
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2016

or

Transition Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____.

Commission file number (of issuer): 1-5667

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

Cabot 401(k) Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

**Cabot Corporation
Two Seaport Lane, Suite 1300
Boston, Massachusetts 02210-2019**

[Table of Contents](#)

TABLE OF CONTENTS

	Page(s)
Report of Independent Registered Public Accounting Firm	1
Financial Statements	
Statements of Net Assets Available for Benefits as of December 31, 2016 and 2015	2
Statement of Changes in Net Assets Available for Benefits for the year ended December 31, 2016	3
Notes to Financial Statements as of December 31, 2016 and 2015 and for the Year Ended December 31, 2016	4-8
Supplemental Schedule* as of December 31, 2016	
Form 5500, Schedule H, Part IV, Line 4i – Schedule of Assets (Held at End of Year)	9
Signatures	10
Index Exhibit	11
Exhibit 23.1 - Consent of Independent Registered Public Accounting Firm	

* All other supplemental schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.

[Table of Contents](#)

Report of Independent Registered Public Accounting Firm

To the Trustee and Participants of the Cabot 401(k) Plan:

We have audited the accompanying statements of net assets available for benefits of the Cabot 401(k) Plan (the Plan) as of December 31, 2016 and 2015, and the related statement of changes in net assets available for benefits for the year ended December 31, 2016. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2016 and 2015, and the changes in net assets available for benefits for the year ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America.

The supplemental information in the accompanying schedule of Schedule of Assets (Held at End of Year) has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information in the accompanying schedules, we evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Caron & Bletzer, PLLC

Kingston, NH
June 22, 2017

[Table of Contents](#)

Cabot 401(k) Plan
Statements of Net Assets Available for Benefits
As of December 31, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Assets:		
Investments, at fair value	\$629,380,400	\$593,015,718
Receivables:		
Employer contribution receivable	2,068,405	2,020,059
Notes receivable from participants	4,980,042	4,823,007
Total receivables	<u>7,048,447</u>	<u>6,843,066</u>
Net assets available for benefits	<u><u>\$636,428,847</u></u>	<u><u>\$599,858,784</u></u>

See notes to financial statements.

[Table of Contents](#)

Cabot 401(k) Plan
Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2016

	2016
Additions	
Interest and dividend income	\$ 18,998,703
Interest on notes receivable from participants	248,075
Net appreciation in fair value of investments	41,515,856
Employer contributions	14,419,572
Participant contributions	13,640,707
Rollovers	1,667,109
Total additions	<u>90,490,022</u>
Deductions	
Benefits paid to participants	53,552,494
Administrative expenses	367,465
Total deductions	<u>53,919,959</u>
Net increase in net assets	36,570,063
Net assets available for benefits	
Beginning of year	599,858,784
End of year	<u><u>\$636,428,847</u></u>

See notes to financial statements.

Cabot 401(k) Plan

Notes to Financial Statements as of December 31, 2016 and 2015, and for the Year Ended December 31, 2016

1. Description of the Plan

General

Cabot Corporation (“Cabot” or the “Company”) initially adopted the Cabot Corporation Employee Stock Ownership Plan (the “ESOP”) in 1988, the Cabot Retirement Incentive Savings Plan in 1994 (previously the Cabot Profit-Sharing and Savings Plan, adopted in 1952) (the “CRISP”), and the Cabot Employee Savings Plan in 1987 (the “CESP”). As of December 31, 2000, the CRISP and the CESP were merged with and into the ESOP. The combined amended and restated plan was a defined contribution plan and was renamed the Cabot Retirement Savings Plan, which had two components, a 401(k) plan and an Employee Stock Ownership Plan (“ESOP”). As of December 31, 2013, all shares under the ESOP component of the Plan have been fully allocated and the related debt repaid, and the remaining 401(k) component of the Plan was amended and renamed the Cabot 401(k) Plan (the “Plan”). The Plan is subject to provisions of the Employee Retirement Income Security Act of 1974 (“ERISA”).

