SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

	FORM 11-K
\boxtimes	Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934
	For the fiscal year ended December 31, 2012
	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 Retirement Savings 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

Cabot Retirement Savings Plan

TABLE OF CONTENTS

	Page
Report of Independent Registered Public Accounting Firm	1
Financial Statements	
Statements of Net Assets Available for Benefits as of December 31, 2012 and 2011	2-3
Statement of Changes in Net Assets Available for Benefits for the year ended December 31, 2012	4
Notes to Financial Statements as of December 31, 2012 and 2011 and for the Year Ended December 31, 2012	5-12
Supplemental Schedule* as of December 31, 2012	
Form 5500, Schedule H, Part IV, Line 4i – Schedule of Assets (Held at End of Year)	13

^{*} 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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Trustees and Participants of the Cabot Retirement Savings Plan

We have audited the accompanying statements of net assets available for benefits of the Cabot Retirement Savings Plan (the "Plan") as of December 31, 2012 and 2011, and the related statement of changes in net assets available for benefits for the year ended December 31, 2012. 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 standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2012 and 2011, and the changes in net assets available for benefits for the year ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) as of December 31, 2012 is presented for the purpose of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This schedule is the responsibility of the Plan's management. Such schedule has been subjected to the auditing procedures applied in our audit of the basic 2012 financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

/s/ Deloitte & Touche LLP

Boston, Massachusetts June 28, 2013

Cabot Retirement Savings Plan Statement of Net Assets Available for Benefits As of December 31, 2012

	Allocated	Unallocated	Total
Assets			
Investments	\$463,169,056	\$17,300,336	\$480,469,392
Employer contribution receivable	1,474,786	_	1,474,786
Notes receivable from participants	3,180,202		3,180,202
Total assets	467,824,044	17,300,336	485,124,380
Liabilities			
Current portion of note payable	_	6,687,978	6,687,978
Total liabilities		6,687,978	6,687,978
Net assets available for benefits	\$467,824,044	\$10,612,358	\$478,436,402

See notes to financial statements.

Cabot Retirement Savings Plan Statement of Net Assets Available for Benefits As of December 31, 2011

	Allocated	Unallocated	Total
Assets			
Investments	\$403,960,030	\$27,948,161	\$431,908,191
Employer contribution receivable	1,958,990	_	1,958,990
Notes receivable from participants	2,999,961	_	2,999,961
Total assets	408,918,981	27,948,161	436,867,142
Liabilities			
Current portion of note payable	_	6,161,123	6,161,123
Long-term portion of note payable	_	6,687,978	6,687,978
Total liabilities		12,849,101	12,849,101
Net assets available for benefits	\$408,918,981	\$15,099,060	\$424,018,041

See notes to financial statements.

Cabot Retirement Savings Plan Statement of Changes in Net Assets Available for Benefits For the Year Ended December 31, 2012

	Allocated	Unallocated	Total
Additions			
Interest and dividend income (1)	\$ 10,531,321	\$ 2,087,673	\$ 12,618,994
Interest on notes receivable from participants	158,693	_	158,693
Share allocation of Cabot Corporation common stock, at fair value	15,823,446	_	15,823,446
Net appreciation in fair value of investments	51,536,678	6,715,293	58,251,971
Transfer of forfeitures from allocated	_	575,000	575,000
Employer contributions	2,197,199	4,375,464	6,572,663
Participant contributions	12,869,151		12,869,151
Rollovers	826,983		826,983
Total additions	93,943,471	13,753,430	107,696,901
Deductions			
Benefits paid to participants	34,352,226	_	34,352,226
Interest expense	_	876,930	876,930
Redemption/Managed Account fees	111,182		111,182
Transfer of forfeitures to unallocated	575,000	_	575,000
Share allocation of Cabot Corporation common stock, at fair value	_	15,823,446	15,823,446
Share allocation of Cabot Corporation common stock at fair value for dividend payment	_	1,539,756	1,539,756
Total deductions	35,038,408	18,240,132	53,278,540
Net increase (decrease) in net assets	58,905,063	(4,486,702)	54,418,361
Net assets available for benefits			
Beginning of year	408,918,981	15,099,060	424,018,041
End of year	\$467,824,044	\$10,612,358	\$478,436,402

See notes to financial statements.

