

Form 1 Page 1 Execution Page	U.S. SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549	Date filed (MM/DD/YY) <b>08/15/18</b>	OFFICIAL USE ONLY
<b>APPLICATION FOR, AND AMENDMENTS TO APPLICATION FOR, REGISTRATION AS A NATIONAL SECURITIES EXCHANGE OR EXEMPTION FROM REGISTRATION PURSUANT TO SECTION 5 OF THE EXCHANGE ACT</b>			

WARNING: Failure to keep this form current and to file accurate supplementary information on a timely basis, or the failure to keep accurate books and records or otherwise to comply with the provisions of law applying to the conduct of the applicant would violate the federal securities laws and may result in disciplinary, administrative or criminal action.

INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACTS  
MAY CONSTITUTE CRIMINAL VIOLATIONS

APPLICATION  AMENDMENT

1. State the name of the applicant: Cboe Exchange, Inc.
  2. Provide the applicant's primary street address (Do not use a P.O. Box):  
400 South LaSalle Street  
Chicago, Illinois 60605
  3. Provide the applicant's mailing address (if different):  
\_\_\_\_\_
  4. Provide the business telephone and facsimile number:  
(913) 815-7000 (Telephone) (913) 815-7119 (Facsimile)
  5. Provide the name, title and telephone number of a contact employee:  
Anders Franzon SVP, Deputy General Counsel, Cboe Exchange, Inc. (913) 815-7154  
(Name) (Title) (Telephone Number)
  6. Provide the name and address of counsel for the applicant:  
Pat Sexton  
400 S. LaSalle Street  
Chicago, IL 60605
  7. Provide the date that applicant's fiscal year ends: December 31
  8. Indicate legal status of the applicant:  Corporation  Sole Partnership  Partnership  
 Limited Liability Company  Other (specify): \_\_\_\_\_
- If other than a sole proprietor, indicate the date and place where applicant obtained its legal status (e.g. state where incorporated, place where partnership agreement was filed or where applicant entity was formed):  
(a) Date (MM/DD/YY): 11/01/07 (b) State/Country of formation: Delaware/United States of America  
(c) Statute under which applicant was organized: General Corporation Law of the State of Delaware

SEC Mail Processing  
AUG 17 2018  
Washington, DC



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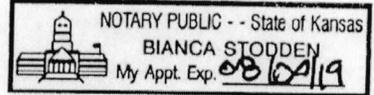
**EXECUTION:**

The applicant consents that service of any civil action brought by, or notice of any proceeding before, the Securities and Exchange Commission in connection with the applicant's activities may be given by registered or certified mail or confirmed telegram to the applicant's contact employee at the main address, or mailing address if different, given in Items 2 and 3. The undersigned, being first duly sworn, deposes and says that he/she has executed this form on behalf of, and with the authority of, said applicant. The undersigned and applicant represent that the information and statement contained herein, including exhibits, schedules, or other documents attached hereto, and other information filed herewith, all of which are made a part hereof, are current, true and complete.

Date: 08/15/18 (MM/DD/YY) Cboe Exchange, Inc. (Name of Applicant)  
By: [Signature] Anders Franzon SVP, Deputy General Counsel (Printed Name and Title)  
Subscribed and sworn before me this 15<sup>th</sup> day of August, 2018 by [Signature] (Notary Public)  
My Commission expires 08/04/19 County of Johnson State of Kansas

This page must always be completed in full with original, manual signature and notarization.  
Affix notary stamp or seal where applicable.

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August 15, 2018

**Via Federal Express**

Ms. Jeanette Marshall  
Securities and Exchange Commission  
Division of Trading and Markets  
100 F Street, N.E.  
Mail Stop 6628  
Washington, DC 20549-0001

SEC Mail Processing  
AUG 17 2018  
Washington, DC

Re: **Cboe Exchange, Inc.  
Form 1 Amendment**

Dear Jeanette:

On behalf of Cboe Exchange, Inc. (or the "Exchange"), and in connection with the Cboe Form 1 that is on file with the Securities and Exchange Commission ("Commission"), enclosed please find one original and two copies of the Execution Page to Form 1 as well as the following exhibits<sup>1</sup>:

- Exhibit C (updated to reflect list of Directors and Committee Members);
- Exhibit J (updated to reflect any changes in names, titles, positions or term commencement dates and types of business of Officers and Directors);
- Exhibit M (updated to provide a list of firms currently approved as members or other users of the Exchange)

This amendment is filed in accordance with SEC Rule 6a-2 and is intended to replace Exhibits C, J, & M currently on file with the Commission. Please do not hesitate to contact me if you have any questions or require anything further.

Sincerely,

Anders Franzon  
SVP, Deputy General Counsel

Enclosures

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<sup>1</sup> See Attachment for a comprehensive list of updates to Exhibits C & J.



## Attachment

### *Summary of changes made to Exhibit C:*

- Jill Griebenow (SVP & Chief Accounting Officer) was added as an officer to the following entities: Bats Global Markets Holdings, Inc., Cboe Bats, LLC, Cboe Building Corporation, Cboe BZX Exchange, Inc., Cboe BYX Exchange Inc., Cboe EDGA Exchange Inc., Cboe EDGX Exchange, Inc., Cboe C2 Exchange, Inc., Cboe Data Services, LLC, Cboe ETF.com, Inc., Cboe Futures Exchange, LLC, Cboe FX Holdings, LLC, Cboe FX Markets, LLC, Cboe FX Services, LLC, Cboe III, LLC, Cboe LiveVol, LLC, Cboe SEF, LLC, Cboe Silexx, LLC, Cboe Vest, LLC, Cboe, LLC, Digital Asset Benchmark Administration, LLC, Direct Edge LLC, Loan Markets, LLC, Omicron Acquisition Corp. **(effective 08/15/18)**
- Dave Reynolds was removed as an officer to the following entities: Bats Global Markets Holdings, Inc., Cboe Bats, LLC, Cboe Building Corporation, Cboe BZX Exchange, Inc., Cboe BYX Exchange Inc., Cboe EDGA Exchange Inc., Cboe EDGX Exchange, Inc., Cboe C2 Exchange, Inc., Cboe ETF.com, Inc., Cboe FX Holdings, LLC, Cboe FX Markets, LLC, Cboe FX Services, LLC, Cboe III, LLC, Cboe LiveVol, LLC, Cboe SEF, LLC, Cboe Silexx, LLC, Cboe Vest, LLC, Cboe, LLC, Digital Asset Benchmark Administration, LLC, Direct Edge LLC, Loan Markets, LLC, Omicron Acquisition Corp. **(effective 08/15/18)**

### *Summary of changes made to Exhibit J:*

- Jill Griebenow (SVP & Chief Accounting Officer) was added as an officer **(effective 08/15/18)**
- Dave Reynolds was removed as an officer **(effective 08/15/18)**

**Exhibit C**

**Exhibit Request:**

**For each subsidiary or affiliate of the applicant, and for any entity with whom the applicant has a contractual or other agreement relating to the operation of an electronic trading system to be used to effect transactions on the exchange (“System”), provide the following information:**

- 1. Name and address of organization.**
- 2. Form of organization (e.g., association, corporation, partnership, etc.).**
- 3. Name of state and statute citation under which organized. Date of incorporation in present form.**
- 4. Brief description of nature and extent of affiliation.**
- 5. Brief description of business or functions. Description should include responsibilities with respect to operation of the System and/or execution, reporting, clearance, or settlement of transactions in connection with operation of the System.**
- 6. A copy of the constitution.**
- 7. A copy of the articles of incorporation or association including all amendments.**
- 8. A copy of existing by-laws or corresponding rules or instruments.**
- 9. The name and title of the present officers, governors, members of all standing committees or persons performing similar functions.**
- 10. An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association.**

**Response: Please see below responses for the following entities:**

**A. Bats Global Markets Holdings, Inc.**

1. *Name:* Bats Global Markets Holdings, Inc.  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on June 29, 2007.
4. *Brief description of nature and extent of affiliation:* Cboe Bats, LLC owns 100% of the membership interests of Bats Global Markets Holdings, Inc. Bats Global Markets Holdings, Inc. is the Exchange's 100% owner.
5. *Brief description of business or functions:* Bats Global Markets Holdings, Inc. is an intermediate holding company.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Bryan Harkins (Vice President)
- Chris Isaacson (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**B. Direct Edge LLC**

1. *Name:* Direct Edge LLC  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Delaware under Section 201 of the Limited Liability Company Act of the State of Delaware on December 31, 2014. Was converted from Direct Edge, Inc., a Delaware corporation, on December 31, 2014.
4. *Brief description of nature and extent of affiliation:* Cboe Bats, LLC owns 100% of the membership interests of Direct Edge LLC.
5. *Brief description of business or functions:* Direct Edge LLC is an intermediate holding company. Direct Edge LLC is the sole shareholder of Cboe EDGA Exchange, Inc. and Cboe EDGX Exchange, Inc.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws or corresponding rules or instruments:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- None

Current Officers

- Ed Tilly (Chief Executive Officer)
  - Chris Concannon (President)
  - Jill Griebenow (Senior Vice President & Chief Accounting Officer)
  - Bryan Harkins (Vice President)
  - Chris Isaacson (Vice President)
  - Derick Shupe (Vice President)
  - Brian Schell (Treasurer)
  - J. Patrick Sexton (Secretary)
10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**C. Cboe BZX Exchange, Inc.**

1. *Name:* Cboe BZX Exchange, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on November 1, 2007.
4. *Brief description of nature and extent of affiliation:* Cboe BZX Exchange, Inc. is wholly-owned by Bats Global Markets Holdings, Inc., which is also the Exchange's 100% owner.
5. *Brief description of business or functions:* Cboe BZX Exchange, Inc. operates as a registered national securities exchange pursuant to Section 6 of the Act.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and COO)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
- Gary Compton (VP, Corporate Communications)
- Jeff Connell (VP, Deputy Chief Regulatory Officer)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- Eric Crampton (SVP, Software Engineer)
- John Deters (EVP, Chief Strategy Officer & Head Corp Initiative)
- Laura Dickman (VP, Associate General Counsel)
- James Enstrom (VP, & Chief Audit Exec)
- Eric Frait (VP, Business Analysis)
- Anders Franzon (SVP & Deputy General Counsel)
- Todd Furney (VP, Chief Risk Officer)
- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebnow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of US Equities & Global FX)
- Mark Hemsley (EVP, President Europe)
- Gregory Hoogasian (SVP, CRO)
- Chris Isaacson (EVP, CIO)
- Jennifer Lamie (VP, Chief Regulatory Advisor)
- Stephanie Marrin Lara (VP, Deputy Chief Reg Officer)
- William Looney (VP, Advancement & Strategy, Index Options)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Marc Magrini (VP, Administration)
- Anthony Montesano (VP, TSD and Registration)
- Laura Morrison (SVP, ETP Listings)
- Mark Novak (VP, CTO Development)
- Arthur Reinstein (SVP & Deputy General Counsel)
- Bradley Samuels (VP, Systems Development)
- Brian Schell (VP, CFO, & Treasurer)
- Curt Schumacher (VP, CTO Operations)
- Derick Shupe (VP, Controller)
- J. Patrick Sexton (Executive Vice President, General Counsel & Corporate Secretary)
- Steven Sinclair (VP, Systems Development)
- Eileen Smith (VP, Systems Planning)
- William Speth (VP, Research & Product Development)
- Paul Stephens (VP, Global Client Services)
- Michael Todorofsky (VP, US Market Operations)
- Michael Trees (VP, Trading Sys Develop.)
- Aaron Weissenfluh (VP, CISO)
- Troy Yeazel (SVP, Operations)
- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)

Standing Committees

Executive Committee

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner
- Bruce Andrews
- David Roscoe

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**D. Cboe BYX Exchange, Inc.**

1. *Name:* Cboe BYX Exchange, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on July 31, 2009.
4. *Brief description of nature and extent of affiliation:* Cboe BYX Exchange, Inc. is wholly-owned by Bats Global Markets Holdings, Inc., which is also the Exchange's 100% owner.
5. *Brief description of business or functions:* Cboe BYX Exchange, Inc. operates as a registered national securities exchange pursuant to Section 6 of the Act.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and COO)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
- Gary Compton (VP, Corporate Communications)
- Jeff Connell (VP, Deputy Chief Regulatory Officer)

- Eric Crampton (SVP, Software Engineer)
- John Deters (EVP, Chief Strategy Officer & Head Corp Initiative)
- Laura Dickman (VP, Associate General Counsel)
- James Enstrom (VP, & Chief Audit Exec)
- Eric Frait (VP, Business Analysis)
- Anders Franzon (SVP & Deputy General Counsel)
- Todd Furney (VP, Chief Risk Officer)
- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebnow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of US Equities & Global FX)
- Mark Hemsley (EVP, President Europe)
- Gregory Hoogasian (SVP, CRO)
- Chris Isaacson (EVP, CIO)
- Jennifer Lamie (VP, Chief Regulatory Advisor)
- Stephanie Marrin Lara (VP, Deputy Chief Reg Officer)
- William Looney (VP, Advancement & Strategy, Index Options)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Marc Magrini (VP, Administration)
- Anthony Montesano (VP, TSD and Registration)
- Laura Morrison (SVP, ETP Listings)
- Mark Novak (VP, CTO Development)
- Arthur Reinstein (SVP & Deputy General Counsel)
- Bradley Samuels (VP, Systems Development)
- Brian Schell (VP, CFO, & Treasurer)
- Curt Schumacher (VP, CTO Operations)
- Derick Shupe (VP, Controller)
- J. Patrick Sexton (Executive Vice President, General Counsel & Corporate Secretary)
- Steven Sinclair (VP, Systems Development)
- Eileen Smith (VP, Systems Planning)
- William Speth (VP, Research & Product Development)
- Paul Stephens (VP, Global Client Services)
- Michael Todorofsky (VP, US Market Operations)
- Michael Trees (VP, Trading Sys Develop.)
- Aaron Weissenfluh (VP, CISO)
- Troy Yeazel (SVP, Operations)
- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)

Standing Committees

Executive Committee

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner
- Bruce Andrews
- David Roscoe