As of the close of business on July 31, 2012, Cabot acquired Norit Americas Inc. (“Purification Solutions”). The Norit Americas Inc. Employees 401(k) Plan (“Norit Plan”) was merged with and into the Plan effective January 1, 2013.

The following brief description of the Plan is provided for general information purposes only. Participants should refer to the Plan document for more complete information.

Eligibility

All U.S. employees of the Company and its participating subsidiaries (except certain temporary and leased employees) are eligible to participate in the Plan beginning on the later of the first day of employment or the date the employee is included in an employee group which participates.

Employee Contributions

By means of a salary reduction arrangement, a Cabot participant may make contributions to his or her account. Participants may elect to contribute up to 50% of their U.S. eligible compensation on a before-tax basis (includes catch-up contributions), an after-tax basis, a Roth after-tax basis or a combination thereof, subject to certain limitations under the Internal Revenue Code (the “Code”). Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans. Participants are automatically enrolled in the Plan if they do not make an election to contribute within 60 days of their eligibility to participate. Participants who are automatically enrolled are deemed to have made an election to make pre-tax contributions in an amount of 6% of their eligible compensation and to increase this contribution rate by 1% of employee eligible compensation each year in January, up to a maximum deferral rate of 15%. Participants may choose to opt out or change their contribution rate at any time.

Company Contributions

The Company matching contribution is 100% up to the first 6% of eligible compensation and is made each pay period. The Plan also provides an employer matching true up contribution at year-end to ensure all participants receive a total match in the amount of the lesser of (1) 100% of the participant’s contribution for the year; or (2) 6% of the participant’s eligible compensation for the year. In addition to the match, a Company retirement contribution of 4% of eligible earnings is paid at the end of each quarter. The Company match and Company retirement contributions are invested in accordance with participant allocations.

The Company may make discretionary contributions to participants under the terms of the Plan. No such discretionary contributions were made during the year ended December 31, 2016.

Participant Accounts

Individual accounts are maintained for each Plan participant. Each participant account is credited with the participant’s contribution, Company contributions and Plan earnings, and charged with withdrawals and an allocation of Plan losses. Allocations are based on participant earnings or account balances, as defined in the Plan. The benefit to which a participant is entitled is the benefit that can be provided from the participant’s vested account.

Investments

Participants direct the investment of their contributions into various investment options offered by the Plan including the Cabot Common Stock Fund which consists primarily of Cabot common stock.

Vesting

Each Cabot participant is at all times 100% vested in his or her contributions. All participants are 100% vested in the Company match and earnings thereon, and are vested in the Company retirement contribution upon completion of 2 years of service. In addition, a participant's entire account balance becomes 100% vested and payable upon the participant's attainment of age 65, disability, or death.

Distribution of Benefits

The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account. Benefits may be distributed to participants upon termination of employment by reason of retirement, disability, death or other severance of employment. Participants who terminate employment and have a vested account balance of less than \$1,000 will receive a lump sum distribution of 100% of their vested benefits. Distributions for participants with vested account balances greater than \$1,000 but not in excess of \$5,000 who terminate employment and fail to make a distribution election will be paid to an individual retirement account designated by the plan administrator. Effective August 1, 2016, participants who have attained age 55 may elect to receive benefit payments in cash installments or a lump sum distribution. Participants who have not attained age 55 must receive benefit payments in a lump sum distribution.

A participant may withdraw up to 100% of his or her before-tax or Roth contributions upon showing a financial hardship exists, as defined by the Plan, but only after the participant has withdrawn all other vested benefits from the Plan and the maximum loan has been made from the participant's account. Participants may withdraw at any time any after-tax contributions made.

A participant may make withdrawals from his or her entire vested account balance once the participant reaches age 59 1/2.

A participant may elect to defer payment of a benefit until April 1 following the year that the participant reaches age 70 1/2.

Participant Loans

Cabot employees may obtain loans from the Plan in an amount not to exceed, in the aggregate, the lesser of \$50,000 or 50% of the total vested amount in the participant's account. Each loan must be paid in full within five years through payroll deductions and is secured by the participant's remaining account balance. The Plan provides that loans may bear interest at reasonable rates as determined by the Benefits Committee of the Company. The interest rate is currently the prime rate plus 2%, and is adjusted quarterly for new loans to reflect changes in the prime rate. Interest rates on outstanding loans as of December 31, 2016 ranged from 3.25% to 5.50% per annum. Participant loans are classified as notes receivable from participants on the Statements of Net Assets Available for Benefits.

