

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

SCHEDULE 14A

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No. __)**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to §240.14a-12

CABOT CORPORATION

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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February 27, 2009

Dear Stockholder:

Cabot's 2009 Annual Meeting will be held on March 12th. Your vote at the Meeting is important. Please take a moment to read this letter and vote your shares.

At the Meeting, you will be asked to approve three proposals. Proposal 1 is the election of four directors to the Board of Directors. Proposal 2 is the ratification of the Company's auditor, Deloitte & Touche LLP. Proposal 3 is the approval of our 2009 Long-Term Incentive Plan (the "2009 Plan"), an equity compensation plan that will be used to provide the long-term incentive portion of our compensation program. **The Board of Directors recommends that you vote FOR all three proposals.**

Our proxy statement for the 2009 Annual Meeting describes the changes the Compensation Committee of our Board of Directors has adopted in our compensation philosophy and the basic principles we follow in our long-term incentive compensation program. We urge you to read this portion of the proxy statement. The purpose of this letter is to further share our thoughts on why we believe you should vote in favor of the 2009 Plan.

If the 2009 Plan is approved, we will be able to significantly enhance the performance-based features of our long-term incentive program beginning in 2009. We believe this is vital to our Company's success and the fulfillment of our corporate strategy to deliver earnings growth. **We believe you should vote FOR the 2009 Plan for the following reasons:**

Reason 1 – The 2009 Plan will permit us to design an equity compensation program that is truly performance-based.

- The 2009 Plan will allow us to issue performance-based restricted stock units. As designed, vesting of the performance-based units will depend on the degree to which we achieve annual, objectively measurable corporate performance goals. For awards we expect to make in May 2009, the performance goals will relate to our objectives for adjusted earnings per share and adjusted return on invested capital. We strongly believe that tying the vesting of these compensation awards with the achievement of measurable, strategic, financial goals will drive the incremental improvement in our Company's performance.
- In addition to performance-based restricted stock units, we expect to issue stock options to our senior executive officers. If the 2009 Plan is approved by our stockholders, a significant portion (approximately 70%) of the equity incentive compensation opportunity payable to our senior officers will be in the form of performance-based restricted stock units and stock options, the ultimate value of which will depend on the achievement of objectively measurable corporate performance goals and share price appreciation. This provides a strong alignment of interests between our stockholders and our executives.
- We are not able to issue performance-based units under our 2006 equity incentive plan because that plan was designed principally for the issuance of purchase, time-vested restricted stock and contains restrictions that make the issuance of performance-based awards not feasible.

Reason 2 – The 2009 Plan will not result in excessive cost or dilution to stockholders.

- The 2009 Plan passes RiskMetrics Group’s (“RMG”) widely-used quantitative model, expressed in terms of shareholder value transfer (SVT), which is used by many sophisticated, institutional investors to measure potential cost and dilution of equity-based plans. Under this analysis, the cost of the 2009 Plan is measured by the amount of shareholder equity flowing out of Cabot to participants as awards vest and/or stock options are exercised. This cost is then compared with a company-specific allowable cap. Under RMG’s analysis, our allowable cap is 10% and the cost of the 2009 Plan is 9%, a significant factor that should be considered favorably by our stockholders.
- The 2009 Plan authorizes the issuance of 6.4 million shares. If the 2009 Plan is approved, we will not issue any additional shares under the 2006 Long-Term Incentive Plan, under which approximately 1.5 million shares remain available for issuance. There are currently approximately 2.8 million shares of restricted stock and stock options outstanding under our existing equity plans. Thus, the combined overhang of the 2009 Plan and the outstanding awards would be 14.1%. This is within the overhang guidelines of many sophisticated, institutional investors for companies with our market capitalization.

Reason 3 – RMG’s burn rate calculation does not properly account for our historical purchase restricted stock and our historical burn rate does not reflect our new compensation philosophy and program.

We do not pass RMG’s burn rate test, which is a measure of historical dilution. Under its burn rate analysis, RMG calculates a three-year average burn rate (the number of shares granted in each fiscal year to employees divided by the weighted common shares outstanding) and compares that burn rate to an industry burn rate cap. Our three-year average burn rate under RMG’s analysis was 3.29% of weighted common shares outstanding, and the industry cap RMG applied to Cabot allows a three-year average burn rate of 2.14%. We fail RMG’s burn rate test for three principal reasons:

- The depth of the participant group in past years was greater than under our new compensation philosophy. Historically, nearly 250 employees globally participated in the long-term incentive program. Beginning in 2009, we expect to make equity awards to a smaller group of employees who are best able, in light of their job responsibilities, to influence and drive the achievement of our corporate goals and objectives. This will reduce by approximately 50% the number of participants from past years.
- RMG’s burn rate test overcounts the purchase restricted stock we have historically issued under our long-term incentive compensation program. Under RMG’s burn rate test, our purchase restricted stock – for which participants pay 30% of the grant date stock price – is considered a full value award. Accordingly, based in part on our stock price volatility, RMG applies a premium to those shares and in its calculation of our share usage counts each share of restricted stock issued as two shares issued. If RMG recognized the 30% purchase price feature of our restricted stock grants and applied its premium only on 70% of the shares issued, our three-year average burn rate would have been 2.3%. Further, without applying any premium on the issuance of restricted stock, our actual share usage in 2006, 2007 and 2008 was 1.78%, 1.37% and 2.07%, respectively, of total shares outstanding.

- For purposes of determining our allowable burn rate, RMG places Cabot in the materials industry segment, which has the third lowest burn rate cap of all of the RMG industry burn rates. While our total compensation is competitive with that of our industry peers, our compensation practices differ from many of the companies in this industry segment in that we allocate a slightly greater portion of our total compensation to equity incentive awards. We believe our allocation of compensation is appropriate given the industries and geographic markets in which all of our businesses operate, particularly ones in which equity compensation is more broadly used and makes up a significant portion of total compensation.

We strongly believe it is vital to our future success that we have the ability to continue to issue equity awards under our long-term incentive program and for equity grants to continue to represent a meaningful portion of total compensation paid to our management employees. Consistent with best practices and with your support for the 2009 Plan, the Company will strengthen and enhance the pay-for-performance features of future compensation awards, which we believe will drive improvement in our Company's performance.

If you have already voted your shares and you voted against the 2009 Plan, you may change your vote by submitting another, later dated proxy by Internet, telephone or mail. If you hold shares through a bank or brokerage firm, your voting instruction form includes information on how to change your vote. If you have any questions about, or need assistance, voting your shares, please call D.F. King & Co., Inc. at 1-800-758-5378.

Your vote is important. Please vote. We hope you can support us by voting FOR the 2009 Plan.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick M. Prevost', written in a cursive style.

Patrick M. Prevost
President and Chief Executive Officer