Included in allocated dividend income are dividend payments in the form of a share allocation of Cabot Corporation common stock with an aggregate fair value of \$1,539,756.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

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 is a defined contribution plan and was renamed the Cabot Retirement Savings Plan (the "Plan"). The Plan has two components, a 401(k) plan and an Employee Stock Ownership Plan ("ESOP"). The Plan is subject to provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

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 participant may make contributions to his or her account. Participants may elect to contribute up to 50% (limited to 15% for highly compensated employees) of their U.S. eligible compensation on a before-tax basis (includes catch-up contributions), an 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.

Company Contributions

The Company's allocated contributions are primarily in the form of (i) a Cabot common stock allocation (the "ESOP allocation") and (ii) a matching contribution in shares of Cabot common stock. These contributions are calculated and recorded as of the last business day of a calendar quarter. In addition, 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, 2012.

For employees not subject to a collective bargaining agreement, Cabot makes a matching contribution of 75% of a participant's before-tax, after-tax and catch-up contributions on up to 7.5% of the participant's eligible compensation, making the maximum matching contribution an amount equal to 5.625% of a participant's eligible compensation.

For the ESOP allocation each quarter, a total of 108,696.645 shares of common stock are allocated among eligible participants. The number of shares allocated to each participant each quarter depends in part on the fair market value of Cabot common stock at the time of the allocation, the number of shares allocated to the payment of dividends and total eligible compensation. The ESOP allocation each quarter is generally between 4% and 8% of a participant's eligible compensation. In instances where a participant's allocation is less than 4% of eligible compensation, the Company is required to make a contribution to provide a minimum allocation of 4% of eligible compensation. If there are unallocated shares after participants receive an ESOP allocation equal to 8% of eligible compensation, the additional shares are used to fund the Company matching contribution. During 2012, 55,510 shares with an aggregate fair value of \$2,197,165 as of the dates of the allocations were used to reduce Company matching contributions. In the event not all shares

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

have been allocated to participants after the ESOP allocation and Company matching contributions have been made, the remaining shares are contributed to participants based on total eligible compensation. During 2012, 9,396 shares with an aggregate fair value of \$401,029 as of the dates of the allocations were used to pay employees an excess ESOP allocation. ESOP and excess ESOP allocations are made to the accounts of participants who are employed on the last business day of the calendar quarter or who have retired, died, or become totally and permanently disabled during the quarter. The current ESOP allocation formula is scheduled to expire December 31, 2013 when the final loan payment is made to John Hancock and all associated shares have been allocated

Common stock held by the Plan to be allocated in future periods is reflected as unallocated investments in the statements of net assets available for benefits.

As discussed in Note 6, the Company also remits debt service contributions to the Plan.

Participant Accounts

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

Funding Policy

The total additions to each participant's account are subject to certain Code limitations.

Investments

Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan offers several mutual funds and the Cabot Common Stock Fund as investment options for participants.

The quarterly ESOP allocations are recorded in the Cabot Common ESOP Stock Fund, which is comprised primarily of Cabot common stock. The quarterly Company matching contribution is recorded in the Cabot Common ESOP Stock Fund, the Cabot Common Stock Fund or a combination of both. Subject to any restrictions on trading set forth in Cabot's Policy on Transactions in Securities, participants are able to redirect at any time their portion of the Cabot Common ESOP Stock Fund and the Cabot Common Stock Fund into any of the investment options offered by the Plan. Accordingly, amounts being allocated to the Cabot Common ESOP Stock Fund and the Cabot Common Stock Fund are considered to be participant directed investments.