2. Summary of Significant Accounting Policies

Basis of Accounting

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP").

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual amounts could differ from those estimates.

Risk and Uncertainties

The Plan provides for various investment options in any combination of mutual funds, Company common stock fund, and a common collective trust. Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the financial statements.

Investment Valuation

The Statements of Net Assets Available for Benefits reflect the Plan's investments at their fair values. Fair value of a financial instrument is the price that would be received on the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for a discussion of fair value measurements.

Income Recognition

Purchases and sales of securities are reflected on a trade date basis. Gains or losses on sales of securities are based on average cost.

Dividends received in cash are recorded on the ex-dividend date. Dividend payments received in shares of Cabot common stock are recorded on the ex-dividend date in an amount equal to the fair value of the common stock on that date. Interest income is recorded as earned on the accrual basis.

The Plan presents in the Statement of Changes in Net Assets Available for Benefits, the net appreciation (depreciation) in the fair value of its investments which consists of (i) realized gains or losses, and (ii) unrealized appreciation (depreciation) on those investments.

Management fees and operating expenses related to investments in the mutual funds and common collective trust fund are charged directly to the mutual funds and deducted from income earned on a daily basis by the mutual funds and are not separately reflected in the accompanying financial statements. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Delinquent participant loans are recorded as distributions based on the terms of the Plan document.

Benefit Payments

Benefit payments to participants are recorded upon distribution.

3. Fair Value Measurements

The Plan classifies its investments into Level 1, which refers to securities valued using quoted prices from active markets for identical assets; Level 2, which refers to securities not traded on an active market but for which observable market inputs are readily available; and Level 3, which refers to securities valued based on significant unobservable inputs. Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. There were no transfers of assets between levels during the year ended December 31, 2016. The Plan's policy is to recognize significant transfers between levels at the beginning of the reporting period.

Following is a description of the valuation methodologies used by the Plan. There have been no changes in the methodologies used at December 31, 2016 and 2015.

Common collective trust – The Vanguard Retirement Savings Trust (“VRST”), a common collective trust, invests primarily in synthetic guaranteed investment contracts and short-term money market funds. The VRST is valued at the net asset value (“NAV”) as provided by the trustee, which is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities and then divided by number of shares outstanding. This practical expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported NAV. The Plan has no unfunded commitments to the VRST, which allows for daily transactions. The Plan may be subject to a 12 month notice period for redemptions. Redemptions are allowed daily for participants. The VRST is audited annually.

Mutual funds – Valued at the NAV of the shares held by the Plan at year end as determined by quoted market prices.

Company stock – Valued at the closing price reported on the active market on which the individual securities are traded.

The preceding methods described may produce a fair value calculation that may not be indicative of the amount realized upon disposition. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at reporting date.

[Table of Contents](#)

3. Fair Value Measurements (continued)

The following tables set forth by level and major categorization within the fair value hierarchy, the Plan's assets at fair value as of December 31:

	2016			
	Total	Level 1	Level 2	Level 3
Mutual funds	\$517,189,819	\$517,189,819	\$ —	\$ —
Company stock*	73,018,571	73,018,571	—	—
Total assets in fair value hierarchy	590,208,390	590,208,390	—	—
Investments measured at net asset value**	39,172,010	—	—	—
Total	<u>\$629,380,400</u>	<u>\$590,208,390</u>	<u>\$ —</u>	<u>\$ —</u>

* Includes both Cabot Common ESOP Stock Fund and Cabot Common Stock Fund.

** In accordance with Subtopic 820-10, certain investments that were measured at NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statement of Net Assets Available for Benefits.

