

Form 1 Page 1 Execution Page	U.S. SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549  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	Date filed (MM/DD/YY)  06/13/19	OFFICIAL USE ONLY
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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 EDGX 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 EDGX 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  
Section  
JUN 17 2019  
Washington DC  
408

Securities and Exchange Commission  
Trading and Markets

JUN 17 2019

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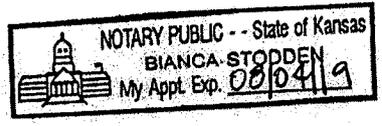


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**EXECUTION:**  
The applicant consents that service of any civil action brought by, or notice of any proceeding before, the Securities and Exchange Commission in connection with the applicant's activities may be given by registered or certified mail 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: 06/13/19 (MM/DD/YY) Cboe EDGX Exchange, Inc. (Name of Applicant)  
By: [Signature] Kyle Murray, Assistant General Counsel (Printed Name and Title)  
Subscribed and sworn before me this 13<sup>th</sup> day of June, 2019 by Rau (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.





June 13, 2019

**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  
Section

JUN 17 2019

Washington DC  
408

Securities and Exchange Commission  
Trading and Markets

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

JUN 17 2019

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Dear Jeanette:

On behalf of Cboe EDGX Exchange, Inc. (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 D (updated to provide financial statements for the latest fiscal year for each subsidiary or affiliate of the Exchange);
- Exhibit I (updated to provide audited financial statements for the latest fiscal year for the Exchange);
- Exhibit K (included as part of annual submission but no changes as compared to Exhibit on file);
- Exhibit M (included as part of annual submission but no changes as compared to Exhibit on file);

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

Sincerely,

Kyle Murray  
Assistant General Counsel  
913-815-7121

Enclosures

<sup>1</sup> This submission serves as the required annual submission of Exhibits D, I, K & M. See Attachment for a comprehensive list of updates to these Exhibits. Please note, Exhibit N is still outstanding at this time but will be provided prior to the end of June deadline.

## **Attachment**

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

- Updated consolidated financial statements for each subsidiary or affiliate of the Exchange (as of 12/31/18)

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

- Updated audited financial statements of Cboe EDGX Exchange, Inc. (as of 12/31/18)

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

- No changes since previous submission dated 06/28/18

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

- No changes since previous submission dated 06/07/19

Exhibit D

**Exhibit Request:**

**For each subsidiary or affiliate of the exchange, provide unconsolidated financial statements for the latest fiscal year. Such financial statements shall consist, at a minimum, of a balance sheet and an income statement with such footnotes and other disclosures as are necessary to avoid rendering the financial statements misleading. If any affiliate or subsidiary is required by another Commission rule to submit annual financial statements, a statement to that effect with a citation to the other Commission rule, may be provided in lieu of the financial statements required here.**

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1. For the financial statements of Cboe ETF.com, Inc., Bats Global Markets Holdings Limited, Cboe International Holdings Limited, Cboe Europe Limited, Cboe Worldwide Holdings Limited, Cboe BYX Exchange, Inc., Cboe BZX Exchange, Inc., Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe Futures Exchange, LLC, Cboe Global Markets, Inc., Cboe Bats, LLC, Cboe UK Limited, CBOE Hong Kong Limited, Cboe Building Corporation, Cboe Chi-X Europe Limited, Direct Edge LLC, Cboe EDGA Exchange, Inc., Cboe EDGX Exchange, Inc., Cboe FX Asia Pte. Limited, Cboe SEF, LLC, Cboe FX Europe Limited, Cboe FX Markets, LLC, Cboe FX Holdings, LLC, Bats Hotspot IB LLC, Index Pubs SA LLC, Cboe Livevol, LLC, Cboe Data Shop, LLC, Omicron Acquisition Corp., Cboe Silexx, LLC, Cboe Trading, Inc., and Cboe Vest, LLC.
  2. Cboe Exchange, Inc. filed, at the same time as this filing, financial statements for the year ended December 31, 2018 with the Commission pursuant to Rule 6a-2(b)(1) under the Securities Exchange Act of 1934.
  3. Cboe C2 Exchange, Inc. filed, at the same time as this filing, financial statements for the year ended December 31, 2018 with the Commission pursuant to Rule 6a-2(b)(1) under the Securities Exchange Act of 1934.
  4. Cboe BZX Exchange, Inc. filed, at the same time as this filing, financial statements for the year ended December 31, 2018 with the Commission pursuant to Rule 6a-2(b)(1) under the Securities Exchange Act of 1934.
  5. Cboe BYX Exchange, Inc. filed, at the same time as this filing, financial statements for the year ended December 31, 2018 with the Commission pursuant to Rule 6a-2(b)(1) under the Securities Exchange Act of 1934.
  6. Cboe EDGA Exchange, Inc. filed, at the same time as this filing, financial statements for the year ended December 31, 2018 with the Commission pursuant to Rule 6a-2(b)(1) under the Securities Exchange Act of 1934.

**Cboe Global Markets, Inc.**  
**Consolidating Balance Sheet**  
**As of December 31, 2018**  
**(unaudited)**

	Cboe ETF.com, Inc.	Bats Global Markets Holdings, Inc.	Cboe International Holdings Limited	Cboe Europe Limited	Cboe Worldwide Holdings Limited	Cboe BYX Exchange, Inc.	Cboe BZX Exchange, Inc.	Cboe Exchange, Inc.	Cboe C2 Exchange, Inc.	Cboe Futures Exchange, LLC
<b>Current Assets:</b>										
Cash and cash equivalents	-	-	-	65,813,251.90	100.01	-	-	5,237,780.48	418,860.70	21,105,649.51
Financial investments	-	-	-	(0.02)	-	-	-	-	-	-
Accounts receivable, net	5,068,111.21	43,088,243.54	(3,361.87)	19,093,800.81	780,122.12	235,211,467.66	728,198,620.11	1,263,304,228.60	98,488,070.10	347,202,583.04
Marketing fee receivable	-	-	-	-	-	-	-	-	-	-
Income tax receivable	-	-	-	-	17,380.46	-	-	-	-	-
Prepaid expenses	-	-	-	-	-	-	-	-	-	-
Other current assets	9,080.36	-	-	1,282,360.25	-	227,272.71	227,272.71	985,848.77	227,272.83	-
<b>Total Current Assets</b>	<b>5,077,191.57</b>	<b>43,088,243.54</b>	<b>(3,361.87)</b>	<b>86,189,412.94</b>	<b>797,602.59</b>	<b>235,438,740.37</b>	<b>728,425,892.82</b>	<b>1,269,527,857.85</b>	<b>99,134,203.63</b>	<b>368,308,232.55</b>
Investments	-	739,524,090.21	8,141,422.63	9,712,406.41	731,927,368.28	-	-	42,780,145.18	-	-
Land	-	-	-	-	-	-	-	-	-	-
Property & Equipment	7,869.56	86,867.06	-	9,060,887.90	-	-	23,090.50	7,809,306.99	(112,135.60)	86,867.06
Goodwill	-	-	-	267,619,914.35	-	-	-	-	-	-
Intangible assets, net	-	62,689.57	-	375,963,010.26	-	-	-	831,885.57	-	-
Other assets, net	1,193.12	(86,867.06)	-	790,753.72	-	2,738,563.39	6,425,155.96	23,863,565.88	3,979,037.21	(86,867.06)
<b>Total Assets</b>	<b>5,086,254.25</b>	<b>782,675,023.32</b>	<b>8,138,060.76</b>	<b>749,336,385.58</b>	<b>732,724,970.87</b>	<b>238,177,303.76</b>	<b>734,874,139.28</b>	<b>1,344,812,761.47</b>	<b>103,001,105.24</b>	<b>368,308,232.55</b>
<b>Current Liabilities:</b>										
Accounts payable and accrued liabilities	4,195,749.46	59,548,272.39	477.54	15,906,625.32	4,530,729.63	205,219,433.33	647,618,092.72	794,710,680.86	92,125,949.43	141,727,339.97
Section 31 fees payable	-	-	-	-	-	14,039,004.04	33,281,467.99	5,035,414.56	455,172.99	-
Deferred revenue	21,004.20	-	-	216,136.22	-	-	(0.04)	7,251,218.92	907,895.17	2,083.35
Income taxes payable	-	-	-	4,071,892.05	(0.18)	-	-	-	-	-
Current portion of long-term debt	-	-	-	-	-	-	-	-	-	-
Deferred tax liabilities	-	-	-	-	-	-	-	-	-	-
Contingent consideration liability	-	-	-	-	-	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>4,216,753.66</b>	<b>59,548,272.39</b>	<b>477.54</b>	<b>20,194,653.59</b>	<b>4,530,729.45</b>	<b>219,258,437.37</b>	<b>680,899,560.67</b>	<b>806,997,314.34</b>	<b>93,489,017.59</b>	<b>141,729,423.32</b>
Long term debt	-	-	-	-	87,380,833.18	-	-	-	-	-
Income tax liability	1,068.00	25,032.00	-	-	-	4,454,839.00	13,640,393.00	63,956,768.00	783,369.00	11,531,795.00
Deferred income taxes	(495,208.00)	(13,021,714.00)	-	63,238,335.23	0.36	(554,106.00)	(1,745,326.00)	203,334.00	(2,092,084.00)	(1,377,430.00)
Commitments and contingencies	-	250.00	-	1,872,868.14	-	-	-	1,341,229.81	-	-
Redeemable noncontrolling interest	-	-	-	-	-	-	-	-	-	-
Common stock	-	1.00	-	14.84	-	1.00	1.00	10.00	10.00	-
Treasury stock	-	(1,900,174.15)	-	-	-	-	-	-	-	-
Additional paid in capital	2,632,989.38	787,929,171.52	4,721,921.95	688,973,954.32	545,141,554.34	(90,740,634.17)	(280,538,037.01)	22,165,801.00	44,999,990.00	-
Retained earnings	(1,269,348.79)	(132,386,619.46)	3,650,235.48	13,552,927.10	13,191,050.12	105,758,766.56	322,617,547.62	450,150,324.29	(34,179,197.35)	216,424,444.23
Accumulated other comprehensive income	-	82,480,804.02	(234,574.21)	(38,496,367.64)	82,480,803.42	-	-	(2,019.97)	-	-
<b>Total stockholders' equity</b>	<b>1,363,640.59</b>	<b>736,123,182.93</b>	<b>8,137,583.22</b>	<b>664,030,528.62</b>	<b>640,813,407.88</b>	<b>15,018,133.39</b>	<b>42,079,511.61</b>	<b>472,314,115.32</b>	<b>10,820,802.65</b>	<b>216,424,444.23</b>
<b>Total liabilities, redeemable noncontrolling interest, and stockholders' equity</b>	<b>5,086,254.25</b>	<b>782,675,023.32</b>	<b>8,138,060.76</b>	<b>749,336,385.58</b>	<b>732,724,970.87</b>	<b>238,177,303.76</b>	<b>734,874,139.28</b>	<b>1,344,812,761.47</b>	<b>103,001,105.24</b>	<b>368,308,232.55</b>

**Choe Global Markets, Inc.**  
**Consolidating Balance Sheet**  
**As of December 31, 2018**  
**(unaudited)**

	<b>Choe Global Markets, Inc.</b>	<b>Choe Bats, LLC</b>	<b>Choe UK Limited</b>	<b>CBOE Hong Kong Limited</b>	<b>Choe Building Corporation</b>	<b>Choe Chi-X Europe Limited</b>	<b>Direct Edge LLC</b>	<b>Choe EDGA Exchange, Inc.</b>	<b>ECboe EDGX Exchange, Inc.</b>	<b>Choe FX Asia Pte. Limited</b>
<b>Current Assets:</b>										
Cash and cash equivalents	86,886,750.93	63,111,616.74	220,550.05	222,829.61	45,975.57	331,320.99	-	-	-	31,955.80
Financial investments	35,076,623.01	-	-	-	-	-	-	-	-	-
Accounts receivable, net	2,430,784,227.76	742,958,487.53	(101,451.80)	841,325.43	(41,173,266.17)	244,806.17	-	110,495,100.40	454,952,641.61	2,131,091.90
Marketing fee receivable	-	-	-	-	-	-	-	-	-	-
Income tax receivable	70,263,427.00	-	15,339.79	-	-	-	-	-	-	-
Prepaid expenses	-	-	-	-	-	-	-	-	-	-
Other current assets	11,162,597.99	-	7,463.57	8,594.20	21,063.48	0.01	0.01	227,272.71	227,272.71	32,414.17
<b>Total Current Assets</b>	<b>2,634,173,626.69</b>	<b>806,070,104.27</b>	<b>141,901.61</b>	<b>1,072,749.24</b>	<b>(41,106,227.12)</b>	<b>576,127.17</b>	<b>0.01</b>	<b>110,722,373.11</b>	<b>455,179,914.32</b>	<b>2,195,461.87</b>
Investments	4,313,548,417.95	784,830,006.85	-	-	-	-	17,316,079.74	-	-	-
Land	-	-	-	-	4,914,305.80	-	-	-	-	-
Property & Equipment	30,514,723.65	(224,999.55)	-	-	23,166,838.88	-	-	-	-	-
Goodwill	-	2,286,704,393.92	-	-	-	-	-	-	-	7,179.32
Intangible assets, net	-	1,335,125,715.78	-	-	-	-	-	-	-	-
Other assets, net	12,477,417.82	4,185,464.20	-	10,204.31	-	-	-	2,738,563.39	5,167,135.35	25,081.04
<b>Total Assets</b>	<b>6,990,714,186.11</b>	<b>5,216,690,685.47</b>	<b>141,901.61</b>	<b>1,082,953.55</b>	<b>(13,025,082.44)</b>	<b>576,127.17</b>	<b>17,316,079.75</b>	<b>113,460,936.50</b>	<b>460,347,049.67</b>	<b>2,227,722.23</b>
<b>Current Liabilities:</b>										
Accounts payable and accrued liabilities	3,330,803,951.13	550,831,932.96	339,929.92	820,123.86	15,518,053.24	45,148.34	-	83,864,165.29	396,208,540.39	2,026,040.06
Section 31 fees payable	-	-	-	-	-	-	-	6,179,508.32	21,422,705.05	-
Deferred revenue	1,050.00	50,004.00	-	-	1,000.00	-	-	-	0.01	-
Income taxes payable	0.35	-	(0.38)	2,985.26	-	(32,922.09)	-	-	-	8,769.93
Current portion of long-term debt	299,759,666.18	-	-	-	-	-	-	-	-	-
Deferred tax liabilities	-	-	-	-	-	-	-	-	-	-
Contingent consideration liability	-	-	-	-	-	-	-	-	-	-
<b>Total Current Liabilities</b>	<b>3,630,564,667.66</b>	<b>550,881,936.96</b>	<b>339,929.54</b>	<b>823,109.12</b>	<b>15,519,053.24</b>	<b>12,226.25</b>	<b>-</b>	<b>90,043,673.61</b>	<b>417,631,245.45</b>	<b>2,034,809.99</b>
Long term debt	915,626,718.15	-	-	-	-	-	-	-	-	-
Income tax liability	2,381,776.00	-	-	-	305,280.00	-	-	4,578,390.00	4,681,169.00	-
Deferred income taxes	(3,532,341.00)	330,714,135.00	-	-	(605,360.00)	-	-	(561,442.00)	(641,354.00)	17,385.67
Commitments and contingencies	1,912,948.00	2,262,385.47	(0.01)	-	-	-	-	-	-	0.01
Redeemable noncontrolling interest	9,449,997.18	-	-	-	-	-	-	-	-	-
Common stock	1,195,859.64	968,551.01	-	-	-	47,345,245.65	-	-	-	-
Treasury stock	(720,062,295.70)	-	-	-	-	-	-	-	-	-
Additional paid in capital	2,660,221,377.32	3,989,640,798.65	-	208,818.69	-	(46,796,716.24)	21,014,813.40	(80,993,288.53)	(68,322,382.27)	174,157.95
Retained earnings	445,899,953.22	259,742,075.52	(213,965.44)	53,669.53	(28,244,055.68)	48,872.36	(3,698,733.65)	100,393,603.42	106,998,371.49	19,843.84
Accumulated other comprehensive income	47,055,525.64	82,480,802.86	15,937.52	(2,643.79)	-	(33,500.85)	-	-	-	(18,475.23)
<b>Total stockholders' equity</b>	<b>2,434,310,420.12</b>	<b>4,332,832,228.04</b>	<b>(198,027.92)</b>	<b>259,844.43</b>	<b>(28,244,055.68)</b>	<b>563,900.92</b>	<b>17,316,079.75</b>	<b>19,400,314.89</b>	<b>38,675,989.22</b>	<b>175,526.56</b>
<b>Total liabilities, redeemable noncontrolling interest, and stockholders' equity</b>	<b>6,990,714,186.11</b>	<b>5,216,690,685.47</b>	<b>141,901.61</b>	<b>1,082,953.55</b>	<b>(13,025,082.44)</b>	<b>576,127.17</b>	<b>17,316,079.75</b>	<b>113,460,936.50</b>	<b>460,347,049.67</b>	<b>2,227,722.23</b>