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**E. Cboe EDGA Exchange, Inc.**

1. *Name:* Cboe EDGA Exchange, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Delaware under the General Corporation Law of the State of Delaware on March 9, 2009.
4. *Brief description of nature and extent of affiliation:* Cboe EDGA Exchange, Inc. is an indirect wholly-owned subsidiary of Cboe Global Markets, Inc., the Exchange's ultimate parent.
5. *Brief description of business or functions:* Cboe EDGA Exchange, Inc. operates a registered national securities exchange pursuant to Section 6 of the Act.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and COO)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
- Gary Compton (VP, Corporate Communications)
- Jeff Connell (VP, Deputy Chief Regulatory Officer)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- Eric Crampton (SVP, Software Engineer)
- John Deters (EVP, Chief Strategy Officer & Head Corp Initiative)
- Laura Dickman (VP, Associate General Counsel)
- James Enstrom (VP, & Chief Audit Exec)
- Eric Frait (VP, Business Analysis)
- Anders Franzon (SVP & Deputy General Counsel)
- Todd Furney (VP, Chief Risk Officer)
- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebnow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of US Equities & Global FX)
- Mark Hemsley (EVP, President Europe)
- Gregory Hoogasian (SVP, CRO)
- Chris Isaacson (EVP, CIO)
- Jennifer Lamie (VP, Chief Regulatory Advisor)
- Stephanie Marrin Lara (VP, Deputy Chief Reg Officer)
- William Looney (VP, Advancement & Strategy, Index Options)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Marc Magrini (VP, Administration)
- Anthony Montesano (VP, TSD and Registration)
- Laura Morrison (SVP, ETP Listings)
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- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)

Standing Committees

Executive Committee

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner
- Bruce Andrews
- David Roscoe

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year: Not applicable.*

**F. Cboe EDGX Exchange, Inc.**

1. *Name:* Cboe EDGX Exchange, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Delaware under the General Corporation Law of the State of Delaware on March 9, 2009.
4. *Brief description of nature and extent of affiliation:* Cboe EDGX Exchange, Inc. is an indirect wholly-owned subsidiary of Cboe Global Markets, Inc., the Exchange's ultimate parent.
5. *Brief description of business or functions:* Cboe EDGX Exchange, Inc. operates a registered national securities exchange pursuant to Section 6 of the Act.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and COO)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
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- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebnow (SVP & Chief Accounting Officer)
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- Mark Hemsley (EVP, President Europe)
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- William Speth (VP, Research & Product Development)
- Paul Stephens (VP, Global Client Services)
- Michael Todorofsky (VP, US Market Operations)
- Michael Trees (VP, Trading Sys Develop.)
- Aaron Weissenfluh (VP, CISO)
- Troy Yeazel (SVP, Operations)
- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)

Standing Committees

Executive Committee

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner
- Bruce Andrews
- David Roscoe

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**G. Cboe C2 Exchange, Inc.**

1. *Name:* Cboe C2 Exchange, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), July 21, 2009.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe C2 Exchange, Inc. is a registered national securities exchange.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and COO)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
- Gary Compton (VP, Corporate Communications)
- Jeff Connell (VP, Deputy Chief Regulatory Officer)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

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- Anders Franzon (SVP & Deputy General Counsel)
- Todd Furney (VP, Chief Risk Officer)
- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebnow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of US Equities & Global FX)
- Mark Hemsley (EVP, President Europe)
- Gregory Hoogasian (SVP, CRO)
- Chris Isaacson (EVP, CIO)
- Jennifer Lamie (VP, Chief Regulatory Advisor)
- Stephanie Marrin Lara (VP, Deputy Chief Reg Officer)
- William Looney (VP, Advancement & Strategy, Index Options)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Marc Magrini (VP, Administration)
- Anthony Montesano (VP, TSD and Registration)
- Laura Morrison (SVP, ETP Listings)
- Mark Novak (VP, CTO Development)
- Arthur Reinstein (SVP & Deputy General Counsel)
- Bradley Samuels (VP, Systems Development)
- Brian Schell (VP, CFO, & Treasurer)
- Curt Schumacher (VP, CTO Operations)
- Derick Shupe (VP, Controller)
- J. Patrick Sexton (Executive Vice President, General Counsel & Corporate Secretary)
- Steven Sinclair (VP, Systems Development)
- Eileen Smith (VP, Systems Planning)
- William Speth (VP, Research & Product Development)
- Paul Stephens (VP, Global Client Services)
- Michael Todorofsky (VP, US Market Operations)
- Michael Trees (VP, Trading Sys Develop.)
- Aaron Weissenfluh (VP, CISO)
- Troy Yeazel (SVP, Operations)
- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)

Standing Committees

Executive Committee

- Ed Tilly
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner
- Bruce Andrews
- David Roscoe

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**H. Cboe Trading, Inc.**

1. *Name:* Cboe Trading, Inc.  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on June 16, 2005.
4. *Brief description of nature and extent of affiliation:* Cboe Trading, Inc. is wholly-owned by Bats Global Markets Holdings, Inc., which is also the Exchange's 100% owner.
5. *Brief description of business or functions:* Cboe Trading, Inc. is a broker-dealer registered as such with the Securities and Exchange Commission and a member of the Financial Industry Regulatory Authority and other self-regulatory organizations. Cboe Trading, Inc. provides routing of orders from the Exchange Cboe BYX Exchange, Inc., Cboe EDGA Exchange, Inc. and Cboe EDGX Exchange, Inc. to other securities exchanges, facilities of securities exchanges, automated trading systems, electronic communication networks or other broker-dealers.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Chris Concannon
- Chris Isaacson
- Brian Schell

Current Officers

- Troy Yeazel (President)
- Anders Franzon (Secretary)
- Bryan Upp (Chief Compliance Officer)
- Derick Shupe (FINOP, Treasurer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**I. Omicron Acquisition Corp.**

1. *Name:* Omicron Acquisition Corp.  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on February 7, 2011.
4. *Brief description of nature and extent of affiliation:* Omicron Acquisition Corp. is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Omicron Acquisition Corp. is an intermediate holding company of Cboe Worldwide Holdings Limited.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Mark Hemsley

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Mark Hemsley (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**J. Cboe FX Holdings, LLC**

1. *Name:* Cboe FX Holdings, LLC  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Delaware under Section 201 of the Limited Liability Company Act of the State of Delaware on May 15, 2000.
4. *Brief description of nature and extent of affiliation:* Cboe FX Holdings, LLC is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe FX Holdings, LLC is an intermediate holding company of Cboe FX Markets, LLC, Cboe FX Services, LLC, Cboe SEF, LLC, and Bats Hotspot IB LLC.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- None

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Bryan Harkins (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**K. Cboe FX Markets, LLC**

1. *Name:* Cboe FX Markets, LLC  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in New Jersey under Section 42 of the Limited Liability Company Act of the State of New Jersey on August 7, 2001.
4. *Brief description of nature and extent of affiliation:* Cboe FX Markets, LLC is wholly-owned by Cboe FX Holdings, LLC, which is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe FX Markets, LLC operates an institutional spot foreign exchange market.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- None

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- John Deters (EVP, Chief Strategy Officer and Head of Corporate Initiatives)
- Jill Griebenow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of U.S. Equities and Global FX)
- Mark Hemsley (EVP, President Europe)
- Chris Isaacson (EVP, CIO)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Alexandra Albright (Chief Compliance Officer)
- Barry Calder (Head of Liquidity)
- Sean Cleary (VP, Sales FX)
- James Enstrom (VP, Chief Audit Executive)
- Todd Furney (Chief Risk Officer)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- Greg Hoogasian (SVP, Chief Regulatory Officer)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- Stephanie Marrin Lara (Deputy Chief Regulatory Officer)
- Paul Reidy (VP, Cboe FX COO)
- Lisa Shemie (VP, Associate General Counsel and Chief Legal Officer)
- Derick Shupe (VP, Controller)
- Aaron Weissenfluh (VP, CISO)
- Brian Schell (EVP, CFO and Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**L. Cboe FX Services, LLC**

1. *Name:* Cboe FX Services, LLC  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in New Jersey under Section 42 of the Limited Liability Company Act of the State of New Jersey on November 22, 2004.
4. *Brief description of nature and extent of affiliation:* Cboe FX Services, LLC is wholly-owned by Cboe FX Holdings, LLC, which is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe FX Services, LLC operates an institutional spot foreign exchange market.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- None

Current Officers

- Ed Tilly (Chief Executive Officer)
  - Chris Concannon (President)
  - Jill Griebenow (Senior Vice President & Chief Accounting Officer)
  - Bryan Harkins (Vice President)
  - Derick Shupe (Vice President)
  - Brian Schell (Treasurer)
  - J. Patrick Sexton (Secretary)
10. Indication of whether such business or organization ceased to be associated with the applicant during previous year: Not applicable.

**M. Cboe International Holdings Limited**

1. *Name:* Cboe International Holdings Limited  
*Address:* 11 Monument Street, London, EC3R 8AF, United Kingdom
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in England and Wales under the Companies Act 1985 on February 5, 2015.
4. *Brief description of nature and extent of affiliation:* Cboe International Holdings Limited is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe International Holdings Limited is a holding company of Cboe FX Europe Limited, Cboe FX Asia PTE. Limited, and IndexPubs S.A.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Mark Hemsley

Current Officers

- Antonio Amelia (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**N. Cboe FX Europe Limited**

1. *Name:* Cboe FX Europe Limited  
*Address:* 11 Monument Street, London, EC3R 8AF, United Kingdom
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in England and Wales under the Companies Act 1985 on February 5, 2015.
4. *Brief description of nature and extent of affiliation:* Cboe FX Europe Limited is wholly-owned by Cboe International Holdings Limited which is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe FX Europe Limited operates an institutional spot foreign exchange market.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Mark Hemsley

Current Officers

- Antonio Amelia (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**O. Cboe FX Asia Pte. Limited**

1. *Name:* Cboe FX Asia Pte. Limited  
*Address:* 16 Collyer Quay, #2104, Sixteen Collyer Quay, Singapore (049318)
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Singapore under the Companies Act (Cap. 50) on February 23, 2015.
4. *Brief description of nature and extent of affiliation:* Cboe FX Asia Pte. Limited is wholly-owned by Cboe International Holdings Limited which is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe FX Asia Pte. Limited operates an institutional spot foreign exchange market.
6. *Copy of constitution:* No changes.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Chris Concannon
- Ng Lip Chih

Current Officers

- Chris Concannon (President)
- Pek Lay Pheng (Secretary)
- Lai Jek Ping (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**P. Cboe Europe Limited**

1. *Name:* Cboe Europe Limited  
*Address:* 11 Monument Street, London, EC3R 8AF, United Kingdom
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in England and Wales under the Companies Act 1985 on March 28, 2008.
4. *Brief description of nature and extent of affiliation:* Cboe Europe Limited is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe Europe Limited is recognized as a Recognized Investment Exchange in the United Kingdom under the Financial Services and Markets Act 2000 (“FSMA”). It operates a platform for trading of European equity securities.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- John Woodman
- Mark Hemsley
- Adam Eades
- Richard Balarkas
- Rebecca Fuller
- Julian Corner
- Kristian West
- Ted Hood

Current Officers

- Mark Hemsley (Chief Executive Officer)
- Antonio Amelia (Secretary)
- Jill Griebenow (CFO)
- Adam Eades (Chief Legal and Regulatory Officer)
- Jerry Avenell (Co-Head Sales)
- Alex Dalley (Co-Head Sales)
- Guy Simpkin (Head of Business Development)
- David Howson (COO)

Standing Committees

Audit, Risk and Compliance Committee

- Ted Hood
- Rebecca Fuller
- Richard Balarkas

Remuneration Committee

- John Woodman
- Rebecca Fuller
- Kristian West

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**Q. Cboe Chi-X Europe Limited**

1. *Name:* Cboe Chi-X Europe Limited  
*Address:* 10 Lower Thames Street, 6<sup>th</sup> Floor, London, UK EC3R 6AF
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in England and Wales.
4. *Brief description of nature and extent of affiliation:* Cboe Chi-X Europe Limited is wholly-owned by Cboe Europe Limited which, in turn, is indirectly wholly owned by Bats Global Markets, Inc.
5. *Brief description of business or functions:* Cboe Chi-X Europe Limited is authorized in the United Kingdom under the Financial Services and Markets Act 2000 (“FSMA”), as an investment firm. Between April 30, 2012 and May 20, 2013 it was a dormant company. Since May 20, 2013, Cboe Chi-X Europe Limited operates the smart order router that is needed for the routing strategies deployed by Cboe Europe Limited.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Mark Hemsley
- Adam Eades
- John Woodman

Current Officers

- John Woodman (Chairman)
- Mark Hemsley (Chief Executive Officer)
- Antonio Amelia (Secretary)
- Jill Griebenow (CFO)
- Adam Eades (Chief Legal and Regulatory Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**R. Cboe ETF.com, Inc.**

1. *Name:* Cboe ETF.com, Inc.  
*Address:* 8050 Marshall Dr., Ste. 120, Lenexa, KS 66214
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Delaware under Section 101 of the General Corporation Law of the State of Delaware on March 28, 2016.
4. *Brief description of nature and extent of affiliation:* Cboe ETF.com, Inc. is wholly-owned by Bats Global Markets Holdings, Inc., which is also the Exchange's 100% owner.
5. *Brief description of business or functions:* Cboe ETF.com, Inc. is a media company providing ETF data, news and analysis.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Dave Nadig (Senior Director)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Bryan Harkins (Vice President)
- Chris Isaacson (Vice President)
- Stephanie Klein (Vice President)
- Laura Morrison (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**S. IndexPubs S.A.**

1. *Name:* IndexPubs S.A.  
*Address:* Almagro Plaza, Ste. 508, Pedro Ponce Carrasco, E8-06 y Diego de Almagro, 170516 – Quito, Ecuador
2. *Form of organization:* Corporation (Soceidad Anonima or S.A.).
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in Ecuador on January 15, 2008.
4. *Brief description of nature and extent of affiliation:* IndexPubs S.A. is owned 0.1% by Fernando Rivera and 99.9% by Cboe International Holdings Limited which is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* IndexPubs S.A. is a media company providing ETF data, news and analysis.
6. *Copy of constitution:* No changes.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