Vesting

Each participant is at all times 100% vested in his or her contributions. Effective January 1, 2002, all salaried participants are vested in all Company contributions and earnings thereon according to the following five-year vesting schedule: 20% upon completion of two years of service, 40% upon completion of three years of service, 60% upon completion of four years of service, and 100% upon completion of five years of service. In addition, a participant's entire account balance becomes 100% vested and payable upon the participant's attainment of age 65, or upon the participant's early retirement (defined as age 55 with 10 years of service to the Company), disability or death.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

Renefits

For employees not subject to certain collective bargaining agreements, effective April 30, 2001, the Plan requires all new benefits to be paid in the form of a lump sum distribution.

A participant may withdraw up to 100% of his or her before-tax contributions upon showing a financial hardship exists, 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.

If a participant leaves the Company before retirement for any reason other than death or total and permanent disability, and his or her account balance is \$5,000 or less, upon such termination he or she will receive the vested portion of his or her account balance in a lump sum distribution.

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

Participants 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, 2012 ranged from 5.25% to 9.75% per annum.

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 allows for various investment options (as selected by the Plan administrator) in any combination of stocks, bonds, fixed income securities, mutual funds and other investment securities. 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.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

Investment Valuation

The Plan's investments are stated at fair value. Fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Investments in common stock traded on a national securities exchange are valued at the last reported sale price on the last business day of the year. Investments in mutual funds are valued at quoted market prices, which represent the net asset value of shares held by the Plan at year-end.

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 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, 2012. The Plan's policy is to recognize significant transfers between levels at the beginning of the reporting period.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

As of December 31, 2012 and 2011 the Plan held only Level 1 investments. The following table sets forth by major categorization within the fair value hierarchy, a summary of the Plan's investments measured at fair value on a recurring basis at December 31, 2012 and 2011.

Fair Value Measurements Using Quoted Prices in Active Markets for Identical Assets at **December 31**,

	2012	2011
Common Stock:		
Cabot Common Stock *	\$129,768,261	\$122,150,266
Total Common Stock	129,768,261	122,150,266
Mutual Funds:		
Money Market Funds	26,206,782	27,323,612
Domestic Equity Funds	144,462,044	134,107,858
International Funds	35,808,315	30,273,089
Balanced Funds	86,580,864	66,764,210
Bond Funds	57,643,126	51,289,155
Total Mutual Funds	350,701,131	309,757,925
Total	\$480,469,392	\$431,908,191

^{*} Includes both Cabot Common ESOP Stock Fund and Cabot Common Stock Fund.

4. Investments

The fair value of investments held by the Plan that exceed 5% or more of the Plan's net assets available for benefits as of December 31, 2012 and 2011 are as follows:

		December 31,			
	20:	2012		11	
	Allocated	Unallocated	Allocated	Unallocated	
Vanguard Windsor II Fund	\$ 27,664,182	\$ —	\$27,142,765	\$ —	
Vanguard Wellington Fund	48,219,221	_	41,392,976	_	
Cabot Common Stock Funds*	112,467,925	17,300,336	94,202,105	27,948,161	
Vanguard 500 Index Fund	53,955,187	_	47,458,309	_	
Vanguard Total Bond Market Index Fund	44,747,802	_	38,578,350	_	
Vanguard International Growth Fund	25,895,571	_	22,494,970	_	
Vanguard PRIMECAP Fund	31,838,311	_	30,098,783	_	

^{*} Includes both Cabot Common ESOP Stock Fund and Cabot Common Stock Fund.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

During the year ended December 31, 2012, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated/(depreciated) in value as follows:

Common Stock:	
Cabot Common Stock*	\$29,074,219
Total Common Stock	29,074,219
Mutual Funds:	
Domestic Equity Funds	17,564,747
International Funds	5,257,869
Balanced Funds	6,146,591
Bond Funds	208,545
Total Mutual Funds	29,177,752
Total	\$58,251,971

Amount relates to both Cabot Common ESOP Stock Fund and Cabot Common Stock Fund and includes \$6,715,293 of net appreciation in unallocated investments.

