million, respectively, reserved for environmental matters. These environmental matters mainly relate to former operations. The Company's reserves for environmental matters 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 $2 million and $1 million in the first three months of fiscal 2020 and fiscal 2019, respectively. 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.

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 2019 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.

Cabot has a reserve to cover its expected share of liability for existing and future respirator liability claims, which at December 31, 2019 and September 30, 2019, was $34 million and $35 million, respectively. The Company made payments related to its respirator liability of $1 million in the first three months of both fiscal 2020 and fiscal 2019.

The Company’s current estimate of the cost of its share of existing and future respirator liability claims is based on facts and circumstances existing at this time. Developments that could affect the Company’s estimate include, but are not limited to, (i) significant changes in the number of future claims, (ii) changes in the rate of dismissals without payment of pending claims, (iii) significant changes in the average cost of resolving claims, including potential settlements of groups of claims, (iv) significant changes in the legal costs of defending these claims, (v) changes in the nature of claims received, (vi) trial and appellate outcomes, (vii) changes in the law and procedure applicable to these claims, (viii) the financial viability of the parties that contribute to the settlement of respirator claims, (ix) a change in the availability of insurance coverage maintained by certain of the parties that contribute to the settlement of respirator claims, or the indemnity provided by a former owner of the business, (x) changes in the allocation of costs among the various parties paying legal and settlement costs, and (xi) 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 larger than the reserved amount.

Other Matters

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

H. Leases

The Company determines if an arrangement is a lease at inception. The Company considers a contract to be or to contain a lease if the contract conveys the right to control the use of identified property, plant, or equipment (an identified asset) for a period of time in exchange for consideration.

A lease liability is recorded at commencement for the net present value of future lease payments over the lease term. The discount rate used is generally the Company’s estimated incremental borrowing rate based on credit-adjusted and term-specific discount rates, using a third-party yield curve. A ROU asset is recorded and recognized at commencement at the lease liability amount, including initial direct costs incurred, and is reduced for lease incentives received. The Company’s lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option.

In the normal course of its business, the Company enters into various leases as the lessee, primarily related to certain transportation vehicles, warehouse facilities, office space, and machinery and equipment. These leases have remaining lease terms between 1 and 15 years, some of which may include options to extend the leases for up to 15 years or options to terminate the leases. The Company’s land leases have remaining lease terms up to 70 years.

Some lease arrangements require variable payments that are dependent on usage, output, or index-based adjustments. The Company does not have material variable lease payments.

The Company has elected not to recognize short-term leases on the balance sheet for all underlying asset classes. Short-term leases are leases that, at the commencement date, have a lease term of twelve months or less and do not include a purchase option that the Company is reasonably certain to exercise. Short-term leases are expensed on a straight-line basis over the lease term.

The components of the Company’s lease costs were as follows:

	Three Months Ended December 31 2019 (In millions)
Operating lease cost	$ 6
Finance lease cost	1
Total lease cost	$ 7

Short-term and variable lease costs were less than $1 million for the three months ended December 31, 2019.

Supplemental cash flow information related to the Company's leases was as follows:

		Three Months Ended December 31 2019 (In millions)
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$	6
Right-of-use assets obtained in exchange for new operating lease liabilities	$	2
Right-of-use assets obtained in exchange for new finance lease liabilities	$	20

Supplemental balance sheet information related to the Company's leases was as follows:

Description	Balance Sheet Classification		December 31, 2019 (In millions)
Lease ROU assets:			
Operating	Other assets	$	102
Finance	Net property, plant and equipment		46
Total lease ROU assets		$	148
Lease liabilities:			
Current:			
Operating	Accounts payable and accrued liabilities	$	20
Finance	Current portion of long-term debt		3
Long-term:			
Operating	Other liabilities		88
Finance	Long-term debt		29
Total lease liabilities		$	140

The following table presents the weighted-average remaining lease term and discount rates for the Company's leases as of December 31, 2019:

Description	December 31, 2019
Weighted-average remaining lease term (years):	
Operating leases	16
Finance leases	13
Weighted-average discount rate:	
Operating leases	2.29%
Finance leases	4.55%

Future minimum lease payments under non-cancelable operating and finance leases as of December 31, 2019 are as follows:

Years Ended September 30	Operating leases	Finance leases
	(In millions)	
Remainder of fiscal 2020	$ 17	$ 4
2021	14	4
2022	10	4
2023	9	4
2024	9	4
2025 and thereafter	69	25
Total lease payments	128	45
Less: imputed interest	20	13
Total	$ 108	$ 32

The Company’s future minimum lease payments under noncancelable leases as of September 30, 2019 were as follows:

Years Ended September 30	Operating leases	Capital leases
	(In millions)	
2020	$ 23	$ 3
2021	14	3
2022	9	3
2023	9	3
2024	8	2
2025 and thereafter	68	7
Total lease payments	131	21
Less: imputed interest	—	9
Total	$ 131	$ 12

I. Income Tax

Effective Tax Rate

	Three Months Ended December 31	
	2019	2018
	(Dollars in millions)	
(Provision) benefit for income taxes	$ (4)	$ 7
Effective tax rate	7%	(10)%

For the three months ended December 31, 2019, the tax (provision) benefit for income taxes included a net discrete tax benefit of $10 million, which was primarily related to impacts of Switzerland tax reform legislation of $6 million and changes in uncertain tax positions of $4 million. For the three months ended December 31, 2018, the tax (provision) benefit for income taxes included a net discrete tax benefit of $24 million, of which $17 million was related to impacts of U.S. tax reform legislation described below.

