



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4631

April 15, 2010

Via U.S. Mail

Joanne Moffic-Silver
Executive Vice President and General Counsel
CBOE Holdings, Inc.
400 South LaSalle Street
Chicago, IL 60605

**Re: CBOE Holdings, Inc.
Amendment No. 6 to Registration Statement on Form S-4
Filed April 12, 2010
File No. 333-140574**

**Amendment No. 1 to Registration Statement on Form S-1
Filed April 12, 2010
File No. 333-165393**

Dear Ms. Moffic-Silver:

We have reviewed your filings and have the following comments.

Amendment No. 6 to Registration Statement on Form S-4

Summary Consolidated Financial Data, page 16

Selected Financial Data, page 74

Consolidated Statements of Operations

1. We note your response to comment 22 in our letter dated April 7, 2010 and understand that you do not currently have a capital structure and therefore have not provided historical earnings per share. However, we also note that subsequent to the restructuring transaction you will have a capital structure. Therefore, it continues to appear to us that you should provide pro forma earnings per share data that retro-actively reflects the impact of the restructuring transaction similar to the presentation required for a stock split which appears to have been your intent based on your disclosures in prior amendments.

Risk Factors, page 17

2. We note your response to comment 26 in our letter dated April 7, 2010 and your new risk factor disclosure on page 20 of the prospectus. Please revise your risk factor disclosure to note, if true, that in certain circumstances the special dividend could be a taxable transaction for the recipients.

Unaudited Pro Forma Consolidated Financial Statements, page 36

3. We note your response to comment nine in our letter dated April 7, 2010. We are continuing to evaluate your response and will follow-up with you separately regarding this issue promptly.

Certain Relationships and Related Party Transactions, page 67

4. We note your response to comment 21 in our in our letter dated April 7, 2010. For registration statements filed pursuant to the Securities Act, Instruction 1 to Item 404 of Regulation S-K expands the period covered by Item 404(a) to include the registrant's last fiscal year and the two fiscal years preceding the registrant's last fiscal year. Accordingly, based on your previous disclosures, it appears that you should provide information about the autoquote service agreements. Please revise your disclosure accordingly.

Exhibit 8.1 Opinion of Schiff Hardin concerning certain tax issues

5. As counsel is providing a short-form opinion with respect to the material U.S. federal income tax consequences of the transaction, please have counsel state in its opinion that the tax discussion in the prospectus is counsel's opinion with respect to the transaction. Counsel's current disclosure in its opinion that the "statements in the Registration Statement under the caption "Material U.S. Federal Income Tax Consequences of the Restructuring Transaction and the Post-Restructuring Special Dividend," . . . accurately summarize (subject to the qualifications contained therein) in all material respects the material United States federal tax laws referred to therein" is not sufficient.
6. On page 2 of its opinion, counsel states "[w]e assume no responsibility to inform you of any such change or inaccuracy that may occur or come to our attention." Please have counsel revise its opinion to eliminate this statement, as under certain circumstances the registrant and counsel may have an obligation to update their disclosures.
7. Please have counsel revise its opinion to expressly consent to the discussion of its opinion in the prospectus. Please refer to Rule 436(a) under the Securities Act of 1933, as amended.

Amendment No. 1 to Registration Statement on Form S-1

General

8. To the extent that any of the comments above regarding the registration statement on Form S-4 concern information that is also in the registration statement on Form S-1, please treat those comments as applying to the registration statement on Form S-1 as well and revise that registration statement accordingly.

Principal and Selling Stockholders, page 144

9. We note your response to comment five in our in our letter dated April 7, 2010. Please revise your disclosure in the "Principal and Selling Stockholders" section to include the information contained in your response.

As appropriate, please amend your registration statements in response to these comments. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your amendments that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendments and responses to our comments.

You may contact Bret Johnson, staff accountant, at (202) 551-3753 or Anne McConnell, staff accountant, at (202) 551-3709 if you have questions regarding comments on the financial statements and related matters. Please contact Dieter King, staff attorney, at (202) 551-3338 or me at (202) 551-3760 with any other questions.

Sincerely,

Pamela Long
Assistant Director

cc: Richard T. Miller, Esq. (Via Facsimile 312-258-5600)
David McCarthy, Esq. (Via Facsimile 312-258-5600)