Current Officers

- Dave Nadig (President)
- Verónica Rocío Bravo (General Manager)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**T. Cboe SEF, LLC**

1. *Name:* Cboe SEF, LLC  
*Address:* 17 State Street, 31<sup>st</sup> Floor, New York, NY 10004
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Delaware under Section 201 of the Limited Liability Company Act of the State of Delaware on April 19, 2012.
4. *Brief description of nature and extent of affiliation:* Cboe SEF, LLC is wholly-owned by Cboe FX Holdings LLC, which is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe SEF, LLC is a swap execution facility registered with the Commodity Futures Trading Association, which will soon list non-deliverable foreign exchange forwards for trading.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and Chief Operating Officer)
- Alexandra Albright (Chief Compliance Officer)
- Sean Cleary (Vice President)
- John Deters (EVP, Chief Strategy Officer & Head of Corporate Initiatives)
- James Enstrom (Vice President & Chief Audit Executive)
- Todd Furney (Chief Risk Officer)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- Jill Griebenow (SVP & Chief Accounting Officer)
- Bryan Harkins (Executive Vice President, Head of U.S. Equities and Global FX)
- Mark Hemsley (Executive Vice President, President Europe)
- Gregory Hoogasian (Senior Vice President & Chief Regulatory Officer)
- Chris Isaacson (Executive Vice President & Chief Information Officer)
- Andrew Lowenthal (Executive Vice President, Head of Global Derivatives & CFE Senior Managing Director)
- Stephanie Marrin (Deputy Chief Regulatory Officer)
- Paul Reidy (Vice President)

- J. Patrick Sexton (Executive Vice President, General Counsel & Corporate Secretary)
- Brian Schell (Executive Vice President, Chief Financial Officer & Treasurer)
- Lisa Shemie (Vice President, Associate General Counsel & Cboe SEF Chief Legal Officer)
- Derick Shupe (Vice President and Controller)
- Aaron Weissenfluh (Vice President & Chief Information Security Officer)

Managers

- Chris Concannon
- Gilbert Bassett
- Michael Gorham
- James Parisi
- Jill Sommers

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

U. **Cboe Worldwide Holdings Limited**

1. *Name:* Cboe Worldwide Holdings Limited  
*Address:* 11 Monument Street, London, EC3R 8AF, United Kingdom
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:*  
Incorporated in England and Wales under the Companies Act 2006 on November 9, 2016.
4. *Brief description of nature and extent of affiliation:* Cboe Worldwide Holdings Limited is wholly-owned by Omicron Acquisition Corp., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Cboe Worldwide Holdings Limited is an intermediate holding company of Cboe Europe Limited, Cboe International Holdings Limited, Cboe Hong Kong Limited, and Cboe UK Limited.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Mark Hemsley

Current Officers

- Antonio Amelia (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

V. **Cboe Global Markets, Inc.**

1. *Name:* Cboe Global Markets, Inc.  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware General Corporation Law (8 Del. C. §101, et seq), August 15, 2006.
4. *Brief description of nature and extent of affiliation:* Cboe Bats, LLC is a wholly-owned subsidiary of Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Holding company.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Frank English
- William Farrow
- Edward Fitzpatrick
- Janet Froetscher
- Jill Goodman
- Roderick Palmore
- Joe Ratterman
- Michael Richter
- Carole Stone
- Eugene Sunshine
- Jill Sommers
- James Parisi

Current Officers

- Ed Tilly (Chairman and Chief Executive Officer)
- Chris Concannon (President and COO)
- Brian Schell (EVP, CFO and Treasurer)
- Chris Isaacson (EVP and CIO)
- Mark Hemsley (EVP, President Europe)
- J. Patrick Sexton (EVP, General Counsel and Corporate Secretary)

- Bryan Harkins (EVP, Equities and FX)
- Andrew Lowenthal (EVP, Global Derivatives)
- John Deters (EVP, Corporate Strategy and Multi-Asset Solutions)
- David Reynolds (VP and Chief Accounting Officer)
- Jill Griebenow (SVP & Chief Accounting Officer)

Compensation Committee

- Frank English
- Janet Froetscher
- Edward Fitzpatrick
- James Parisi

Audit Committee

- William Farrow
- Carole Stone
- Michael Richter
- James Parisi

Nominating and Governance Committee

- Frank English
- Jill Goodman
- Roderick Palmore
- Carole Stone
- Janet Froetscher

Finance and Strategy Committee

- Frank English
- Jill Goodman
- Joe Ratterman
- Roderick Palmore
- Jill Sommers

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**W. Cboe Futures Exchange, LLC**

1. *Name:* Cboe Futures Exchange, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
July 16, 2002.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe Futures Exchanges, LLC is a  
designated contract market (DCM) approved by the Commodity Futures Trading  
Commission in August 2003. Cboe Futures Exchange, LLC is a fully electronic  
futures exchange.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Chris Concannon
- Gilbert Bassett, Jr.
- Michael Gorham
- James Parisi
- Jill Sommers

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Alexandra Albright (Chief Compliance Officer)
- Lawrence Bresnahan (VP, Market & Member Reg.)
- Joseph Caauwe (Managing Director - CFE)
- Kevin Carrai (Vice President, Connectivity, Data & Member Services)
- John Deters (Executive Vice President, Chief Strategy Officer & Head of  
Corporate Initiatives)
- James Enstrom (Vice President & Chief Audit Executive)
- Todd Furney (Chief Risk Officer)

- David Gray (Senior Vice President, Global Client Services & CFE Managing Director)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Bryan Harkins (Executive Vice President, Head of U.S. Equities and Global FX)
- Mark Hemsley (Executive Vice President, President Europe)
- Gregory Hoogasian (Senior Vice President & Chief Regulatory Officer)
- Chris Isaacson (Executive Vice President, Chief Information Officer & CFE Senior Managing Director)
- Jennifer Lamie (Chief Regulatory Advisor)
- Stephanie Marrin Lara (Deputy Chief Reg Officer)
- Andrew Lowenthal (Executive Vice President, Head of Global Derivatives & CFE Senior Managing Director)
- Matthew McFarland (Head of CFE Business Operations and Strategy & CFE Managing Director)
- Arthur Reinstein (Senior Vice President, Deputy General Counsel & CFE Chief Legal Officer)
- David Reynolds (VP & Chief Accounting Officer)
- J. Patrick Sexton (Executive Vice President, General Counsel & Corporate Secretary)
- Brian Schell (Executive Vice President, Chief Financial Officer & Treasurer)
- Derick Shupe (Vice President and Controller)
- Aaron Weissenfluh (Vice President & Chief Information Security Officer)
- Troy Yeazel (Senior Vice President, U.S. Electronic Trading Operations and CFE Managing Director)

Standing Committees

Executive

- Chris Concannon
- Michael Gorham

Regulatory Oversight Committee

- Michael Gorham
- Gilbert Bassett
- James Parisi
- Jill Sommers

Trading Advisory Committee

- Jay Caauwe
- Kirk Bonniwell
- Zeke Charlesworth
- Michael Dennis
- Johan Drylewicz

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- Alex Gerko
- Josh Grant
- Douglas Schadewald
- Andrew Smith

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**X. CBOE Stock Exchange, LLC**

1. *Name:* CBOE Stock Exchange, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
July 31, 2006.
4. *Brief description of nature and extent of affiliation:* CBOE Stock Exchange, LLC  
is a 49.96%-owned subsidiary of Cboe Exchange, Inc.
5. *Brief description of business or functions:* CBOE Stock Exchange, LLC operated  
the CBOE Stock Exchange, which acted as a trading market for securities other  
than options as a facility of Cboe Exchange, Inc. CBOE Stock Exchange, LLC  
was approved by the SEC in March 2007. CBOE Stock Exchange, LLC ceased  
trading operations on April 30, 2014.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Alan Dean
- James Fitzgibbons
- Jaap Gelderloos
- Andrew Lowenthal
- Tom O'Mara
- Rick Oscher
- John Deters
- Dave Reynolds
- Eric Frait
- Steve Sosnick

Current Officers

- Angelo Evangelou (Secretary)

10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

**Y. Cboe Building Corporation**

1. *Name:* Cboe Building Corporation  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), August 8, 1980.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Owns facility used by Cboe Global Markets, Inc.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Brian Schell

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Jill Griebenow (SVP & Chief Accounting Officer)
- Marc Magrini (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**Z. Cboe, LLC**

1. *Name:* Cboe, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
August 22, 2001.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe, LLC is a limited liability  
company member of OneChicago, LLC.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Catherine Clay (Vice President)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

AA. Cboe III, LLC

1. *Name:* Cboe III, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
May 2, 2014.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Holding company for investment in  
Tradelegs, LLC.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- John Deters

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- John Deters (Vice President)
- Jill Griebnow (Senior Vice President & Chief Accounting Officer)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

**BB. Cboe Bats, LLC**

1. *Name:* Cboe Bats, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
September 25, 2016.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Holding company.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Brian Schell

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President and Chief Operating Officer)
- Alexandra Albright (VP, Market and Member Regulation)
- Rodney Burt (VP, Infrastructure)
- Kevin Carrai (VP, Connectivity, Data and Member Services)
- Bryan Christian (SVP, Sales US Equities)
- Paul Ciciora (VP, Systems Infrastructure)
- Catherine Clay (VP, Business Development)
- Sean Cleary (VP, Sales FX)
- Gary Compton (VP, Corporate Communications)
- Jeff Connell (VP, Deputy Chief Regulatory Officer)
- Eric Crampton (SVP, Software Engineering)
- Pamela Culpepper (Chief HR Officer)
- John Deters (EVP, Chief Strategy Officer and Head of Corporate Initiatives)
- Laura Dickman (VP, Associate General Counsel)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- James Enstrom (VP, Chief Audit Executive)
- Angelo Evangelou (SVP, Chief Policy Officer)
- Eric Frait (VP, Business Analysis)
- Anders Franzon (SVP, Deputy General Counsel)
- Carmen Frazier Brannan (VP, Government Relations)
- Todd Furney (VP, Chief Risk Officer)
- Alicia Goldberg (VP, Statistical Analysis)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation Officer)
- David Gray (SVP, Global Client Services)
- Jill Griebenow (SVP & Chief Accounting Officer)
- Bryan Harkins (EVP, Head of U.S. Equities and Global FX)
- Mark Hemsley (EVP, President Europe)
- Gregory Hoogasian (SVP, Chief Regulatory Officer)
- Chris Isaacson (EVP, Chief Information Officer)
- Carol Kennedy (VP, Chief Communications Officer)
- Stephanie Klein (VP, Chief Marketing Officer)
- Deborah Koopman (VP, Investor Relations)
- Jennifer Lamie (VP, Chief Regulatory Advisor)
- William Looney (VP, Advancement & Strategy, Index Options)
- Andrew Lowenthal (EVP, Head of Global Derivatives)
- Marc Magrini (VP, Administration)
- Stephanie Marrin Lara (VP, Deputy Chief Regulatory Officer)
- Anthony Montesano (VP, TSD and Registration)
- Laura Morrison (SVP, ETP Listings)
- Mark Novak (VP, CTO Development)
- Paul Reidy (VP, Cboe FX COO)
- Arthur Reinstein (SVP, Deputy General Counsel)
- Bradley Samuels (VP, Systems Development)
- Curt Schumacher (VP, CTO Operations)
- Lisa Shemie (VP, Associate General Counsel)
- Derick Shupe (VP, Controller)
- Steven Sinclair (VP, Systems Development)
- Eileen Smith (VP, Systems Planning)
- William Speth (SVP, Research and Product Development)
- Paul Stephens (VP, Global Client Services)
- Michael Todorofsky (VP, US Market Operations)
- Michael Trees (VP, Trading Systems Development)
- Aaron Weissenfluh (VP, CISO)
- Troy Yeazel (SVP, Operations)
- Vivian Yiu (VP, Product Strategy)
- Laura Zinanni (SVP, Deputy General Counsel)
- Brian Schell (EVP, Chief Financial Officer and Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

CC. Cboe Livevol, LLC

1. *Name:* Cboe Livevol, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
May 29, 2015.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe Livevol, LLC provides equity  
and index options technology for professional and retail traders, which includes  
options strategy backtesting, trade analysis and volatility modeling technologies  
and historical data.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Andrew Lowenthal
- John Deters
- Catherine Clay

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Catherine Clay (Vice President)
- John Deters (Vice President)
- James Enstrom (Vice President, Chief Audit Executive)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation  
Officer)
- Jill Griebnow (SVP, and Chief Accounting Officer)
- Chris Isaacson (Vice President)
- Andrew Lowenthal (Vice President)
- Derick Shupe (Vice President)
- Aaron Weissenfluh (Vice President, CISO)
- Brian Schell (Treasurer)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- J. Patrick Sexton (Secretary)
- Alexandra Albright (Chief Compliance Officer)
- Todd Furney (Chief Risk Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**DD. Cboe UK Limited**

1. *Name:* Cboe UK Limited  
*Address:* 11 Monument Street, London, EC3R 8AF, United Kingdom
2. *Form of organization:* Private Limited Company.
3. *Name of state, statute under which organized and date of incorporation:* England and Wales, Companies Act 2006, March 10, 2016.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Marketing and business development services.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*  
  
Current Directors
  - Dave Gray  
Current Officers
  - None
10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**EE. Cboe Vest, LLC**

1. *Name:* Cboe Vest, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
December 10, 2015.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Holding company of majority equity  
investment in Cboe Vest Group Inc.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- John Deters

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Catherine Clay (Vice President)
- John Deters (Vice President)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

**FF. Loan Markets, LLC**

1. *Name:* Loan Markets, LLC  
*Address:* 400 S. LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
May 11, 2015.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Holding company for investment in  
American Financial Exchange, LLC.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- John Deters

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- John Deters (Vice President)
- Jill Griebenow (Senior Vice President & Chief Accounting Office)
- Andrew Lowenthal (Vice President)
- Derick Shupe (Vice President)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)

10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

**GG. Cboe Data Services, LLC**

1. *Name:* Cboe Data Services, LLC  
*Address:* 400 South LaSalle Street Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
February 21, 2006.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe Data Services, LLC sells market  
data.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Eric Frait
- Bryan Harkins
- Chris Isaacson
- Jim Roche
- Curt Schumacher

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Kevin Carrai (Vice President)
- Catherine Clay (Vice President)
- James Enstrom (Vice President, Chief Audit Executive)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation  
Officer)
- Jill Griebenow (SVP & Chief Accounting Officer)
- Bryan Harkins (Vice President)
- Chris Isaacson (Vice President)
- Andrew Lowenthal (Vice President)
- Jim Roche (Vice President)
- Derick Shupe (Vice President)

**Cboe Exchange, Inc. Form 1 Registration Statement: Exhibit C**

- Aaron Weissenfluh (Vice President, Chief Information Security Officer)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)
- Alexandra Albright (Chief Compliance Officer)
- Todd Furney (Chief Risk Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**HH. Signal Trading Systems, LLC**

1. *Name:* Signal Trading Systems, LLC  
*Address:* 400 South LaSalle Street, Chicago, Illinois 60605
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
May 13, 2010.
4. *Brief description of nature and extent of affiliation:* Fifty percent (50%)  
subsidiary of Cboe Exchange, Inc.
5. *Brief description of business or functions:* Signal Trading Systems, LLC  
developed and markets a multi-asset front-end order entry system known as  
“Pulse”.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:* There are no directors or officers of  
Signal Trading Systems, LLC.
10. *Indication of whether such business or organization ceased to be associated with  
the applicant during previous year:* Not applicable.