Tax Reform

On December 22, 2017, the U.S. enacted significant changes to federal income tax law affecting us, including a permanent reduction of the U.S. corporate income tax rate from 35% to 21%, effective January 1, 2018, as well as a 100% dividend received deduction for foreign dividends. Although the passage of the Act reduced the U.S. tax rate and effectively created a participation exemption regime for foreign earnings, certain other aspects of the new legislation, including in particular, immediate U.S. taxation of global intangible low-taxed income (“GILTI”) earned by foreign subsidiaries, had a negative impact on earnings and this is one of the primary drivers of the increase in Cabot’s effective tax rate, prior to consideration of the discrete tax benefits.

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 2016 through 2019 tax years generally remain subject to examination by the IRS and various tax years from 2005 through 2019 remain subject to examination by the respective state tax authorities. In significant non-U.S. jurisdictions, various tax years from 2003 through 2019 remain subject to examination by their respective tax authorities. As of December 31, 2019, Cabot’s significant non-U.S. jurisdictions include Canada, China, France, Germany, Italy, Japan, Switzerland and the Netherlands.

During the three months ended December 31, 2019, Cabot released uncertain tax positions of $6 million due to the expiration of statutes of limitations in various jurisdictions and accrued for an uncertain tax position of $2 million for a potential settlement. During the three months ended December 31, 2018, Cabot released uncertain tax positions of $7 million due to audit settlements and the expiration of statutes of limitations in various jurisdictions.

J. Earnings Per Share

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

	Three Months Ended December 31	
	2019	2018
	(In millions, except per share amounts)	
Basic EPS:		
Net income (loss) attributable to Cabot Corporation	$ 41	$ 69
Less: Undistributed earnings allocated to participating securities(1)	—	—
Earnings (loss) allocated to common shareholders (numerator)	$ 41	$ 69
Weighted average common shares and participating securities outstanding	57.7	60.8
Less: Participating securities(1)	0.8	0.9
Adjusted weighted average common shares (denominator)	56.9	59.9
Earnings (loss) per common share - basic:	$ 0.71	$ 1.14
Diluted EPS:		
Earnings (loss) allocated to common shareholders	$ 41	$ 69
Plus: Earnings (loss) allocated to participating securities	—	1
Less: Adjusted earnings allocated to participating securities(2)	—	1
Earnings (loss) allocated to common shareholders (numerator)	$ 41	$ 69
Adjusted weighted average common shares outstanding	56.9	59.9
Effect of dilutive securities:		
Common shares issuable(3)	0.1	0.2
Adjusted weighted average common shares (denominator)	57.0	60.1
Earnings (loss) per common share - diluted:	$ 0.70	$ 1.14

(1) Participating securities consist of shares underlying: (i) achieved but unvested performance-based restricted stock units, and (ii) unvested time-based restricted stock units. The holders of these units are entitled to receive dividend equivalents payable in cash to the extent dividends are paid on the Company's outstanding common stock and equal in value to the dividends that would have been paid in respect of the shares underlying such 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	
	2019	2018
	(In millions)	
Calculation of undistributed earnings (loss):		
Net income (loss) attributable to Cabot Corporation	$ 41	$ 69
Less: Dividends declared on common stock	20	20
Undistributed earnings (loss)	$ 21	$ 49
Allocation of undistributed earnings (loss):		
Undistributed earnings (loss) allocated to common shareholders	$ 21	$ 49
Undistributed earnings (loss) allocated to participating shareholders	—	—
Undistributed earnings (loss)	$ 21	$ 49

(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; and (ii) assumed issuance of shares to employees pursuant to the Company's Deferred Compensation and Supplemental Retirement Plan. For the three months ended December 31, 2019, 995,294 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. For the three months ended December 31, 2018, 687,995 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.

K. Restructuring

Cabot's restructuring activities were recorded in the Consolidated Statements of Operations in the three months ended December 31, 2019 and 2018 as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Cost of sales	$ 1	$ 3
Selling and administrative expenses	7	6
Total	$ 8	$ 9

Details of all restructuring activities and the related reserves during the three months ended December 31, 2019 were as follows:

	Severance and Employee Benefits	Environmental Remediation	Other	Total
	(In millions)			
Reserve at September 30, 2019	$ 3	$ 4	$ —	$ 7
Charges (gain)	7	—	1	8
Cash paid	(2)	—	(1)	(3)
Reserve at December 31, 2019	8	4	—	12

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

2020 Reorganization

During the first quarter of fiscal 2020, the Company initiated several actions that it believes will enable the Company to perform certain activities more cost-effectively. These actions primarily consist of the reorganization of Cabot's leadership structure, the creation of a Global Business Services function and other operational efficiency initiatives. As part of the creation of the Global Business Services function, certain business service activities performed at Cabot's North American business service center will be consolidated into the Company's European business service center. During the three months ended December 31, 2019, the Company recorded charges of $7 million in the aggregate for these actions, primarily related to severance costs. The Company expects to record additional restructuring charges of approximately $4 million, primarily related to severance costs, in the remainder of fiscal 2020 and thereafter. Cabot paid approximately $1 million related to these activities in the three months ended December 31, 2019 and expects to pay approximately $10 million in the remainder of fiscal 2020 and thereafter. As of December 31, 2019, Cabot had $6 million of accrued severance charges in the Consolidated Balance Sheets related to these actions.

Purification Solutions Transformation Plan

In December 2018, the Company initiated a transformation plan to improve the long-term performance of the Purification Solutions segment. The purpose of the plan is to focus the business's product portfolio, optimize its manufacturing assets, and streamline its organizational structure to support the new focus. The Company expects to record total charges of $10 million related to this plan, of which approximately $9 million was recorded in fiscal 2019, comprised of severance, employee benefits and professional service fees. The Company recorded charges of less than $1 million and $8 million in the three months ended December 31, 2019 and 2018, respectively. The Company expects to record immaterial charges related to this plan through the rest of fiscal 2020. Cabot paid $8 million related to these activities through December 31, 2019, the majority of which was paid in fiscal 2019, and expects to pay approximately $1 million in the remainder of fiscal 2020. As of December 31, 2019, Cabot had $1 million of accrued severance charges in the Consolidated Balance Sheets related to these actions.