	2015			
	Total	Level 1	Level 2	Level 3
Mutual funds	\$515,882,034	\$515,882,034	\$ —	\$ —
Company stock*	67,888,786	67,888,786	—	—
Total assets in fair value hierarchy	583,770,820	583,770,820	—	—
Investments measured at net asset value**	9,244,898	—	—	—
Total	<u>\$593,015,718</u>	<u>\$583,770,820</u>	<u>\$ —</u>	<u>\$ —</u>

* Includes both Cabot Common ESOP Stock Fund and Cabot Common Stock Fund.

** In accordance with Subtopic 820-10, certain investments that were measured at NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statement of Net Assets Available for Benefits.

4. Forfeitures

Upon termination of a participant from the Company before his or her benefits are fully vested, the unvested portion of the Company retirement contributions is forfeited. The Plan allows the Company to apply participant forfeitures toward Plan expenses or to offset the Company contributions. During 2016, the Company used \$105,371 of participant forfeitures toward the payment of the Company contribution. As of December 31, 2016 and 2015, participant forfeitures totaling \$47,403 and \$73,249, respectively, were available for future use by the Company.

5. Administrative Expenses

The Plan permits the payment of usual and reasonable expenses not paid by the Company to be paid by the Plan, to the extent permitted by ERISA. Pursuant to this provision, certain redemption, special managed account and participant loan fees, as well as other administrative expenses required for the operation of the Plan are deducted from participant accounts. Costs paid by the Company include audit fees, consulting and investment service expenses.

6. Federal Income Tax Status

In a letter dated July 9, 2014, the Internal Revenue Service ("IRS") advised the Company of its favorable determination with respect to the qualified status of the Plan, as amended and restated through December 31, 2013, under the Code. The Plan is intended to qualify as a profit sharing plan under section 401(a) of the Code that contains a stock bonus feature constituting an employee stock ownership plan under section 4975(e) of the Code. The Plan has been amended since receiving the determination letter, however, the Company and Plan management believe that the Plan has been designed, and has been and is being operated in compliance with the applicable requirements of the Code. Therefore, no provision for income tax has been accrued.

[Table of Contents](#)

7. Plan Termination

The Plan was established with the intention that it will continue indefinitely. However, the Company reserves the right to suspend its contributions or to terminate the Plan at any time. In the event the Plan is terminated, all participants become 100% vested and the assets of the Plan, after payment of any expenses, taxes or proper charges of the trustee, will be allocated in accordance with the provisions of ERISA.

8. Party-In-Interest

The Plan's investment options include certain mutual funds and a common collective trust of The Vanguard Group. Vanguard Fiduciary Trust Company is the record keeper and trustee of certain of the Plan's assets and, therefore, participant investments in mutual funds and the common collective trust within The Vanguard Group qualify as party-in-interest transactions. Management fees paid for investment management services are charged directly to the mutual funds and common collective trust by Vanguard, and are reflected as a reduction of the return earned on each fund. The Plan does not separately pay any management fees to The Vanguard Group.

In addition, the Plan is invested in common stock of the Company and these transactions qualify as party-in-interest transactions.

At December 31, 2016 and 2015, the Plan held common stock of the Company, the sponsoring employer. During the year ended December 31, 2016, the Plan earned dividend income of \$1,710,522 related to the common stock of the Company.

9. Reconciliation of Financial Statements to Form 5500

A reconciliation of net assets available for benefits as reflected in the financial statements to the total net assets as reflected in the Form 5500 as of December 31, 2016 and 2015, and the increase in net assets as reflected in the financial statements to amounts reflected in the Form 5500 for the year ended December 31, 2016 is as follows:

	2016	2015
Net assets available for benefits per the financial statements	\$636,428,847	\$599,858,784
Deemed distributions - reduction of loans	(23,477)	(5,387)
Net assets available for benefits per Form 5500	<u>\$636,405,370</u>	<u>\$599,853,397</u>
	2016	
Net increase in net assets available for benefits per the financial statements	\$ 36,570,063	
Deemed distributions	(18,090)	
Net income per Form 5500	<u>\$ 36,551,973</u>	

10. Subsequent Events

The Company has evaluated subsequent events through the date these financial statements were issued. There were no subsequent events that require recognition or additional disclosure in these financial statements.