**Choe Global Markets, Inc.**  
**Consolidating Balance Sheet**  
**As of December 31, 2018**  
**(unaudited)**

	Cboe SEF, LLC	Cboe FX Europe Limited	Cboe FX Markets, LLC	Cboe FX Holdings, LLC	Bats Hotspot IB LLC	Index Pubs SA	Cboe Livevol, LLC	Cboe Data Shop, LLC	Omicron Acquisition Corp.	Cboe Silexx, LLC
<b>Current Assets:</b>										
Cash and cash equivalents	1,800,699.84	6,082,582.41	175,875.09	-	-	259,884.63	1,447,932.12	2,752,665.11	-	-
Financial investments	-	-	-	-	-	-	-	-	-	-
Accounts receivable, net	138,100.71	5,522,380.71	80,705,638.00	-	7,981.92	1,242,332.82	4,579,972.04	37,034,659.63	1,400,885.89	4,099,585.94
Marketing fee receivable	-	-	-	-	-	-	-	-	-	-
Income tax receivable	-	69,432.70	-	-	-	-	-	-	-	-
Prepaid expenses	-	-	-	-	-	-	-	-	-	-
Other current assets	76,000.00	149,401.43	134,325.77	-	-	9,596.60	30,981.44	-	-	5,808.00
<b>Total Current Assets</b>	<b>2,014,800.55</b>	<b>11,823,797.25</b>	<b>81,015,838.86</b>	<b>-</b>	<b>7,981.92</b>	<b>1,511,814.05</b>	<b>6,058,885.60</b>	<b>39,787,324.74</b>	<b>1,400,885.89</b>	<b>4,105,393.94</b>
Investments	-	-	-	(30,546,948.88)	-	-	-	-	636,365,542.18	-
Land	-	-	-	-	-	-	-	-	-	-
Property & Equipment	-	52,537.33	393,362.68	-	-	34,771.99	792,686.70	208.65	-	40,833.33
Goodwill	-	-	-	-	-	-	6,255,000.00	-	105,336,844.00	6,680,000.00
Intangible assets, net	976,543.38	-	-	-	-	-	1,183,583.52	-	-	1,811,826.92
Other assets, net	-	(44,608.78)	(131,784.90)	-	-	2,250.00	859,122.80	-	87,380,833.18	-
<b>Total Assets</b>	<b>2,991,343.93</b>	<b>11,831,725.80</b>	<b>81,277,416.64</b>	<b>(30,546,948.88)</b>	<b>7,981.92</b>	<b>1,548,836.04</b>	<b>15,149,278.62</b>	<b>39,787,533.39</b>	<b>830,484,105.25</b>	<b>12,638,054.19</b>
<b>Current Liabilities:</b>										
Accounts payable and accrued liabilities	993,163.92	4,935,029.28	82,128,638.26	-	-	1,392,442.11	3,667,811.43	12,865,988.59	3,288,330.70	1,781,779.83
Section 31 fees payable	-	-	-	-	-	-	-	-	-	-
Deferred revenue	-	-	-	-	-	-	250.00	12,989.21	-	-
Income taxes payable	-	0.25	-	-	-	45,233.00	-	-	-	-
Current portion of long-term debt	-	-	-	-	-	-	-	-	-	-
Deferred tax liabilities	-	-	-	-	-	-	-	-	-	-
Contingent consideration liability	-	-	114,153.00	-	-	-	-	-	-	3,791,663.98
<b>Total Current Liabilities</b>	<b>993,163.92</b>	<b>4,935,029.53</b>	<b>82,242,791.26</b>	<b>-</b>	<b>-</b>	<b>1,437,675.11</b>	<b>3,668,061.43</b>	<b>12,878,977.80</b>	<b>3,288,330.70</b>	<b>5,573,443.81</b>
Long term debt	-	-	-	-	-	-	-	-	-	-
Income tax liability	-	-	-	-	-	-	-	150,863.00	7,600,288.00	-
Deferred income taxes	-	(163,463.08)	-	-	-	-	226,088.00	(31,694.00)	67,213,964.00	68,597.00
Commitments and contingencies	-	5,749.22	-	-	-	-	-	-	-	-
Redeemable noncontrolling interest	-	-	-	-	-	-	-	-	-	-
Common stock	-	-	-	-	-	-	-	-	2.00	-
Treasury stock	-	-	-	-	-	-	-	-	-	-
Additional paid in capital	4,808,374.99	3,888,476.86	(58,374,014.68)	(55,933,054.61)	-	(2,535.85)	10,547,193.72	-	625,798,025.06	9,039,046.75
Retained earnings	(2,810,194.98)	3,320,866.71	57,408,640.06	25,386,105.73	7,981.92	113,696.78	707,935.47	26,789,386.59	44,102,692.47	(2,043,033.37)
Accumulated other comprehensive income	-	(154,933.44)	-	-	-	-	-	-	82,480,803.02	-
<b>Total stockholders' equity</b>	<b>1,998,180.01</b>	<b>7,054,410.13</b>	<b>(965,374.62)</b>	<b>(30,546,948.88)</b>	<b>7,981.92</b>	<b>111,160.93</b>	<b>11,255,129.19</b>	<b>26,789,386.59</b>	<b>752,381,522.55</b>	<b>6,996,013.38</b>
<b>Total liabilities, redeemable noncontrolling interest, and stockholders' equity</b>	<b>2,991,343.93</b>	<b>11,831,725.80</b>	<b>81,277,416.64</b>	<b>(30,546,948.88)</b>	<b>7,981.92</b>	<b>1,548,836.04</b>	<b>15,149,278.62</b>	<b>39,787,533.39</b>	<b>830,484,105.25</b>	<b>12,638,054.19</b>

**Cboe Global Markets, Inc.**  
**Consolidating Balance Sheet**  
**As of December 31, 2018**  
**(unaudited)**

	Cboe III, LLC	Cboe Trading, Inc.	Cboe Vest, LLC	Eliminations	Total
<b>Current Assets:</b>					
Cash and cash equivalents	-	17,501,836.26	1,615,553.12	-	275,063,670.87
Financial investments	-	490,252.81	173,950.36	-	35,740,826.16
Accounts receivable, net	(25,296,300.33)	52,310,354.26	7,591,312.27	(6,323,648,930.34)	287,252,821.67
Marketing fee receivable	-	-	-	-	-
Income tax receivable	-	-	-	-	70,365,579.95
Prepaid expenses	-	-	-	-	-
Other current assets	-	-	99,545.30	-	15,151,445.02
<b>Total Current Assets</b>	<b>(25,296,300.33)</b>	<b>70,302,443.33</b>	<b>9,480,361.05</b>	<b>(6,323,648,930.34)</b>	<b>683,574,343.67</b>
Investments	25,296,300.33	-	157,889.00	(7,192,836,407.57)	86,216,312.31
Land	-	-	-	-	4,914,305.80
Property & Equipment	-	-	-	-	71,740,896.45
Goodwill	-	19,628.00	18,812,681.00	-	2,691,428,461.27
Intangible assets, net	-	-	4,196,428.46	-	1,720,151,683.46
Other assets, net	-	-	-	(87,380,833.18)	62,913,380.39
<b>Total Assets</b>	<b>-</b>	<b>70,322,071.33</b>	<b>32,647,359.51</b>	<b>(13,603,866,171.09)</b>	<b>5,320,939,383.35</b>
<b>Current Liabilities:</b>					
Accounts payable and accrued liabilities	-	56,871,119.93	6,350,563.57	(6,321,905,268.89)	198,410,834.57
Section 31 fees payable	-	687,944.89	-	-	81,101,217.84
Deferred revenue	-	-	-	-	8,463,631.04
Income taxes payable	-	-	-	-	4,095,958.19
Current portion of long-term debt	-	-	-	-	299,759,666.18
Deferred tax liabilities	-	-	-	-	-
Contingent consideration liability	-	-	-	-	3,905,816.98
<b>Total Current Liabilities</b>	<b>-</b>	<b>57,559,064.82</b>	<b>6,350,563.57</b>	<b>(6,321,905,268.89)</b>	<b>595,737,124.80</b>
Long term debt	-	-	-	(87,380,833.18)	915,626,718.15
Income tax liability	-	792,235.00	-	-	114,883,265.00
Deferred income taxes	-	(110,433.00)	-	-	436,749,884.18
Commitments and contingencies	-	-	-	-	7,395,430.64
Redeemable noncontrolling interest	-	-	-	-	9,449,997.18
Common stock	-	1.00	52,635.46	(48,366,472.96)	1,195,859.64
Treasury stock	-	-	-	1,900,174.15	(720,062,295.70)
Additional paid in capital	-	6,968,160.85	35,609,871.10	(6,122,562,457.17)	2,660,221,377.32
Retained earnings	-	5,113,042.66	(9,365,710.62)	(699,030,194.30)	1,288,210,979.53
Accumulated other comprehensive income	-	-	-	(326,521,118.74)	11,531,042.61
<b>Total stockholders' equity</b>	<b>-</b>	<b>12,081,204.51</b>	<b>26,296,795.94</b>	<b>(7,194,580,069.02)</b>	<b>3,241,096,963.40</b>
<b>Total liabilities, redeemable noncontrolling interest, and stockholders' equity</b>	<b>-</b>	<b>70,322,071.33</b>	<b>32,647,359.51</b>	<b>(13,603,866,171.09)</b>	<b>5,320,939,383.35</b>

**Cboe Global Markets, Inc.**  
**Consolidating Income Statement**  
**Twelve Months Ended December 31, 2018**  
(unaudited)

	Cboe ETF.com, Inc.	Bats Global Markets Holdings, Inc.	Cboe International Holdings Limited	Cboe Europe Limited	Cboe Worldwide Holdings Limited	Cboe BYX Exchange, Inc.	Cboe BZX Exchange, Inc.	Cboe Exchange, Inc.	Cboe C2 Exchange, Inc.	Cboe Futures Exchange, LLC
<b>Revenues:</b>										
Transaction fees	-	-	-	97,409,057.64	-	160,428,160.82	588,568,588.94	471,254,976.18	76,838,352.46	127,920,017.75
Access fees	-	-	-	8,870,598.60	-	9,541,628.52	28,125,839.66	42,281,742.02	5,652,298.50	6,831,636.15
Exchange services and other fees	-	-	-	5,922,214.89	-	7,339,712.77	7,473,718.82	29,250,999.24	2,681,602.78	8,345,124.00
Market data fees	-	-	-	13,087,679.70	-	25,909,222.44	62,335,926.35	18,622,537.72	2,462,356.00	6,665,628.39
Regulatory fees	-	-	-	-	-	54,005,683.69	117,766,305.42	40,471,319.94	7,370,565.18	89,500.00
Other revenue	2,710,694.62	313,699.47	-	6,400,555.53	-	416,650.00	1,397,575.00	16,836,040.07	4,791.65	77,616.65
<b>Total revenues</b>	<b>2,710,694.62</b>	<b>313,699.47</b>	<b>-</b>	<b>131,690,106.36</b>	<b>-</b>	<b>257,641,058.24</b>	<b>805,667,954.19</b>	<b>618,717,615.17</b>	<b>95,009,966.57</b>	<b>149,929,522.94</b>
<b>Cost of revenues:</b>										
Liquidity payments	-	-	-	(37,012,434.26)	-	(145,945,145.82)	(542,214,083.25)	-	(63,207,404.59)	(190,526.32)
Routing and clearing	-	-	-	-	-	-	-	(5,844,166.73)	(502,142.97)	-
Section 31	(264,422.83)	-	-	(15,294.41)	-	(54,005,683.74)	(116,529,922.24)	(16,442,318.54)	(2,070,565.15)	-
Royalty fees	-	-	-	-	-	-	(56,900.25)	(85,954,124.11)	(1,064,503.50)	(5,435,454.22)
<b>Total cost of revenue</b>	<b>(264,422.83)</b>	<b>-</b>	<b>-</b>	<b>(37,027,728.67)</b>	<b>-</b>	<b>(199,950,829.56)</b>	<b>(658,800,905.74)</b>	<b>(108,240,609.38)</b>	<b>(66,844,616.21)</b>	<b>(5,625,980.54)</b>
<b>Revenues less cost of revenues</b>	<b>2,446,271.79</b>	<b>313,699.47</b>	<b>-</b>	<b>94,662,377.69</b>	<b>-</b>	<b>57,690,228.68</b>	<b>146,867,048.45</b>	<b>510,477,005.79</b>	<b>28,165,350.36</b>	<b>144,303,542.40</b>
<b>Operating expenses:</b>										
Compensation and benefits	782,703.29	24,949,076.43	-	25,514,050.48	-	9,680,578.67	30,680,892.67	85,166,032.15	6,449,388.89	-
Depreciation and amortization	5,805.39	-	-	31,270,120.05	-	-	57,171.22	23,180,285.90	1,286,631.47	101,229.58
Technology support services	564,540.34	-	-	5,366,617.96	-	6,008,569.32	11,286,343.93	13,995,071.21	1,132,675.00	(42,864.70)
Professional fees and outside services	129,304.12	-	-	1,701,413.63	39,223.24	4,378,372.38	9,037,722.38	32,837,530.65	7,748,654.30	1,173,261.99
Travel and promotional expenses	175,173.41	-	-	1,306,569.18	-	551,244.03	1,603,225.61	4,963,840.29	334,210.27	54,543.61
Facilities cost	38,315.48	313,699.47	-	1,246,672.45	-	88,066.10	1,835,272.27	7,026,704.69	633,033.35	-
Acquisition-related costs	-	234,889.94	-	1,364,192.60	-	-	-	11,606,084.15	-	-
Other expenses	94,717.18	-	475.16	2,617,610.59	488.44	2,032,368.93	3,592,536.47	4,859,134.53	361,906.97	27,800.32
<b>Total operating expenses</b>	<b>1,790,559.21</b>	<b>25,497,665.84</b>	<b>475.16</b>	<b>70,387,246.94</b>	<b>39,711.68</b>	<b>22,739,199.43</b>	<b>58,093,164.55</b>	<b>183,634,683.57</b>	<b>17,946,500.25</b>	<b>1,313,970.80</b>
<b>Operating income (loss)</b>	<b>655,712.58</b>	<b>(25,183,966.37)</b>	<b>(475.16)</b>	<b>24,275,130.75</b>	<b>(39,711.68)</b>	<b>34,951,029.25</b>	<b>88,773,883.90</b>	<b>326,842,322.22</b>	<b>10,218,850.11</b>	<b>142,989,571.60</b>
<b>Non operating (expense) income:</b>										
Interest expense, net	-	-	-	(226,735.12)	1,339,715.17	-	(26,131.18)	(1,379,756.69)	(16,196.93)	(70,018.54)
Other non operating income/expense	-	-	-	181,676.54	(0.01)	-	7,671.34	(9,741,298.97)	66,996.95	-
<b>Income (loss) before income tax provision(benefit)</b>	<b>655,712.58</b>	<b>(25,183,966.37)</b>	<b>(475.16)</b>	<b>24,320,189.33</b>	<b>(1,379,426.84)</b>	<b>34,951,029.25</b>	<b>88,792,343.74</b>	<b>337,963,377.88</b>	<b>10,168,050.09</b>	<b>143,059,590.14</b>
<b>Income tax provision (benefit)</b>	<b>(13,749.00)</b>	<b>4,231,294.00</b>	<b>-</b>	<b>4,789,922.05</b>	<b>(262,091.00)</b>	<b>8,554,249.00</b>	<b>20,479,079.00</b>	<b>90,151,718.00</b>	<b>3,695,647.00</b>	<b>42,759,633.00</b>
<b>Net Income</b>	<b>669,461.58</b>	<b>(29,415,260.37)</b>	<b>(475.16)</b>	<b>19,530,267.28</b>	<b>(1,117,335.84)</b>	<b>26,396,780.25</b>	<b>68,313,264.74</b>	<b>247,811,659.88</b>	<b>6,472,403.09</b>	<b>100,299,957.14</b>

**Cboe Global Markets, Inc.**  
**Consolidating Income Statement**  
**Twelve Months Ended December 31, 2018**  
(unaudited)

