



DIVISION OF
CORPORATION FINANCE

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

August 13, 2012

Via E-mail

Mr. Alan J. Dean

Executive Vice President, Chief Financial Officer and Treasurer

CBOE Holdings, Inc.

400 South LaSalle Street

Chicago, IL 60605

Re: CBOE Holdings, Inc.
Form 10-K for the fiscal year ended December 31, 2011
Filed February 28, 2012
File No. 001-34774

Dear Mr. Dean:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 rules require.

Sincerely,

/s/ Michael McTiernan

Michael McTiernan
Assistant Director