



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4631

April 7, 2010

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

**Re: CBOE Holdings, Inc.
Registration Statement on Form S-1
Filed March 11, 2010
File No. 333-165393**

**Amendment No. 5 to Registration Statement on Form S-4
Filed March 11, 2010
File No. 333-140574**

Dear Ms. Moffic-Silver:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Registration Statement on Form S-1

General

1. Please add to the registration statement all the information currently omitted that is not subject to Rule 430A under the Securities Act of 1933, as amended. Please note that we will need adequate time to review this information once it is provided.

2. Please note that we may have comments on the legal opinion and other exhibits once they are filed. Please note that we will need adequate time to review these materials before we will entertain a request to accelerate the effectiveness of the registration statement.
3. Prior to the effectiveness of the registration statement, please arrange to have FINRA call us or provide us with a letter indicating that FINRA has cleared the underwriting arrangements for the offering.

Prospectus Cover Page

4. Please delete the reference to “Global Coordinator.” This designation is not required by Item 501 of Regulation S-K, conflicts with plain English principles and is not material to an investment decision. If you wish to continue to use this designation, please limit its use to the “Plan of Distribution” section.
5. Your cover page and other disclosures appear to contemplate that selling shareholders will offer some number of shares of unrestricted common stock in the offering. However, your discussion of the restructuring suggests that the only other shares you will have outstanding at the time of the offering are shares of Class A or Class B common stock, which convert immediately thereafter into shares of Class A-1 or Class A-2 common stock and are then subject to transfer restrictions for 180 or 360 days. The only holders of restricted stock appear to be officers, directors and employees of CBOE Holdings who will receive those shares after the restructuring, subject to vesting. Please tell us supplementally who the selling shareholders will be and what shares they will be offering in this transaction.

Prospectus Summary, page 1

The Offering, page 6

6. Based on the disclosed conversion terms, it is not clear to us how the number of shares of Class A-1 common stock and Class A-2 common stock that will result from the automatic conversions of Class A common stock and Class B common stock were determined. Please clarify or revise here and throughout the filing.

Our Structure, page 29

Tender Offers, page 31

7. Please revise your disclosure to provide a brief explanation of the intended purpose of the tender offers.

Use of Proceeds, page 32

8. Please disclose here, as you do on page 31, that you anticipate that the aggregate dollar amount of the two tender offers, if fully subscribed, would “roughly approximate” the net proceeds from your initial offering.

Unaudited Pro Forma Consolidated Financial Statements, page 36

9. Please disclose and discuss your proposed accounting for the restructuring transaction and settlement agreement, including the accounting literature you are relying on.

Unaudited Pro Forma Consolidated Balance Sheet, page 38

10. Please present a subtotal column after the accrual of the proposed dividend but before the receipt of offering proceeds.

Unaudited Pro Forma Consolidated Statement of Income, page 39

11. Based on your intention to declare a dividend, please explain to us what consideration you have given to presenting supplemental pro forma earnings per share data that gives effect to the number of shares whose proceeds will be necessary to pay the dividend.

Notes to Unaudited Pro Forma Consolidated Financial Statements, page 40

12. Refer to balance sheet note (e). Please clarify here and throughout the filing if there are limits as to the minimum or maximum number of shares that may be subject to the tender offers. Please address the impact on the pro forma financial statements if more or less shares are tendered.
13. Refer to statement of income note (c). Please quantify and disclose the impact of a 1/8 rate variance in interest rates.

Management, page 108

Executive Officers and Directors, page 109

Directors, page 113

14. Please disclose whether, and if so how, your nominating committee considers diversity in identifying nominees for director.

Compensation of Executive Officers and Directors, page 124

Compensation Discussion and Analysis, page 126

Elements of Compensation, page 129

Base Salary, page 129

15. Please disclose where the 2009 base salaries for your named executive officers fell with respect to the median of the range of base salaries at the peer group companies that you identify.

Annual Incentives, page 129

16. Please revise your disclosure to describe the types of corporate financial and operational goals and individual annual performance objectives that were considered in connection with the determination of the annual incentive payments for 2009.
17. Please disclose how your compensation committee used the peer group competitive pay and performance data it received from your outside compensation consultant in
18. We note that the annual incentive payments for 2009 were discretionary. Please disclose the factors that your compensation committee considered for each named executive officer when exercising its discretion to award and determine the amount of the 2009 annual incentive payment for each such officer. If the committee attached more or less significance to any of the factors, please disclose this, too.

Stock Ownership Requirements, page 130

19. Please disclose whether your executive officers and non-employee directors would currently satisfy your stock ownership requirements.

Risk Assessment, page 137

20. We note your disclosure in response to Item 402(s) of Regulation S-K that your compensation policies and practices do not motivate imprudent risk taking. Please describe for us the process you undertook to reach this conclusion. Please note that you do not need to revise your disclosure in response to this comment.

Relationships and Related Party Transactions, page 140

21. Please disclose the approximate dollar value of the amount involved in the transactions concerning the autoquote services agreements. Please refer to Item 404(a) of Regulation S-K.

Consolidated Financial Statements

Consolidated Statements of Operations, page F-3

22. Please explain to us what consideration you have given to presenting pro forma earnings per share data that retro-actively reflects your capital structure subsequent to the restructuring transaction and settlement agreement for each period or for the most recent fiscal year similar to other changes in capital structure noted in SAB Topic 4:C. Pro forma share disclosures should also be presented in Summary Consolidated Financial Data and Selected Financial Data.

Consolidated Balance Sheets, page F-4

23. We note your intention to declare a dividend subsequent to the balance sheet date that will be significant to your reported equity. Based on this intention, please present a pro-forma balance sheet alongside your historical balance sheet that reflects the distribution accrual.

Amendment No. 5 to Registration Statement on Form S-4

General

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

Summary, page 3

Exercise Right Settlement Agreement, page 9

25. Please revise your disclosure to clarify that the issuance of securities to the Participating Group A Settlement Class Members is not covered by this registration statement and instead is an exempt transaction pursuant to Section 3(a)(10) of the Securities Act of 1933, as amended.

Risk Factors, page 17

26. Please revise your risk factor disclosure to address the risks associated with the uncertainties that counsel identifies in your tax disclosure beginning on page 181.

Material U.S. Federal Income Tax Consequences of the Restructuring Transaction and the Post-Restructuring Special Dividend, page 181

27. We note your disclosure that the Internal Revenue Service might disagree with counsel's opinion as to the tax treatment of the dividend to be paid to former CBOE members immediately after the merger. Please revise your disclosure to describe the degree of uncertainty surrounding whether the dividend to be paid to former CBOE members immediately after the merger should qualify as a distribution within the meaning of Section 301 of the Internal Revenue Code.

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.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statements, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

Joanne Moffic-Silver
CBOE Holdings, Inc.
April 7, 2010
Page 7

We will consider a written request for acceleration of the effective date of the registration statements as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

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)