**II. The Options Exchange, Incorporated**

1. *Name:* The Options Exchange, Incorporated  
*Address:* 400 South LaSalle Street, Chicago, IL 60605
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), January 7, 1974.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of Cboe Global Markets, Inc.
5. *Brief description of business or functions:* The Options Exchange, Incorporated has been inactive since its incorporation.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- Chris Concannon
- Ed Tilly

Current Officers

- Ed Tilly (Chairman)
- Chris Concannon (President)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**JJ. Cboe Vest Group, Inc.**

1. *Name:* Cboe Vest Group, Inc.  
*Address:* 8300 Greensboro Drive, 8<sup>th</sup> Floor, McLean, VA 22102
2. *Form of organization:* Corporation.
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware General Corporation Law (8 Del. C. §101, et seq), January 2, 2015.
4. *Brief description of nature and extent of affiliation:* Majority-owned subsidiary of Cboe Vest, LLC.
5. *Brief description of business or functions:* Through its subsidiaries, provides options-based investment advisory services.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* No changes.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*

Current Directors

- John Deters
- Karan Sood
- William Speth

Current Officers

- Karan Sood (Chief Executive Officer)
- Jeffrey Chang (Chief Financial Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable

**KK. Cboe Hong Kong Limited**

1. *Name:* Cboe Hong Kong Limited  
*Address:* 66<sup>th</sup> Floor, The Center, 99 Queen's Road, Central, Hong Kong
2. *Form of organization:* Private Company Limited by Shares.
3. *Name of state, statute under which organized and date of incorporation:* Hong Kong under the Companies Ordinance (Chapter 622 of the Laws of Hong Kong), May 29, 2017.
4. *Brief description of nature and extent of affiliation:* Cboe Hong Kong Limited is wholly-owned by Cboe Worldwide Holdings Limited, which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Marketing and business development services (business expected to commence in September 2017).
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:*  
  
Current Directors
  - Dave Gray  
Current Officers
  - None
10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**LL. Cboe Silexx, LLC**

1. *Name:* Cboe Silexx, LLC  
*Address:* 400 South LaSalle Street, Chicago, IL 60605
2. *Form of organization:* Limited Liability Company
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
October 16, 2017.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Cboe Silexx, LLC operates the Silexx  
order execution management system business.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Brian Schell

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Catherine Clay (Vice President)
- John Deters (Vice President)
- James Enstrom (Vice President, Chief Audit Executive)
- Derick Shupe (Vice President)
- Aaron Weissenfluh (Vice President, Chief Information Security Officer)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)
- Alexandra Albright (Chief Compliance Officer)
- Todd Furney (Chief Risk Officer)
- Jennifer Golding (VP, Associate General Counsel, Chief Litigation  
Officer)
- Jill Griebenow (SVP & Chief Accounting Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**MM. Digital Asset Benchmark Administration, LLC**

1. *Name:* Digital Asset Benchmark Administration, LLC  
*Address:* 400 South LaSalle Street, Chicago, IL 60605
2. *Form of organization:* Limited Liability Company
3. *Name of state, statute under which organized and date of incorporation:*  
Delaware, Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq),  
October 17, 2017.
4. *Brief description of nature and extent of affiliation:* Wholly-owned subsidiary of  
Cboe Global Markets, Inc.
5. *Brief description of business or functions:* Digital Asset Benchmark  
Administration, LLC licenses Gemini-related data.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* No changes.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees  
and persons performing similar functions:*

Current Directors

- Ed Tilly
- Chris Concannon
- Brian Schell

Current Officers

- Ed Tilly (Chief Executive Officer)
- Chris Concannon (President)
- Mark Hemsley (Vice President)
- Catherine Clay (Vice President)
- John Deters (Vice president)
- Derick Shupe (Vice President)
- Alexandra Albright (Chief Compliance Officer)
- James Enstrom (Vice President and Chief Audit Executive)
- Todd Furney (Chief Risk Officer)
- Aaron Weissenfluh (Vice President, CISO)
- Brian Schell (Treasurer)
- J. Patrick Sexton (Secretary)
- Jennifer Golding (Vice President, Associate General Counsel, Chief  
Litigation Officer)
- Jill Griebenow (Senior Vice President & Chief Accounting Officer)

10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* Not applicable.

**NN. Bats Hotspot IB LLC**

1. *Name:* Bats Hotspot IB LLC  
*Address:* 17 State Street, 31<sup>st</sup> Floor, New York, NY 10004
2. *Form of organization:* Limited Liability Company.
3. *Name of state, statute under which organized and date of incorporation:* Formed in Illinois under Section 15-1 of the Limited Liability Company Act of the State of Illinois on May 23, 2003.
4. *Brief description of nature and extent of affiliation:* Bats Hotspot IB LLC is wholly-owned by Cboe FX Holdings LLC, which is wholly-owned by Bats Global Markets Holdings, Inc., which is an affiliate of the Exchange.
5. *Brief description of business or functions:* Not applicable.
6. *Copy of constitution:* Not applicable.
7. *Copy of articles of incorporation or association and amendments:* Not applicable.
8. *Copy of existing by-laws:* Not applicable.
9. *Name and title of present officers, governors, members of standing committees and persons performing similar functions:* None
10. *Indication of whether such business or organization ceased to be associated with the applicant during previous year:* As of December 2017, Bats Hotspot IB LLC ceased to exist.

**Exhibit J**

**Exhibit Request:**

A list of the officers, governors, members of all standing committees, or persons performing similar functions, who presently hold or have held their offices or positions during the previous year, indicating the following for each:

1. Name.
2. Title.
3. Dates of commencement and termination of term of office or position.
4. Type of business in which each is primarily engaged (e.g., floor broker, specialist, odd lot dealer, etc.)

**Response:**

1. Officers

Pursuant to the Certificate of Incorporation and Bylaws of the Exchange, the Exchange's Board of Directors has appointed the individuals listed below as Officers of the Exchange. These individuals will serve in these positions until their successors have been duly chosen or qualified or until the officer's earlier death, resignation or removal.

Officers				
Name:	Title:	Appointment Date:		Termination/ Change Position Date:
Alexandra Albright	Chief Compliance Officer	02/28/17		
Lawrence Bresnahan	Vice President, Market & Member Regulation	02/13/18		
Rodney Burt	Vice President, Infrastructure	02/10/15		
Kevin Carrai	Vice President, Connectivity	02/10/15		
Bryan Christian	Senior Vice President, Sales US Equities	02/10/15		03/01/18 - Change in title
Paul Ciciora	Vice President, Systems Infrastructure	02/13/18		
Catherine Clay	Vice President, Business Development	02/13/18		

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Gary Compton	Vice President, Corporate Communications	07/30/18	
Chris Concannon	President & COO	02/10/15	
Jeff Connell	Vice President, Deputy Chief Regulatory Officer	11/02/15	03/01/18 - Change in title
Eric Crampton	Senior Vice President, Software Engineer	05/12/15	03/01/18 - Change in title
John Deters	Executive Vice President, Chief Strategy Officer & Head of Corporates Initiatives	02/28/17	03/01/18 - Change in title
Laura Dickman	Vice President, Associate General Counsel	02/13/18	03/01/18 - Change in title
James Enstrom	Vice President, Chief Audit Executive	02/28/17	
Eric Frait	Vice President, Business Analysis	02/28/17	
Anders Franzon	Senior Vice President and Deputy General Counsel	11/02/15	03/01/18 - Change in title
Todd Furney	Vice President, Chief Risk Officer	02/28/17	
Alicia Goldberg	Vice President, Statistical Analysis	02/28/17	
Jennifer Golding	Vice President, Associate General Counsel, Chief Litigation Officer	07/30/18	
David Gray	Senior Vice President, Global Client Services	02/28/17	03/01/18 - Change in title
Jill Griebenow	Senior Vice President & Chief Accounting Officer	08/15/18	
Bryan Harkins	Executive Vice President, Head of	02/10/15	03/01/18 - Change in title

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	U.S. Equities & Global FX			
Mark Hemsley	Executive Vice President, President Europe			
Gregory Hoogasian	Senior Vice President, Chief Regulatory Officer	02/28/17		
Chris Isaacson	Executive Vice President, Global Chief Information Officer	02/10/15		
Jennifer Lamie	Vice President, Chief Regulatory Advisor	02/13/18		03/01/18 - Change in title
Stephanie Marrin Lara	Vice President, Deputy Chief Regulatory Officer	02/13/18		03/01/18 - Change in title
William Looney	Vice president, Advancement & Strategy, Index Options	07/30/18		
Andrew Lowenthal	Executive Vice President, Head of Global Derivatives	02/28/17		03/01/18 - Change in title
Marc Magrini	Vice President, Administration	02/13/18		
Anthony Montesano	Vice President, TSD and Registration	02/13/18		03/01/18 - Change in title
Laura Morrison	Senior Vice President, ETP Listings	05/12/15		03/01/18 - Change in title
Mark Novak	Vice President, CTO Development	02/13/18		
Arthur Reinstein	Senior Vice President and Deputy General Counsel	02/28/17		03/01/18 - Change in title
Bradley Samuels	Vice President, Systems Development	02/13/18		

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Brian N. Schell	Executive Vice President, Chief Financial Officer, Treasurer		02/10/15		
Curt Schumacher	Vice President, CTO Operations		02/13/18		
Derick Shupe	Vice President, Controller		02/10/15		
John Sexton	Executive Vice President, General Counsel & Corporate Secretary		02/28/17		03/01/18 - Change in title
Steven Sinclair	Vice President, Systems Development		02/13/18		
Eileen Smith	Vice President, Systems Planning		02/13/18		
William Speth	Senior Vice President, Research & Product Development		02/13/18		03/01/18 - Change in title
Paul Stephens	Vice President, Global Client Services		02/13/18		03/01/18 - Change in title
Ed Tilly	CEO		02/28/17		
Michael Todorofsky	Vice President, US Market Operations		02/13/18		03/01/18 - Change in title
Michael Trees	Vice President, Trading System Development		02/13/18		
Aaron Weissenfluh	Vice President, Chief Information Security Officer		02/10/15		
Troy Yeazel	Senior Vice President, Operations		11/02/15		
Laura Zinanni	Senior Vice President and Deputy General Counsel		02/13/18		03/01/18 - Change in title
Vivian Yiu	Vice President, Product Strategy		11/01/16		03/01/18 - Change in title

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Former Officers			
Name:	Title:	Appointment Date:	Termination/ Change Position Date:
Tami Schademann	Executive Vice President, Chief Regulatory Officer	02/10/15	02/28/17
Eric Swanson	Executive Vice President, General Counsel, Secretary	02/10/15	02/28/17
Charles Randy Williams	Senior Vice President, Global Investor Relations & Communications	02/10/15	02/28/17
Tony Barchetto	Executive Vice President, Head of Corporate Development	05/03/16	02/28/17
Greg Steinberg	Vice President, Assistant Secretary & Associate General Counsel	02/10/15	02/13/18
Stacie Fleming	Vice President, Communication	02/10/15	02/13/18
Kapil Rathi	Senior Vice President, Options Business Development	05/12/15	02/13/18
Thad Prososki	Vice President, Human Resources	05/12/15	02/13/18
Brett Johnson	Vice President, Software Engineering	09/09/15	02/13/18
Pamela Culpepper	Chief HR Officer	02/28/17	02/13/18
Alan Dean	Executive Vice President F&A, Chief Financial Officer	02/28/17	02/13/18
Angelo Evangelou	Deputy General Counsel	02/28/17	02/13/18
Carol Kennedy	Vice President, and Chief	02/28/17	02/13/18

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	Communications Officer			
Stephanie Klein	Vice President Chief Marketing Officer	02/28/17		02/13/18
Donald Patton	Vice President, Accountant/Controller	02/28/17		02/13/18
Joanne Moffic-Silver	Executive Vice President, General Counsel & Corporate Secretary	02/28/17		02/28/18
Michael Todd	Vice President, OSC	02/13/18		07/30/18
David Reynolds	Vice President, & Chief Accounting Officer	02/28/17		08/15/18

1. Directors

The following directors were appointed in accordance with Article III of the Bylaws of the Exchange. Directors will serve one-year terms ending on the annual meeting following the meeting at which such directors were elected or at such time as their successors are elected or appointed and qualified, except in the event of earlier death, resignation, disqualification or removal. The current directors of the Exchange are the persons listed below:

<b>Directors</b>				
Name	Classification(s)	Appointment Date:		Termination Date:
Ed Tilly	Chairman & Director	02/28/17		
Bruce Andrews	Director	02/13/18		
Kevin Murphy	Director	02/13/18		
David Roscoe	Director	10/13/10		
Jill Sommers	Director	10/26/15		
Scott Wagner	Director	10/27/16		
<b>Former Directors</b>				
Name:	Title:	Appointment Date:		Termination/Change Position Date:

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Matt Billings	Director	10/27/16	02/13/18
Chris Concannon	Director	03/31/15	02/13/18
Sandy Kemper	Director	10/26/15	02/13/18
Joseph Mecane	Director	10/27/15	02/13/18

2. Committees

The committees of the Board shall consist of an Executive Committee and a Regulatory Oversight Committee.