	Cboe Global Markets, Inc.	Cboe Bats, LLC	Cboe UK Limited	CBOE Hong Kong Limited	Cboe Building Corporation	Cboe Chi-X Europe Limited	Direct Edge LLC	Cboe EDGA Exchange, Inc.	Cboe EDGX Exchange, Inc.	Cboe FX Asia Pte. Limited	Cboe SEF, LLC
<b>Revenues:</b>											
Transaction fees	-	-	-	-	-	19,227.14	-	27,635,004.22	340,879,709.66	-	55.70
Access fees	28,500.00	-	-	-	-	-	-	9,144,680.91	13,719,778.60	-	-
Exchange services and other fees	(102,466.00)	-	-	-	8,350.00	-	-	7,328,892.93	7,344,415.06	-	-
Market data fees	(11,924.50)	360.00	-	-	-	-	-	13,025,262.04	50,024,559.76	-	-
Regulatory fees	-	-	-	-	-	-	-	20,821,037.33	93,312,715.14	-	-
Other revenue	30,057.84	-	-	-	344,462.91	-	-	474,450.00	1,130,082.14	-	-
<b>Total revenues</b>	<b>(55,832.66)</b>	<b>360.00</b>	<b>-</b>	<b>-</b>	<b>352,812.91</b>	<b>19,227.14</b>	<b>-</b>	<b>78,429,327.43</b>	<b>506,411,260.36</b>	<b>-</b>	<b>55.70</b>
<b>Cost of revenues:</b>											
Liquidity payments	-	-	-	-	-	-	-	(15,092,945.72)	(309,234,236.64)	-	-
Routing and clearing	-	-	-	-	-	(3,941.72)	-	-	-	-	-
Section 31	-	-	-	-	-	-	-	(20,821,037.33)	(92,602,167.94)	-	-
Royalty fees	-	-	-	-	-	-	-	-	-	-	-
<b>Total cost of revenue</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(3,941.72)</b>	<b>-</b>	<b>(35,913,983.05)</b>	<b>(401,836,404.58)</b>	<b>-</b>	<b>-</b>
<b>Revenues less cost of revenues</b>	<b>(55,832.66)</b>	<b>360.00</b>	<b>-</b>	<b>-</b>	<b>352,812.91</b>	<b>15,285.42</b>	<b>-</b>	<b>42,515,344.38</b>	<b>104,574,855.78</b>	<b>-</b>	<b>55.70</b>
<b>Operating expenses:</b>											
Compensation and benefits	15,986,651.06	(8,543,822.56)	481,434.28	410,728.94	-	-	-	2,803,816.75	17,009,236.62	1,423,071.17	504,304.50
Depreciation and amortization	8,122,139.15	133,335,319.30	-	-	2,933,631.73	-	-	-	-	12,017.80	-
Technology support services	(9,538,264.15)	4,134,247.33	15,583.06	26,794.74	-	-	-	1,461,395.57	8,144,779.14	35,384.16	45,250.00
Professional fees and outside services	(1,803,008.60)	521,862.02	25,503.32	38,575.57	1,155,389.44	2,032.45	-	2,236,539.77	6,200,203.41	86,056.43	410,968.91
Travel and promotional expenses	157,468.02	756,997.01	53,735.12	58,292.71	-	-	-	159,494.58	944,085.84	112,295.99	-
Facilities cost	(6,265,185.53)	754,956.16	23,030.34	66,934.39	5,122,678.02	-	-	25,498.01	603,132.58	48,356.66	48,000.00
Acquisition-related costs	13,981,692.71	(1,083,613.53)	-	-	-	-	-	-	-	-	-
Other expenses	(4,271,433.44)	391,556.06	11,135.56	30,360.95	24,003.93	5,950.15	-	588,154.09	2,799,528.73	14,403.81	20,384.84
<b>Total operating expenses</b>	<b>16,370,059.22</b>	<b>130,267,501.79</b>	<b>610,421.68</b>	<b>631,687.30</b>	<b>9,235,703.12</b>	<b>7,982.60</b>	<b>-</b>	<b>7,274,898.77</b>	<b>35,700,966.32</b>	<b>1,731,586.02</b>	<b>1,028,908.25</b>
<b>Operating income (loss)</b>	<b>(16,425,891.88)</b>	<b>(130,267,141.79)</b>	<b>(610,421.68)</b>	<b>(631,687.30)</b>	<b>(8,882,890.21)</b>	<b>7,302.82</b>	<b>-</b>	<b>35,240,445.61</b>	<b>68,873,889.46</b>	<b>(1,731,586.02)</b>	<b>(1,028,852.55)</b>
<b>Non operating (expense) income:</b>											
Interest expense, net	39,617,775.69	(363,842.24)	-	-	-	-	-	-	(19,290.82)	-	-
Other non operating income/expense	(29,132.84)	13,786.57	6,278.22	(1,081.88)	(0.61)	93.95	-	-	-	482.77	-
<b>Income (loss) before income tax provision(benefit)</b>	<b>(56,014,534.73)</b>	<b>(129,917,086.12)</b>	<b>(616,699.90)</b>	<b>(630,605.42)</b>	<b>(8,882,889.60)</b>	<b>7,208.87</b>	<b>-</b>	<b>35,240,445.61</b>	<b>68,893,180.28</b>	<b>(1,732,068.79)</b>	<b>(1,028,852.55)</b>
<b>Income tax provision (benefit)</b>	<b>(6,903,381.81)</b>	<b>(50,459,087.00)</b>	<b>22,454.21</b>	<b>957.93</b>	<b>(1,016,262.00)</b>	<b>131.16</b>	<b>-</b>	<b>8,903,274.00</b>	<b>18,345,910.00</b>	<b>(3,213.42)</b>	<b>-</b>
<b>Net Income</b>	<b>(49,111,152.92)</b>	<b>(79,457,999.12)</b>	<b>(639,154.11)</b>	<b>(631,563.35)</b>	<b>(7,866,627.60)</b>	<b>7,077.71</b>	<b>-</b>	<b>26,337,171.61</b>	<b>50,547,270.28</b>	<b>(1,728,855.37)</b>	<b>(1,028,852.55)</b>

**Cboe Global Markets, Inc.**  
**Consolidating Income Statement**  
**Twelve Months Ended December 31, 2018**  
(unaudited)

	Cboe FX Europe Limited	Cboe FX Markets, LLC	Cboe FX Holdings, LLC	Bats Hotspot IB LLC	Index Pubs SA	Cboe Livevol, LLC	Cboe Data Shop, LLC	Omicron Acquisition Corp.	Cboe Silexx, LLC	Cboe Trading, Inc.	Cboe Vest, LLC
<b>Revenues:</b>											
Transaction fees	-	49,675,612.11	-	-	-	-	-	-	-	47,931,730.10	-
Access fees	-	3,793,575.56	-	-	-	-	-	-	-	-	-
Exchange services and other fees	-	2,253,867.50	-	-	-	5,548,743.57	-	-	(30,575.80)	-	-
Market data fees	-	582,055.97	-	-	-	-	11,167,844.60	-	234,648.52	-	-
Regulatory fees	-	-	-	-	-	-	-	-	-	-	-
Other revenue	-	117,382.05	-	-	-	86,562.89	0.01	-	2,216,294.30	1,149.90	863,495.28
<b>Total revenues</b>	-	56,422,493.19	-	-	-	5,635,306.46	11,167,844.61	-	2,420,367.02	47,932,880.00	863,495.28
<b>Cost of revenues:</b>											
Liquidity payments	-	-	-	-	-	-	-	-	-	-	-
Routing and clearing Section 31	-	(8,258.36)	-	-	-	-	-	-	-	(34,058,087.85)	-
Royalty fees	-	-	-	-	-	-	(4,842,787.26)	-	-	(121,100.05)	-
<b>Total cost of revenue</b>	-	(8,258.36)	-	-	-	-	(4,842,787.26)	-	-	(34,179,187.90)	-
<b>Revenues less cost of revenues</b>	-	56,414,234.83	-	-	-	5,635,306.46	6,325,057.35	-	2,420,367.02	13,753,692.10	863,495.28
<b>Operating expenses:</b>											
Compensation and benefits	4,964,622.58	5,289,675.74	-	-	842,790.79	1,476,228.17	-	-	497,362.88	1,231,246.85	1,277,845.23
Depreciation and amortization	444,861.97	878,654.52	-	-	17,159.62	831,068.02	9.26	-	332,428.22	-	1,276,190.52
Technology support services	422,198.49	416,595.72	-	(7,981.92)	22,587.81	1,374,635.80	18,448.75	-	388,344.51	3,183,084.59	179,255.07
Professional fees and outside services	70,285.84	252,503.29	-	-	51,108.85	466,869.70	5,471.25	-	30,120.00	508,361.32	586,028.58
Travel and promotional expenses	170,784.74	128,400.65	-	-	24,258.50	173,246.18	237,985.38	-	31,010.15	183,870.49	613,351.82
Facilities cost	109,924.28	114,153.00	-	-	23,754.35	37,038.08	-	-	115,939.60	154,529.59	83,564.73
Acquisition-related costs	-	-	-	-	-	-	-	-	3,791,663.98	-	-
Other expenses	87,062.32	48,363.78	-	-	11,734.66	170,759.05	3,674.84	40.32	(22,373.33)	423,488.12	286,451.72
<b>Total operating expenses</b>	6,269,740.22	7,128,346.70	-	(7,981.92)	993,394.58	4,529,845.00	265,589.48	40.32	5,164,496.01	5,684,580.96	4,302,687.67
<b>Operating income (loss)</b>	(6,269,740.22)	49,285,888.13	-	7,981.92	(993,394.58)	1,105,461.46	6,059,467.87	(40.32)	(2,744,128.99)	8,069,111.14	(3,439,192.39)
<b>Non operating (expense) income:</b>											
Interest expense, net	-	-	-	-	-	255.83	-	(1,339,715.17)	-	(14,187.00)	13,947.59
Other non operating income/expense	1,642.77	53,798.61	-	-	12,364.26	6,706.77	-	-	-	-	-
<b>Income (loss) before income tax provision(benefit)</b>	(6,271,382.99)	49,232,089.52	-	7,981.92	(1,005,758.84)	1,098,498.86	6,059,467.87	1,339,674.85	(2,744,128.99)	8,083,298.14	(3,453,139.98)
<b>Income tax provision (benefit)</b>	121,780.09	-	-	-	13,596.00	295,564.00	1,460,705.00	(528,406.00)	(706,566.00)	2,000,703.00	-
<b>Net Income</b>	(6,393,163.08)	49,232,089.52	-	7,981.92	(1,019,354.84)	802,934.86	4,598,762.87	1,868,080.85	(2,037,562.99)	6,082,595.14	(3,453,139.98)

**Cboe Global Markets, Inc.**  
**Consolidating Income Statement**  
**Twelve Months Ended December 31, 2018**  
(unaudited)

<b>Revenues:</b>	<b>Total</b>
Transaction fees	1,988,560,492.72
Access fees	40,946,260.37
Exchange services and other fees	178,318,416.79
Market data fees	204,106,156.99
Regulatory fees	333,837,126.70
Other revenue	<u>33,421,560.31</u>
Total revenues	2,771,280,215.00
<b>Cost of revenues:</b>	
Liquidity payments	(1,112,896,776.60)
Routing and clearing	-
Section 31	(302,872,512.23)
Royalty fees	<u>(97,353,769.34)</u>
Total cost of revenue	(1,553,539,655.80)
Revenues less cost of revenues	1,217,740,559.20
<b>Operating expenses:</b>	
Compensation and benefits	228,877,915.58
Depreciation and amortization	204,084,723.72
Technology support services	48,633,291.73
Professional fees and outside services	67,890,354.24
Travel and promotional expenses	12,794,083.58
Facilities cost	12,248,068.07
Acquisition-related costs	29,894,909.85
Other expenses	<u>14,210,284.75</u>
Total operating expenses	618,633,631.52
Operating income (loss)	599,106,927.68
<b>Non operating (expense) income:</b>	
Interest expense, net	37,515,820.59
Other non operating income/expense	<u>(9,420,015.56)</u>
Income (loss) before income tax provision(benefit)	<u>571,011,122.65</u>
Income tax provision (benefit)	145,933,861.21
Net Income	<u><u>425,077,261.44</u></u>

**Cboe Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe Exchange, Inc.:

We have audited the accompanying financial statements of Cboe Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe Exchange, Inc.**  
Statement of Financial Condition  
December 31, 2018  
(In thousands, except share and per share amounts)

**Assets**

Current assets:	
Cash and cash equivalents	\$ 5,238
Accounts receivable	4,816
Receivable from affiliates, net	68,160
Other receivables	<u>73,015</u>
Total current assets	<u>151,229</u>
Investments	42,780
Property and equipment—net of accumulated depreciation of \$74,787	7,809
Data processing software—net of accumulated amortization of \$191,271	21,177
Other assets	3,519
Deferred income taxes	<u>180</u>
Total assets	<u><u>\$ 226,694</u></u>

**Liabilities and Stockholder's Equity**

Current liabilities:	
Accounts payable and accrued liabilities	\$ 35,400
Section 31 fees payable	5,035
Deferred revenue	<u>7,251</u>
Total current liabilities	47,686
Income tax liability	63,957
Other liabilities	1,341
Stockholder's equity:	
Common stock, \$0.01 par value: 1,000 shares authorized and outstanding	-
Additional paid-in capital	21,855
Retained earnings	<u>91,855</u>
Total stockholder's equity	<u>113,710</u>
Total liabilities and stockholder's equity	<u><u>\$ 226,694</u></u>

See accompanying notes to financial statements.

**Cboe Exchange, Inc.**  
Statement of Income  
Year Ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 471,255
Access fees	42,282
Exchange services and other fees	29,450
Market data fees	18,623
Regulatory transaction fees	40,471
Other revenue	<u>16,637</u>
Total revenues	618,718
Cost of revenues:	
Routing and clearing	5,844
Section 31 fees	16,442
Royalty fees	<u>85,954</u>
Total cost of revenues	<u>108,240</u>
Revenues less cost of revenues	510,478
Operating expenses:	
Compensation and benefits	85,166
Management fees	4,881
Depreciation and amortization	23,180
Technology support services	13,977
Professional fees and outside services	33,520
Travel and promotional expenses	4,959
Facilities costs	7,027
Acquisition related costs	<u>11,606</u>
Total operating expenses	<u>184,316</u>
Operating income	326,162
Non-operating income:	
Interest income	529
Investment income	2,365
Loss on disposal of assets	<u>(573)</u>
Income before income tax provision	328,483
Income tax provision	<u>96,276</u>
Net income	<u>\$ 232,207</u>
Comprehensive income - net of tax	
Post-retirement benefit obligation adjustment	716
Comprehensive income	<u>\$ 232,923</u>

See accompanying notes to financial statements.

**Cboe Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<b>Common stock</b>	<b>Additional paid-in capital</b>	<b>Retained earnings</b>	<b>Accumulated other comprehensive income (loss)</b>	<b>Total stockholder's equity</b>
Balance at January 1, 2018	\$ -	\$ 21,855	\$ 209,648	\$ (716)	\$ 230,787
Distribution to Parent	-	-	(350,000)	-	(350,000)
Net income	-	-	232,207	-	232,207
Post-retirement benefit obligation adjustment	-	-	-	716	716
Balance at December 31, 2018	<u>\$ -</u>	<u>\$ 21,855</u>	<u>\$ 91,855</u>	<u>\$ -</u>	<u>\$ 113,710</u>

See accompanying notes to financial statements.

**Cboe Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 232,207
Adjustments to reconcile net income to net cash provided by operating activities:	
Depreciation and amortization	23,180
Deferred income taxes	5,469
Loss on disposal of assets	573
Changes in assets and liabilities:	
Accounts receivables	56,763
Receivable from affiliates, net	101,659
Other receivables	(63,052)
Other assets	(2,687)
Accounts payable and accrued liabilities	(35,825)
Section 31 fees payable	5,035
Deferred revenue	(4,998)
Income tax liability	23,472
Other liabilities	(1,600)
Net cash provided by operating activities	<u>340,196</u>
Cash flows from investing activities:	
Investments	15
Purchases of property and equipment	(4,441)
Net cash used in investing activities	<u>(4,426)</u>
Cash flows from financing activities:	
Payment of distribution to parent	(350,000)
Net cash used in financing activities	<u>(350,000)</u>
Decrease in cash and cash equivalents	(14,230)
Cash and cash equivalents:	
Beginning of year	19,468
End of year	<u>\$ 5,238</u>

See accompanying notes to financial statements.

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

**(1) Nature of Operations**

Cboe Exchange, Inc. ("the Company" or "Cboe"), a wholly owned subsidiary of Cboe Global Markets, Inc. (the Parent), is a market for the trading of exclusive options on various market indexes (index options), as well as on non-exclusive "multiply-listed" options, such as options on the stocks of individual corporations (equity options) and options on other exchange-traded products (ETP options), such as exchange-traded funds (ETF options) and exchange-traded notes (ETN options), and certain other index options. The Company also provides market data products to its member firms. The Company is headquartered in Chicago, Illinois with additional offices in Lenexa, Kansas and New York, New York.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 4 ("Related Party Transactions") for more information on related party transactions. The current period financial statement captions have been amended to conform to the presentation of all of the Company's exchange financial statements.

**(b) Principles of Accounting**

The Company follows accounting standards established by the Financial Accounting Standards Board ("FASB") to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States ("GAAP") in these notes are to the FASB Accounting Standards Codification ("ASC" or "Codification").

**(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and reported amounts of revenues and expenses. Actual results may differ from these estimates under different conditions or assumptions. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

**(d) Cash and Cash Equivalents**

The Company's cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company's management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company's operations are funded by its Parent through a centralized treasury function.

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

***(e) Accounts Receivable***

Accounts receivable consists primarily of transaction and regulatory fees from The Options Clearing Corporation ("OCC"), and the Company's share of distributable revenue receivable from Options Price Reporting Authority ("OPRA"). Accounts receivable are primarily collected through OCC, and are with large, highly-rated clearing firms; therefore concentrations of credit risk are limited. The Company has no financing-related receivables. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

***(f) Investments***

Investments represent investments in OCC and Signal Trading Systems, LLC ("Signal Trading"). The investment in OCC is accounted for under the cost method of accounting for investments. The investments in Signal Trading is accounted for under the equity method.

Investments are periodically reviewed to determine whether any events or changes in circumstances indicate that the investments may be other than temporarily impaired. In the event of impairment, the Company would recognize a loss for the difference between the carrying amount and the estimated fair value of the investment.

***(g) Property and Equipment, Net***

Property and equipment, net is stated at cost less accumulated depreciation. Depreciation is computed using the straight line method over the estimated lives of the assets, generally ranging from three to seven years. Expenditures for repairs and maintenance are charged to expense as incurred.

Long lived assets to be held and used are reviewed to determine whether any events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. The Company bases this evaluation on such impairment indicators as the nature of the assets, the future economic benefit of the assets, any historical or future profitability measurements, as well as other external market conditions or factors that may be present. If such impairment indicators are present that would indicate that the carrying amount of any asset may not be recoverable, the Company determines whether an impairment has occurred through the use of an undiscounted cash flow analysis of the asset at the lowest level for which identifiable cash flows exist. In the event of impairment, the Company recognizes a loss for the difference between the carrying amount and the estimated fair value of the asset as measured using quoted market prices or, in the absence of quoted market prices, a discounted cash flow analysis.

***(h) Data Processing and Software, Net***

Cboe expenses software development costs as incurred during the preliminary project stage, while capitalizing costs incurred during the application development stage, which includes design, coding, installation and testing activities. Estimated useful lives are three to five years for

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

internally developed and other data processing software and generally are five years or less for other assets.

