
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, 2008

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

[Table of Contents](#)

	<u>Page(s)</u>
Report of Independent Registered Public Accounting Firm	1
Financial Statements	
Statements of Net Assets Available for Benefits	2-3
Statement of Changes in Net Assets Available for Benefits	4
Notes to Financial Statements	5-12
Supplemental Schedule* as of December 31, 2008	
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, 2008 and 2007, and the related statement of changes in net assets available for benefits for the year ended December 31, 2008. 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, 2008 and 2007, and the changes in net assets available for benefits for the year ended December 31, 2008 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, 2008 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 2008 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 29, 2009

[Table of Contents](#)**Cabot Retirement Savings Plan
Statement of Net Assets Available for Benefits
As of December 31, 2008**

	<u>Allocated</u>	<u>Unallocated</u>	<u>Total</u>
Assets			
Investments	\$ 255,018,310	\$ 33,261,604	\$ 288,279,914
Participant contribution receivable	362,251	—	362,251
Employer contribution receivable	1,544,595	—	1,544,595
Total assets	<u>256,925,156</u>	<u>33,261,604</u>	<u>290,186,760</u>
Liabilities			
Current portion of notes payable	—	4,816,758	4,816,758
Long-term portion of notes payable	—	23,753,526	23,753,526
Total liabilities	<u>—</u>	<u>28,570,284</u>	<u>28,570,284</u>
Net assets available for benefits	<u>\$ 256,925,156</u>	<u>\$ 4,691,320</u>	<u>\$ 261,616,476</u>

See notes to financial statements

[Table of Contents](#)**Cabot Retirement Savings Plan
Statement of Net Assets Available for Benefits
As of December 31, 2007**

	<u>Allocated</u>	<u>Unallocated</u>	<u>Total</u>
Assets			
Investments	\$ 384,586,317	\$ 86,976,646	\$ 471,562,963
Employer contribution receivable	858,171	—	858,171
Total assets	<u>385,444,488</u>	<u>86,976,646</u>	<u>472,421,134</u>
Liabilities			
Current portion of notes payable	—	4,437,311	4,437,311
Long-term portion of notes payable	—	28,570,284	28,570,284
Total liabilities	<u>—</u>	<u>33,007,595</u>	<u>33,007,595</u>
Net assets available for benefits	<u>\$ 385,444,488</u>	<u>\$ 53,969,051</u>	<u>\$ 439,413,539</u>

See notes to financial statements.

[Table of Contents](#)**Cabot Retirement Savings Plan
Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2008**

	<u>Allocated</u>	<u>Unallocated</u>	<u>Total</u>
Additions			
Interest and dividend income	\$ 11,634,879	\$ 3,090,580	\$ 14,725,459
Share allocation of Cabot Corporation common stock, at fair value	9,477,021	—	9,477,021
Transfer of forfeitures from allocated	—	1,329,000	1,329,000
Employer contributions	5,249,787	2,617,002	7,866,789
Employee contributions	12,275,117	—	12,275,117
Total additions	<u>38,636,804</u>	<u>7,036,582</u>	<u>45,673,386</u>
Deductions			
Benefits paid to participants	30,025,022	—	30,025,022
Interest expense	—	2,600,742	2,600,742
Redemption/Managed Account fees	36,487	—	36,487
Net depreciation in fair value of investments	135,765,627	42,910,212	178,675,839
Transfer of forfeitures to unallocated	1,329,000	—	1,329,000
Share allocation of Cabot Corporation common stock, at fair value	—	9,477,021	9,477,021
Share allocation of Cabot Corporation common stock at fair value for dividend payment	—	1,326,338	1,326,338
Total deductions	<u>167,156,136</u>	<u>56,314,313</u>	<u>223,470,449</u>
Net decrease	(128,519,332)	(49,277,731)	(177,797,063)
Net assets available for benefits			
Beginning of year	385,444,488	53,969,051	439,413,539
End of year	<u>\$ 256,925,156</u>	<u>\$ 4,691,320</u>	<u>\$ 261,616,476</u>

See notes to financial statements.

**Cabot Retirement Savings Plan
Notes to Financial Statements**

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, overall considered to be a defined contribution plan, 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% of their U.S. eligible compensation on a before-tax basis, 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 contributions are primarily in the form of (i) a matching contribution in shares of Cabot common stock and (ii) a Cabot common stock allocation (the “ESOP allocation”). Matching contributions and ESOP allocations are made with shares of the Company’s 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, 2008.

For employees not subject to a collective bargaining agreement, Cabot makes a matching contribution of 75% of a participant’s before-tax or after-tax contribution 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

**Cabot Retirement Savings Plan
Notes to Financial Statements**

contribution. In the event not all shares 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. An allocation is 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.