Executive Committee

- Ed Tilly (Chairman)
- Bruce Andrews
- Kevin Murphy
- David Roscoe
- Jill Sommers
- Scott Wagner

Regulatory Oversight Committee

- Scott Wagner (Chairman)
- Bruce Andrews
- David Roscoe

**Exhibit M**

**Exhibit Request:**

Provide an alphabetical list of all members, participants, subscribers or other users, including the following information:

1. Name,
2. Date of election to membership or acceptance as a participant, subscriber or other user,
3. Principal business address and telephone number,
4. If member, participant, subscriber or other user is an individual, the name of the entity with which such individual is associated and the relationship of such individual to the entity (e.g., partner, officer, director, employee, etc.),
5. Describe the type of activities primarily engaged in by the member, participant, subscriber, or other user (e.g., floor broker, specialist, odd lot dealer, other market maker, proprietary trader, non-broker dealer, inactive or other functions). A person shall be "primarily engaged" in an activity or function for purposes of this item when that activity or function is the one in which that person is engaged for the majority of their time. When more than one type of person at an entity engages in any of the six types of activities or functions enumerated in this item, identify each type (e.g., proprietary trader, Registered Competitive Trader and Registered Competitive Market Maker) and state the number of members, participants, subscribers, or other users in each, and
6. The class of membership, participation or subscription or other access.

**Response:**

Attached please find a list of the current Members and Sponsored Participants accepted as Users of the Exchange.

Company Name	BZX Approval Date	BYX Approval Date	EDGA Approval Date	EDGX Approval Date	CBOE Effective Date	C2 Effective Date	Type of User	Address	Phone Number	Primary Activities
ABN AMRO Clearing Chicago LLC	10/15/2008	10/1/2010	5/25/2010	5/27/2010	5/13/1985	9/24/2010	Member TPH	175 W Jackson Boulevard Suite 400 Chicago, IL 60604	312-604-8000	Clearing, Transact Business with the Public, Brokerage
ACS Execution Services, LLC	1/15/2016	1/15/2016	1/15/2016	1/15/2016	NA	NA	Member TPH	12 Broad Street 2nd Floor Red Bank, NJ 07701	732-204-8999	Proprietary Trading
Agency Desk, LLC	7/1/2009	NA	NA	NA	NA	NA	Member TPH	590 Madison Avenue 21st Floor New York, NY 10022	212-935-9835	Market Maker
Akuna Securities LLC	9/15/2015	NA	NA	8/14/2017	2/2/2012	2/12/2015	Member TPH	333 S Wabash Avenue Suite 2600 Chicago, IL 60604	312-994-4640	Market Maker, Proprietary Trading
Albert Fried & Company, LLC	8/18/2008	4/15/2011	5/18/2010	5/18/2010	NA	NA	Member TPH	31 W 52nd Street New York, NY 10019	212-827-7000	Agency
Alpha Direct LLC	8/20/2015	8/20/2015	8/20/2015	8/20/2015	NA	NA	Sponsored Participant	533 2nd Street Encinitas, CA 92024	858-947-8650	Proprietary Trading
Alpha Trading, LP	10/24/2017	10/24/2017	10/24/2017	10/24/2017	NA	NA	Member TPH	640 W California Avenue Sunnyvale, CA 94086	408-990-1940	Market Maker, Proprietary Trading
Alpine Securities Corporation	11/3/2008	11/15/2010	NA	NA	NA	NA	Member TPH	39 Exchange Place Salt Lake City, UT 84111	801-355-5588	Agency
AMS Derivatives B.V.	NA	NA	NA	NA	12/1/2017	NA	Member TPH	Strawinskylaan 3095 Amsterdam, 1077ZX Netherlands	31-020-708-7000	Proprietary Trading
Andrie Trading LLC	NA	NA	NA	NA	10/1/1999	NA	Member TPH	440 S LaSalle Street Suite 1110 Chicago, IL 60605	312-663-8195	Market Maker
Apex Clearing Corporation	6/5/2012	6/5/2012	6/5/2012	6/5/2012	6/6/2012	6/6/2012	Member TPH	One Dallas Center 350 N St. Paul, Suite 1300 Dallas, TX 75201	214-765-1055	Clearing, Transact Business with the Public
Archipelago Securities LLC	8/18/2008	9/1/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	353 N Clark Street Suite 3200 Chicago, IL 60654	312-836-6700	Limited Routing Facility of ICE affiliated Exchanges
Athena Capital Research, LLC	7/1/2009	10/20/2010	NA	NA	NA	NA	Sponsored Participant	440 9th Avenue 11th Floor New York, NY 10001	212-931-9056	Proprietary Trading
ATM Execution LLC	3/15/2012	3/15/2012	3/21/2012	3/21/2012	NA	NA	Member TPH	599 Lexington Avenue 21st Floor New York, NY 10022	646-562-1010	Public Customer Business
Barclays Capital Inc.	8/18/2008	10/1/2010	5/14/2010	5/14/2010	9/22/2008	10/6/2010	Member TPH	745 7th Avenue New York, NY 10019	212-526-7000	Clearing, Market Maker, Transact Business with the Public, Brokerage, Proprietary Trading
Bay Crest Partners, LLC	10/15/2008	NA	5/25/2010	5/27/2010	NA	NA	Member TPH	40 Wall Street 42nd Floor New York, NY 10005	212-480-1400	Agency
Belvedere Trading LLC	11/1/2011	3/1/2012	11/29/2011	NA	1/3/2005	4/4/2011	Member TPH	10 S Riverside Plaza Suite 2100 Chicago, IL 60606	312-893-3750	Market Maker, Proprietary Trading
Bengal Capital Trading LLC	NA	NA	NA	NA	1/15/2013	NA	Member TPH	440 S LaSalle Street Suite 2121 Chicago, IL 60605	312-362-4928	Proprietary Trading
Benjamin & Jerold Brokerage I LLC	10/1/2009	12/11/2017	12/11/2017	12/11/2017	NA	NA	Member TPH	80 Broad Street 6th Floor New York, NY 10005	646-558-0055	Agency
BGC Financial, LP	8/17/2009	NA	NA	NA	NA	NA	Member TPH	One Seaport Plaza 19th Floor New York, NY 10038	646-346-7000	Agency
Bloomberg Tradebook LLC	10/23/2008	10/4/2010	5/14/2010	5/14/2010	NA	NA	Member TPH	919 3rd Avenue New York, NY 10022	646-324-3178	Agency
Bluefin Trading, LLC	8/3/2009	6/1/2015	9/27/2013	8/13/2013	4/27/2009	NA	Member TPH	3 Park Avenue 37th Floor New York, NY 10016	212-457-9150	Market Maker, Proprietary Trading
BMO Capital Markets Corp.	8/18/2008	11/15/2010	7/15/2014	7/15/2014	10/8/2013	11/15/2013	Member TPH	3 Times Square New York, NY 10036	212-885-4000	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
BMT Trading, LLC	2/1/2010	NA	NA	NA	NA	NA	Sponsored Participant	800 3rd Avenue New York, NY 10022	212-813-0870	Proprietary Trading
BNP Paribas Securities Corp.	8/18/2008	9/15/2010	5/25/2010	5/27/2010	1/5/2005	10/15/2010	Member TPH	787 7th Avenue New York, NY 10019	212-841-2000	Clearing, Order Flow Provider, Proprietary Trading, Transact Business with the Public
BNY Mellon Capital Markets, LLC	NA	NA	NA	1/17/2017	NA	NA	Member TPH	101 Barclay Street New York, NY 10286	212-815-4972	Market Maker
Boerboel Capital LLC	11/17/2017	NA	NA	NA	2/1/2017	NA	Member TPH	300 N LaSalle Street Suite 2060 Chicago, IL 60654	708-967-6843	Market Maker
BTIG, LLC	8/18/2008	11/15/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	600 Montgomery Street 6th Floor San Francisco, CA 94111	415-248-2200	Market Maker
C&C Trading LLC	8/18/2008	10/11/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	71 Arch Street 1st Floor Greenwich, CT 06830	212-706-1227	Proprietary Trading
Canaccord Genuity LLC	10/1/2013	10/1/2013	6/10/2010	6/10/2010	NA	NA	Member TPH	535 Madison Avenue New York, NY 10022	212-389-8000	Market Maker
Canadian Imperial Holdings, Inc.	10/15/2008	11/15/2010	NA	NA	NA	NA	Sponsored Participant	300 Madison Avenue 5th Floor New York, NY 10017	212-856-3877	Proprietary Trading
Cantor Fitzgerald & Co.	10/23/2008	2/13/2015	5/25/2010	5/27/2010	NA	NA	Member TPH	110 E 59th Street 4th Floor New York, NY 10022	212-938-5000	Agency, Institutional Trading
Capital Institutional Services, Inc.	8/18/2008	NA	5/25/2010	5/27/2010	NA	NA	Member TPH	1700 Pacific Avenue Suite 1100 Dallas, TX 75201	214-720-0055	Agency
Cardinal Capital Management, LLC	NA	NA	NA	NA	10/1/2007	NA	Member TPH	141 W Jackson Boulevard Suite 2200A Chicago, IL 60604	312-477-8400	Market Maker
Cboe Trading, Inc.	10/23/2008	9/1/2010	5/14/2010	5/14/2010	NA	4/18/2018	Member TPH	8050 Marshall Drive Suite 120 Lenexa, KS 66214	913-815-7000	Limited Routing Facility of Cboe affiliated Exchanges
CF Global Trading, LLC	10/23/2008	1/3/2011	NA	NA	NA	NA	Member TPH	60 E 42nd Street Suite 1455 New York, NY 10165	212-888-4711	Market Maker
Charles Schwab & Co., Inc.	NA	NA	NA	4/3/2017	6/2/1980	NA	Member TPH	211 Main Street San Francisco, CA 94105	415-636-7000	Clearing, Transact Business with the Public
Chimera Securities, LLC	6/2/2014	6/2/2014	6/25/2014	6/25/2014	NA	NA	Member TPH	27 Union Square W 4th Floor New York, NY 10003	646-597-6100	Proprietary Trading
Chimera Securities, LLC	11/17/2017	11/27/2017	11/27/2017	11/17/2017	NA	NA	Sponsored Participant	27 Union Square W 4th Floor New York, NY 10003	646-597-6100	Proprietary Trading
CIBC World Markets Corp.	8/18/2008	11/15/2010	NA	NA	2/14/1973	NA	Member TPH	425 Lexington Avenue New York, NY 10017	212-856-4000	Clearing, Transact Business with the Public