L. Financial Instruments and Fair Value Measurements

The FASB authoritative guidance on fair value measurements defines fair value, provides a framework for measuring fair value, and requires certain disclosures about fair value measurements. The required 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 2020 or 2019.

At December 31, 2019 and September 30, 2019, Cabot had derivatives relating to foreign currency risks, including a net investment hedge and forward foreign currency contracts, carried at fair value. At December 31, 2019, the fair value of these derivatives was a net liability of $3 million and was included in Prepaid expenses and other current assets, Accounts payable and accrued liabilities, and Other liabilities on the Consolidated Balance Sheets. At September 30, 2019, the fair value of these derivatives was a net asset of $1 million and was included in Prepaid expenses and other current assets and Other assets on the Consolidated Balance Sheets. These derivatives are classified as Level 2 instruments within the fair value hierarchy as the fair value determination was based on observable inputs.

At December 31, 2019 and September 30, 2019, the fair value of guaranteed investment contracts, included in Other assets on the Consolidated Balance Sheets, was $11 million and $10 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, 2019 and September 30, 2019, the fair values of cash and cash equivalents, accounts and notes receivable, accounts payable and accrued liabilities, and short-term borrowings 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 $1.08 billion and $1.14 billion, respectively, as of December 31, 2019, and $1.03 billion and $1.10 billion, respectively, as of September 30, 2019. The fair values of Cabot's fixed rate long-term debt are estimated based on comparable quoted market prices at the respective period ends. The carrying amounts of Cabot's floating rate long-term debt and capital lease obligations approximate their fair values. All such measurements are based on observable inputs and are classified as Level 2 within the fair value hierarchy. The valuation technique used is the discounted cash flow model.

M. 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, 2019 and September 30, 2019 to manage foreign currency risk.

		Notional Amount		
Description	**Borrowing**	**December 31, 2019**	**September 30, 2019**	**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 43 million	USD 54 million	No designation

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

Accounting for Derivative Instruments and Hedging Activities

The Company determines the fair value of financial instruments using quoted market prices whenever available. When quoted market prices are not available for various types of financial instruments (such as forwards, options and swaps), the Company uses standard models with market-based inputs, which take into account the present value of estimated future cash flows and the ability of Cabot or the financial counterparty to perform. For interest rate and cross-currency swaps, the significant inputs to these models are interest rate curves for discounting future cash flows and are adjusted for credit risk. For forward foreign currency contracts, the significant inputs are interest rate curves for discounting future cash flows, and exchange rate curves of the foreign currency for translating future cash flows.

Fair Value Hedge

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

Cash Flow Hedge

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

Net Investment Hedge

For net investment hedges, changes in the fair value of the effective portion of the derivatives' gains or losses are reported as foreign currency translation gains or losses in AOCI while changes in the ineffective portion are reported in earnings. Effectiveness is assessed using the method based on changes in spot exchange rates. 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.

The Company has 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 occur semi-annually on March 15th and September 15th for fixed rate interest payments and a cash exchange of the notional currency amount will occur at the end of the term in 2026. As of December 31, 2019, the fair value of these swaps was a net liability of $3 million and was included in Prepaid expenses and other current assets and Other liabilities and the cumulative loss included in AOCI on the Consolidated Balance Sheets was immaterial. As of September 30, 2019, the fair value of these swaps was a net asset of $1 million and was included in Prepaid expenses and other current assets and Other assets and the cumulative gain of $5 million was included in AOCI on the Consolidated Balance Sheets.

The following table summarizes the impact of the cross-currency swaps to AOCI and the Consolidated Statements of Operations:

	Three Months Ended December 31					
	2019	2018	2019	2018	2019	2018
Description	Gain/(Loss) Recognized in AOCI		(Gain)/Loss Reclassified from AOCI into Interest Expense in the Consolidated Statements of Operations		(Gain)/Loss Recognized in Interest Expense in the Consolidated Statements of Operations (Amount Excluded from Effectiveness Testing)	
	(In millions)					
Cross-currency swaps	$ (4)	$ 8	$ (1)	$ (1)	$ —	$ —

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, 2019 and September 30, 2019, the fair value of derivative instruments not designated as hedges were immaterial, and these instruments were presented in Prepaid expenses and other current assets and Accounts payable and accrued liabilities on the Consolidated Balance Sheets.

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 three reportable segments: Reinforcement Materials, Performance Chemicals and Purification Solutions. The Company's former Specialty Fluids business was a separate reporting segment. Since the Company divested this business in the third quarter of fiscal 2019, Cabot has been organized into the three reporting business segments named above.

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

The Performance Chemicals segment combines the specialty carbons, fumed metal oxides and aerogel product lines into the Performance Additives business, and combines the specialty compounds and inkjet colorants product lines into the Formulated Solutions 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, 2019 and 2018 were as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Performance Additives	$ 170	$ 167
Formulated Solutions	72	64
Total Performance Chemicals	$ 242	$ 231

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

Income (loss) from continuing operations before income taxes ("Segment EBIT") is presented for each reportable segment in the table below. Segment EBIT excludes Interest expense, general unallocated income (expense), unallocated corporate costs, and 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.

