



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

Mail Stop 4631

June 23, 2016

Via E-mail

Mr. Eduardo E. Cordeiro
Executive Vice President and Chief Financial Officer
Cabot Corporation
Two Seaport Lane
Boston, MA 02210-2019

**RE: Cabot Corporation
Form 10-K for the Year Ended September 30, 2015
Filed November 25, 2015
Item 2.02 Form 8-K
Filed May 2, 2016
File No. 1-5667**

Dear Mr. Cordeiro:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Year Ended September 30, 2015

Item 6. Selected Financial Data, page 20

1. We have the following comments regarding the presentation of your non-GAAP measures Adjusted Return on Invested Capital and Adjusted Return on Net Assets:
 - In accordance with Item 10(e)(1)(A) and (B) of Regulation S-K, please present, with equal or greater prominence, the most directly comparable financial measures calculated and presented in accordance with Generally Accepted Accounting Principles (GAAP) and a reconciliation of the differences between the non-GAAP financial measure with the most directly comparable GAAP financial measure;

- As presented in Notes (4) and (5), we note these non-GAAP measures include the after-tax impact of the items identified without a clear explanation for how the tax effect is calculated. These presentations may be inconsistent with the updated Compliance and Disclosure Interpretations issued on May 17, 2016. Please review this guidance when preparing your future filings; and
- Management believes these non-GAAP financial measures are useful to investors as a measure of performance and the effectiveness of your use of capital. Please revise your disclosure in future filings to provide adequately detailed information specific to your circumstances as to why these non-GAAP measures are useful to investors. Refer to Item 10(e)(1)(i)(C) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 24

Definition of Terms and Non-GAAP Financial Measures, page 29

2. You indicate that Total Segment EBIT is a non-GAAP financial measure that provides useful supplemental information for your investors as it is an important indicator of your operational strength and performance. Please revise your disclosure in future filings to provide adequately detailed information specific to your circumstances as to why this non-GAAP measure is useful to investors. Refer to Item 10(e)(1)(i)(C) of Regulation S-K.

Provision for Income Taxes and Reconciliation of Effective Tax Rate to Operating Tax Rate, page 32

3. We note that you have provided a reconciliation of your effective tax rate to your operating tax rate, a non-GAAP financial measure. Please identify the nature of the unusual or infrequent items, items related to uncertain tax positions and other discrete items in each period. We also note that this presentation may be inconsistent with the updated Compliance and Disclosure Interpretations issued on May 17, 2016. Please review this guidance when preparing your future filings.

Form 8-K Filed May 2, 2016

4. Please address the above comments on your earnings release as well, as applicable.
5. We remind you that Item 10(e)(1)(i)(a) of Regulation S-K indicates that you should not present non-GAAP financial measures with greater prominence than the most directly comparable GAAP financial measures. The following presentations appear inconsistent with the updated Compliance and Disclosure Interpretations issued on May 17, 2016. Please review this guidance when preparing your next earnings release:
 - You present non-GAAP adjusted EPS before your GAAP diluted EPS in your earnings release headline;

- Your narrative appears to place more prominence on non-GAAP financial measures such as adjusted EBITDA and adjusted EPS without providing a discussion of the corresponding GAAP financial measures; and
- You do not provide a quantitative reconciliation with respect to your forward-looking non-GAAP measures.

Explanation of Terms and Use of Non-GAAP Measures

6. You believe that the non-GAAP financial measures adjusted EPS, Total Segment EBIT, operating tax rate and adjusted EBITDA assist your investors in evaluating the changes in your results and the Company's performance. We also note that you believe that Total Segment EBIT provides useful supplemental information for your investors as it is an important indicator of the Company's operations strength and performance. Please revise your disclosure in future filings to provide adequately detailed information specific to your circumstances as to why each of these non-GAAP measures are useful to investors. Refer to Item 10(e)(1)(i)(C) of Regulation S-K.

Adjusted EBITDA

7. Under the caption, Explanation of Terms Used and Use of Non-GAAP measures, you indicate that "Adjusted EBITDA" is a non-GAAP financial measure and refers to earnings before interest, taxes, depreciation and amortization, excluding items that management does not consider representative of the fundamental segment results. We have the following comments in this regard:
- You indicate that a reconciliation of adjusted EBITDA from segment EBIT for the second quarter of fiscal year 2016 is provided on the investor portion of your website. Please revise future filings to include a reconciliation to your most directly comparable GAAP measure and ensure this reconciliation is included in your filing; and
 - Under the caption, Cash Performance, you state that you generated adjusted EBITDA of \$117 million during the second quarter of fiscal 2016. Based on the inclusion of this information in your discussion of cash performance, it appears that you also use this measure as a liquidity measure. If so, please provide all the disclosures required by Item 10(e)(1)(i)(A),(B) and (C) in future filings.

Table 1: Detail of Certain Items

Table 4: Reconciliation of Operating Tax Rate

Table 5: Reconciliation of Adjusted EPS by Quarter Fiscal 2016 and Fiscal 2015

8. We note that your presentations of certain items include the tax impact of these items without a clear explanation for how the tax effect is calculated. These presentations may be inconsistent with the updated Compliance and Disclosure Interpretations issued on May 17, 2016. Please review this guidance when preparing your next earnings release.

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9. Please explain the nature of the discrete tax-related certain items.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or Jeanne Baker, Assistant Chief Accountant, at (202) 551-3691 with any questions.

Sincerely,

/s/ John Cash

John Cash
Accounting Branch Chief
Office of Manufacturing and
Construction