Company Name	BZX Approval Date	BYX Approval Date	EDGA Approval Date	EDGX Approval Date	CBOE Effective Date	C2 Effective Date	Type of User	Address	Phone Number	Primary Activities
Citadel Securities LLC	10/23/2008	10/1/2010	5/14/2010	5/14/2010	4/17/2002	10/7/2010	Member TPH	131 S Dearborn Street 32nd Floor Chicago, IL 60603	312-395-2100	Market Maker, Order Flow Provider, Brokerage
Citi Order Routing and Execution, LLC	8/18/2008	9/15/2010	5/25/2010	5/27/2010	10/1/2008	9/24/2010	Member TPH	11 Ewall Street Mount Pleasant, SC 29464	843-789-2080	Clearing, Transact Business with the Public
Citigroup Derivatives Markets Inc.	2/15/2018	NA	NA	2/15/2018	12/3/2004	2/25/2011	Member TPH	130 Cheshire Lane Suite 102 Minnetonka, MN 55305	212-723-2960	Market Maker
Citigroup Global Markets Inc.	9/24/2008	12/15/2010	5/25/2010	5/27/2010	5/2/2011	NA	Member TPH	390-388 Greenwich Street New York, NY 10013	212-816-6000	Clearing, Proprietary Trading, Transact Business with the Public
Clarksons Platou Securities, Inc.	NA	NA	1/15/2015	NA	NA	NA	Member TPH	280 Park Avenue 21st Floor New York, NY 10017	212-317-7080	Public Customer Business
Clearpool Execution Services, LLC	5/15/2014	5/15/2014	6/16/2014	6/16/2014	NA	NA	Member TPH	17 State Street 38th Floor New York, NY 10004	212-531-8500	Public Customer Business
CLSA Americas, LLC	NA	NA	5/21/2013	5/21/2013	NA	NA	Member TPH	1301 Avenue of the Americas 15th Floor New York, NY 10019	212-549-5097	Agency
CM-CIC Market Solutions, Inc.	8/18/2008	NA	NA	NA	NA	NA	Member TPH	520 Madison Avenue New York, NY 10022	212-659-6292	Agency
CMT Fund XXV Limited	7/2/2012	7/2/2012	NA	NA	NA	NA	Sponsored Participant	500 W Monroe Street Suite 2630 Chicago, IL 60661	312-320-7897	Agency
CMT Trading LLC	3/17/2014	3/17/2014	3/5/2014	3/5/2014	NA	NA	Member TPH	500 W Monroe Street Suite 2630 Chicago, IL 60661	312-930-9050	Market Maker, Proprietary Trading
CMZ Trading, LLC	NA	NA	NA	NA	10/1/2004	NA	Member TPH	141 W Jackson Boulevard Suite 826 Chicago, IL 60604	312-604-3310	Market Maker, Proprietary Trading
CODA Markets, Inc.	10/15/2008	10/4/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	2624 Patriot Boulevard Glenview, IL 60026	224-521-2700	ATS
Cognitive Capital, LLC	NA	NA	NA	NA	5/13/2004	NA	Member TPH	141 W Jackson Boulevard Suite 1620 Chicago, IL 60604	312-431-0400	Proprietary Trading
Comhar Capital Markets, LLC	2/27/2017	NA	NA	NA	NA	NA	Member TPH	311 S Wacker Drive Suite 2280A Chicago, IL 60606	872-205-0190	Proprietary Trading
Consolidated Trading, LLC	NA	NA	NA	NA	1/2/2002	NA	Member TPH	71 S Wacker Drive Suite 2300 Chicago, IL 60606	312-360-7300	Market Maker
COR Clearing LLC	10/15/2009	NA	NA	NA	NA	NA	Member TPH	1200 Landmark Center 1299 Farnam Street Suite 800 Omaha, NE 68102	402-384-6100	Clearing Services
Cowen and Company, LLC	8/18/2008	10/7/2010	5/14/2010	5/14/2010	NA	NA	Member TPH	599 Lexington Avenue 20th Floor New York, NY 10022	646-562-1010	Market Maker
Cowen Execution Services LLC	10/15/2008	9/1/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	1633 Broadway 48th Floor New York, NY 10019	800-367-8998	Full Service
Cowen Prime Services LLC	3/15/2011	3/15/2011	NA	NA	NA	NA	Member TPH	599 Lexington Avenue 21st Floor New York, NY 10022	646-562-1010	Public Customer Business, Proprietary Trading
Credit Suisse Securities (USA) LLC	9/3/2008	10/1/2010	5/25/2010	5/27/2010	8/14/1981	10/8/2010	Member TPH	11 Madison Avenue New York, NY 10010	212-325-2000	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
Critical Trading, LLC	7/1/2014	6/8/2018	NA	6/8/2018	NA	NA	Member TPH	120 W 45th Street 15th Floor New York, NY 10036	646-918-0529	Market Maker, Proprietary Trading
CSS, LLC	NA	NA	NA	NA	8/21/1998	NA	Member TPH	175 W Jackson Boulevard Suite 440 Chicago, IL 60604	312-542-8505	Proprietary Trading
CTC, LLC	3/15/2018	NA	NA	NA	3/25/1998	3/3/2011	Member TPH	440 S LaSalle Street 4th Floor Chicago, IL 60605	312-863-8000	Market Maker
Cutler Group, LP	4/1/2010	10/6/2010	NA	10/16/2015	4/5/1999	NA	Member TPH	101 Montgomery Street Suite 700 San Francisco, CA 94104	415-293-3956	Market Maker, Proprietary Trading
Dash Financial Technologies LLC	10/23/2008	7/2/2012	6/9/2010	6/9/2010	5/19/2000	9/30/2010	Member TPH	311 S Wacker Drive Suite 1000 Chicago, IL 60606	312-986-2006	Clearing, Floor Broker, Order Flow Provider, Transact Business with the Public, Brokerage
Deutsche Bank Securities Inc.	10/15/2008	10/11/2010	5/21/2010	5/21/2010	4/25/1996	8/15/2011	Member TPH	60 Wall Street New York, NY 10005	212-250-2500	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
DRW Securities, LLC	9/1/2009	11/1/2010	5/25/2010	5/27/2010	11/23/1998	1/22/2016	Member TPH	540 W Madison Street Suite 2500 Chicago, IL 60661	312-542-1000	Market Maker, Proprietary Trading
E*TRADE Securities LLC	NA	NA	NA	6/10/2010	NA	NA	Member TPH	11 Times Square 32nd Floor New York, NY 10036	646-521-4300	Public Customer Business
EG Market Technologies LLC	4/3/2017	4/3/2017	4/3/2017	4/3/2017	NA	NA	Member TPH	787 5th Avenue 45th Floor New York, NY 10153	646-757-2831	Market Maker, Proprietary Trading
Electronic Transaction Clearing, Inc.	10/23/2008	9/1/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	680 S Figueroa Street Los Angeles, CA 90017	949-533-1885	Market Maker
Essex Radez LLC	2/17/2009	10/1/2010	5/10/2010	5/14/2010	NA	NA	Member TPH	440 S LaSalle Street Suite 1111 Chicago, IL 60605	312-212-1815	Market Maker
Evercore Group LLC	NA	NA	5/10/2017	NA	NA	NA	Member TPH	55 E 52nd Street New York, NY 10055	212-857-3100	Public Customer Business
FIS Brokerage & Securities Services LLC	8/18/2008	10/1/2010	5/6/2010	5/6/2010	NA	NA	Member TPH	2100 Enterprise Avenue Geneva, IL 60134	630-482-7100	Agency
Flow Traders U.S. Institutional Trading LLC	NA	NA	6/1/2016	NA	NA	NA	Member TPH	1114 Avenue of the Americas 4th Floor New York, NY 10036	917-210-5000	Riskless Principal
Flow Traders U.S. LLC	10/1/2009	8/1/2012	2/28/2014	2/28/2014	8/31/2010	NA	Member TPH	1114 Avenue of the Americas 4th Floor New York, NY 10036	917-210-5000	Proprietary Trading
G1 Execution Services, LLC	8/18/2008	12/1/2010	4/17/2010	4/17/2010	NA	NA	Member TPH	175 W Jackson Boulevard Suite 1700 Chicago, IL 60604	312-362-0404	Market Maker
G2 Trading LLC	6/1/2016	NA	NA	NA	NA	NA	Member TPH	325 S Sangamon Street Chicago, IL 60607	404-697-9915	Market Maker, Proprietary Trading
Geiber Securities, LLC	5/1/2015	NA	NA	NA	NA	NA	Member TPH	350 N Orleans Street 7th Floor Chicago, IL 60654	312-408-4354	Market Maker, Proprietary Trading
Geneva Stock, LLC	NA	NA	NA	NA	4/6/2001	NA	Member TPH	440 S LaSalle Street Suite 1711 Chicago, IL 60605	312-362-4404	Market Maker
Global Execution Brokers, LP	2/1/2010	10/5/2010	12/1/2015	10/15/2015	12/23/2003	9/24/2010	Member TPH	401 City Avenue Bala Cynwyd, PA 19004	610-617-2600	Floor Broker, Transact Business with the Public, Brokerage

Company Name	BZX Approval Date	BYX Approval Date	EDGA Approval Date	EDGX Approval Date	CBOE Effective Date	C2 Effective Date	Type of User	Address	Phone Number	Primary Activities
Global HFT Management, LLC	10/1/2010	NA	NA	NA	NA	NA	Sponsored Participant	800 3rd Avenue New York, NY 10022	212-813-0870	Proprietary Trading
Global Liquidity Partners, LLC	4/21/2011	5/15/2012	NA	NA	NA	NA	Sponsored Participant	12 Broad Street Suite 201 Redbank, NJ 07701	773-459-4665	Agency
Goldman Sachs & Co. LLC	10/23/2008	10/12/2010	5/14/2010	5/14/2010	2/21/1973	10/8/2010	Member TPH	200 West Street New York, NY 10282	212-902-1000	Clearing, Market Maker, Proprietary Trading, Transact Business with the Public, Brokerage
Gordon, Haskett Capital Corporation	NA	NA	NA	5/2/2016	NA	NA	Member TPH	441 Lexington Avenue 10th Floor New York, NY 10017	212-883-0600	Agency, Institutional Trading
Green Street Trading, LLC	11/1/2011	NA	NA	NA	NA	NA	Member TPH	660 Newport Center Drive Suite 800 Newport Beach, CA 92660	214-749-4730	Agency
Group One Trading, LP	6/2/2015	NA	NA	9/29/2015	11/23/1994	NA	Member TPH	440 S LaSalle Street Suite 3232 Chicago, IL 60605	312-347-8864	Market Maker
GTS Securities LLC	12/17/2013	5/1/2012	6/2/2014	6/2/2014	NA	NA	Member TPH	545 Madison Avenue 15th Floor New York, NY 10022	212-715-2830	Market Maker, Proprietary Trading
Hainey Investments Limited	6/16/2014	NA	NA	NA	NA	NA	Sponsored Participant	Themistokli Dervi 41 #806-807 Nicosia, Cyprus	704-248-8221	Proprietary Trading
HAP Trading, LLC	10/1/2009	11/15/2010	NA	6/2/2010	3/16/2001	NA	Member TPH	395 Hudson Street Suite 701 New York, NY 10014	212-380-5100	Market Maker, Proprietary Trading
Hardcastle Trading USA LLC	4/15/2009	NA	5/25/2010	5/27/2010	5/16/2005	NA	Member TPH	755 Secaucus Road Suite F-1110 Secaucus, NJ 07094	201-305-8888	Proprietary Trading
Henning-Carey Proprietary Trading, LLC	8/15/2012	NA	NA	NA	NA	NA	Sponsored Participant	141 W Jackson Boulevard Suite 1801 Chicago, IL 60604	312-789-8764	Proprietary Trading
Highbridge Capital Management, LLC	10/23/2008	NA	NA	NA	NA	NA	Sponsored Participant	9 West 57th Street 27th Floor New York, NY 10019	212-287-4900	Proprietary Trading
Hilltop Securities Inc.	10/23/2008	9/1/2010	NA	5/21/2013	10/1/2010	NA	Member TPH	1201 Elm Street Suite 3500 Dallas, TX 75270	214-859-1800	Clearing, Transact Business with the Public
HRT Financial LLC	2/1/2010	10/1/2010	5/18/2010	5/18/2010	1/24/2011	1/24/2011	Member TPH	4 World Trade Center 150 Greenwich Street, 57th Floor New York, NY 10007	212-293-1444	Proprietary Trading
HSBC Securities (USA) Inc.	4/3/2017	4/3/2017	4/3/2017	4/3/2017	11/21/2005	NA	Member TPH	452 Fifth Avenue New York, NY 10018	224-880-7116	Clearing, Transact Business with the Public
HTG Capital Partners, LLC	10/3/2016	10/3/2016	10/3/2016	10/3/2016	NA	NA	Sponsored Participant	601 S LaSalle Street 2nd Floor Chicago, IL 60605	312-327-4112	Proprietary Trading
ICAP Corporate LLC	NA	NA	3/28/2013	NA	NA	NA	Member TPH	Harborside 5 Hudson Street, Suite 1200 Jersey City, NJ 07311	212-341-9944	Agency
IEX Services LLC	10/1/2013	10/1/2013	9/24/2013	9/24/2013	NA	NA	Member TPH	4 World Trade Center 44th Floor New York, NY 10007	646-343-2000	Limited Routing Facility of IEX affiliated Exchanges
IMC Financial Markets	8/18/2008	10/1/2010	5/25/2010	5/27/2010	7/5/2000	9/24/2010	Member TPH	233 S Wacker Drive Suite 4300 Chicago, IL 60606	312-244-3300	Market Maker, Proprietary Trading
Industrial and Commercial Bank of China Financial Services LLC	5/15/2014	5/15/2014	NA	NA	NA	NA	Member TPH	1633 Broadway 28th Floor New York, NY 10019	212-993-7300	Clearing Services
Instinet LLC	8/18/2008	9/1/2010	5/14/2010	5/14/2010	12/29/2009	10/6/2010	Member TPH	Worldwide Plaza 309 W 48th Street New York, NY 10019	212-310-9500	Clearing, Transact Business with the Public, Brokerage
Interactive Brokers Corp.	NA	NA	NA	NA	4/21/2009	10/6/2010	Member TPH	8 Greenwich Office Park Greenwich, CT 06831	203-618-5700	Floor Broker, Brokerage
Interactive Brokers LLC	8/18/2008	9/15/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	One Pickwick Plaza 2nd Floor Greenwich, CT 06830	203-618-5710	Full Service
International Correspondent Trading, Inc.	8/18/2008	NA	NA	NA	NA	NA	Member TPH	One University Plaza Suite 301 Hackensack, NJ 07601	201-222-9300	Agency
Israel A. Englander & Co., LLC	NA	NA	NA	NA	10/27/1995	9/24/2010	Member TPH	666 5th Avenue 14th Floor New York, NY 10103	212-841-4567	Floor Broker, Transact Business with the Public, Brokerage
ISTRA, LLC	12/15/2011	12/15/2011	NA	NA	NA	NA	Sponsored Participant	230 Park Avenue 10th Floor New York, NY 10169	718-618-4929	Proprietary Trading
ITG Inc.	8/18/2008	10/1/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	One Liberty Plaza 165 Broadway, 4th Floor New York, NY 10006	212-588-4000	Agency
J.P. Morgan Securities LLC	8/18/2008	9/15/2010	5/14/2010	5/14/2010	10/29/1985	11/18/2010	Member TPH	383 Madison Avenue New York, NY 10179	212-272-2000	Clearing, Transact Business with the Public
Jane Street Capital, LLC	5/1/2009	11/15/2010	5/14/2010	5/14/2010	9/4/2012	NA	Member TPH	250 Vesey Street 5th Floor New York, NY 10281	646-759-6000	Market Maker, Proprietary Trading
Jane Street Options, LLC	1/3/2012	NA	NA	NA	NA	NA	Sponsored Participant	One New York Plaza New York, NY 10004	212-651-6969	Proprietary Trading
Jane Street Options, LLC	4/15/2016	NA	NA	NA	5/2/2005	NA	Member TPH	250 Vesey Street 5th Floor New York, NY 10281	646-759-8000	Market Maker
Jefferies Investment Advisers	7/1/2011	7/15/2011	NA	NA	NA	NA	Sponsored Participant	520 Madison Avenue New York, NY 10022	212-323-3993	Full Service
Jefferies LLC	10/23/2008	10/19/2010	5/25/2010	5/27/2010	7/9/2012	7/18/2012	Member TPH	520 Madison Avenue New York, NY 10022	212-284-2300	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
JNK Securities Corp.	11/17/2008	11/15/2010	NA	NA	NA	NA	Member TPH	140 E 45th Street 27th Floor New York, NY 10017	212-885-6300	Agency
Juliet Group, LLC	3/1/2011	3/1/2011	NA	NA	NA	NA	Sponsored Participant	240 E 35th Street #3A New York, NY 10016	646-360-0595	Proprietary Trading
Juliet Labs, LLC	9/20/2017	9/20/2017	9/20/2017	9/20/2017	NA	NA	Sponsored Participant	1 Northside Piers Suite 14H Brooklyn, NY 11249	646-360-0595	Proprietary Trading
Jump Trading, LLC	8/18/2008	10/1/2010	5/14/2010	5/14/2010	4/2/2012	6/6/2017	Member TPH	600 W Chicago Avenue Suite 825 Chicago, IL 60654	312-205-8900	Market Maker, Proprietary Trading
Keefe, Bruyette & Woods, Inc.	8/18/2008	12/1/2010	6/8/2010	6/8/2010	NA	NA	Member TPH	787 7th Avenue New York, NY 10019	212-887-7777	Agency
Lakeshore Securities, LP	NA	NA	NA	NA	1/24/1983	NA	Member TPH	401 S LaSalle Street Suite 1000 Chicago, IL 60605	312-663-1307	Clearing, Floor Broker, Market Maker, Transact Business with the Public
Lamberson Capital LLC	NA	NA	NA	NA	3/23/2016	NA	Member TPH	71 S Wacker Drive Suite 2300 Chicago, IL 60606	312-360-7300	Market Maker