5. Note Payable

Note payable consisted of the following:

	Decen	December 31,		
	2012	2011		
Note due 2013, 8.29%	\$6,687,978	\$12,849,101		

In November 1988, the Plan borrowed \$75,000,000 from an institutional lender in order to finance its purchase of 75,000 shares of Cabot Series B preferred stock ("ESOP note"). This debt accrues interest at a rate of 8.29% per annum, and is being repaid in equal quarterly installments, with the final principal payment of \$6,687,978 due on December 31, 2013. This debt is collateralized by the assets in the unallocated fund and is guaranteed by the Company. On July 20, 2007, all of the Company's outstanding shares of preferred stock were converted into shares of the Company's common stock.

6. Debt Service Contributions

The Company contributes to the Plan on a quarterly basis the deficiency between dividends earned on the unallocated leveraged common stock and the payment due by the Plan to the lender described in Note 5. These debt service contributions are recorded as unallocated company contributions.

7. Forfeitures

Upon termination of a participant from the Plan before his or her benefits are fully vested, the nonvested portion of the Company contributions is forfeited. The Plan allows the Company to apply participant forfeitures toward the payment of the ESOP debt obligation. During 2012, the

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

Company used \$575,000 of participant forfeitures toward the payment of the ESOP note. As of December 31, 2012 and 2011, available remaining participant forfeitures totaled \$10,157 and \$100,568 respectively.

8. Administrative Expenses

Effective January 1, 2012, the Plan document was amended to permit the allocation of all usual and reasonable expenses to Participants accounts. With this change, certain redemption, special managed account and participant loan fees are allocated to participants as appropriate, and all other administrative expenses allocated to the operation of the Plan were paid by the Company during the year ended December 31, 2012. These costs totaled approximately \$165,809. Under the terms of the Plan, such costs, to the extent permitted by ERISA, may be allocated to Participant accounts or paid by the Company.

9. Federal Income Tax Status

In a letter dated May 4, 2009, 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, 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 is being operated in compliance with the applicable requirements of the Code. Therefore, no provision for income tax has been accrued.

Plan management evaluates tax positions taken by the Plan and recognizes a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Company has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2012, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Company believes that all Plan years remain open and subject to audit.

10. 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.

11. Party-In-Interest

The Plan's investment options include certain mutual funds 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 within The Vanguard Group qualify as party-in-interest transactions. Management fees paid for investment management services are charged directly to the mutual funds by Vanguard, and are reflected as a reduction of the return earned on each mutual fund. The Plan does not separately pay any management fees to The Vanguard Group.

Cabot Retirement Savings Plan

Notes to Financial Statements as of December 31, 2012 and 2011, and for the Year Ended December 31, 2012

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

At December 31, 2012 and 2011, the Plan held common stock of the Company, the sponsoring employer. During the year ended December 31, 2012, the Plan earned dividend income of \$2,707,788, related to the common stock of the Company.

12. Reconciliation of Financial Statements to Form 5500

A reconciliation of net assets available for benefits per the financial statements to the total net assets per the Form 5500 as of December 31, 2012 and 2011, and a reconciliation of the increase in net assets per the financial statements to the net income per the Form 5500 for the year ended December 31, 2012, is as follows:

2011

(18,925) \$54,399,436

2012

Net assets available for benefits per the financial statements	\$478,436,402	\$424,018,041
Deemed distributed - reduction of loans	(26,582)	(7,657)
Net assets available for benefits per Form 5500	\$478,409,820	\$424,010,384
		2012
Net increase in net assets available for benefits per the financial statements		\$54,418,361

13. Subsequent Events

Add change in deemed distributions

Net income per Form 5500

As of the close of business on July 31, 2012, Cabot acquired Norit Americas Inc. The Norit Americas Inc. Employees 401(k) Plan was merged with the Plan effective January 1, 2013, and net plan assets totaling \$21,961,381 were transferred into the plan in the first week of January 2013.