Common stock held by the Plan to be allocated in future periods is reflected as unallocated assets 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

In calendar year 2008, the total addition to each participant's account could not exceed the lesser of either 100% of the participant's U.S. compensation (as defined by the Code) or \$46,000.

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 invests primarily in 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.

Benefits

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.

**Cabot Retirement Savings Plan
Notes to Financial Statements**

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, 2008 ranged from 6.00% to 10.25% per annum.

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.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States 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 at least 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**

Investment Valuation

The Plan's investments are stated at fair value.

The financial statements reflect the prospective adoption of FASB Statement No. 157, *Fair Value Measurements*, as of the beginning of the year ended December 31, 2008 (see Note 3). FASB Statement 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 and establishes a single authoritative definition of fair value, sets a framework for measuring fair value, and requires additional disclosures about fair value measurements. The effect of the adoption of FASB Statement 157 had no impact on the statements of net assets available for benefits and statement of changes in net assets available for benefits.

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.

The short-term investment funds are carried at cost which approximates market value. Participant loans are valued at the outstanding loan balance which also approximates fair value.

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.

Dividend income is reported on the ex-dividend date. Interest income is recorded as earned on the accrual basis.

The Plan presents in the statement of changes in net assets the net realized and unrealized 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 charged to the Plan for investments in the mutual funds are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments.

Benefit Payments

Benefit payments to participants are recorded upon distribution.

3. Fair Value Measurements

In accordance with FASB Statement 157, 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. The following table sets forth by level within the fair value hierarchy a summary of the Plan's investments measured at fair value on a recurring basis at December 31, 2008.

[Table of Contents](#)

**Cabot Retirement Savings Plan
Notes to Financial Statements**

	Fair Value Measurements at December 31, 2008, Using			Total
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
Cabot Common Stock	\$ 72,661,795	\$ —	\$ —	\$ 72,661,795
Mutual Funds	213,425,392	—	—	213,425,392
Participant Loans	—	—	2,192,727	2,192,727
Total	<u>\$ 286,087,187</u>	<u>\$ —</u>	<u>\$ 2,192,727</u>	<u>\$288,279,914</u>

The following table sets forth information summarizing the changes in fair value of the Plan's Level 3 assets for the year ended December 31, 2008.

	Loans to Participants
Beginning balance	\$2,451,020
Issuances and settlements (net)	(258,293)
Ending balance	<u>\$2,192,727</u>

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, 2008 and 2007 are as follows:

	December 31,			
	2008		2007	
	Allocated	Unallocated	Allocated	Unallocated
Vanguard Windsor II Fund	\$22,575,736	\$ —	\$41,070,552	\$ —
Vanguard Wellington Fund	31,065,744	—	44,517,754	—
Cabot Common Stock Fund	39,400,191	33,261,604	84,759,259	86,976,646
Vanguard Federal Money Market Fund	26,604,762	—	25,582,916	—
Vanguard 500 Index Fund	31,460,883	—	49,129,893	—
Vanguard Total Bond Market Index Fund	21,882,346	—	—	—
Vanguard International Growth Fund	16,097,194	—	31,330,274	—
Vanguard PRIMECAP Fund	24,568,605	—	38,619,713	—

During the year ended December 31, 2008, 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:

Cabot common stock	\$ (87,590,788)
Mutual funds	(91,085,051)
Total	<u>\$ (178,675,839)</u>

**Cabot Retirement Savings Plan
Notes to Financial Statements**

5. Notes Payable

Notes payable consisted of the following:

	December 31,	
	2008	2007
Note due 2013, 8.29%	<u>\$28,570,284</u>	<u>\$33,007,595</u>

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 payment 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.

The aggregate principal amounts of notes due and payable in each of the remaining five fiscal years is as follows:

Year ending December 31,	
2009	\$ 4,816,758
2010	5,228,654
2011	5,675,771
2012	6,161,123
2013	6,687,978
	<u>\$ 28,570,284</u>

6. Debt Service Contributions

The Company contributes to the Plan on a quarterly basis the deficiency between dividends earned on the 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 employer contributions.

7. Forfeitures

Upon termination of a participant from the Plan before being 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 2008, the Company used \$1,329,000 of participant forfeitures toward the payment of the ESOP note. As of December 31, 2008 and 2007, available participant forfeitures totaled \$11,882 and \$12,265, respectively.

8. Administrative Expenses

Other than certain redemption and special managed account fees, all administrative expenses associated with the operation of the Plan were paid by the Company during the year ended December 31, 2008. These costs totaled approximately \$144,501. Under the terms of the Plan, such costs may be charged to the Plan.