**(i) Income Taxes**

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(j) Revenue Recognition**

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees**

Transaction fees are a function of three variables: (1) exchange fee rates; (2) trading volume; and (3) transaction mix between contract type. Transaction fees are assessed on a per contract basis and are considered earned upon the execution of a trade and are recognized on a trade date basis. Transaction fees are presented net of applicable volume discounts. In the event liquidity providers prepay for transaction fees, revenue is recognized based on the attainment of volume thresholds resulting in the amortization of the prepayment over the calendar year.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

**Exchange Services and Other Fees**

Exchange services and other fees include system services, trading floor charges and application revenue. Exchange services and other fees are recognized during the period the service is provided.

**Market Data Fees**

Market data fees are earned from OPRA and proprietary market data products. Market data fees from OPRA are allocated based upon the share of total options transactions cleared for each of the OPRA members. The Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned.

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended (Exchange Act). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**(3) Investments**

Cboe holds a 20% investment in OCC which is accounted for under the cost-method of accounting for investments because of the Company's inability to exercise significant influence.

In December 2014, OCC announced a newly-formed capital plan. The OCC capital plan was designed to strengthen OCC's capital base and facilitate its compliance with proposed SEC regulations for Systemically Important Financial Market Utilities ("SIFMUs") as well as international standards applicable to financial market infrastructures. On February 26, 2015, the SEC issued a notice of no objection to OCC's advance notice filing regarding the capital plan, and OCC and OCC's existing exchange stockholders, which include Cboe, subsequently executed agreements effecting the capital plan. Under the plan, each of OCC's existing exchange stockholders agreed to contribute its pro-rata share, based on ownership percentage, of \$150 million in equity capital, which would increase OCC's shareholders' equity, and to provide its pro rata share in replenishment capital, up to a maximum of \$40 million per exchange stockholder, if certain capital thresholds are breached. OCC also adopted policies under the plan with respect to fees, customer refunds, and stockholder dividends, which envision an annual dividend payment to the exchange stockholders equal to the portion of OCC's after-tax income that exceeds OCC's capital requirements after payment of refunds to OCC's clearing members (with such customer refunds generally to constitute 50% of the portion of OCC's pre-tax income that exceeds OCC's capital requirements). On March 3, 2015, in accordance with the plan,

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

Cboe contributed \$30 million to OCC. That contribution has been recorded under investments in the balance sheet as of December 31, 2018.

On March 6, 2015, OCC informed Cboe that the SEC, acting through delegated authority, had approved OCC's proposed rule filing for the capital plan. Following petitions to review the approval based on delegated authority, the SEC conducted its own review and then approved the proposed rule change implementing OCC's capital plan. Certain petitioners subsequently appealed the SEC approval order for the OCC capital plan to the U.S. Court of Appeals for the D.C. Circuit (the "Court") and moved to stay the SEC approval order. On February 23, 2016, the Court denied the petitioners' motion to stay. On August 8, 2017, the Court held that the SEC's approval order lacked reasoned decision-making sufficient to support the SEC's conclusion that the OCC capital plan complied with applicable statutory requirements. The Court declined to vacate the SEC's approval order or to require the unwinding of actions taken under the OCC capital plan, but instead remanded the matter to the SEC for further proceedings concerning whether that capital plan complies with those statutory requirements. Petitioners requested a stay of dividend payments to the exchange stockholders until the SEC made a final decision about the OCC capital plan, but the SEC denied that request on September 14, 2017. The SEC allowed for and received information from interested parties for the SEC's consideration in connection with its review of the OCC capital plan on remand from the Court.

On February 13, 2019, the SEC issued an order disapproving the proposed rule change implementing OCC's capital plan following the SEC's review of the OCC capital plan on remand from the Court. The SEC concluded, upon further review, that the information before the SEC was insufficient to support a finding that the OCC capital plan was consistent with the Exchange Act and Exchange Act rules and regulations. Among other items, the SEC noted in its order that while OCC represented to the Court that it is possible to unwind the OCC capital plan, the petitioners argued and the Court recognized that unwinding and replacing the OCC capital plan may pose considerable logistical challenges for OCC. The SEC also stated in its order, among other items, that the SEC would consider any requests for exemptive relief that OCC might seek while OCC establishes a new capital plan and seeks to come into compliance with the SEC requirement that OCC maintain a capital plan to cover potential general business losses. In an effort to achieve compliance with its target capital requirements in the absence of an approved capital plan, OCC has (i) retained funds that otherwise would have been paid to stockholders as dividends and to clearing members as refunds with respect to 2018, and (ii) raised its clearing fees, subject to regulatory approval. As a result of the disapproval, the Company reversed the accrual for the OCC dividend of \$8.8 million previously recognized in December 2018, as the amount will no longer be paid. See Note 9 ("Subsequent Events") for further information.

In May 2010, Cboe acquired a 50% interest in Signal Trading from FlexTrade Systems, Inc. ("FlexTrade"). The joint venture develops and markets a multi-asset front-end order entry system, known as "Pulse," which has a particular emphasis on options trading. The Company assists in the development of the terminals and provides marketing services to the joint venture, which is accounted for under the equity method. The Company accounts for the investment in Signal Trading under the equity method due to the substantive participating rights provided to the other limited liability company member, FlexTrade. During the year ended December 31, 2018, the Company recorded contributions to and equity earnings in Signal Trading of \$1.8 million and \$1.5 million, respectively. Additionally, the Company received distributions from Signal Trading of \$3.4 million which reduced the carrying value of the investment.

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

The following table presents the Company's investments for the year ended December 31, 2018 (in thousands):

Investment in OCC	\$ 30,333
Investment in Signal Trading Investments	12,447
Total investments	<u>\$ 42,780</u>

**(4) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent for various operating expenses. Similar results may not be achievable on an arm's length basis. The following table presents the Company's allocation of expenses from the Parent for the year ended December 31, 2018 (in thousands):

Compensation and benefits	\$ 56,610
Management fees	3,396
Technology support services	9,434
Professional fees and outside services	9,662
Travel and promotional expenses	3,090
Facilities costs	5,895
	<u>\$ 88,087</u>

**(5) Accounts Payable and Accrued Liabilities**

Accounts payable and accrued liabilities consisted of the following as of December 31, 2018 (in thousands):

Compensation and benefit-related liabilities	\$ 1,849
Royalties	21,982
Marketing fee payable	9,508
Accounts payable	184
Other	1,877
	<u>\$ 35,400</u>

**Cboe Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

**(6) Deferred Revenue**

The following table summarizes the activity in deferred revenue for the year ended December 31, 2018 (in thousands):

	<u>Balance at</u> <u>January 1, 2018</u>	<u>Cash</u> <u>Additions</u>	<u>Revenue</u> <u>Recognition</u>	<u>Balance at</u> <u>December 31, 2018</u>
Option regulatory fee (1)	\$ 7,454	\$ 17,553	\$ (18,200)	\$ 6,807
Liquidity provider sliding scale	4,800	4,800	(9,600)	—
Other, net	278	1,163	(997)	444
Total deferred revenue	<u>\$ 12,532</u>	<u>\$ 23,516</u>	<u>\$ (28,797)</u>	<u>\$ 7,251</u>

(1) Cboe assesses an Options Regulatory Fee to each Permit Holder for all options transactions executed or cleared by the Permit Holder that are cleared by OCC in the customer range, regardless of the exchange on which the transaction occurs. The fee is collected indirectly from Permit Holders through their clearing firms by OCC on behalf of Cboe. Under Cboe rules, as required by the SEC, any revenue derived from regulatory fees and fines cannot be used for non-regulatory purposes. The amount in deferred revenue represents the fees collected that are in excess of regulatory expenses.

**(7) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018 (in thousands):

Deferred tax assets:		
Unrecognized tax benefits		\$ 7,138
Intangibles		33
Other		<u>362</u>
Total deferred tax assets		<u>\$ 7,533</u>
Deferred tax liabilities:		
Property and equipment		(5,962)
Investment in affiliates		(1,089)
Accrued Expenses		(6)
Other		<u>(296)</u>
Total deferred tax liabilities		<u>(7,353)</u>
Net deferred tax (liabilities) assets		<u>\$ 180</u>

**Cboe Exchange, Inc.**  
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The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

The income tax provision for the year ended December 31, 2018 consists of the following (in thousands):

Current tax expense:		
Federal		\$ 70,523
State		<u>31,222</u>
Total current tax expense		101,745
Deferred income tax (benefit) expense:		
Federal		(4,683)
State		<u>(786)</u>
Income tax provision		<u>\$ 96,276</u>

The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following (in thousands):

Computed "expected" tax provision	\$ 68,981	21.0%
(Decrease) increase in income tax resulting from:		
Permanent items	(77)	0.0%
State income taxes	9,816	3.0%
Provision to actual adjustment	(6,843)	-2.1%
Change of unrecognized tax benefits	25,143	7.7%
Other	<u>(744)</u>	<u>-0.2%</u>
Income tax provision	<u>\$ 96,276</u>	<u>29.4%</u>

A reconciliation of the unrecognized tax benefits for the year ended December 31, 2018 is as follows (in thousands):

Balance at beginning of year	\$ 34,095
Additions for current year tax positions	16,638
Additions for prior year tax positions	15,756
Reductions for prior year tax positions	(10,010)
Lapse of statute of limitations	<u>(114)</u>
Balance at end of year	<u>\$ 56,365</u>

**Cboe Exchange, Inc.**  
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No reductions to uncertain tax positions from the lapse of the applicable statutes of limitations are expected to arise during the next twelve months.

At December 31, 2018, the Company had \$55.8 million of uncertain tax positions, net of federal benefit that, if recognized, would affect the effective tax rate. The Company had accrued interest and penalties of \$7.6 million related to uncertain tax positions at December 31, 2018. Total interest and penalties increased \$1.2 million in 2018.

The Company's open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on May 7, 2018 for a redetermination of an IRS notice of deficiency for tax years 2011 through 2013 related to its Section 199 claims. The Company also filed a complaint on October 5, 2018 with the Court of Federal Claims for a refund of Section 199 claims related to tax years 2008 through 2010. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court and the Court of Federal Claims.

**(8) Commitments and Contingencies**

*Legal Proceedings*

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

**Cboe Exchange, Inc.**  
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As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections, or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceedings is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

***SIFMA***

Securities Industry Financial Markets Association (“SIFMA”) has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe, C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGX, Exchange Inc., and Cboe EDGA Exchange, Inc., (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC’s administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges’ conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE’s motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE’s motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2018 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA’s motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE’s motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

**Cboe Exchange, Inc.**  
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***VIX Litigation***

On March 20, 2018, a putative class action complaint captioned Tomasulo v. Cboe Exchange, Inc., et al., No. 18-cv-02025 was filed in federal district court for the Northern District of Illinois alleging that the Company intentionally designed its products, operated its platforms, and formulated the method for calculating VIX and the Special Opening Quotation, (i.e., the special VIX value designed by the Company and calculated on the settlement date of VIX derivatives prior to the opening of trading), in a manner that could be collusively manipulated by a group of entities named as John Doe defendants. A number of similar putative class actions, some of which do not name the Company as a party, were filed in federal court in Illinois and New York on behalf of investors in certain volatility-related products. On June 14, 2018, the Judicial Panel on Multidistrict Litigation centralized the putative class actions in the federal district court for the Northern District of Illinois. On September 28, 2018, plaintiffs filed a master, consolidated complaint that is a putative class action alleging various claims against the Company and John Doe defendants in the federal district court for the Northern District of Illinois. The claims asserted against the Company consist of a Securities Exchange Act fraud claim, three Commodity Exchange Act claims and a state law negligence claim. Plaintiffs request a judgment awarding class damages in an unspecified amount, as well as punitive or exemplary damages in an unspecified amount, prejudgment interest, costs including attorneys' and experts' fees and expenses and such other relief as the court may deem just and proper. On November 19, 2018, the Company filed a motion to dismiss the master consolidated complaint and the plaintiffs filed their response on January 7, 2019. The Company filed its reply on January 28, 2019. On May 29, 2019, the federal district court for the Northern District of Illinois granted the Company's motion to dismiss plaintiffs' entire complaint against the Company. The state law negligence claim was dismissed with prejudice and the other claims were dismissed without prejudice with leave to file an amended complaint by June 19, 2019. On June 10, 2019, the federal district court granted Plaintiffs' motion requesting a 30-day extension of time to file an amended complaint. The amended complaint is now due on July 19, 2019. Given the preliminary nature of the proceedings, the Company is still evaluating the facts underlying the complaints, however, the Company currently believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

***Other***

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on our

**Cboe Exchange, Inc.**  
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consolidated financial condition, results of operations, liquidity or capital resources.

See also Note 7 (“Income Taxes”).

**(9) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

On February 11, 2019, the Company’s board of directors declared a dividend of \$100 million to the Parent. The dividend was paid on February 15, 2019.

On February 13, 2019, the SEC issued an order disapproving the proposed rule change implementing OCC’s capital plan following the SEC’s review of the OCC capital plan on remand from the Court. The SEC concluded, upon further review, that the information before the SEC was insufficient to support a finding that the OCC capital plan was consistent with the Exchange Act and Exchange Act rules and regulations. Among other items, the SEC noted in its order that while OCC represented to the Court that it is possible to unwind the OCC capital plan, the petitioners argued and the Court recognized that unwinding and replacing the OCC capital plan may pose considerable logistical challenges for OCC. The SEC also stated in its order, among other items, that the SEC would consider any requests for exemptive relief that OCC might seek while OCC establishes a new capital plan and seeks to come into compliance with the SEC requirement that OCC maintain a capital plan to cover potential general business losses. In an effort to achieve compliance with its target capital requirements in the absence of an approved capital plan, OCC has (i) retained funds that otherwise would have been paid to stockholders as dividends and to clearing members as refunds with respect to 2018, and (ii) raised its clearing fees, subject to regulatory approval. In addition, OCC’s shareholders, including Cboe, agreed to permit OCC to retain a portion of their previously contributed capital (equal to \$8.3 million for Cboe) until such time as OCC has accumulated sufficient capital to satisfy certain target capital thresholds. OCC returned the rest of the shareholders’ previously contributed capital (equal to \$22.0 million for Cboe) to the respective shareholders on February 28, 2019. OCC will not pay its shareholders any dividend or other return on the retained portion of their capital contributions. The remaining contribution has been recorded under investments in the statement of financial condition as of June 12, 2019, the date the financial statements were issued. See Note 3 (“Investments”) for further information.

See Note 8 (“Commitments and Contingencies”) for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no other subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Cboe C2 Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe C2 Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe C2 Exchange, Inc.:

We have audited the accompanying financial statements of Cboe C2 Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe C2 Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe C2 Exchange, Inc.**  
Statement of Financial Condition  
December 31, 2018  
(In thousands, except share and per share amounts)

**Assets**

Current assets:	
Cash and cash equivalents	\$ 419
Accounts receivable	5,974
Receivable from affiliates, net	16,026
Prepaid expenses	227
Other receivables	462
Total current assets	23,108
Property and equipment—net of accumulated depreciation of \$7,776	124
Other assets	3,743
Deferred income taxes	1,993
Total assets	\$ 28,968

**Liabilities and Stockholder's Equity**

Current liabilities:	
Accounts payable and accrued liabilities	\$ 3,842
Section 31 fees payable	455
Deferred revenue	908
Total current liabilities	5,205
Income tax liability	783
Stockholder's equity:	
Common stock, \$0.01 par value: 1,000 shares authorized and outstanding	-
Additional paid-in capital	48,387
Accumulated deficit	(25,407)
Total stockholder's equity	22,980
Total liabilities and stockholder's equity	\$ 28,968

See accompanying notes to financial statements.

**Cboe C2 Exchange, Inc.**  
Statement of Income  
Year ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 78,239
Access fees	5,652
Exchange services and other fees	2,682
Market data fees	2,462
Regulatory transaction fees	7,375
Other revenue	<u>5</u>
Total revenues	96,415
Cost of revenues:	
Liquidity payments	63,207
Routing and clearing	1,903
Section 31 fees	2,075
Royalty fees	<u>1,064</u>
Total cost of revenues	<u>68,249</u>
Revenues less cost of revenues	28,166
Operating expenses:	
Compensation and benefits	6,449
Management fee	362
Depreciation and amortization	1,287
Technology support services	1,133
Professional fees and outside services	7,749
Travel and promotional expenses	334
Facilities costs	<u>633</u>
Total operating expenses	<u>17,947</u>
Operating income	10,219
Non-operating income (expense):	
Interest income	13
Loss on disposal of assets	<u>(64)</u>
Income before income tax provision	10,168
Income tax provision	<u>3,496</u>
Net income	<u><u>\$ 6,672</u></u>

See accompanying notes to financial statements.

**Cboe C2 Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<u>Common stock</u>	<u>Additional paid-in capital</u>	<u>Accumulated deficit</u>	<u>Total stockholder's equity</u>
Balance at January 1, 2018	\$ -	\$ 48,387	\$ (32,079)	\$ 16,308
Net income	-	-	6,672	6,672
Balance at December 31, 2018	<u>\$ -</u>	<u>\$ 48,387</u>	<u>\$ (25,407)</u>	<u>\$ 22,980</u>

See accompanying notes to financial statements.

**Cboe C2 Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 6,672
Adjustments to reconcile net income to net cash used in operating activities:	
Depreciation	1,287
Loss on disposal of assets	64
Deferred income taxes	618
Changes in assets and liabilities:	
Accounts receivables	(1,606)
Receivable from affiliates, net	(10,055)
Prepaid expenses	249
Other receivables	(462)
Other assets	(2,562)
Accounts payable and accrued liabilities	1,789
Section 31 fees payable	455
Deferred revenue	(154)
Income taxes liability	783
Net cash used in operating activities	(2,922)
Cash flows from investing activities:	
Purchases of property and equipment	(2)
Net cash used in investing activities	(2)
Decrease in cash and cash equivalents	(2,924)
Cash and cash equivalents:	
Beginning of year	3,343
End of year	\$ 419

See accompanying notes to financial statements.