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Lampert Capital Markets Inc.	NA	2/18/2014	2/26/2014	NA	NA	NA	Member TPH	444 Madison Avenue Suite 401 New York, NY 10022	646-833-4900	Introducing Broker
Lampost Capital, LC	NA	NA	NA	3/15/2016	NA	NA	Member TPH	1900 Glades Road Suite 205 Boca Raton, FL 33431	561-883-0454	Public Customer Business, Proprietary Trading
Latour Trading LLC	8/17/2009	10/1/2010	5/26/2010	5/27/2010	4/8/2011	NA	Member TPH	377 Broadway 10th Floor New York, NY 10013	917-388-8000	Proprietary Trading
Leerink Partners LLC	8/18/2008	10/5/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	1 Federal Street 37th Floor Boston, MA 02110	617-918-4900	Agency
LEK Securities Corporation	8/18/2008	10/1/2010	5/26/2010	5/27/2010	1/9/2001	9/24/2010	Member TPH	1 Liberty Plaza 165 Broadway, 52nd Floor New York, NY 10006	212-509-2300	Clearing, Transact Business with the Public
Lime Brokerage LLC	8/18/2008	10/1/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	11 E 44th Street Suite 705 New York, NY 10017	212-824-5000	Transact Business with the Public
Liquidnet, Inc.	9/1/2009	9/15/2010	NA	NA	NA	NA	Member TPH	498 7th Avenue 15th Floor New York, NY 10018	646-674-2000	Agency
Lupo Securities, LLC	NA	NA	NA	NA	8/1/1997	NA	Member TPH	141 W Jackson Boulevard Suite 2200A Chicago, IL 60604	312-477-8400	Market Maker, Proprietary Trading
Macquarie Capital (USA) Inc.	12/1/2009	NA	5/26/2010	5/27/2010	NA	NA	Member TPH	125 W 55th Street Level 22 New York, NY 10019	212-231-1000	Agency
Marathon Trading Group LLC	2/13/2015	NA	NA	NA	1/30/2013	NA	Member TPH	100 Matsonford Road Building 2, Suite 107 Wayne, PA 19087	610-254-4890	Market Maker, Proprietary Trading
Matrix Executions, LLC	8/18/2008	11/15/2010	NA	11/12/2015	2/1/2008	10/26/2010	Member TPH	601 S LaSalle Street Suite 300 Chicago, IL 60605	312-334-8000	Transact Business with the Public, Brokerage
Merrill Lynch Professional Clearing Corp.	8/18/2008	10/5/2010	5/14/2010	5/14/2010	4/8/1985	9/24/2010	Member TPH	One Bryant Park, 6th Floor NY1-100-06-01 New York, NY 10036	646-743-1295	Clearing, Brokerage, Transact Business with the Public
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8/18/2008	10/4/2010	5/14/2010	5/14/2010	4/25/1973	9/27/2010	Member TPH	One Bryant Park New York, NY 10036	800-637-7455	Clearing, Transact Business with the Public, Brokerage, Market Maker, Proprietary Trading
Mint Global Markets, Inc.	NA	NA	5/26/2010	5/27/2010	NA	NA	Member TPH	1717 Route 6 Suite 102 Carmel, NY 10512	800-874-3039	Agency
Mizuho Securities USA, LLC	6/1/2010	1/3/2011	NA	NA	NA	NA	Member TPH	320 Park Avenue 12th Floor New York, NY 10022	212-209-9300	Agency
MKM Partners LLC	8/3/2009	NA	5/14/2010	5/14/2010	NA	NA	Member TPH	300 First Stamford Place 4th Floor East Wing Stamford, CT 06902	203-861-9060	Agency
MNR Executions, LLC	NA	NA	NA	NA	4/30/2008	NA	Member TPH	141 W Jackson Boulevard Suite 3900 Chicago, IL 60604	312-878-4704	Floor Broker, Transact Business with the Public
Monadnock Capital Management, LP	NA	NA	NA	NA	12/1/2014	NA	Member TPH	1845 Walnut Street Suite 940 Philadelphia, PA 19103	267-239-0367	Market Maker
Moore & Cabot, Inc.	NA	4/2/2012	NA	NA	NA	NA	Member TPH	111 Devonshire Street Boston, MA 02109	617-426-0500	Agency
Morgan Stanley & Co. International plc	NA	NA	NA	NA	4/12/2017	NA	Sponsored Participant	20 Bank Street Canary Wharf London, UK E14 4A	#####	
Morgan Stanley & Co. LLC	10/23/2008	9/1/2010	5/14/2010	5/14/2010	8/20/1980	9/24/2010	Member TPH	1585 Broadway New York, NY 10036	212-761-4000	Clearing, Market Maker, Proprietary Trading, Transact Business with the Public, Brokerage
Nasdaq Execution Services, LLC	8/19/2008	9/1/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	One Liberty Plaza 165 Broadway New York, NY 10006	212-231-5100	Limited Routing Facility of Nasdaq affiliated Exchanges
National Financial Services LLC	10/23/2008	10/4/2010	5/26/2010	5/27/2010	10/8/1987	4/16/2012	Member TPH	200 Seaport Boulevard Boston, MA 02210	617-563-7000	Clearing, Floor Broker, Transact Business with the Public
National Securities Corporation	7/1/2009	NA	NA	NA	NA	NA	Member TPH	One Union Square 600 University Street, Suite 2900 Seattle, WA 98101	206-622-7200	Agency
Needham & Company, LLC	10/23/2008	10/1/2010	NA	NA	NA	NA	Member TPH	445 Park Avenue New York, NY 10022	212-371-8300	Market Maker
Nomura Securities International, Inc.	10/23/2008	10/1/2010	5/26/2010	5/27/2010	9/1/2009	11/16/2010	Member TPH	Worldwide Plaza 309 W 49th Street New York, NY 10019	212-667-9000	Clearing, Transact Business with the Public, Proprietary Trading
Northern Trust Securities, Inc.	8/18/2008	10/5/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	50 S LaSalle Street Chicago, IL 60603	312-557-2000	Market Maker
Northland Securities, Inc.	12/15/2010	12/15/2010	NA	NA	NA	NA	Member TPH	45 S 7th Street 20th Floor Minneapolis, MN 55402	612-851-5900	Market Maker, Proprietary Trading
Old Mission Capital, LLC	4/16/2012	4/16/2012	4/25/2012	4/25/2012	9/27/2017	NA	Member TPH	314 W Superior Suite 200 Chicago, IL 60654	312-260-3031	Market Maker
Olivetree Financial, LLC	NA	NA	9/1/2016	NA	NA	NA	Member TPH	420 Lexington Avenue Suite 800 New York, NY 10170	646-930-6600	Agency
Oppenheimer & Co. Inc.	NA	NA	NA	NA	5/17/1973	NA	Member TPH	85 Broad Street 22nd, 24th Floors New York, NY 10004	212-668-8000	Clearing, Transact Business with the Public
Optiver US, LLC	6/15/2009	NA	NA	5/30/2018	6/1/2005	9/24/2010	Member TPH	130 E Randolph Street 14th Floor Chicago, IL 60601	312-821-9500	Market Maker
Oscar Gruss & Son Incorporated	8/7/2017	NA	NA	NA	NA	NA	Member TPH	430 Park Avenue 6th Floor New York, NY 10022	212-419-4000	Agency
OTA LLC	8/18/2008	10/7/2010	NA	NA	NA	NA	Member TPH	One Manhattanville Road Purchase, NY 10577	914-694-5800	Institutional Trading
PEAK6 Capital Management LLC	8/1/2014	NA	NA	2/1/2016	12/2/1997	NA	Member TPH	141 W Jackson Boulevard Suite 500 Chicago, IL 60604	312-444-8000	Proprietary Trading
PEAK6 Capital Management, LLC	11/3/2008	7/15/2011	NA	NA	NA	NA	Sponsored Participant	141 W Jackson Boulevard Suite 500 Chicago, IL 60604	312-362-2401	Market Maker
Penserra Securities, LLC	8/18/2008	10/6/2010	NA	NA	NA	NA	Member TPH	4 Orinda Way Suite 100-A Orinda, CA 94563	212-607-3190	Agency
Pershing LLC	8/18/2008	9/15/2010	5/26/2010	5/27/2010	2/21/1973	9/28/2010	Member TPH	One Pershing Plaza Jersey City, NJ 07399	201-413-2000	Clearing, Transact Business with the Public
Phillip Capital Inc.	NA	NA	NA	11/27/2017	NA	NA	Member TPH	141 W Jackson Boulevard Suite 3050 Chicago, IL 60604	312-356-9001	Clearing Services
Pictet Overseas Inc.	6/1/2015	6/1/2015	5/26/2010	5/27/2010	NA	NA	Member TPH	1000 de la Gauchetiere West Suite 3100 Montreal, Quebec H3B 4W5	514-288-8161	Agency

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Piper Jaffray & Co.	10/15/2008	11/15/2012	5/14/2010	5/14/2010	NA	NA	Member TPH	800 Nicollet Mall Minneapolis, MN 55402	612-303-6000	Market Maker
Potamus Trading, LLC	4/15/2013	4/15/2013	4/11/2013	4/11/2013	NA	NA	Member TPH	2 Seaport Lane 8th Floor Boston, MA 02210	617-855-8722	Market Maker, Proprietary Trading
Princeton Alpha Management, LP	12/1/2015	12/1/2015	12/1/2015	12/1/2015	NA	NA	Sponsored Participant	61 Princeton Hightstown Road West Windsor, NJ 08550	609-269-9212	Agency
PTR, Inc.	NA	NA	NA	NA	8/2/1995	NA	Member TPH	1800 JFK Boulevard Suite 401 Philadelphia, PA 19103	267-909-8368	Floor Broker, Transact Business with the Public
Puma Capital, LLC	NA	NA	6/15/2016	6/15/2016	NA	NA	Member TPH	287 Bowman Avenue 3rd Floor Purchase, NY 10577	212-269-4100	Market Maker, Proprietary Trading
Pundion LLC	2/27/2017	2/27/2017	2/27/2017	2/27/2017	NA	NA	Member TPH	230 Park Avenue 10th Floor New York, NY 10169	718-618-4929	Proprietary Trading
Quantbot Technologies LP	3/27/2018	3/27/2018	3/27/2018	3/27/2018	NA	NA	Sponsored Participant	369 Lexington Avenue New York, NY 10017	212-622-6510	Proprietary Trading
Quantex Clearing, LLC	10/3/2011	12/27/2011	5/17/2011	5/17/2011	NA	NA	Member TPH	70 Hudson Street Hoboken, NJ 07030	201-706-7157	Clearing Services
Quantlab Securities LP	8/18/2008	11/1/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	3 Greenway Plaza Suite 200 Houston, TX 77046	713-333-3700	Transact Business with the Public, Brokerage
Quiet Light Securities, LLC	NA	NA	NA	NA	5/1/2001	NA	Member TPH	141 W Jackson Boulevard Suite 2020A Chicago, IL 60604	312-431-0573	Market Maker, Proprietary Trading
R.W. Pressprich & Co.	2/17/2009	11/15/2010	6/2/2010	6/2/2010	NA	NA	Member TPH	452 5th Avenue New York, NY 10018	212-832-6200	Agency
Rackson Asset Management, LLC	10/1/2009	NA	NA	NA	NA	NA	Sponsored Participant	2000 Broadway Suite 22C New York, NY 10023	212-724-2567	Proprietary Trading
Rainier Investment Management, Inc.	1/4/2010	NA	NA	NA	NA	NA	Sponsored Participant	601 Union Street Suite 2801 Seattle, WA 98101	206-518-6658	Hedge Fund
RBC Capital Markets, LLC	9/18/2008	10/14/2010	5/14/2010	5/14/2010	11/24/1993	10/19/2010	Member TPH	3 World Financial Center 200 Vesey Street New York, NY 10281	212-858-7000	Clearing, Proprietary Trading, Transact Business with the Public
Robert W. Baird & Co. Incorporated	10/23/2008	1/3/2011	NA	NA	NA	NA	Member TPH	777 E Wisconsin Avenue Milwaukee, WI 53202	414-765-3500	Market Maker
Ronin Capital, LLC	NA	NA	NA	NA	12/17/2001	NA	Member TPH	350 N Orleans Street Suite 2N Chicago, IL 60654	312-244-5000	Market Maker
Ronin Professional, LLC	8/18/2008	10/1/2010	5/25/2010	5/27/2010	1/2/2008	10/20/2010	Member TPH	350 N Orleans Street Suite 2N Chicago, IL 60654	312-244-5400	Order Flow Provider, Transact Business with the Public, Brokerage
Rosenblatt Securities Inc.	8/18/2008	10/6/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	40 Wall Street 59th Floor New York, NY 10005	212-607-3100	Agency
Roth Capital Partners, LLC	8/18/2008	NA	NA	NA	NA	NA	Member TPH	888 San Clemente Suite 400 Newport Beach, CA 92660	949-720-5700	Market Maker
SAC Capital Advisors, LP	10/23/2008	NA	NA	NA	NA	NA	Sponsored Participant	72 Cummings Point Road Stamford, CT 06902	203-890-2275	Hedge Fund
Safra Securities LLC	NA	NA	5/26/2010	5/27/2010	NA	NA	Member TPH	546 5th Avenue New York, NY 10036	212-704-5500	Market Maker
SageTrader, LLC	3/1/2016	6/5/2017	6/5/2017	6/1/2016	NA	NA	Member TPH	340 Pine Street Suite 501 San Francisco, CA 94104	415-293-3894	Public Customer Business
SAL Equity Trading, GP	9/3/2008	10/5/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	401 City Avenue Suite 220 Bala Cynwyd, PA 19004	610-617-3000	Agency, Institutional Trading
Sanford C. Bernstein & Co, LLC	9/10/2008	10/21/2010	5/26/2010	5/27/2010	8/13/2013	NA	Member TPH	1345 Avenue of the Americas New York, NY 10105	212-969-1000	Clearing, Proprietary Trading, Transact Business with the Public
Santander Investment Securities Inc.	4/15/2009	1/3/2011	NA	NA	NA	NA	Member TPH	45 E 53rd Street New York, NY 10022	212-350-3500	Institutional Trading
Scotia Capital (USA) Inc.	3/2/2009	9/15/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	250 Vesey Street New York, NY 10281	212-225-6500	Institutional Trading
Scottrade, Inc.	6/1/2010	11/15/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	700 Maryville Centre Drive St. Louis, MO 63141	314-965-1555	Public Customer Business
Seven Points Capital, LLC	NA	NA	5/14/2010	NA	NA	NA	Member TPH	805 3rd Avenue 15th Floor New York, NY 10022	212-760-0760	Agency
SG Americas Securities, LLC	9/17/2008	11/15/2011	5/14/2010	5/14/2010	4/23/2004	1/2/2015	Member TPH	245 Park Avenue New York, NY 10167	212-278-6000	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
Simplex Trading, LLC	3/16/2015	NA	NA	4/13/2017	8/12/2010	3/1/2017	Member TPH	230 S LaSalle Street Suite 4-100 Chicago, IL 60604	312-360-2440	Market Maker, Proprietary Trading
SMBC Nikko Securities America, Inc.	8/7/2017	8/7/2017	8/7/2017	8/7/2017	NA	NA	Member TPH	277 Park Avenue 5th Floor New York, NY 10172	212-224-5039	Institutional Trading
SogoTrade, Inc.	NA	NA	NA	6/19/2017	NA	NA	Member TPH	11 Broadway Suite 514 New York, NY 10004	646-885-6486	Public Customer Business
Stifel, Nicolaus & Company, Incorporated	8/18/2008	NA	6/2/2010	6/2/2010	NA	NA	Member TPH	501 N Broadway St. Louis, MO 63102	314-342-2000	Agency
Summit Securities Group, LLC	7/16/2012	7/16/2012	8/20/2012	8/20/2012	6/6/2012	NA	Member TPH	55 Broadway Suite 2102 New York, NY 10006	646-738-4066	Market Maker, Proprietary Trading
Sumo Capital, LLC	7/15/2013	NA	NA	10/15/2015	3/3/2008	NA	Member TPH	440 S LaSalle Street Suite 2101 Chicago, IL 60605	312-324-0326	Market Maker, Proprietary Trading
SumRidge Partners, LLC	NA	NA	NA	12/27/2017	NA	NA	Member TPH	111 Town Square Place Suite 320 Jersey City, NJ 07310	201-898-2520	Proprietary Trading
Sun Trading LLC	8/18/2008	10/1/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	100 S Wacker Drive Suite 300 Chicago, IL 60606	312-924-4777	Market Maker, Proprietary Trading
Susquehanna Financial Group, LLLP	9/3/2008	10/5/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	401 City Avenue Suite 220 Bala Cynwyd, PA 19004	800-825-9550	Agency, Institutional Trading
Susquehanna Investment Group	NA	NA	NA	NA	5/1/1987	NA	Member TPH	401 City Avenue Suite 220 Bala Cynwyd, PA 19004	610-617-2600	Market Maker
Susquehanna Securities	10/15/2014	10/15/2014	10/15/2014	10/15/2014	4/4/1994	9/24/2010	Member TPH	401 City Avenue Suite 220 Bala Cynwyd, PA 19004	610-617-2600	Market Maker, Proprietary Trading