Financial information by reportable segment is as follows:

	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids(1)	Segment Total	Unallocated and Other(2)	Consolidated Total
				(In millions)			
Three Months Ended December 31, 2019							
Revenues from external customers(3)	$ 379	$ 242	$ 59	$ —	$ 680	$ 47	$ 727
Income (loss) from continuing operations before income taxes(4)	$ 47	$ 41	$ (2)	$ —	$ 86	$ (36)	$ 50
Three Months Ended December 31, 2018							
Revenues from external customers(3)	$ 457	$ 231	$ 65	$ 19	$ 772	$ 49	$ 821
Income (loss) from continuing operations before income taxes(4)	$ 62	$ 36	$ (3)	$ 10	$ 105	$ (35)	$ 70

(1) Cabot divested its Specialty Fluids business during the third quarter of fiscal 2019. The agreement to divest this business did not meet the criteria for reporting this business as a discontinued operation, and therefore, the prior period's financial statements and disclosures have not been recast. For more detail on the sale of the Specialty Fluids business, please refer to the Company's fiscal 2019 10-K filing.

(2) 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.

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

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Royalties, the impact of unearned revenue, the removal of 100% of the sales of an equity method affiliate and discounting charges for certain notes receivable	$ (1)	$ (3)
Shipping and handling fees	31	32
By-product sales	17	20
Total	$ 47	$ 49

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

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Interest expense	$ (14)	$ (15)
Certain items[(a)]		
Global restructuring activities (Note K)	(8)	(9)
Legal and environmental matters and reserves	1	—
Employee benefit plan settlements	(2)	3
Acquisition and integration-related charges	(1)	(3)
Other	(1)	(1)
Total certain items, pre-tax	(11)	(10)
Unallocated corporate costs[(b)]	(10)	(12)
General unallocated income (expense)[(c)]	(1)	2
Less: Equity in earnings of affiliated companies, net of tax[(d)]	—	—
Total	$ (36)	$ (35)

(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.

(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, Interest and dividend income, the profit or loss related to the corporate adjustment for unearned revenue, the impact of including the full operating results of a contractual joint venture in Purification Solutions Segment EBIT and unrealized holding gains (losses) for equity securities.

(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 income taxes and equity in earnings from affiliated companies.

The Company's segments operate globally. In addition to presenting Revenue from external customers by reportable segment, the following tables further disaggregate Revenues from external customers by geographic region.

	Three Months Ended December 31, 2019			
	Reinforcement Materials	Performance Chemicals	Purification Solutions	Consolidated Total
	(In millions)			
Americas	$ 141	$ 76	$ 26	$ 243
Asia Pacific	170	94	9	273
Europe, Middle East and Africa	68	72	24	164
Segment revenues from external customers	379	242	59	680
Unallocated and other				47
Net sales and other operating revenues				$ 727

	Three Months Ended December 31, 2018				
	Reinforcement Materials	Performance Chemicals	Purification Solutions	Specialty Fluids	Consolidated Total
	(In millions)				
Americas	$ 167	$ 72	$ 29	$ 2	$ 270
Asia Pacific	202	85	9	1	297
Europe, Middle East and Africa	88	74	27	16	205
Segment revenues from external customers	457	231	65	19	772
Unallocated and other					49
Net sales and other operating revenues					$ 821

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

Critical Accounting Policies

Our consolidated financial statements have been prepared in conformity with accounting policies 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. Our critical accounting policies have not substantially changed from those described in the 2019 Form 10-K.

Recently Issued Accounting Pronouncements

Refer to the discussion under the headings "Recently Adopted Accounting Standards" and "Recent Accounting Pronouncements" in Note B of our Notes to the Consolidated Financial Statements.

Results of Operations

Cabot was organized into four reportable business segments through June 28, 2019: Reinforcement Materials, Performance Chemicals, Purification Solutions and Specialty Fluids. The Specialty Fluids business was divested as of June 28, 2019 and since that time Cabot has been organized into the three remaining reportable business segments. 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.

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 historical and expected "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. When the tax impact of a certain item is also a discrete tax item, it is classified as a certain item for our definition of operating tax rate. 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 2020 versus First Quarter of Fiscal 2019—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 reportable segments, provides useful supplemental information for our investors as it is an important indicator of our operational strength and performance, allows investors to see our results through the eyes of management, and provides context for our discussion of individual business segment performance. Total segment EBIT should not be considered an alternative for Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies, which is the most directly comparable GAAP financial measure. A reconciliation of Total segment EBIT to Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies is provided under the heading “First Quarter of Fiscal 2020 versus First Quarter of Fiscal 2019—By Business Segment”. Investors should consider the limitations associated with this non-GAAP measure, including the potential lack of comparability of this measure from one company to another.

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

- Asset impairment charges, which primarily include charges associated with an impairment of goodwill or other long-lived assets.
- Inventory reserve adjustment, which resulted from an evaluation performed as part of an impairment analysis.
- 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.
- Acquisition and integration-related charges, which include transaction costs, redundant costs incurred during the period of integration, and costs associated with transitioning certain management and business processes to our processes.
- 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.
- Gains (losses) on sale of investments, which primarily relate to the sale of investments accounted for using the cost method.
- Gains (losses) on sale of businesses.
- Non-recurring gains (losses) on foreign exchange, which primarily relate to the impact of controlled currency devaluations on our net monetary assets denominated in that currency.
- 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.
- Employee benefit plan settlements, which consist of either charges or benefits associated with the termination of a pension plan or the transfer of a pension plan to a multi-employer plan.

Overview

During the first quarter of fiscal 2020, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies decreased compared to the first quarter of fiscal 2019. The decrease primarily reflects the decrease in Total Segment EBIT of $19 million. Total Segment EBIT in the first quarter of fiscal 2019 included $10 million related to our Specialty Fluids business, which we divested in the third quarter of fiscal 2019. Excluding the impact from the divestiture of our Specialty Fluids business, Total Segment EBIT decreased $9 million driven by lower volumes in Reinforcement Materials and Purification Solutions and lower margins in Reinforcement Materials and Performance Chemicals, partially offset by higher volumes in Performance Chemicals.