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
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**(1) Nature of Operations**

Cboe C2 Exchange, Inc. ("C2" or "the Company"), a wholly owned subsidiary of Cboe Global Markets, Inc. (the Parent), is a market for the trading of exclusive options on various market indexes (index options), as well as on non-exclusive "multiply-listed" options, such as options on the stocks of individual corporations (equity options) and options on other exchange-traded products (ETP options), such as exchange-traded funds (ETF options) and exchange-traded notes (ETN options), and certain other index options. The Company also provides market data products to its member firms. The Company is headquartered in Chicago, Illinois with additional offices in Lenexa, Kansas and New York, New York.

**(2) Summary of Significant Accounting Policies**

***(a) Basis of Presentation***

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 3 ("Related Party Transaction") for more information on related party transactions. The current period financial statement captions have been amended to conform to the presentation of all of the Company's exchange financial statements.

***(b) Principles of Accounting***

The Company follows accounting standards established by the Financial Accounting Standards Board ("FASB") to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States ("GAAP") in these notes are to the FASB Accounting Standards Codification ("ASC" or "Codification").

***(c) Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and reported amounts of revenues and expenses. Actual results may differ from these estimates under different conditions or assumptions. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

***(d) Cash and Cash Equivalents***

The Company's cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company's management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company's operations are funded by its Parent through a centralized treasury function.

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
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***(e) Accounts Receivable***

Accounts receivable consists primarily of transaction and regulatory fees from The Options Clearing Corporation ("OCC"), and the Company's share of distributable revenue receivable from Options Price Reporting Authority ("OPRA"). Accounts receivable are primarily collected through OCC, and are with large, highly-rated clearing firms; therefore concentrations of credit risk are limited. The Company has no financing-related receivables. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

***(f) Property and Equipment, Net***

Property and equipment, net is stated at cost less accumulated depreciation. Depreciation is computed using the straight line method over the estimated lives of the assets, generally ranging from three to seven years. Expenditures for repairs and maintenance are charged to expense as incurred.

Long lived assets to be held and used are reviewed to determine whether any events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. The Company bases this evaluation on such impairment indicators as the nature of the assets, the future economic benefit of the assets, any historical or future profitability measurements, as well as other external market conditions or factors that may be present. If such impairment indicators are present that would indicate that the carrying amount of any asset may not be recoverable, the Company determines whether an impairment has occurred through the use of an undiscounted cash flow analysis of the asset at the lowest level for which identifiable cash flows exist. In the event of impairment, the Company recognizes a loss for the difference between the carrying amount and the estimated fair value of the asset as measured using quoted market prices or, in the absence of quoted market prices, a discounted cash flow analysis.

***(g) Prepaid Expenses***

Prepaid expenses consist of expenses related to the consolidated audit trail ("CAT") which are amortized over the service period of one year.

***(h) Data Processing Software, Net***

C2 expenses software development costs as incurred during the preliminary project stage, while capitalizing costs incurred during the application development stage, which includes design, coding, installation and testing activities. Estimated useful lives are three to five years for internally developed and other data processing software and generally are five years or less for other assets.

***(i) Income Taxes***

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred

**Choe C2 Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(j) Revenue Recognition**

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees and Liquidity Payments**

Transaction fees are a function of three variables: (1) exchange fee rates; (2) trading volume; and (3) transaction mix between contract type. Transaction fees are assessed on a per contract basis and are considered earned upon the execution of a trade and are recognized on a trade date basis. Transaction fees are presented net of applicable volume discounts. In the event liquidity providers prepay for transaction fees, revenue is recognized based on the attainment of volume thresholds resulting in the amortization of the prepayment over the calendar year. Transaction fees and liquidity payments are considered earned and incurred upon execution of a trade, are recognized on a trade-date basis and are recorded on a gross basis in revenues and cost of revenues.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Exchange Services and Other Fees**

Exchange services and other fees include system services, trading floor charges and application revenue. Exchange services and other fees are recognized during the period the service is provided.

**Cboe C2 Exchange, Inc.**  
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**Market Data Fees**

Market data fees are earned from OPRA and proprietary market data products. Market data fees from OPRA are allocated based upon the share of total options transactions cleared for each of the OPRA members. The Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended (Exchange Act). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**(3) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent for various operating expenses. Similar results may not be achievable on an arm's length basis.

The following table presents the Company's allocation of expenses from the Parent for the year ended December 31, 2018 (in thousands):

Compensation and benefits	\$ 6,440
Management fee	365
Technology support services	1,087
Professional fees and outside services	1,115
Travel and promotional expenses	333
Facilities costs	633
	<u>\$ 9,973</u>

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

**(4) Accounts Payable and Accrued Liabilities**

Accounts payable and accrued liabilities consisted of the following as of December 31, 2018 (in thousands):

Accounts payable	\$ 3,292
Accrued liabilities	550
	\$ 3,842

**(5) Deferred Revenue**

The following table summarizes the activity in deferred revenue for the year ended December 31, 2018 (in thousands):

	Balance at January 1, 2018	Cash Additions	Revenue Recognition	Balance at December 31, 2018
Options Regulatory Fee (1) \$	1,062	\$ 5,151	\$ (5,305)	\$ 908
Total deferred revenue	\$ 1,062	\$ 5,151	\$ (5,305)	\$ 908

(1) C2 assesses an Options Regulatory Fee to each Permit Holder for all options transactions executed or cleared by the Permit Holder that are cleared by OCC in the customer range, regardless of the exchange on which the transaction occurs. The fee is collected indirectly from Permit Holders through their clearing firms by OCC on behalf of C2. Under C2 rules, as required by the SEC, any revenue derived from regulatory fees and fines cannot be used for non-regulatory purposes. The amount in deferred revenue represents the fees collected that are in excess of regulatory expenses.

**(6) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018 (in thousands):

Deferred tax assets:	
Organizational costs	\$ 1,594
State NOLs	102
Deferred revenue	240
Property, plant and equipment	125
Unrecognized tax benefits	98
Total deferred tax assets	\$ 2,159

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
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Deferred tax liabilities:

Prepaid expenses	(84)
Other	(82)
Total deferred tax liabilities	<u>\$ (166)</u>
Net deferred tax (liabilities) assets	<u>\$ 1,993</u>

The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

The income tax provision for the year ended December 31, 2018 consists of the following (in thousands):

Current tax expense:	
Federal	\$ 2,002
State	876
Total current tax expense	<u>2,878</u>
Deferred income tax (benefit) expense:	
Federal	283
State	335
Income tax provision	<u>\$ 3,496</u>

The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following (in thousands):

Computed "expected" tax provision	\$ 2,135	21.0%
(Decrease) increase in income tax resulting from:		
State income taxes	424	4.2%
Provision to actual adjustment	365	3.6%
Change of unrecognized tax benefits	446	4.4%
Other	126	1.2%
Income tax provision	<u>\$ 3,496</u>	<u>34.4%</u>

**Cboe C2 Exchange, Inc.**  
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A reconciliation of the unrecognized tax benefits for the year ended December 31, 2018 is as follows (in thousands):

Balance at beginning of year	\$ 273
Additions for current year tax positions	170
Additions for prior year tax positions	324
Reductions for prior year tax positions	<u>(27)</u>
Balance at end of year	<u>\$ 740</u>

No reductions to uncertain tax positions from the lapse of the applicable statutes of limitations are expected to arise during the next twelve months.

At December 31, 2018, the Company had \$0.7 million of unrecognized tax benefits, net of federal benefit that, if recognized, would affect the effective tax rate. The Company had no accrued interest and penalties related to uncertain tax positions at December 31, 2018. Total interest and penalties were unchanged in 2018.

The Company's open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on May 7, 2018 for a redetermination of an IRS notice of deficiency for tax years 2011 through 2013 related to its Section 199 claims. The Company also filed a complaint on October 5, 2018 with the Court of Federal Claims for a refund of Section 199 claims related to tax years 2008 through 2010. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court and the Court of Federal Claims.

**(7) Commitments and Contingencies**

***Legal Proceedings***

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
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December 31, 2018

is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these reviews, inspections or other legal proceedings and claims, regulatory reviews, inspections, or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceedings is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

***SIFMA***

Securities Industry Financial Markets Association (“SIFMA”) has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe Exchange, Inc., C2, Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGX Exchange, Inc., and Cboe EDGA Exchange, Inc., (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC's administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges' conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE's motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE's motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2019 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA's motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE's motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA

**Cboe C2 Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018

case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability from this litigation.

***Other***

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on our consolidated financial condition, results of operations, liquidity or capital resources.

See also Note 6 ("Income Taxes").

**(8) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

See Note 7 ("Commitments and Contingencies") for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no other subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Cboe BZX Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe BZX Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe BZX Exchange, Inc.:

We have audited the accompanying financial statements of Cboe BZX Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe BZX Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe BZX Exchange, Inc.**  
**Statement of Financial Condition**  
December 31, 2018  
(In thousands)

**Assets**

Current assets:	
Accounts receivable	\$ 61,766
Receivable from affiliates, net	22,820
Prepaid expenses	227
Other receivables	<u>2,122</u>
Total current assets	86,935
Property and equipment – net of accumulated depreciation of \$2,081	23
Other assets	6,425
Deferred income taxes	<u>2,374</u>
Total assets	<u><u>\$ 95,757</u></u>

**Liabilities and Stockholder's Equity**

Current liabilities:	
Accounts payable and accrued liabilities	\$ 23,262
Section 31 fees payable	<u>33,281</u>
Total current liabilities	56,543
Income tax liability	13,640
Stockholder's equity:	
Retained earnings	<u>25,574</u>
Total stockholder's equity	<u>25,574</u>
Total liabilities and stockholder's equity	<u><u>\$ 95,757</u></u>

See accompanying notes to financial statements.

**Cboe BZX Exchange, Inc.**  
**Statement of Income**  
Year ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 609,948
Access fees	28,456
Exchange services and other fees	7,202
Market data fees	62,336
Regulatory transaction fees	120,371
Other revenue	<u>1,339</u>
Total revenues	829,652
Cost of revenues:	
Liquidity payments	542,214
Routing and clearing	21,379
Section 31 fees	119,135
Royalty fees	<u>57</u>
Total cost of revenues	<u>682,785</u>
Revenues less cost of revenues	146,867
Operating expenses:	
Compensation and benefits	30,681
Management fee and other operating expenses	3,593
Depreciation	57
Technology support services	11,286
Professional fees and outside services	9,038
Travel and promotional expenses	1,603
Facilities costs	<u>1,835</u>
Total operating expenses	<u>58,093</u>
Operating income	88,774
Non-operating income (expense):	
Interest income	26
Other expense	<u>(8)</u>
Income before income tax provision	88,792
Income tax provision	<u>20,479</u>
Net income	<u><u>\$ 68,313</u></u>

See accompanying notes to financial statements.

**Cboe BZX Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<b>(Accumulated deficit) Retained earnings</b>	<b>Total stockholder's (deficit) equity</b>
Balance at January 1, 2018	\$ (42,739)	\$ (42,739)
Net income	68,313	68,313
Balance at December 31, 2018	<u>\$ 25,574</u>	<u>\$ 25,574</u>

See accompanying notes to financial statements.

**Cboe BZX Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 68,313
Adjustments to reconcile net income to net cash provided by operating activities:	
Depreciation	57
Gain on disposal of assets	8
Deferred income taxes	636
Changes in assets and liabilities:	
Receivables	(20,112)
Receivable from affiliates, net	(52,741)
Prepaid expenses	(227)
Other assets	(3,200)
Income tax liability	(217)
Section 31 fees payable	(1,954)
Accounts payable and accrued liabilities	9,845
Other liabilities	(408)
	<hr/>
Net cash provided by operating activities	-
Increase in cash and cash equivalents	-
Cash and cash equivalents:	
Beginning of year	<hr/> -
End of year	<hr/> <u>\$ -</u>

See accompanying notes to financial statements.

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

**(1) Nature of Operations**

Cboe BZX Exchange, Inc. (“the Company” or “Cboe”), a wholly owned subsidiary of Cboe Global Markets, Inc. (“the Parent”), is an electronic market for the trading of listed cash equity securities and listed equity options in the United States (“U.S.”). The Company is headquartered in the Chicago, Illinois area with additional offices in Lenexa, Kansas and New York, New York. In addition to equity and options trading, the Company also lists Exchange Traded Products (“ETPs”) and provides market data products to its member firms.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 4 (“Related Party Transactions”) for more information on related party transactions.

**(b) Principles of Accounting**

The Company follows accounting standards established by the Financial Accounting Standards Board (“FASB”) to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States (“GAAP”) in these notes are to the FASB Accounting Standards Codification (“ASC” or “Codification”).

**(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of the amounts of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

**(d) Cash and Cash Equivalents**

The Company’s cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company’s management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company’s operations are funded by its Parent through a centralized treasury function.

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
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(In thousands)

**(e) *Accounts Receivable***

Accounts receivable represent amounts due from the Company's member firms and market data distributors and are carried at cost. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

**(f) *Property and Equipment, Net***

Property and equipment, net is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated lives of the assets, generally ranging from three to seven years. Expenditures for repairs and maintenance are charged to expense as incurred.

Long-lived assets to be held and used are reviewed to determine whether any events or changes in circumstances indicate that the carrying amounts of the assets may not be recoverable. The Company bases this evaluation on such impairment indicators as the nature of the assets, the future economic benefit of the assets, any historical or future profitability measurements, as well as other external market conditions or factors that may be present. If such impairment indicators are present that would indicate that the carrying amount of any asset may not be recoverable, the Company determines whether an impairment has occurred through the use of an undiscounted cash flow analysis of the asset at the lowest level for which identifiable cash flows exist. In the event of impairment, the Company recognizes a loss for the difference between the carrying amount and the estimated fair value of the asset as measured using quoted market prices or, in the absence of quoted market prices, a discounted cash flow analysis.

**(g) *Prepaid Expenses***

Prepaid expenses consist of expenses related to the consolidated audit trail ("CAT") which are amortized over the service period of one year.

**(h) *Income Taxes***

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
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December 31, 2018  
(In thousands)

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(i) Revenue Recognition**

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees and Liquidity Payments**

Under the Company's "maker-taker" pricing model, a member posting an order (the liquidity maker) is paid a rebate (recorded in liquidity payments) for an execution occurring against that order, and a member executing against an order resting on the Company's book (the liquidity taker) is charged a fee (recorded in transaction fees). Transaction fees and liquidity payments are considered earned and incurred upon execution of a trade, are recognized on a trade-date basis and are recorded on a gross basis in revenues and cost of revenues.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Exchange Services and Other Fees**

To facilitate trading, the Company offers technology services consisting primarily of physical connectivity related to the Company's electronic market that are earned and recognized on a monthly basis.

**Market Data Fees**

Market data fees are earned from U.S. tape plans, including the Unlisted Trading Privileges Plan ("UTP"), the Consolidated Tape Association Plan ("CTA"), and the Options Price Reporting Authority, LLC ("OPRA"), and also proprietary market data products. Fees collected from tape plan subscribers, net of plan costs, from UTP and CTA are allocated and distributed to plan participants according to their share of tape fees based on a formula required by Securities and Exchange Commission ("SEC") Regulation NMS that takes into account both trading and quoting activity. Market data fees from OPRA are allocated based upon the share of total options transactions cleared for each of the OPRA members. The

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
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(In thousands)

Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned.

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended (“Exchange Act”). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**(3) Accounts Payable and Accrued Liabilities**

Accounts payable and accrued liabilities consisted of the following as of December 31, 2018 (in thousands):

Accounts payable	\$ 23,205
Accrued liabilities	<u>57</u>
	<u>\$ 23,262</u>

**(4) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent for various operating expenses. Similar results may not be achievable on an arm’s length basis. The following table presents the Company’s allocation of expenses from the Parent for the year ended December 31, 2018 (in thousands):

Compensation and benefits	\$ 30,681
Management fee	3,743
Technology support services	10,188
Professional fees and outside services	4,930
Travel and promotional expenses	1,603
Facilities costs	<u>1,835</u>
	<u>\$ 52,980</u>

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
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(In thousands)

**(5) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018:

Deferred tax assets:	
Property and equipment	\$ 103
Intangible assets	90
Unrecognized tax benefits	<u>2,295</u>
Total deferred tax assets	<u>2,488</u>
Deferred tax liabilities:	
Income from domestic partnerships	(54)
Prepaid expenses	<u>(60)</u>
Total deferred tax liabilities	<u>(114)</u>
Net deferred tax assets	<u>\$ 2,374</u>

The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

The income tax provision for the year ended December 31, 2018 consists of the following:

Current tax expense:	
Federal	\$ 15,090
State	<u>4,756</u>
Total current tax expense	19,846
Deferred income tax (benefit) expense:	
Federal	444
State	<u>189</u>
Income tax provision	<u>\$ 20,479</u>

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following:

Computed “expected” tax provision	\$ 18,646	21.0%
(Decrease) increase in income tax resulting from:		
State income taxes	4,808	5.4%
Provision to actual adjustment	(3,074)	-3.4%
Change of unrecognized tax benefits	145	0.2%
Other	(46)	-0.1%
Income tax provision	<u>\$ 20,479</u>	<u>23.1%</u>

A reconciliation of beginning and ending uncertain tax positions, excluding interest and penalties, is as follows:

Balance at January 1, 2018	\$ 11,573
Gross increases on tax positions in the current period	2,361
Gross increases on tax positions in the prior period	3,129
Gross decreases on tax positions in the prior period	(4,501)
Reductions related to expirations of statute of limitations	<u>(302)</u>
Balance at December 31, 2018	<u>\$ 12,260</u>

Reductions to uncertain tax positions from the lapse of the applicable statutes of limitations during the next twelve months are estimated to be approximately \$0.3 million.

