Birnbaum Robert J Form 3 June 14, 2010

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

OMB APPROVAL

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INITIAL STATEMENT OF 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

(Print or Type Responses)

1. Name and Address of Reporting

Person *

A Birnbaum Robert J

(Last)

(First)

(Middle)

Statement

(Month/Day/Year)

06/14/2010

2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol

CBOE Holdings, Inc. [CBOE]

4. Relationship of Reporting Person(s) to Issuer

5. If Amendment, Date Original

Filed(Month/Day/Year)

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

STREET

(Street)

X Director 10% Owner Officer Other

(give title below) (specify below)

(Check all applicable)

6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting

Person

Form filed by More than One

Reporting Person

CHICAGO, ILÂ 60605

(City) (State) (Zip)

1. Title of Security (Instr. 4)

2. Amount of Securities Beneficially Owned

(Instr. 4)

3. Ownership Form:

Table I - Non-Derivative Securities Beneficially Owned

4. Nature of Indirect Beneficial

Ownership (Instr. 5)

Direct (D) or Indirect (I) (Instr. 5)

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

SEC 1473 (7-02)

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2. Date Exercisable and

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)

Expiration Date (Month/Day/Year)

Date

Exercisable

3. Title and Amount of Securities Underlying **Derivative Security**

5. Ownership Conversion or Exercise Form of

6. Nature of Indirect Beneficial Ownership (Instr. 5)

(Instr. 4)

Expiration Title Date

Amount or Number of

Price of Derivative Derivative Security: Security Direct (D)

1

Shares

or Indirect (I) (Instr. 5)

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Birnbaum Robert J

C/O CBOE HOLDINGS, INC. 400 SOUTH LASALLE STREET CHICAGO. ILÂ 60605

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Signatures

/s/ Patrick Sexton, attorney-in-fact 06/14/2010

**Signature of Reporting Person Date

Explanation of Responses:

No securities are beneficially owned

- * If the form is filed by more than one reporting person, see Instruction 5(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).

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Remarks:

Exhibit List: Exhibit 24 - Power of Attorney

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.

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