First Quarter of Fiscal 2020 versus First Quarter of Fiscal 2019—Consolidated

Net Sales and Other Operating Revenues and Gross Profit

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Net sales and other operating revenues	$ 727	$ 821
Gross profit	$ 141	$ 166

The $94 million decrease in net sales in the first quarter of fiscal 2020 compared to the first quarter of fiscal 2019 reflects $19 million of Specialty Fluids revenue in the first quarter of fiscal 2019. Excluding the impact of Specialty Fluids, net sales decreased $75 million. This decline was primarily driven by a less favorable price and product mix (combined $68 million) and the unfavorable impact from foreign currency translation ($9 million), partially offset by higher volumes ($5 million). The unfavorable price and product mix were primarily due to the pass-through of lower feedstock prices in Reinforcement Materials and weaker product mix in our specialty carbons product line.

Gross profit decreased by $25 million in the first quarter of fiscal 2020 compared to the first quarter of fiscal 2019, which reflects the impact from Specialty Fluids. Excluding the impact of Specialty Fluids, the gross profit decline was primarily due to lower volumes and margins in Reinforcement Materials partially offset by higher volumes in Performance Chemicals. Lower Reinforcement Materials volumes were primarily due to year end customer inventory management, while lower margins were due to lower energy center revenue from lower production levels and a slower turn of inventory. Higher volumes in Performance Chemicals were due to increased sales in our specialty carbons, fumed metal oxide and specialty compounds product lines, driven by demand levels stabilizing as compared to last year’s destocking behavior. Higher volumes for our fumed metal oxides product line were also driven by new capacity from our new plant in Wuhai, China.

Selling and Administrative Expenses

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Selling and administrative expenses	$ 64	$ 73

Selling and administrative expenses decreased by $9 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019, primarily due to lower incentive compensation and discretionary spending, partially offset by restructuring charges.

Research and Technical Expenses

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Research and technical expenses	$ 14	$ 16

Research and technical expenses decreased by $2 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019, due to cost reduction activities in the current fiscal year.

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

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Interest and dividend income	$ 3	$ 2
Interest expense	$ (14)	$ (15)
Other income (expense)	$ (2)	$ 6

Interest and dividend income increased by $1 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019 due to interest earned on higher average cash balances.

Interest expense decreased by $1 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019 primarily due to lower interest rates.

Other income (expense) changed by $8 million in the first quarter of fiscal 2020 compared to the first quarter of fiscal 2019, primarily due to pension benefits in fiscal 2019 that did not reoccur and the unfavorable impact of foreign currency translation.

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

	Three Months Ended December 31	
	2019	2018
	(Dollars in millions)	
(Provision) benefit for income taxes	$ (4)	$ 7
Effective tax rate	7%	(10)%
Impact of discrete tax items(1):		
Unusual or infrequent items	12%	29%
Items related to uncertain tax positions	8%	5%
Other discrete tax items	1%	1%
Impact of certain items	(2)%	(1)%
Operating tax rate	26%	24%

(1) For the three months ended December 31, 2019 and 2018, Impact of discrete tax items included a net discrete tax benefit of $10 million and $24 million, respectively. The nature of the discrete tax items for the periods ended December 31, 2019 and 2018 were as follows:

(a) Unusual or infrequent items during the three months ended December 31, 2019 consisted of the net tax impact of Switzerland tax reform legislation. Unusual or infrequent items during the three months ended December 31, 2018 consisted of the net tax impacts of the Tax Cuts and Jobs Act of 2017 (the “Act”) (net tax benefit of $17 million), excludible foreign exchange gains and losses in certain jurisdictions, impacts related to stock compensation deductions, and the tax impacts of a pension settlement;

(b) Items related to uncertain tax positions during the three months ended December 31, 2019 and 2018 included net tax impacts from the reversal of accruals for uncertain tax positions due to the expiration of statutes of limitations, and the accrual of interest on uncertain tax positions; the accrual of an uncertain tax position (fiscal 2020 only); and the settlement of tax audits (fiscal 2019 only);

(c) Other discrete tax items during the three months ended December 31, 2019 and 2018 included net tax impacts as a result of changes in non-US tax laws as well as various return to provision adjustments related to tax return filings.

For fiscal year 2020, the Effective tax rate and Operating tax rate are expected to be in the range of 24% to 25% and 26% to 27%, respectively. The discrete tax items have the same impact on these ranges. The table below reconciles to the low end of the range:

	Forecast for the Year Ended September 30, 2020
Effective tax rate	24%
Impact of discrete tax items:	
Unusual or infrequent items	2%
Items related to uncertain tax positions	1%
Other discrete tax items	1%
Impact of certain items	(2)%
Operating tax rate	26%

We file U.S. federal and state and non-U.S. income tax returns in jurisdictions with varying statutes of limitations. We are under audit in a number of jurisdictions. It is possible that some of these audits will be resolved in fiscal 2020 and could impact our anticipated effective tax rate. We have filed our tax returns in accordance with the tax laws, in all material respects, in each jurisdiction and maintain tax reserves for uncertain tax positions.

Tax Reform

On December 22, 2017, the U.S. enacted significant changes to federal income tax law affecting us, including a permanent reduction of the U.S. corporate income tax rate from 35% to 21%, effective January 1, 2018, as well as a 100% dividend received deduction for foreign dividends. Although the passage of the Act reduced the U.S. tax rate and effectively created a participation exemption regime for foreign earnings, certain other aspects of the new legislation, including in particular, immediate U.S. taxation of global intangible low-taxed income ("GILTI") earned by foreign subsidiaries, had a negative impact on earnings and this is one of the primary drivers of the increase in Cabot's operating tax rate, prior to consideration of the discrete tax benefits.