At December 31, 2018, the Company had \$11.3 million of unrecognized tax benefits, net of federal benefit that, if recognized, would affect the effective tax rate. The Company had accrued interest and penalties of \$1.4 million related to uncertain tax positions at December 31, 2018. Total interest and penalties decreased \$0.9 million in 2018.

The Company’s open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on January 13, 2017 and November 29, 2018 for a redetermination of IRS notices of deficiency for tax years 2011 through 2015 related to its Section 199 claims. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court.

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

**(6) Commitments and Contingencies**

*Legal Proceedings*

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceeding is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

*SIFMA*

Securities Industry Financial Markets Association (“SIFMA”) has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGX Exchange, Inc. and Cboe EDGA Exchange, Inc. (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC's administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges' conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE's motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE's motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
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Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2018 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA’s motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE’s motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

*City of Providence*

On April 18, 2014, the City of Providence, Rhode Island filed a securities class action lawsuit in the Southern District of New York against Bats Global Markets, Inc. and Direct Edge Holdings LLC, as well as 14 other securities exchanges. The action purports to be brought on behalf of all public investors who purchased and/or sold shares of stock in the United States since April 18, 2009 on a registered public stock exchange (“Exchange Defendants”) or a U.S.-based alternate trading venue and were injured as a result of the alleged misconduct detailed in the complaint, which includes allegations that the Exchange Defendants committed fraud through a variety of business practices associated with, among other things, what is commonly referred to as high frequency trading. On May 2, 2014 and May 20, 2014, American European Insurance Company and Harel Insurance Co., Ltd. each filed substantially similar class action lawsuits against the Exchange Defendants which were ultimately consolidated with the City of Providence, Rhode Island securities class action lawsuit. On June 18, 2015, the Southern District of New York (the “Lower Court”) held oral argument on the pending Motion to Dismiss and thereafter, on August 26, 2015, the Lower Court issued an Opinion and Order granting Exchange Defendants’ Motion to Dismiss, dismissing the complaint in full. Plaintiff filed a Notice of Appeal of the dismissal on September 24, 2015 and its appeal brief on January 7, 2016. Respondent’s brief was filed on April 7, 2016 and oral argument was held on August 24, 2016. Following oral argument, the Court of Appeals issued an order requesting that the SEC submit an amicus brief on whether the Lower Court had jurisdiction and whether the Exchange Defendants have immunity in the claims alleged. The SEC filed its amicus brief with the Court of Appeals on November 28, 2016 and Plaintiff and the Exchange Defendants filed their respective supplemental response briefs on December 12, 2016. On December 19, 2017, the Court of Appeals reversed the Lower Court’s dismissal and remanded the case back to the Lower Court. On March 13, 2018, the Court of Appeals denied the Exchange Defendants’ motion for re-hearing. The Exchange Defendants filed their opening brief for their motion to dismiss May 18, 2018, Plaintiffs’ response was filed June 15, 2018 and the Exchange Defendants’ reply was filed June 29, 2018. On May 28, 2019, the Southern District of New York: (1) issued an opinion

**Cboe BZX Exchange, Inc.**  
Notes to Financial Statements  
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and order denying the Exchange Defendants' motion to dismiss, (2) set June 27, 2019 as the deadline for the filing of a joint answer by the Exchange Defendants, (3) ordered the parties to submit a joint letter describing the disposition of the case and to submit a proposed case management plan and proposed scheduling order by June 27, 2019, and (4) scheduled an initial pre-hearing conference for July 1, 2019. Given the preliminary nature of the proceedings, the Company is unable to estimate what, if any, liability may result from this litigation. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously.

*Transaction Fee Pilot*

In December 2018, the SEC approved a transaction fee pilot in national market system ("NMS") stocks (the "transaction fee pilot"). The pilot will subject stock exchange transaction fee pricing, including maker-taker fee-and-rebate pricing models, to new temporary pricing restrictions across two test groups, and require the exchanges to prepare data to be submitted to the SEC. The pilot includes a test group that will prohibit rebates and linked pricing, as well as a test group that will impose a cap of \$0.0010 for removing or providing displayed liquidity. Once commenced, the pilot will last for up to two years with an automatic sunset at one year unless extended by the SEC. On February 15, 2019, the Company filed a Petition for Review in the Court of Appeals for the D.C. Circuit (the "D.C. Circuit") asserting the transaction fee pilot is unlawful. The pilot was published in the Federal Register on February 20, 2019 and was scheduled to become effective on April 22, 2019. On March 28, 2019, the SEC granted a partial stay of the pilot, agreeing to delay implementing its fee-and-rebate and data-publication requirements until after the D.C. Circuit decides the pending challenges. The data-gathering requirement of the pilot's pre-pilot period remains in effect. On May 21, 2019, the SEC issued its notice to announce the effective period for the pre-pilot, which was designated as July 1, 2019 through December 31, 2019. On June 3, 2019, the Company, along with other equities exchanges, filed an opening brief with the D.C. Circuit. The transaction fee pilot may cause the Company to require additional resources to comply with or challenge the pilot and it may have a material impact on our business, financial condition and operating results if, for example, shifts in order flow away from exchanges were to occur. The Company intends to litigate the matter vigorously.

*Other*

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on the Company's financial condition, results of operations, liquidity or capital resources.

See also Note 5 ("Income Taxes").

**Choe BZX Exchange, Inc.**  
Notes to Financial Statements  
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(In thousands)

**(7) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

See Note 6 (“Commitments and Contingencies”) for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no other subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Cboe BYX Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe BYX Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe BYX Exchange, Inc.:

We have audited the accompanying financial statements of Cboe BYX Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe BYX Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe BYX Exchange, Inc.**  
Statement of Financial Condition  
December 31, 2018  
(In thousands)

**Assets**

Current assets:		
Accounts receivable	\$	18,438
Receivable from affiliates, net		17,092
Prepaid expenses		<u>227</u>
Total current assets		35,757
Other assets		2,739
Deferred income taxes		<u>808</u>
Total assets	\$	<u><u>39,304</u></u>

**Liabilities and Stockholder's Equity**

Current liabilities:		
Accounts payable	\$	4,247
Section 31 fees payable		<u>14,039</u>
Total current liabilities		18,286
Income tax liability		4,455
Stockholder's equity:		
Retained earnings		<u>16,563</u>
Total stockholder's equity		<u>16,563</u>
Total liabilities and stockholder's equity	\$	<u><u>39,304</u></u>

See accompanying notes to financial statements.

**Cboe BYX Exchange, Inc.**  
Statement of Income  
Year ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 164,813
Access fees	9,679
Exchange services and other fees	7,202
Market data fees	25,909
Regulatory transaction fees	55,004
Other revenue	417
	<hr/>
Total revenues	263,024
Cost of revenues:	
Liquidity payments	145,945
Routing and clearing	4,385
Section 31 fees	55,004
	<hr/>
Total cost of revenues	205,334
	<hr/>
Revenues less cost of revenues	57,690
Operating expenses:	
Compensation and benefits	9,681
Management fee	2,032
Technology support services	6,009
Professional fees and outside services	4,378
Travel and promotional expenses	551
Facilities costs	88
	<hr/>
Total operating expenses	22,739
	<hr/>
Income before income tax provision	34,951
Income tax provision	8,554
	<hr/>
Net income	<u>\$ 26,397</u>

See accompanying notes to financial statements.

**Cboe BYX Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<b>(Accumulated deficit)</b>	<b>Total stockholder's</b>
	<b>Retained earnings</b>	<b>(deficit) equity</b>
Balance at January 1, 2018	\$ (9,834)	\$ (9,834)
Net income	26,397	26,397
Balance at December 31, 2018	<u>\$ 16,563</u>	<u>\$ 16,563</u>

See accompanying notes to financial statements.

**Cboe BYX Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 26,397
Adjustments to reconcile net income to net cash provided by operating activities:	
Deferred income taxes	56
Changes in assets and liabilities:	
Accounts receivable	390
Receivable from affiliates, net	(17,230)
Prepaid expenses	(227)
Other assets	(1,597)
Accounts payable	487
Income tax liability	825
Section 31 fees payable	(8,773)
Other liabilities	(328)
	<hr/>
Net cash provided by operating activities	-
Increase in cash and cash equivalents	-
Cash and cash equivalents:	
Beginning of year	<hr/> -
End of year	<hr/> <u>\$ -</u>

See accompanying notes to financial statements.

**Cboe BYX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

**(1) Nature of Operations**

Cboe BYX Exchange, Inc. (“the Company” or “Cboe”), a wholly owned subsidiary of Cboe Global Markets, Inc. (“the Parent”), is an electronic market for the trading of listed cash equity securities in the United States (“U.S.”). The Company is headquartered in Chicago, Illinois with additional offices in Lenexa, Kansas and New York, New York. The Company also provides market data products to its member firms. In addition to equity trading, the Company also lists Exchange Traded Products (“ETPs”) and provides market data products to its member firms.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 3 (“Related Party Transactions”) for more information on related party transactions.

**(b) Principles of Accounting**

The Company follows accounting standards established by the Financial Accounting Standards Board (“FASB”) to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States (“GAAP”) in these notes are to the FASB Accounting Standards Codification (“ASC” or “Codification”).

**(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of the amounts of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

**(d) Cash and Cash Equivalents**

The Company’s cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company’s management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company’s operations are funded by its Parent through a centralized treasury function.

**Cboe BYX Exchange, Inc.**  
Notes to Financial Statements  
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**(e) *Accounts Receivable***

Accounts receivable represent amounts due from the Company's member firms and market data distributors and are carried at cost. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

**(f) *Prepaid Expenses***

Prepaid expenses consist of expenses related to the consolidated audit trail ("CAT") which are amortized over the service period of one year.

**(g) *Income Taxes***

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(h) *Revenue Recognition***

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees and Liquidity Payments**

Under the Company's "taker-maker" pricing model, a liquidity taker is paid a rebate (recorded in liquidity payments) for an execution occurring against that order and a liquidity maker is charged a fee (recorded in transaction fees) for posting such an order. Transaction

**Cboe BYX Exchange, Inc.**  
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fees and liquidity payments are considered earned and incurred upon execution of a trade, are recognized on a trade-date basis and are recorded on a gross basis in revenues and cost of revenues.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Exchange Services and Other Fees**

To facilitate trading, the Company offers technology services consisting primarily of physical connectivity related to the Company's electronic market that are earned and recognized on a monthly basis.

**Market Data Fees**

Market data fees are earned from U.S. tape plans, including the Unlisted Trading Privileges Plan ("UTP"), and the Consolidated Tape Association Plan ("CTA"), and also proprietary market data products. Fees collected from tape plan subscribers, net of plan costs, from UTP and CTA are allocated and distributed to plan participants according to their share of tape fees based on a formula required by Securities and Exchange Commission ("SEC") Regulation NMS that takes into account both trading and quoting activity. The Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned.

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended ("Exchange Act"). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**(3) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent and other affiliated subsidiaries of the Parent for various operating expenses. Similar results may not be achievable on an arm's length basis. The following table presents the Company's allocation of expenses from the Parent and other affiliated

**Cboe BYX Exchange, Inc.**  
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(In thousands)

subsidiaries for the year ended December 31, 2018:

Compensation and benefits	\$ 9,681
Management fee	2,032
Technology support services	5,486
Professional fees and outside services	1,598
Travel and promotional expenses	551
Facilities costs	88
	<u>\$ 19,436</u>

**(4) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018:

Deferred tax assets:	
Property and equipment	\$ 2
Intangible assets	61
Unrecognized tax benefits	803
Total deferred tax assets	<u>866</u>
Deferred tax liabilities:	
Prepaid expenses	<u>(58)</u>
Total deferred tax liabilities	<u>(58)</u>
Net deferred tax assets	<u>\$ 808</u>

The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

The income tax provision for the year ended December 31, 2018 consists of the following:

Current tax expense:	
Federal	\$ 5,760
State	2,738
Total current tax expense	<u>8,498</u>
Deferred income tax (benefit) expense:	
Federal	(6)
State	62
Income tax provision	<u>\$ 8,554</u>

**Cboe BYX Exchange, Inc.**  
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The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following:

Computed “expected” tax provision	\$	7,339	21.0%
(Decrease) increase in income tax resulting from:			
State income taxes		1,707	4.9%
Provision to actual adjustment		(1,206)	-3.4%
Change of unrecognized tax benefits		714	2.0%
Income tax provision	<u>\$</u>	<u>8,554</u>	<u>24.5%</u>

A reconciliation of the beginning and ending uncertain tax positions, excluding interest and penalties, is as follows:

Balance at January 1, 2018	\$	3,157
Gross increases on tax positions in the current period		857
Gross increases on tax positions in the prior period		968
Gross decreases on tax positions in the prior period		(887)
Reductions related to expirations of statute of limitations		(82)
Balance at December 31, 2018	<u>\$</u>	<u>4,013</u>

Reductions to uncertain tax positions from the lapse of the applicable statutes of limitations are estimated to be approximately \$0.1 million.

At December 31, 2018, the Company had \$3.7 million of unrecognized tax benefits, net of federal benefit that, if recognized, would affect the effective tax rate. The Company had accrued interest and penalties of \$0.4 million related to uncertain tax positions at December 31, 2018. Total interest and penalties did not change in 2018.

The Company’s open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on January 13, 2017 and November 29, 2018 for a redetermination of IRS notices of deficiency for tax years 2011 through 2015 related to its Section 199 claims. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court.

**Cboe BYX Exchange, Inc.**  
Notes to Financial Statements  
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(In thousands)

**(5) Commitments and Contingencies**

*Legal Proceedings*

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceeding is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

*SIFMA*

Securities Industry Financial Markets Association (“SIFMA”) has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGX Exchange, Inc. and Cboe EDGA Exchange, Inc. (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC's administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges’ conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE’s motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE’s motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the

**Cboe BYX Exchange, Inc.**  
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As of and for the Year Ended  
December 31, 2018  
(In thousands)

Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2018 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA’s motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE’s motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

*City of Providence*

On April 18, 2014, the City of Providence, Rhode Island filed a securities class action lawsuit in the Southern District of New York against Bats Global Markets, Inc. and Direct Edge Holdings LLC, as well as 14 other securities exchanges. The action purports to be brought on behalf of all public investors who purchased and/or sold shares of stock in the United States since April 18, 2009 on a registered public stock exchange (“Exchange Defendants”) or a U.S.-based alternate trading venue and were injured as a result of the alleged misconduct detailed in the complaint, which includes allegations that the Exchange Defendants committed fraud through a variety of business practices associated with, among other things, what is commonly referred to as high frequency trading. On May 2, 2014 and May 20, 2014, American European Insurance Company and Harel Insurance Co., Ltd. each filed substantially similar class action lawsuits against the Exchange Defendants which were ultimately consolidated with the City of Providence, Rhode Island securities class action lawsuit. On June 18, 2015, the Southern District of New York (the “Lower Court”) held oral argument on the pending Motion to Dismiss and thereafter, on August 26, 2015, the Lower Court issued an Opinion and Order granting Exchange Defendants’ Motion to Dismiss, dismissing the complaint in full. Plaintiff filed a Notice of Appeal of the dismissal on September 24, 2015 and its appeal brief on January 7, 2016. Respondent’s brief was filed on April 7, 2016 and oral argument was held on August 24, 2016. Following oral argument, the Court of Appeals issued an order requesting that the SEC submit an amicus brief on whether the Lower Court had jurisdiction and whether the Exchange Defendants have immunity in the claims alleged. The SEC filed its amicus brief with the Court of Appeals on November 28, 2016 and Plaintiff and the Exchange Defendants filed their respective supplemental response briefs on December 12, 2016. On December 19, 2017, the Court of Appeals reversed the Lower Court’s dismissal and remanded the case back to the Lower Court. On March 13, 2018, the Court of Appeals denied the Exchange Defendants’ motion for re-hearing. The Exchange Defendants filed their opening brief for their motion to dismiss May 18, 2018, Plaintiffs’ response was filed June 15, 2018 and the Exchange Defendants’ reply was filed June 29, 2018. On May 28, 2019, the Southern District of New York: (1) issued an opinion

**Choe BYX Exchange, Inc.**  
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and order denying the Exchange Defendants' motion to dismiss, (2) set June 27, 2019 as the deadline for the filing of a joint answer by the Exchange Defendants, (3) ordered the parties to submit a joint letter describing the disposition of the case and to submit a proposed case management plan and proposed scheduling order by June 27, 2019, and (4) scheduled an initial pre-hearing conference for July 1, 2019. Given the preliminary nature of the proceedings, the Company is unable to estimate what, if any, liability may result from this litigation. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously.

