

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

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section  
30(h) of the Investment Company Act of 1940

OMB Number: 3235-0287

Expires: January 31, 2005

Estimated average burden hours per response... 0.5

1. Name and Address of Reporting Person \*  
Londergan Benjamin R

2. Issuer Name **and** Ticker or Trading Symbol  
CBOE Holdings, Inc. [CBOE]

### 5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

C/O CBOE HOLDINGS, INC., 400  
SOUTH LASALLE STREET

3. Date of Earliest Transaction  
(Month/Day/Year)  
05/09/2011

\_\_\_X\_\_\_ Director                      \_\_\_\_\_ 10% Owner  
 \_\_\_\_\_ Officer (give title \_\_\_\_\_ Other (specify  
 below)                                      below)

(Street)

4. If Amendment, Date Original  
Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)

CHICAGO, IL 60605

☒ Form filed by One Reporting Person  
☐ Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D) Price			
Unrestricted Common Stock	05/09/2011		S <sup>(1)</sup>		3,000	D \$ 26.21 <sup>(2)</sup>	27,000 <sup>(3)</sup>	I	By Group One Trading, L.P.
Unrestricted Common Stock							7,547	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control**

SEC 1474  
(9-02)

number.

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Own Follo Repor Trans (Instr
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Londergan Benjamin R C/O CBOE HOLDINGS, INC. 400 SOUTH LASALLE STREET CHICAGO, IL 60605	X			

## Signatures

/s/ Patrick Sexton,  
attorney-in-fact

05/11/2011

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) The sales reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by Group One Trading, L.P.

The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$26.16 to \$26.39, inclusive. The reporting person undertakes to provide to CBOE Holdings, Inc., any security holder of CBOE Holdings, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in this footnote.

(3) Reflects shares owned by Group One Trading, L.P. Mr. Londergan is chief executive officer of Group One Trading, L.P. Mr. Londergan disclaims beneficial ownership of those shares in which he does not have a pecuniary interest.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.