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

	Three Months Ended December 31	
	2019	**2018**
	(In millions)	
Equity in earnings of affiliated companies, net of tax	$ —	$ —
Net income (loss) attributable to noncontrolling interests, net of tax	$ 5	$ 8

Earnings at each of our equity affiliates, net of tax, did not change materially in the first quarter of fiscal 2020 compared to the same period of fiscal 2019.

Net income (loss) attributable to noncontrolling interests, net of tax, decreased by $3 million in the first quarter compared to the same period of fiscal 2019, primarily due to the lower profitability from our joint ventures in China and Czech Republic.

Net Income Attributable to Cabot Corporation

In the first quarter of fiscal 2020, we reported net income (loss) attributable to Cabot Corporation of $41 million or $0.70 per diluted common share. This compares to net income (loss) attributable to Cabot Corporation of $69 million or $1.14 per diluted common share in the first quarter of fiscal 2019.

First Quarter of Fiscal 2020 versus First Quarter of Fiscal 2019—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, 2020 and 2019 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 Notes to the Consolidated Financial Statements.

	Three Months Ended December 31	
	2019	**2018**
	(In millions)	
Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies	$ 50	$ 70
Less: Certain items	(11)	(10)
Less: Other unallocated items	(25)	(25)
Total segment EBIT	$ 86	$ 105

In the first quarter of fiscal 2020, Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies decreased by $20 million and Total segment EBIT decreased by $19 million, which reflects the inclusion of $10 million in the first quarter of fiscal 2019 related to our Specialty Fluids business, which we divested in the third quarter of fiscal 2019. Excluding the Specialty Fluids impact, Total Segment EBIT decreased $9 million. The decrease in both Total segment EBIT and Income (loss) from continuing operations before income taxes and equity in earnings of affiliated companies was driven by lower volumes in Reinforcement Materials and Purification Solutions and lower margins in Reinforcement Materials and Performance Chemicals, partially offset by higher volumes in Performance Chemicals. Lower volumes in Reinforcement Materials ($5 million) were primarily due to year-end customer inventory management, while lower margins ($9 million) were due to lower energy center revenue from lower production levels and a slower turn of inventory. Lower volumes in Purification Solutions ($6 million) were due to lower volumes in mercury removal applications. The lower margins in Performance Chemicals ($7 million) were primarily due to a less favorable product mix, primarily in the specialty carbons product line, and lower pricing in the fumed metal oxides product line. Higher volumes in Performance Chemicals ($15 million) primarily came from our specialty carbons, fumed metal oxide and specialty compounds product lines driven by demand levels stabilizing as compared to last year's destocking behavior. Higher volumes for our fumed metal oxides product line were also driven by new capacity from our new plant in Wuhai, China.

Certain Items

Details of the certain items for the first quarter of fiscal 2020 and fiscal 2019 are as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Global restructuring activities (Note K)	$ (8)	$ (9)
Legal and environmental matters and reserves	1	—
Employee benefit plan settlements	(2)	3
Acquisition and integration-related charges	(1)	(3)
Other	(1)	(1)
Total certain items, pre-tax	(11)	(10)
Tax-related certain items:		
Tax impact of certain items	2	2
Discrete tax items	10	24
Total tax-related certain items	12	26
Total certain items, after tax	$ 1	$ 16

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 heading "Definition of Terms and Non-GAAP Financial Measures", to adjusted earnings.

Other Unallocated Items

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Interest expense	$ (14)	$ (15)
Unallocated corporate costs	(10)	(12)
General unallocated income (expense)	(1)	2
Less: Equity in earnings of affiliated companies, net of tax	—	—
Total other unallocated items	$ (25)	$ (25)

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 ongoing corporate projects. The balances of General unallocated income (expense) consist of gains (losses) arising from foreign currency transactions, net of other foreign currency risk management activities, the profit or loss related to the corporate adjustment for unearned revenue, and the impact of including the full operating results of a contractual joint venture in Purification Solutions segment EBIT.

Total other unallocated items were consistent the first quarter of fiscal 2020 as compared to the same period in fiscal 2019.

Reinforcement Materials

Sales and EBIT for Reinforcement Materials for the first quarter of fiscal 2020 and fiscal 2019 were as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Reinforcement Materials Sales	$ 379	$ 457
Reinforcement Materials EBIT	$ 47	$ 62

Sales in Reinforcement Materials decreased by $78 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019, primarily due to a less favorable price and product mix (combined $58 million), lower volumes ($13 million) and the unfavorable impact from foreign currency translation ($5 million). The less favorable pricing was primarily due to the pass-through of lower feedstock prices.

EBIT in Reinforcement Materials decreased by $15 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019. The decrease was primarily due to unfavorable unit margins ($9 million) and lower volumes ($5 million). The decrease in volumes was primarily driven by year end customer inventory management. Lower margins were primarily driven by lower energy center revenue from lower production levels and a slower turn of inventory.

Performance Chemicals

Sales and EBIT for Performance Chemicals for the first quarter of fiscal 2020 and fiscal 2019 were as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Performance Additives Sales	$ 170	$ 167
Formulated Solutions Sales	72	64
Performance Chemicals Sales	$ 242	$ 231
Performance Chemicals EBIT	$ 41	$ 36

Sales in Performance Chemicals increased by $11 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019, primarily due to higher volumes ($31 million), partially offset by a less favorable price and product mix (combined $17 million) and the unfavorable impact from foreign currency translation ($3 million).

EBIT in Performance Chemicals increased by $5 million in the first quarter of fiscal 2020 compared to the first quarter of fiscal 2019 primarily due to higher volumes ($15 million), partially offset by lower unit margins ($7 million) and higher fixed costs ($1 million). Volumes increased by 13% in the Performance Additives business and 20% in the Formulated Solutions business. Higher volumes came from our specialty carbons, fumed metal oxide and specialty compounds product lines while lower unit margins were largely due to a less favorable product mix, primarily in the specialty carbons product line and lower pricing in the fumed metal oxides product line.