**Cabot Retirement Savings Plan
Notes to Financial Statements**

9. Federal Income Tax Status

In a letter dated May 4, 2009, the Internal Revenue Service 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 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.

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 recordkeeper 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. Fees paid by the Plan for investment management services were included as a reduction of the return earned on each fund.

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

At December 31, 2008 and 2007, the Plan held common stock of the Company, the sponsoring employer. During the year ended December 31, 2008, the Plan earned dividend income of \$3,524,683 related to the common stock of the Company. As noted above, on July 20, 2007, all of the Company's outstanding shares of preferred stock were converted into shares of the Company's common stock. During the first and second quarter of 2007, the Plan earned dividend income of \$1,271,407 related to the preferred stock and during the third and fourth quarter of 2007 the Plan earned dividend income of \$2,090,755 related to the common stock.

12. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500 as of December 31, 2008 and 2007:

	<u>2008</u>	<u>2007</u>
Net assets available for benefits per the financial statements	\$261,616,476	\$439,413,539
Deemed distributed—reduction of loans	(14,208)	(5,979)
	<u>\$261,602,268</u>	<u>\$439,407,560</u>

[Table of Contents](#)

Cabot Retirement Savings Plan
Notes to Financial Statements

The following is a reconciliation of the net decrease in net assets available for benefits per the financial statements to net loss per the Form 5500:

Net decrease in net assets available for benefits per the financial statements	\$(177,797,063)
Add change in deemed distributions	<u>(8,229)</u>
	<u>\$ (177,805,292)</u>

* * * * *

[Table of Contents](#)

Cabot Retirement Savings Plan
Schedule H, Line 4i – Schedule of Assets (Held At End of Year)
As of December 31, 2008

<u>Identity of Issuer</u>	<u>Description of Investment</u>	<u>Cost</u>	<u>Current Value</u>
* Cabot Corporation	Common stock of Cabot Corporation	\$ 77,402,330	\$ 72,661,795
* The Vanguard Group	Vanguard 500 Index Fund	51,460,734	31,460,883
* The Vanguard Group	Vanguard Explorer Fund	18,793,043	11,682,142
* The Vanguard Group	Vanguard Extended Market Index Fund	7,549,663	5,053,593
* The Vanguard Group	Vanguard Federal Money Market Fund	26,604,762	26,604,762
* The Vanguard Group	Vanguard International Growth Fund	27,354,241	16,097,194
* The Vanguard Group	Vanguard International Value Fund	7,678,052	4,533,371
* The Vanguard Group	Vanguard PRIMECAP Fund	33,047,883	24,568,605
* The Vanguard Group	Vanguard Short-term Federal Fund	10,951,887	11,373,502
* The Vanguard Group	Vanguard Target Retirement Fund 2005	246,570	201,089
* The Vanguard Group	Vanguard Target Retirement Fund 2010	914,577	718,746
* The Vanguard Group	Vanguard Target Retirement Fund 2015	1,265,364	986,414
* The Vanguard Group	Vanguard Target Retirement Fund 2020	2,270,595	1,732,742
* The Vanguard Group	Vanguard Target Retirement Fund 2025	662,339	475,616
* The Vanguard Group	Vanguard Target Retirement Fund 2030	899,821	650,180
* The Vanguard Group	Vanguard Target Retirement Fund 2035	621,281	436,372
* The Vanguard Group	Vanguard Target Retirement Fund 2040	407,655	294,333
* The Vanguard Group	Vanguard Target Retirement Fund 2045	217,046	162,302
* The Vanguard Group	Vanguard Target Retirement Fund 2050	156,632	106,074
* The Vanguard Group	Vanguard Target Retirement Income Fund	880,202	763,646
* The Vanguard Group	Vanguard Total Bond Market Index Fund	21,500,417	21,882,346
* The Vanguard Group	Vanguard Wellington Fund	38,406,147	31,065,744
* The Vanguard Group	Vanguard Windsor II Fund	35,066,123	22,575,736
* Participants	Participant Loans—stated interest rates ranging from 6.00%-10.25%* maturing at various dates through 2013.	2,192,727	2,192,727
	Total investments	\$ 366,550,093	\$ 288,279,914

*Party-in-interest

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 Retirement Savings Plan
(Name of Plan)

Date: June 29, 2009

/s/ Eduardo E. Cordeiro

Eduardo E. Cordeiro
Executive Vice President and Chief Financial Officer

Exhibit Index

Exhibit Number

23.1 — Consent of Independent Registered Public Accounting Firm

15

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements Nos. 333-19103 and 333-19099 on Form S-8 of Cabot Corporation of our report dated June 29, 2009 relating to the financial statements of the Cabot Retirement Savings Plan appearing in this Annual Report on Form 11-K for the year ended December 31, 2008.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
June 29, 2009