[Table of Contents](#)

Cabot 401(k) Plan
Schedule H, Line 4i – Schedule of Assets (Held At End of Year)
As of December 31, 2016

EIN: 04-2271897 PN: 022

(a)	(b)	(c)	(d)	(e)
	Identity of issue, borrower, lessor or similar party	Description of investment including maturity date, rate of interest, collateral, par or maturity value	Cost	Current value
*	Cabot Corporation	Company Stock	**	\$ 73,018,571
*	Vanguard Institutional Index Fund	Mutual fund	**	89,138,896
*	Vanguard Wellington Fund	Mutual fund	**	63,293,890
*	Vanguard PRIMECAP Fund	Mutual fund	**	58,218,464
*	Vanguard Total Bond Market Index Fund	Mutual fund	**	47,005,392
*	Vanguard Windsor II Fund	Mutual fund	**	37,780,439
*	Vanguard Extended Market Index Fund	Mutual fund	**	29,015,834
*	Vanguard International Growth Fund	Mutual fund	**	28,413,398
*	Vanguard Explorer Fund	Mutual fund	**	24,152,966
*	Vanguard Total International Stock Index Fund	Mutual fund	**	20,766,988
*	Vanguard Institutional Target Retirement 2020 Fund	Mutual fund	**	16,127,153
*	Vanguard Institutional Target Retirement 2025 Fund	Mutual fund	**	13,786,865
*	Vanguard Institutional Target Retirement 2030 Fund	Mutual fund	**	12,945,362
*	Vanguard Short-term Federal Fund	Mutual fund	**	12,390,626
*	Vanguard Institutional Target Retirement 2035 Fund	Mutual fund	**	11,256,451
*	Vanguard Institutional Target Retirement 2040 Fund	Mutual fund	**	9,835,373
*	Vanguard Institutional Target Retirement 2015 Fund	Mutual fund	**	8,703,145
*	Vanguard Institutional Target Retirement 2045 Fund	Mutual fund	**	7,126,366
*	Vanguard International Value Fund	Mutual fund	**	6,541,639
*	Vanguard Institutional Target Retirement 2050 Fund	Mutual fund	**	6,233,411
*	Vanguard Institutional Target Retirement Income Fund	Mutual fund	**	4,615,923
*	Vanguard Total International Bond Index Fund	Mutual fund	**	3,597,715
*	Vanguard Institutional Target Retirement 2055 Fund	Mutual fund	**	2,137,305
*	Vanguard Institutional Target Retirement 2010 Fund	Mutual fund	**	1,500,434
*	Diamond Hill Small Cap Fund	Mutual fund	**	1,049,611
*	Vanguard Inflation-Protected Securities Fund	Mutual fund	**	1,017,052
*	Vanguard Federal Money Market Fund	Mutual fund	**	276,032
*	Vanguard Institutional Target Retirement 2060 Fund	Mutual fund	**	263,089
*	Vanguard Retirement Savings Trust III	Common collective trust	**	39,172,010
	Total investments on the Statement of Net Assets Available for Benefits			629,380,400
*	Participant Loans	(3.25%-5.50%)	—	4,980,042
	Total investments on the Form 5500			<u>\$634,360,442</u>

* Indicates party-in-interest to the Plan

** Cost omitted for participant directed investments

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Cabot 401(k) Plan
(Name of Plan)

Date: June 22, 2017

/s/ Arthur T. Wood
Arthur T. Wood
Senior Vice President

[Table of Contents](#)

Exhibit Index

Exhibit
Number

Exhibit 23.1 — Consent of Independent Registered Public Accounting Firm

11

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements Nos. 333-19103, 333-19099, 333-161253 and 333-177176 of Cabot Corporation on Form S-8 of our report dated June 22, 2017 relating to the statements of net assets available for plan benefits of the Cabot 401(k) Plan as of December 31, 2016 and 2015, and the related statement of changes in net assets available for plan benefits for the year ended December 31, 2016, and the related schedule, included in this annual report on Form 11-K.

/s/ Caron & Bletzer, PLLC

Kingston, NH
June 22, 2017