Purification Solutions

Sales and EBIT for Purification Solutions for the first quarter of fiscal 2020 and fiscal 2019 were as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Purification Solutions Sales	$ 59	$ 65
Purification Solutions EBIT	$ (2)	$ (3)

Sales in Purification Solutions decreased by $6 million in the first quarter of fiscal 2020 compared to the same period of fiscal 2019 due to lower volumes ($12 million), partially offset by improved pricing and a more favorable product mix ($7 million).

EBIT in Purification Solutions improved by $1 million in the first quarter of fiscal 2020 compared to the first quarter of fiscal 2019 due to higher unit margins ($4 million), lower fixed costs as a result of prior year restructuring activities ($2 million) and the favorable impact of changing inventory levels ($1 million), partially offset by lower volumes ($6 million). The higher unit margins were primarily due to an improved product mix and benefits from pricing initiatives.

Specialty Fluids

We divested our Specialty Fluids business on June 28, 2019. Refer to our fiscal 2019 10-K filing for further details. Sales and EBIT for Specialty Fluids for the first quarter of fiscal 2019 were as follows:

	Three Months Ended December 31	
	2019	2018
	(In millions)	
Specialty Fluids Sales	$ —	$ 19
Specialty Fluid EBIT	$ —	$ 10

Outlook

Looking ahead, we expect earnings to improve as we move through this fiscal year. We anticipate that Reinforcement Materials will benefit from the calendar year 2020 customer agreements, and volumes will return to a more normalized level starting in the second fiscal quarter. In Performance Chemicals, volumes have stabilized at a higher level than the first half of fiscal 2019 in the specialty carbons and specialty compounds product lines, while we anticipate the challenging price environment for fumed silica in China and Europe will continue in the near-term. Additionally, we expect the Purification Solutions segment will continue to see year-over-year improvement in quarterly EBIT. Finally, there is still uncertainty related to the impacts of the coronavirus and the impact to our business results is hard to predict. Therefore, in our outlook, we have not assumed any impacts from the virus and a change from this assumption could negatively impact future business results.

Cash Flows and Liquidity

Overview

Our liquidity position, as measured by cash and cash equivalents plus borrowing availability, decreased by $10 million during the first three months of fiscal 2020, which was largely attributable to capital expenditures, share repurchases, cash dividends, and net borrowings under our non-U.S. revolving credit agreements, partially offset by lower net working capital and the repayment of commercial paper. As of December 31, 2019, we had cash and cash equivalents of $173 million and borrowing availability under our revolving credit agreements of $1.28 billion. Our U.S. revolving credit agreement supports our commercial paper program. Our non-U.S. revolving credit agreements may be used for repatriation of earnings of our foreign subsidiaries to the U.S., the repayment of indebtedness of our foreign subsidiaries owing to us or any of our subsidiaries, and for working capital and general corporate purposes.

At December 31, 2019, we were in compliance with all covenants under our revolving credit facilities, including the total consolidated debt to consolidated EBITDA (earnings before interest, taxes, depreciation and amortization) covenant.

A significant portion of our business occurs outside the U.S. and our cash generation does not always align geographically with our cash needs. The vast majority of our cash and cash equivalent holdings tend to be held outside the U.S. Cash held by foreign subsidiaries is generally used to finance the subsidiaries' operational activities and future investments. We use commercial paper throughout the year to manage short-term U.S. cash needs. The commercial paper balance is generally reduced at quarter-end using cash derived from customer collections, settlement of intercompany balances and short-term intercompany loans. The balance of commercial paper outstanding as of December 31, 2019 was $4 million. In the event that additional funds are needed in the U.S., we have the ability to repatriate additional funds.

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

We anticipate sufficient liquidity from (i) cash on hand; (ii) cash flows from operating activities; and (iii) cash available from our revolving credit agreements 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 $105 million in the first three months of fiscal 2020 compared to $39 million of cash used by operating activities during the same period of fiscal 2019.

Cash provided by operating activities in the first three months of fiscal 2020 was driven primarily by our net income of $46 million, the non-cash impacts of depreciation and amortization of $39 million and a decrease in Accounts and notes receivable of $54 million, partially offset by an increase in Prepaid expenses and other current assets of $21 million.

Cash used by operating activities in the first three months of fiscal 2019 was driven primarily by an increase in Inventories of $83 million, a decrease in Accounts payable and accrued liabilities of $75 million and the non-cash impact of a decrease in our deferred tax provision of $23 million, which more than offset our net income of $77 million. Partially offsetting these cash outflows were a decrease in Accounts and notes receivable of $47 million and the non-cash impact of depreciation and amortization of $35 million.

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

Restructurings — As of December 31, 2019, we had $12 million of total restructuring costs in accrued expenses in the Consolidated Balance Sheets related to certain of our global restructuring activities. In the first three months of fiscal 2020, we paid $3 million related to these restructuring activities, and we expect to make cash payments totaling approximately $16 million in the remainder of fiscal 2020 and thereafter.

Environmental Reserves and Litigation Matters — As of December 31, 2019, we had a $12 million reserve for environmental remediation costs at various sites. These sites are primarily associated with businesses divested in prior years. In the first three months of fiscal 2020, we paid $2 million related to these environmental matters. Additionally, as of December 31, 2019, we had a $34 million reserve for respirator claims. In the first three months of fiscal 2020, we paid $1 million related to these claims. We also have other litigation costs arising in the ordinary course of business.