*Transaction Fee Pilot*

In December 2018, the SEC approved a transaction fee pilot in national market system ("NMS") stocks (the "transaction fee pilot"). The pilot will subject stock exchange transaction fee pricing, including maker-taker fee-and-rebate pricing models, to new temporary pricing restrictions across two test groups, and require the exchanges to prepare data to be submitted to the SEC. The pilot includes a test group that will prohibit rebates and linked pricing, as well as a test group that will impose a cap of \$0.0010 for removing or providing displayed liquidity. Once commenced, the pilot will last for up to two years with an automatic sunset at one year unless extended by the SEC. On February 15, 2019, the Company filed a Petition for Review in the Court of Appeals for the D.C. Circuit (the "D.C. Circuit") asserting the transaction fee pilot is unlawful. The pilot was published in the Federal Register on February 20, 2019 and was scheduled to become effective on April 22, 2019. On March 28, 2019, the SEC granted a partial stay of the pilot, agreeing to delay implementing its fee-and-rebate and data-publication requirements until after the D.C. Circuit decides the pending challenges. The data-gathering requirement of the pilot's pre-pilot period remains in effect. On May 21, 2019, the SEC issued its notice to announce the effective period for the pre-pilot, which was designated as July 1, 2019 through December 31, 2019. On June 3, 2019, the Company, along with other equities exchanges, filed an opening brief with the D.C. Circuit. The transaction fee pilot may cause the Company to require additional resources to comply with or challenge the pilot and it may have a material impact on our business, financial condition and operating results if, for example, shifts in order flow away from exchanges were to occur. The Company intends to litigate the matter vigorously.

*Other*

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on the Company's financial condition, results of operations, liquidity or capital resources.

See also Note 4 ("Income Taxes").

**Cboe BYX Exchange, Inc.**  
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**(6) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

See Note 5 (“Commitments and Contingencies”) for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no other subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Cboe EDGA Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe EDGA Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe EDGA Exchange, Inc.:

We have audited the accompanying financial statements of Cboe EDGA Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe EDGA Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe EDGA Exchange, Inc.**  
Statement of Financial Condition  
December 31, 2018  
(In thousands)

**Assets**

Current assets:		
Accounts receivable	\$	12,157
Receivable from affiliates, net		45,508
Prepaid expenses		<u>227</u>
Total current assets		57,892
Other assets		2,739
Deferred income taxes		<u>805</u>
Total assets	\$	<u><u>61,436</u></u>

**Liabilities and Stockholder's Equity**

Current liabilities:		
Accounts payable	\$	2,631
Section 31 fees payable		<u>6,180</u>
Total current liabilities		8,811
Income tax liability		4,578
Stockholder's equity:		
Retained earnings		<u>48,047</u>
Total stockholder's equity		<u>48,047</u>
Total liabilities and stockholder's equity	\$	<u><u>61,436</u></u>

See accompanying notes to financial statements.

**Cboe EDGA Exchange, Inc.**  
Statement of Income  
Year ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 40,104
Access fees	9,271
Exchange services and other fees	7,202
Market data fees	13,025
Regulatory transaction fees	24,014
Other revenue	474
Total revenues	94,090
Cost of revenues:	
Liquidity payments	15,093
Routing and clearing	12,469
Section 31 fees	24,014
Total cost of revenues	51,576
Revenues less cost of revenues	42,514
Operating expenses:	
Compensation and benefits	2,804
Management fee	588
Technology support services	1,461
Professional fees and outside services	2,237
Travel and promotional expenses	159
Facilities costs	25
Total operating expenses	7,274
Income before income tax provision	35,240
Income tax provision	8,903
Net income	\$ 26,337

See accompanying notes to financial statements.

**Cboe EDGA Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<u>Retained earnings</u>	<u>Total stockholder's equity</u>
Balance at January 1, 2018	\$ 21,710	\$ 21,710
Net income	26,337	26,337
Balance at December 31, 2018	<u>\$ 48,047</u>	<u>\$ 48,047</u>

See accompanying notes to financial statements.

**Cboe EDGA Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 26,337
Adjustments to reconcile net income to net cash provided by operating activities:	
Deferred income taxes	(1)
Changes in assets and liabilities:	
Accounts receivable	(4,338)
Receivable from affiliates, net	(22,144)
Prepaid expenses	(227)
Other assets	(1,597)
Accounts payable	2,616
Income tax liability	971
Section 31 fees payable	(1,314)
Other liabilities	<u>(303)</u>
Net cash provided by operating activities	-
Increase in cash and cash equivalents	-
Cash and cash equivalents:	
Beginning of year	<u>-</u>
End of year	<u><u>\$ -</u></u>

See accompanying notes to financial statements.

**Cboe EDGA Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
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(In thousands)

**(1) Nature of Operations**

Cboe EDGA Exchange, Inc. (“the Company” or “EDGA”), a wholly owned subsidiary of Cboe Global Markets, Inc. (“the Parent”), is an electronic market for the trading of listed cash equity securities in the United States (“U.S.”). The Company is headquartered in Chicago, Illinois, with additional offices in Lenexa, Kansas and New York, New York. In addition to equity trading, the Company also lists Exchange Traded Products (“ETPs”) and provides market data products to its member firms.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 3 (“Related Party Transactions”) for more information on related party transactions.

**(b) Principles of Accounting**

The Company follows accounting standards established by the Financial Accounting Standards Board (“FASB”) to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States (“GAAP”) in these notes are to the FASB Accounting Standards Codification (“ASC” or “Codification”).

**(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of the amounts of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

**(d) Cash and Cash Equivalents**

The Company’s cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company’s management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company’s operations are funded by its Parent through a centralized treasury function.

**Cboe EDGA Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
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(In thousands)

**(e) *Accounts Receivable***

Accounts receivable represent amounts due from the Company's member firms and market data distributors and are carried at cost. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

**(f) *Prepaid Expenses***

Prepaid expenses consist of expenses related to the consolidated audit trail ("CAT") which are amortized over the service period of one year.

**(g) *Income Taxes***

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax basis. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(h) *Revenue Recognition***

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees and Liquidity Payments**

Under the Company's "taker-maker" pricing model, a liquidity taker is paid a rebate (recorded in liquidity payments) for an execution occurring against that order and a liquidity maker is charged a fee (recorded in transaction fees) for posting such an order. Transaction

**Cboe EDGA Exchange, Inc.**  
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fees and liquidity payments are considered earned and incurred upon execution of a trade, are recognized on a trade date basis and are recorded on a gross basis in revenues and cost of revenues.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Exchange Services and Other Fees**

To facilitate trading, the Company offers technology services consisting primarily of physical connectivity related to the Company's electronic market that are earned and recognized on a monthly basis.

**Market Data Fees**

Market data fees are earned from U.S. tape plans, including the Unlisted Trading Privileges Plan ("UTP") and the Consolidated Tape Association Plan ("CTA"), and also proprietary market data products. Fees collected from tape plan subscribers, net of plan costs, from UTP and CTA are allocated and distributed to plan participants according to their share of tape fees based on a formula required by Securities and Exchange Commission ("SEC") Regulation NMS that takes into account both trading and quoting activity. The Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned.

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended ("Exchange Act"). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**(3) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent for various operating expenses. Similar results may not be achievable on an arm's length basis. The following table presents the Company's allocation of expenses from the Parent for the year ended December 31, 2018:

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Compensation and benefits	\$ 2,804
Management fee	588
Technology support services	1,134
Professional fees and outside services	326
Travel and promotional expenses	159
Facilities costs	25
	\$ 5,036

**(4) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018:

Deferred tax assets:	
Unrecognized tax benefits	\$ 863
Total deferred tax assets	863
Deferred tax liabilities:	
Prepaid expenses	(58)
Total deferred tax liabilities	(58)
Net deferred tax assets	\$ 805

The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

The income tax provision for the year ended December 31, 2018 consists of the following:

Current tax expense:	
Federal	\$ 5,698
State	3,205
Total current tax expense	8,903
Deferred income tax (benefit) expense:	
Federal	(46)
State	46
Income tax provision	\$ 8,903

**Cboe EDGA Exchange, Inc.**  
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The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following:

Computed “expected” tax provision	\$ 7,400	21.0%
(Decrease) increase in income tax resulting from:		
State income taxes	1,977	5.6%
Provision to actual adjustment	(1,300)	-3.7%
Change of unrecognized tax benefits	828	2.4%
Other	<u>(2)</u>	<u>0.0%</u>
Income tax provision	<u>\$ 8,903</u>	<u>25.3%</u>

A reconciliation of the unrecognized tax benefits for the year ended December 31, 2018 is as follows:

Balance at January 1, 2018	\$ 3,210
Additions for current year tax positions	866
Additions for prior year tax positions	1,056
Reductions for prior year tax positions	(953)
Reductions related to expirations of statute of limitations	<u>(66)</u>
Balance at December 31, 2018	<u>\$ 4,113</u>

Reductions to uncertain tax positions from the lapse of the applicable statutes of limitations are estimated to be approximately \$0.2 million.

At December 31, 2018, the Company had \$3.7 million of unrecognized tax benefits, net of federal benefit that, if recognized, would affect the effective tax rate. The Company had accrued interest and penalties of \$0.5 million related to uncertain tax positions at December 31, 2018. Total interest and penalties increased \$0.1 million in 2018.

The Company’s open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on November 29, 2018 for a redetermination of IRS notices of deficiency for tax years 2014 and 2015 related to its Section 199 claims. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court.

**Cboe EDGA Exchange, Inc.**  
Notes to Financial Statements  
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**(5) Commitments and Contingencies**

*Legal Proceedings*

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceeding is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

*SIFMA*

Securities Industry Financial Markets Association (“SIFMA”) has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange, Inc., Cboe EDGX Exchange, Inc. and Cboe EDGA Exchange, Inc. (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC's administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges' conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE's motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE's motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the

**Cboe EDGA Exchange, Inc.**  
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As of and for the Year Ended  
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Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2018 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA’s motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE’s motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

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December 31, 2018  
(In thousands)

and order denying the Exchange Defendants' motion to dismiss, (2) set June 27, 2019 as the deadline for the filing of a joint answer by the Exchange Defendants, (3) ordered the parties to submit a joint letter describing the disposition of the case and to submit a proposed case management plan and proposed scheduling order by June 27, 2019, and (4) scheduled an initial pre-hearing conference for July 1, 2019. Given the preliminary nature of the proceedings, the Company is unable to estimate what, if any, liability may result from this litigation. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously.

*Transaction Fee Pilot*

In December 2018, the SEC approved a transaction fee pilot in national market system ("NMS") stocks (the "transaction fee pilot"). The pilot will subject stock exchange transaction fee pricing, including maker-taker fee-and-rebate pricing models, to new temporary pricing restrictions across two test groups, and require the exchanges to prepare data to be submitted to the SEC. The pilot includes a test group that will prohibit rebates and linked pricing, as well as a test group that will impose a cap of \$0.0010 for removing or providing displayed liquidity. Once commenced, the pilot will last for up to two years with an automatic sunset at one year unless extended by the SEC. On February 15, 2019, the Company filed a Petition for Review in the Court of Appeals for the D.C. Circuit (the "D.C. Circuit") asserting the transaction fee pilot is unlawful. The pilot was published in the Federal Register on February 20, 2019 and was scheduled to become effective on April 22, 2019. On March 28, 2019, the SEC granted a partial stay of the pilot, agreeing to delay implementing its fee-and-rebate and data-publication requirements until after the D.C. Circuit decides the pending challenges. The data-gathering requirement of the pilot's pre-pilot period remains in effect. On May 21, 2019, the SEC issued its notice to announce the effective period for the pre-pilot, which was designated as July 1, 2019 through December 31, 2019. On June 3, 2019, the Company, along with other equities exchanges, filed an opening brief with the D.C. Circuit. The transaction fee pilot may cause the Company to require additional resources to comply with or challenge the pilot and it may have a material impact on our business, financial condition and operating results if, for example, shifts in order flow away from exchanges were to occur. The Company intends to litigate the matter vigorously.

*Other*

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on the Company's financial condition, results of operations, liquidity or capital resources.

See also Note 4 ("Income Taxes").

**Cboe EDGA Exchange, Inc.**  
Notes to Financial Statements  
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**(6) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

See Note 5 (“Commitments and Contingencies”) for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no other subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Exhibit I**

**Exhibit Request:**

**For the latest fiscal year of the applicant, audited financial statements which are prepared in accordance with, or in the case of a foreign applicant, reconciled with, United States generally accepted accounting principles, and are covered by a report prepared by an independent public accountant. If an applicant has no consolidated subsidiaries, it shall file audited financial statements under Exhibit I alone and need not file a separate unaudited financial statement for the applicant under Exhibit D.**

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Attached please find audited financial statements of Cboe EDGX Exchange, Inc. for the latest fiscal year ending December 31, 2087. Cboe EDGX Exchange, Inc. has no consolidated subsidiaries.

**Cboe EDGX Exchange, Inc.**

Financial Statements

As of and for the Year ended December 31, 2018

(With Independent Auditors' Report Thereon)

**Cboe EDGX Exchange, Inc.**

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## **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors of Cboe EDGX Exchange, Inc.:

We have audited the accompanying financial statements of Cboe EDGX Exchange, Inc. (the "Company"), which comprise the statement of financial condition as of December 31, 2018, and the related statements of income, changes in stockholder's equity, and cash flows for the year then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Cboe EDGX Exchange, Inc. as of December 31, 2018, and the results of its operations and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

**Emphasis of Matter**

As discussed in Note 2 to the financial statements, the accompanying financial statements for the Company have been prepared from the separate records maintained by Cboe Global Markets, Inc. ("the Parent") and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated entity. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company. Our opinion is not modified with respect to this matter.

*Deloitte & Touche LLP*

June 12, 2019

**Cboe EDGX Exchange, Inc.**  
Statement of Financial Condition  
December 31, 2018  
(In thousands)

**Assets**

Current assets:		
Accounts receivable	\$	36,302
Receivable from affiliates, net		55,900
Prepaid expenses		227
Other receivables		<u>736</u>
Total current assets		93,165
Other assets		5,167
Deferred income taxes		<u>851</u>
Total assets	\$	<u><u>99,183</u></u>

**Liabilities and Stockholder's Equity**

Current liabilities:		
Accounts payable	\$	10,627
Section 31 fees payable		<u>21,423</u>
Total current liabilities		32,050
Income tax liability		4,681
Stockholder's equity:		
Retained earnings		<u>62,452</u>
Total stockholder's equity		<u>62,452</u>
Total liabilities and stockholder's equity	\$	<u><u>99,183</u></u>

See accompanying notes to financial statements.

**Cboe EDGX Exchange, Inc.**  
Statement of Income  
Year ended December 31, 2018  
(In thousands)

Revenues:	
Transaction fees	\$ 349,177
Access fees	13,862
Exchange services and other fees	7,202
Market data fees	50,025
Regulatory transaction fees	94,818
Other revenue	<u>1,129</u>
Total revenues	516,213
Cost of revenues:	
Liquidity payments	309,234
Routing and clearing	8,297
Section 31 fees	<u>94,107</u>
Total cost of revenues	<u>411,638</u>
Revenues less cost of revenues	104,575
Operating expenses:	
Compensation and benefits	17,009
Management fee	2,800
Technology support services	8,145
Professional fees and outside services	6,200
Travel and promotional expenses	944
Facilities costs	<u>603</u>
Total operating expenses	<u>35,701</u>
Operating income	68,874
Non-operating income:	
Interest income	<u>19</u>
Income before income tax provision	68,893
Income tax provision	<u>18,346</u>
Net income	<u><u>\$ 50,547</u></u>

See accompanying notes to financial statements.

**Cboe EDGX Exchange, Inc.**  
Statement of Changes in Stockholder's Equity  
Year ended December 31, 2018  
(In thousands)

	<u>Retained earnings</u>	<u>Total stockholder's equity</u>
Balance at January 1, 2018	\$ 11,905	\$ 11,905
Net income	50,547	50,547
Balance at December 31, 2018	<u>\$ 62,452</u>	<u>\$ 62,452</u>

See accompanying notes to financial statements.

**Cboe EDGX Exchange, Inc.**  
Statement of Cash Flows  
Year ended December 31, 2018  
(In thousands)

Cash flows from operating activities:	
Net income	\$ 50,547
Adjustments to reconcile net income to net cash provided by operating activities:	
Deferred income taxes	(427)
Changes in assets and liabilities:	
Receivables	(3,660)
Receivable from affiliates, net	(34,935)
Prepaid expenses	(227)
Other assets	(2,339)
Accounts payable	57
Section 31 fees payable	(11,475)
Other liabilities	(335)
Income tax liability	<u>2,794</u>
Net cash provided by operating activities	-
Increase in cash and cash equivalents	-
Cash and cash equivalents:	
Beginning of year	<u>-</u>
End of year	<u><u>\$ -</u></u>

See accompanying notes to financial statements.

**Cboe EDGX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

**(1) Nature of Operations**

Cboe EDGX Exchange, Inc. (“the Company” or “EDGX”), a wholly owned subsidiary of Cboe Global Markets, Inc. (“the Parent”), is an electronic market for the trading of listed cash equity securities and listed equity options in the United States (“U.S.”). The Company is headquartered in Chicago, Illinois, with additional offices in Lenexa, Kansas and New York, New York. In addition to equity and options trading, the Company also lists Exchange Traded Products (“ETPs”) and provides market data products to its member firms.

**(2) Summary of Significant Accounting Policies**

**(a) Basis of Presentation**

The accompanying financial statements for the Company have been prepared from the separate records maintained by the Parent and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had been operated as an unaffiliated company. Portions of certain income and expenses represent allocations made from the Parent applicable to the Company as disclosed. See Note 3 (“Related Party Transactions”) for more information on related party transactions.

**(b) Principles of Accounting**

The Company follows accounting standards established by the Financial Accounting Standards Board (“FASB”) to report its financial condition, results of operations and cash flows. References to accounting principles generally accepted in the United States (“GAAP”) in these notes are to the FASB Accounting Standards Codification (“ASC” or “Codification”).

**(c) Use of Estimates**

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of the amounts of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. Material estimates that are particularly susceptible to significant change in the near term include unrecognized tax benefits, included in deferred income taxes on the statement of financial condition, and the receivable for market data fees, which is included in accounts receivable on the statement of financial condition.