In May, 2013, the Board of Directors of Cabot approved several amendments to the Plan effective January 1, 2014. The amendments include amendments to the Company contribution rates and the vesting schedules. The current contributions provided by the company will be replaced with (1) a 100% matching contribution on up to the first 6% of eligible compensation the participant contributes and (2) a retirement contribution. The matching contribution will vest immediately and the retirement contribution will vest after two years.

Cabot Retirement Savings Plan Schedule H, Line 4i – Schedule of Assets (Held At End of Year) As of December 31, 2012

(a)(b) Identity of Issuer	(c) Description of Investment (d) Cost**	(e) Current Value
*	Cabot Corporation	Common stock of Cabot Corporation:	-,	
	·		2,970,411	\$ 17,300,336
ı.		Participant directed	_	112,467,925
*	The Vanguard Group	Vanguard 500 Index Fund		53,955,187
*	The Vanguard Group	Vanguard Explorer Fund		17,446,341
*	The Vanguard Group	Vanguard Extended Market Index Fund		13,558,023
*	The Vanguard Group	Vanguard Federal Money Market Fund		11,271,198
*	The Vanguard Group	Vanguard International Growth Fund		25,895,571
*	The Vanguard Group	Vanguard International Value Fund		9,912,744
*	The Vanguard Group	Vanguard PRIMECAP Fund		31,838,311
*	The Vanguard Group	Vanguard Prime Money Market Fund		14,935,584
*	The Vanguard Group	Vanguard Short-term Federal Fund		12,895,324
*	The Vanguard Group	Vanguard Target Retirement Fund 2010		2,096,079
*	The Vanguard Group	Vanguard Target Retirement Fund 2015		7,795,312
*	The Vanguard Group	Vanguard Target Retirement Fund 2020		7,186,991
*	The Vanguard Group	Vanguard Target Retirement Fund 2025		4,112,915
*	The Vanguard Group	Vanguard Target Retirement Fund 2030		3,304,705
*	The Vanguard Group	Vanguard Target Retirement Fund 2035		3,424,145
*	The Vanguard Group	Vanguard Target Retirement Fund 2040		2,809,200
*	The Vanguard Group	Vanguard Target Retirement Fund 2045		2,258,426
*	The Vanguard Group	Vanguard Target Retirement Fund 2050		1,091,168
*	The Vanguard Group	Vanguard Target Retirement Fund 2055		109,092
*	The Vanguard Group	Vanguard Target Retirement Fund 2060		47
*	The Vanguard Group	Vanguard Target Retirement Income Fund		4,173,563
*	The Vanguard Group	Vanguard Total Bond Market Index Fund		44,747,802
*	The Vanguard Group	Vanguard Wellington Fund		48,219,221
*	The Vanguard Group	Vanguard Windsor II Fund		27,664,182
*	Participants	Participant Loans – stated interest rates ranging from		, 50 . , 102
		5.25% – 9.75% maturing at various dates through		
		2017.***		3,153,620
		Total investments per Form 5500		\$483,623,012

EIN: 04-2271897

PN:022

^{*} Party-in-interest

^{**} Cost information is not required for participant directed investments, and therefore is not included. However, as Cabot common stock includes both participant directed and non-participant directed investments, cost information has been included for the non-participant directed.

^{***} Includes deemed distributions of \$26,582

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.

<u>Cabot Retirement Savings Plan</u> (Name of Plan)

Date: June 28, 2013 /s/ Robby D. Sisco

Robby D. Sisco Senior Vice President

Exhibit Index

Exhibit Number

Exhibit 23.1 — Consent of Independent Registered Public Accounting Firm

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements Nos. 333-19103, 333-19099, 333-161253 and 333-177176 of Cabot Corporation on Form S-8 of our report dated June 28, 2013 relating to the financial statements and financial statement schedule of the Cabot Retirement Savings Plan appearing in this Annual Report on Form 11-K of the Cabot Retirement Savings Plan for the year ended December 31, 2012.

/s/ Deloitte & Touche LLP

Boston, Massachusetts June 28, 2013