Cash Flows from Investing Activities

Investing activities consumed $77 million of cash in the first three months of fiscal 2020 compared to $54 million of cash consumed in the first three months of fiscal 2019. In both periods, investing activities primarily consisted of capital expenditures for sustaining and compliance capital projects at our operating facilities as well as capacity expansion capital expenditures in Reinforcement Materials and Performance Chemicals. In addition, in the first three months of fiscal 2020, we paid $8 million for the plant that we acquired from NSCC in September 2018.

Capital expenditures for fiscal 2020 are expected to be approximately $225 million. Our planned capital spending program for fiscal 2020 is primarily for sustaining, compliance and improvement capital projects at our operating facilities as well as expansion capital expenditures in Reinforcement Materials and Performance Chemicals.

Cash Flows from Financing Activities

Financing activities consumed $44 million of cash in the first three months of fiscal 2020 compared to $74 million of cash provided in the first three months of fiscal 2019. In the first three months of fiscal 2020, financing activities primarily consisted of share repurchases of $34 million, dividend payments to stockholders of $20 million, the repayment of $48 million of long-term debt and the repayment of $29 million of commercial paper, partially offset by the proceeds from borrowing under our European revolver of $97 million.

In the first three months of fiscal 2019, financing activities primarily consisted of $248 million of proceeds from the issuance of commercial paper, which was partially offset by share repurchases of $62 million, dividend payments to stockholders of $20 million, the repayment of $74 million of fixed rate debt and the redemption of $25 million of preferred stock held by our former NHUMO joint venture partner.

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, 2019, which may differ from actual market prices at the time of purchase.

	Payments Due by Fiscal Year						
	Remainder of Fiscal 2020	2021	2022	2023	2024	Thereafter	Total
				(In millions)			
Reinforcement Materials	$ 174	$ 132	$ 117	$ 107	$ 106	$ 1,211	$ 1,847
Performance Chemicals	50	57	55	36	31	405	634
Purification Solutions	3	1	—	—	—	—	4
Total	$ 227	$ 190	$ 172	$ 143	$ 137	$ 1,616	$ 2,485

Off-Balance Sheet Arrangements

As of December 31, 2019, we had 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 and the factors we expect to impact our results of operations; when we expect the NSCC Carbon plant upgrades to be completed; the amount and timing of the pending SUSN acquisition; the amount and timing of the charge to earnings we will record and the cash outlays we will make in connection with our reorganization and the closing of certain manufacturing facilities, restructuring initiatives and under our transformation plan for our Purification Solutions business; our estimated future amortization expenses for our intangible assets; the amount of any future gain or loss we may record upon the settlement, and the timing of the completion, of certain defined benefit obligations and pension plan terminations; 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 2020; and the possible outcome of legal and environmental proceedings. From time to time, we also provide forward-looking statements in other materials we release to the public and in oral statements made by authorized officers.

Forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, potentially inaccurate assumptions, and other factors, some of which are beyond our control or difficult to predict. If known or unknown risks materialize, our actual results could differ materially from 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; changes in environmental requirements in the U.S.; 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; unanticipated disruptions or delays in plant operations or development projects; 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; negative or uncertain worldwide or regional economic conditions and market opportunities, including from trade relations or global health matters; 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 2019 10-K.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Information about market risks for the period ended December 31, 2019 does not differ materially from that discussed under Item 7A of our 2019 10-K.

Item 4. Controls and Procedures

As of December 31, 2019, we carried out an evaluation, under the supervision and with the participation of our management, including our principal executive officer and our principal 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. Based upon that evaluation, our principal executive officer and our principal 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, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information

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

Issuer Purchases of Equity Securities

The table below sets forth information regarding Cabot's purchases of its equity securities during the quarter ended December 31, 2019:

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, 2019 - October 31, 2019	—	$ —	—	5,886,687
November 1, 2019 - November 30, 2019	450,000	$ 48.57	450,000	5,436,687
December 1, 2019 - December 31, 2019	172,222	$ 47.30	172,222	5,264,465
Total	622,222		622,222	

(1) On July 13, 2018, Cabot publicly announced that the Board of Directors authorized the Company to repurchase up to an additional ten million shares of its common stock on the open market or in privately negotiated transactions, increasing the current balance of shares available for repurchase at that time to approximately eleven million shares. The current authorization does not have a set expiration date.

(2) Total number of shares purchased does not include 75,675 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

Exhibit No.	Description
Exhibit 3.1	Restated Certificate of Incorporation of Cabot Corporation effective January 9, 2009 (incorporated herein by reference to Exhibit 3.1 of Cabot's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2008, file reference 1-5667, filed with the SEC on February 9, 2009).
Exhibit 3.2	The By-laws of Cabot Corporation as amended January 8, 2016 (incorporated herein by reference to Exhibit 3.1 of Cabot Corporation's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 2015, file reference 1-5667, filed with the SEC on February 5, 2016).
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 – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL 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.
Exhibit 104*	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2019, formatted in Inline XBRL (included in Exhibit 101).

* Filed herewith.

** Furnished herewith.

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 6, 2020	By: /s/ ERICA MCLAUGHLIN
	Erica McLaughlin
	Senior Vice President and Chief Financial Officer
	(Duly Authorized Officer)
Date: February 6, 2020	By: /s/ LISA M. DUMONT
	Lisa M. Dumont
	Vice President and Controller
	(Chief Accounting Officer)

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 6, 2020

/s/ SEAN D. KEOHANE

Sean D. Keohane
President and
Chief Executive Officer

Exhibit 31.2

Principal Financial Officer Certification

I, Erica McLaughlin, 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 6, 2020

/s/ ERICA MCLAUGHLIN

Erica McLaughlin
Senior 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, 2019 (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 6, 2020	/s/ SEAN D. KEOHANE
	Sean D. Keohane
	President and Chief Executive Officer
Date: February 6, 2020	/s/ ERICA MCLAUGHLIN
	Erica McLaughlin
	Senior Vice President and
	Chief Financial Officer