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Synergy Capital Management, LLC	8/1/2016	NA	NA	NA	6/5/2007	NA	Member TPH	141 W Jackson Boulevard Suite 1530 Chicago, IL 60604	312-986-8869	Proprietary Trading
TD Ameritrade Clearing, Inc.	5/3/2011	5/3/2011	NA	5/27/2010	NA	NA	Member TPH	200 S 108th Avenue Omaha, NE 68154	800-669-3900	Public Customer Business, Clearing Services
Telsey Advisory Group, LLC	1/24/2011	8/15/2014	NA	NA	NA	NA	Member TPH	555 5th Avenue 7th Floor New York, NY 10017	212-973-9700	Public Customer Business
Tewksbury Investment Fund, Ltd.	7/1/2011	7/1/2011	1/6/2015	1/6/2015	NA	NA	Sponsored Participant	Washington Mall I 20th Church Street, 4th Floor Hamilton, HM 11 Bermuda	610-971-5000	Proprietary Trading
Tewksbury Investment Fund, Ltd.	10/23/2008	11/15/2010	NA	NA	NA	NA	Sponsored Participant	Washington Mall I 20th Church Street, 4th Floor Hamilton, HM 11 Bermuda	212-310-7076	Proprietary Trading
Themis Trading LLC	8/18/2008	10/1/2010	NA	NA	NA	NA	Member TPH	10 Town Square Suite 100 Chatham, NJ 07928	973-665-9600	Agency
ThinkTrade, LLC	2/1/2010	10/20/2010	1/9/2015	1/9/2015	NA	NA	Sponsored Participant	2210 Encinitas Boulevard Suite 1 Encinitas, CA 92024	760-452-2451	Proprietary Trading
Timber Hill LLC	NA	NA	NA	NA	12/27/1996	12/15/2010	Member TPH	One Pickwick Plaza Suite 200 Greenwich, CT 06830	203-618-5800	Clearing, Market Maker
TJM Investments, LLC	NA	NA	NA	NA	3/11/2013	NA	Member TPH	318 W Adams Street 9th Floor Chicago, IL 60606	312-432-5100	Floor Broker, Transact Business with the Public
Tradebot Systems, Inc.	8/18/2008	9/1/2010	5/26/2010	5/27/2010	NA	NA	Member TPH	1251 NW Briarcliff Parkway Suite 700 Kansas City, MO 64116	816-285-6400	Proprietary Trading
TradeKing	10/15/2009	11/15/2010	NA	NA	NA	NA	Member TPH	888 E Las Olas Boulevard Suite 300 Fort Lauderdale, FL 33301	877-495-5464	Agency
TradeStation Securities, Inc.	8/18/2008	9/1/2010	5/25/2010	5/25/2010	NA	NA	Member TPH	8050 SW 10th Street Suite 2000 Plantation, FL 33324	954-652-7900	Market Maker
TRC Helepolis, Ltd.	12/11/2009	NA	NA	NA	NA	NA	Sponsored Participant	377 Broadway 11th Floor New York, NY 10013	646-472-1792	Proprietary Trading
TRC Markets LLC	4/13/2017	4/13/2017	4/13/2017	4/13/2017	NA	NA	Member TPH	710 Johnnie Dodds Boulevard Suite 300 Mt. Pleasant, SC 29464	917-388-8644	Agency
Trinity Executions, LLC	NA	NA	NA	NA	11/1/2011	NA	Member TPH	141 W Jackson Boulevard Suite 3900 Chicago, IL 60604	312-878-4704	Floor Broker, Transact Business with the Public
Tudor, Pickering, Holt & Co. Securities, Inc.	8/18/2008	10/17/2011	NA	NA	NA	NA	Member TPH	1111 Bagby Suite 4900 Houston, TX 77002	713-333-7100	Agency
Two Sigma Investments, LLC	9/1/2009	NA	NA	NA	NA	NA	Sponsored Participant	100 Avenue of the Americas 4th Floor New York, NY 10013	212-775-6678	Proprietary Trading
Two Sigma Partners Master Fund, Ltd.	3/2/2009	NA	NA	NA	NA	NA	Sponsored Participant	100 Avenue of the Americas 4th Floor New York, NY 10013	212-775-6678	Proprietary Trading
Two Sigma Securities, LLC	7/1/2009	NA	NA	NA	NA	NA	Sponsored Participant	100 Avenue of the Americas 4th Floor New York, NY 10013	646-292-6643	Proprietary Trading
Two Sigma Securities, LLC	10/1/2009	10/5/2010	5/27/2010	5/27/2010	9/15/2017	7/18/2018	Member TPH	100 Avenue of the Americas 19th Floor New York, NY 10013	212-625-5700	Market Maker, Broker
U.S. Securities, Intl. Corp.	NA	NA	NA	NA	7/3/1973	NA	Member TPH	120 Broadway Suite 1017 New York, NY 10271	212-227-0800	Transact Business with the Public
UBS Financial Services Inc.	NA	NA	NA	NA	12/11/1972	NA	Member TPH	1200 Harbor Boulevard Weehawken, NJ 07086	201-352-3000	Clearing, Transact Business with the Public
UBS Securities LLC	10/15/2008	10/1/2010	4/12/2010	4/12/2010	10/1/1998	10/8/2010	Member TPH	1285 Avenue of the Americas New York, NY 10019	203-719-3000	Clearing, Proprietary Trading, Transact Business with the Public
Ustocktrade Securities, Inc.	4/17/2015	NA	NA	NA	NA	NA	Member TPH	275 Grove Street Suite 2-400 Newton, MA 02466	617-340-3041	Public Customer Business, Proprietary Trading
ViewTrade Securities, Inc.	8/18/2008	11/15/2010	6/10/2010	6/10/2010	NA	NA	Member TPH	7280 W Palmetto Park Road Suite 310 Boca Raton, FL 33433	561-620-0306	Agency
Virtu Americas LLC	9/15/2009	10/14/2010	1/3/2011	1/3/2011	9/18/2009	3/17/2011	Member TPH	300 Vesey Street New York, NY 10282	646-682-6000	Clearing, Proprietary Trading, Transact Business with the Public, Brokerage
Virtu Financial BD LLC	11/17/2008	10/7/2010	5/27/2010	5/27/2010	3/1/2010	6/12/2012	Member TPH	307 Camp Craft Road Austin, TX 78743	800-544-7508	Proprietary Trading
Virtu Financial Capital Markets LLC	8/18/2008	9/1/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	300 Vesey Street New York, NY 10282	212-418-0100	Proprietary Trading
Vision Financial Markets LLC	4/1/2009	11/15/2010	7/13/2012	7/13/2012	12/1/2006	NA	Member TPH	120 Long Ridge Road 3 North Stamford, CT 06902	203-388-2700	Clearing, Transact Business with the Public
Volant Execution, LLC	6/15/2011	NA	NA	10/1/2015	4/12/2005	9/24/2010	Member TPH	111 W Jackson Boulevard 20th Floor Chicago, IL 60604	312-692-5000	Clearing, Brokerage
Volant Liquidity, LLC	4/15/2011	NA	5/27/2010	5/27/2010	2/1/2010	3/23/2011	Member TPH	250 Vesey Street Suite 2601 New York, NY 10281	646-804-7900	Market Maker, Order Flow Provider, Brokerage
Wall Street Access	11/3/2008	10/17/2011	5/27/2010	5/27/2010	NA	NA	Member TPH	17 Battery Place 11th Floor New York, NY 10004	212-709-9400	Agency
Walleye Trading LLC	12/1/2008	11/12/2010	NA	4/17/2018	6/1/2006	NA	Member TPH	2800 Niagara Lane North Plymouth, MN 55447	952-345-6611	Market Maker
Wedbush Securities Inc.	8/18/2008	9/1/2010	5/27/2010	5/27/2010	2/23/2012	3/8/2012	Member TPH	1000 Wilshire Boulevard Suite 900 Los Angeles, CA 90017	213-688-8090	Clearing
Wells Fargo Clearing Services, LLC	7/1/2016	NA	NA	NA	11/14/2016	NA	Member TPH	One N Jefferson Avenue Mail Code: H0004-050 St. Louis, MO 63103	314-875-3000	Clearing, Transact Business with the Public
Wells Fargo Securities, LLC	8/18/2008	10/11/2010	6/9/2010	6/9/2010	4/1/2014	4/1/2014	Member TPH	550 S Tryon Street, 6th Floor D1086-060 Charlotte, NC 28202	704-410-1913	Clearing, Proprietary Trading
Western International Securities, Inc.	8/18/2008	11/15/2010	NA	NA	NA	NA	Member TPH	70 S Lake Avenue Suite 700 Pasadena, CA 91101	626-793-7717	Market Maker
Wolverine Execution Services, LLC	8/18/2008	10/19/2010	5/14/2010	5/14/2010	3/1/2006	9/24/2010	Member TPH	175 W Jackson Boulevard Suite 200 Chicago, IL 60604	312-884-4000	Clearing, Floor Broker, Transact Business with the Public, Brokerage
Wolverine Securities, LLC	NA	NA	NA	5/31/2017	NA	NA	Member TPH	175 W Jackson Boulevard Suite 200 Chicago, IL 60604	312-884-4000	Market Maker
Wolverine Trading, LLC	10/3/2011	NA	NA	10/1/2015	7/12/1994	9/24/2010	Member TPH	175 W Jackson Boulevard Suite 200 Chicago, IL 60604	312-884-4000	Market Maker, Proprietary Trading

Company Name	BZX Approval Date	BYX Approval Date	EDGA Approval Date	EDGX Approval Date	CBOE Effective Date	C2 Effective Date	Type of User	Address	Phone Number	Primary Activities
X-Change Financial Access, LLC	NA	NA	NA	NA	5/1/2003	NA	Member TPH	440 S LaSalle Street Suite 2900 Chicago, IL 60605	312-235-0320	Clearing, Floor Broker, Transact Business with the Public
XR Securities LLC	1/15/2009	11/15/2010	5/10/2012	5/10/2012	11/30/2007	NA	Member TPH	550 W Jackson Boulevard Suite 1000 Chicago, IL 60661	312-244-4500	Market Maker, Proprietary Trading