**(d) Cash and Cash Equivalents**

The Company’s cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company’s management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers all liquid investments with original or acquired maturities of three months or less to be cash equivalents. The Company’s operations are funded by its Parent through a centralized treasury function.

**Cboe EDGX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
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**(e) *Accounts Receivable***

Accounts receivable represent amounts due from the Company's member firms and market data distributors and are carried at cost. On a periodic basis, management evaluates the Company's receivables and determines if an allowance for uncollectible accounts receivable based on anticipated collections is required. In circumstances where a specific member firm's or market data distributor's inability to meet its financial obligations is probable, the Company records a specific provision for uncollectible accounts against amounts due to reduce the receivable to the amount the Company estimates will be collected. At December 31, 2018, no allowance was recorded.

**(f) *Prepaid Expenses***

Prepaid expenses consist of expenses related to the consolidated audit trail ("CAT") which are amortized over the service period of one year.

**(g) *Income Taxes***

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. The results of the Company's operations are included in the Parent's income tax returns. Income taxes are allocated to the Company using the pro-rata method. Tax accounts are settled periodically in accordance with the tax sharing agreement in place with the Parent.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for uncertain tax positions. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the statement of income.

**(h) *Revenue Recognition***

The statement of income presents revenue at the disaggregated level for relevant revenue streams.

**Transaction Fees and Liquidity Payments**

Under the Company's "maker-taker" pricing model, a member posting an order (the liquidity maker) is paid a rebate (recorded in liquidity payments) for an execution occurring against that order, and a member executing against an order resting on the Company's book

**Cboe EDGX Exchange, Inc.**  
Notes to Financial Statements  
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(the liquidity taker) is charged a fee (recorded in transaction fees). Transaction fees and liquidity payments are considered earned and incurred upon execution of a trade, are recognized on a trade-date basis and are recorded on a gross basis in revenues and cost of revenues.

**Access Fees**

Access fees represent fees assessed for the opportunity to trade, including fees for trading related functionality across all segments. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligation is met. There is no remaining performance obligation after revenue is recognized.

**Exchange Services and Other Fees**

To facilitate trading, the Company offers technology services consisting primarily of physical connectivity related to the Company's electronic market that are earned and recognized on a monthly basis.

**Market Data Fees**

Market data fees are earned from U.S. tape plans, including the Unlisted Trading Privileges Plan ("UTP"), the Consolidated Tape Association Plan ("CTA"), and the Options Price Reporting Authority, LLC ("OPRA"), and also proprietary market data products. Fees collected from tape plan subscribers, net of plan costs, from UTP and CTA are allocated and distributed to plan participants according to their share of tape fees based on a formula required by Securities and Exchange Commission ("SEC") Regulation NMS that takes into account both trading and quoting activity. Market data fees from OPRA are allocated based upon the share of total options transactions cleared for each of the OPRA members. The Company also charges data subscribers directly for proprietary market data. The proprietary market data fees are recognized monthly, as the subscription fees are earned.

**Regulatory Transaction and Section 31 Fees**

The Company, as a U.S. exchange, is assessed Section 31 fees pursuant to the Securities Exchange Act of 1934, as amended ("Exchange Act"). Section 31 fees are assessed on the notional value traded and are designed to recover the costs to the government of supervision and regulation of securities markets and securities professionals. The Company, in turn, assesses regulatory transaction fees to its members that are designed to equal the Section 31 fees. The Company acts as the principal on these transactions, and therefore these revenues are reported gross in the statement of income and the related Section 31 fees in cost of revenues as incurred on a settlement date basis. Regulatory transaction fees are collected by the Parent and paid directly to the SEC by the Parent on behalf of the Company. As required by law, the amount due to the SEC is remitted semiannually and recorded as Section 31 fees payable in the statement of financial condition until paid.

**Cboe EDGX Exchange, Inc.**  
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**(3) Related Party Transactions**

The Company utilizes property and equipment that are held at the Parent level. The Company also records expenses allocated from the Parent for various operating expenses. Similar results may not be achievable on an arm's length basis. The following table presents the Company's allocation of expenses from the Parent for the year ended December 31, 2018:

Compensation and benefits	\$ 17,009
Management fee	2,800
Technology support services	7,493
Professional fees and outside services	2,812
Travel and promotional expenses	944
Facilities costs	603
	<u>\$ 31,661</u>

**(4) Income Taxes**

Deferred tax assets consist of the following components as of December 31, 2018:

Deferred tax assets:	
Unrecognized tax benefits	\$ 919
Total deferred tax assets	<u>919</u>
Deferred tax liabilities:	
Income from domestic partnerships	(10)
Prepaid expenses	<u>(58)</u>
Total deferred tax liabilities	<u>(68)</u>
Net deferred tax asset	<u>\$ 851</u>

The Company provides a valuation allowance against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Management believes it is more likely than not that the deferred tax assets will be realized based upon expectations of future taxable income.

**Cboe EDGX Exchange, Inc.**  
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The income tax provision for the year ended December 31, 2018 consists of the following:

Current tax expense:	
Federal	\$ 11,742
State	<u>7,031</u>
Total current tax expense	18,773
Deferred income tax (benefit) expense:	
Federal	(457)
State	<u>30</u>
Income tax provision	<u>\$ 18,346</u>

The income tax provision differs from the amount of income tax determined by applying the U.S. federal income tax rate to income before income tax provision for the year ended December 31, 2018 due to the following:

Computed “expected” tax provision	\$ 14,468	21.0%
(Decrease) increase in income tax resulting from:		
State income taxes	3,384	4.9%
Provision to actual adjustment	(1,747)	-2.5%
Change of unrecognized tax benefits	2,208	3.2%
Other	<u>33</u>	<u>0.0%</u>
Income tax provision	<u>\$ 18,346</u>	<u>26.6%</u>

A reconciliation of the beginning and ending uncertain tax positions, excluding interest and penalties, is as follows:

Balance at January 1, 2018	\$ 1,797
Gross increases on tax positions in the current period	1,741
Gross increases on tax positions in the prior period	878
Gross decreases on tax positions in the prior period	<u>(39)</u>
Balance at December 31, 2018	<u>\$ 4,377</u>

Reductions to uncertain tax positions from the lapse of the applicable statutes of limitations during the next twelve months are estimated to be approximately \$0.1 million.

At December 31, 2018, the Company had \$3.8 million of uncertain tax positions, net of federal benefit which, if recognized, would affect the effective income tax rate. The Company had accrued

**Cboe EDGX Exchange, Inc.**  
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interest and penalties of \$0.3 million related to uncertain tax positions at December 31, 2018. Total interest and penalties increased \$0.2 million in 2018.

The Company's open tax years are generally 2015 through 2018. The Company is currently under a U.S. federal income tax examination for tax years 2011 through 2016 and under income tax examinations in certain states. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

The Company petitioned the Tax Court on November 29, 2018 for a redetermination of IRS notices of deficiency for tax years 2014 and 2015 related to its Section 199 claims. The Company believes the aggregate amount of any additional liabilities that may result from these examinations, if any, will not have a material adverse effect on the financial position, results of operations, or cash flows of the Company. As of December 31, 2018, we have not resolved these matters, and proceedings continue in Tax Court.

## **(5) Commitments and Contingencies**

### ***Legal Proceedings***

As of December 31, 2018, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for our financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2018, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceeding is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting period.

### ***SIFMA***

Securities Industry Financial Markets Association ("SIFMA") has filed a number of denial of access applications with the SEC to set aside proposed rule changes to establish or modify fees for Cboe Exchange, Inc., Cboe C2 Exchange, Inc., Cboe BZX Exchange, Inc., Cboe BYX Exchange,

**Cboe EDGX Exchange, Inc.**  
Notes to Financial Statements  
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(In thousands)

Inc., Cboe EDGX Exchange, Inc. and Cboe EDGA Exchange, Inc. (the “Exchanges”) market data products and related services (the “Challenged Fees”). The Challenged Fees were held in abeyance pending a decision, which was issued on October 16, 2018, on a separate SIFMA denial of access application held before an SEC's administrative law judge regarding fees proposed by Nasdaq and the NYSE for their respective market data products. The Order also applied to NYSE, Nasdaq, MIAX and CTA. On October 16, 2018, the SEC issued an order (the “Order”) that remanded the stayed Challenged Fees and ordered the Exchanges to: (i) within six months of the Order, provide notice to the SEC of developed or identified fair procedures for assessing the Challenged Fees (the “Procedures”) and (ii) within one year of the Order, apply the Procedures to the Challenged Fees and submit to the SEC a record explaining the Exchanges’ conclusions. On October 26, 2018, the Exchanges filed a motion to reconsider the Order with the SEC. On November 21, 2018, the Exchanges filed with the SEC a joinder motion to NYSE’s motion for stay of the Order, which was filed on November 20, 2018. On December 3, 2018, SIFMA filed a response to NYSE’s motion for stay, which the Exchanges joined. Nasdaq withdrew its motion to reconsider the Order with the SEC on December 4, 2018, and on December 5, 2018, filed a Petition for Review with the Washington D.C. Court of Appeals (the “D.C. Circuit”). On December 14, 2018, the SEC denied the motion for stay but tolled the compliance date set forth in the remand order until ruling is made on the motion to reconsider. The Exchanges and NYSE filed on January 4, 2018 to intervene in the Nasdaq Petition for Review to ensure the ability to participate in the case; the motion to intervene was granted on January 25, 2019. On the same day, SIFMA filed a motion with the D.C. Circuit moving to dismiss or hold in abeyance the Petition for Review. The Exchanges and NYSE submitted on February 6, 2019 a statement of issues for consideration in connection with the Petition for Review before the D.C. Circuit. On March 29, 2019, the D.C. Circuit issued an order indicating that SIFMA’s motion to dismiss will be considered with the underlying merits of the Petition for Review. On May 7, 2019, the SEC denied the Exchanges and NYSE’s motion for reconsideration of the Order, in large part based on their finding that the Order does not constitute a final SEC action. The SEC also further tolled the effectiveness of the remand order subject to the resolution of the substantive SIFMA case against Nasdaq and NYSE Arca that is already before the D.C. Circuit. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously. The Company is unable to estimate what, if any, liability may result from this litigation.

*City of Providence*

On April 18, 2014, the City of Providence, Rhode Island filed a securities class action lawsuit in the Southern District of New York against Bats Global Markets, Inc. and Direct Edge Holdings LLC, as well as 14 other securities exchanges. The action purports to be brought on behalf of all public investors who purchased and/or sold shares of stock in the United States since April 18, 2009 on a registered public stock exchange (“Exchange Defendants”) or a U.S.-based alternate trading venue and were injured as a result of the alleged misconduct detailed in the complaint, which includes allegations that the Exchange Defendants committed fraud through a variety of business practices associated with, among other things, what is commonly referred to as high frequency trading. On May 2, 2014 and May 20, 2014, American European Insurance Company and Harel Insurance Co., Ltd. each filed substantially similar class action lawsuits against the Exchange Defendants which were ultimately consolidated with the City of Providence, Rhode

**Cboe EDGX Exchange, Inc.**  
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(In thousands)

Island securities class action lawsuit. On June 18, 2015, the Southern District of New York (the “Lower Court”) held oral argument on the pending Motion to Dismiss and thereafter, on August 26, 2015, the Lower Court issued an Opinion and Order granting Exchange Defendants’ Motion to Dismiss, dismissing the complaint in full. Plaintiff filed a Notice of Appeal of the dismissal on September 24, 2015 and its appeal brief on January 7, 2016. Respondent’s brief was filed on April 7, 2016 and oral argument was held on August 24, 2016. Following oral argument, the Court of Appeals issued an order requesting that the SEC submit an amicus brief on whether the Lower Court had jurisdiction and whether the Exchange Defendants have immunity in the claims alleged. The SEC filed its amicus brief with the Court of Appeals on November 28, 2016 and Plaintiff and the Exchange Defendants filed their respective supplemental response briefs on December 12, 2016. On December 19, 2017, the Court of Appeals reversed the Lower Court’s dismissal and remanded the case back to the Lower Court. On March 13, 2018, the Court of Appeals denied the Exchange Defendants’ motion for re-hearing. The Exchange Defendants filed their opening brief for their motion to dismiss May 18, 2018, Plaintiffs’ response was filed June 15, 2018 and the Exchange Defendants’ reply was filed June 29, 2018. On May 28, 2019, the Southern District of New York: (1) issued an opinion and order denying the Exchange Defendants’ motion to dismiss, (2) set June 27, 2019 as the deadline for the filing of a joint answer by the Exchange Defendants, (3) ordered the parties to submit a joint letter describing the disposition of the case and to submit a proposed case management plan and proposed scheduling order by June 27, 2019, and (4) scheduled an initial pre-hearing conference for July 1, 2019. Given the preliminary nature of the proceedings, the Company is unable to estimate what, if any, liability may result from this litigation. However, the Company believes that the claims are without merit and intends to litigate the matter vigorously.

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**Cboe EDGX Exchange, Inc.**  
Notes to Financial Statements  
As of and for the Year Ended  
December 31, 2018  
(In thousands)

*Other*

As self-regulatory organizations under the jurisdiction of the SEC, the Company is subject to routine reviews and inspections by the SEC. The Company has from time to time received inquiries and investigative requests from the SEC's Office of Compliance Inspections and Examinations as well as the Division of Enforcement seeking information about our compliance with our obligations as a self-regulatory organization, the federal securities laws as well as our members' compliance with the federal securities laws.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on the Company's financial condition, results of operations, liquidity or capital resources.

See also Note 4 ("Income Taxes").

**(6) Subsequent Events**

The Company has performed an evaluation of events that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

See Note 5 ("Commitments and Contingencies") for updates to legal proceedings that have occurred subsequent to December 31, 2018 through June 12, 2019, the date the financial statements were issued.

There have been no subsequent events that have occurred during such period that would require disclosure in, or adjustment to, the financial statements as of and for the year ended December 31, 2018.

**Exhibit K**

**Exhibit Request:**

**This Exhibit is applicable only to exchanges that have one or more owners, shareholders, or partners that are not also members of the exchange. If the exchange is a corporation, please provide a list of each shareholder that directly owns 5% or more of a class of a voting security of the applicant. If the exchange is a partnership, please provide a list of all general partners and those limited and special partners that have the right to receive upon dissolution, or have contributed, 5% or more of the partnership's capital. For each of the persons listed in the Exhibit K, please provide the following:**

- 1. Full legal name;**
- 2. Title or Status;**
- 3. Date title or status was acquired;**
- 4. Approximate ownership interest; and**
- 5. Whether the person has control, a term that is defined in the instructions to this Form.**

**Response:**

Cboe EDGX Exchange, Inc. ("EDGX") is wholly-owned by Direct Edge LLC ("Direct Edge"). Direct Edge is the sole stockholder of the Exchange, and acquired its interest in the Exchange on July 22, 2010. Direct Edge exercises "control" over the Exchange, as that term is defined in the Form 1 instructions.

Direct Edge is wholly-owned by Cboe Bats, LLC (f/k/a CBOE V, LLC). Cboe Bats, LLC is the sole stockholder of Direct Edge, and acquired its interest in Direct Edge on January 31, 2014. Cboe Bats, LLC exercises "control" over the Exchange, as that term is defined in the Form 1 instructions.

Cboe Bats, LLC is wholly-owned by Cboe Global Markets, Inc. Cboe Global Markets, Inc. is the sole member of Cboe Bats, LLC, and acquired its interest in Cboe Bats, LLC on September 23, 2016. Cboe Global Markets, Inc. exercises "control" over the Exchange, as that term is defined in the Form 1 instructions.

**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
All Rise Trading LLC	NA	NA	NA	NA	8/14/2018	NA	Member TPH	141 W. Jackson Blvd., Suite 300A, Chicago, IL 60604	312-483-2147	Floor Broker
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
Alpha Trading, LP	2/22/2019	2/22/2019	2/22/2019	2/22/2019	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	6/5/2019	Member TPH	Strawinskylaan 3095 Amsterdam, 1077ZX Netherlands	31-020-708-7000	Proprietary Trading
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	312-838-6700	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	212-931-9058	Proprietary Trading
ATM Execution LLC dba Cowen Electronic	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	646-862-1010	Public Customer Business
Axos Financial 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
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	10/16/2018	1/3/2005	4/4/2011	Member TPH	10 S Riverside Plaza Suite 2100 Chicago, IL 60606	312-893-3750	Market Maker, Proprietary Trading
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
Blitmore International Corporation	NA	NA	NA	5/15/2019	NA	NA	Member TPH	1090 King Georges Post Road Edison, NJ 08837	732-791-4000	Market Maker, Proprietary Trading
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
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
Boerboel Capital LLC	1/30/2019	1/30/2019	1/30/2019	1/30/2019	NA	NA	Sponsored Participant	300 N LaSalle Street Suite 2060 Chicago, IL 60654	708-967-6843	Market Maker
Boerboel Trading LP	10/15/2018	10/15/2018	10/15/2018	10/15/2018	NA	NA	Sponsored Participant	Maples Corporate Services PO Box 309, Ugland House Cayman Islands KY1-1104	#####	Proprietary Trading
BofA Securities, Inc.	9/19/2018	9/19/2018	9/19/2018	9/19/2018	5/13/2019	5/13/2019	Member TPH	One Bryant Park New York, NY 10036	201-671-5685	Clearing Services, Firm Proprietary Trading, Public Customer Business
BTIG, LLC	8/18/2008	11/15/2010	5/25/2010	5/27/2010	NA	NA	Member TPH	600 Montgomery Street 8th 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	8/10/2010	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 58th 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	1/24/2019	NA	NA	NA	10/1/2007	NA	Member TPH	141 W Jackson Boulevard Suite 2200A Chicago, IL 60604	312-477-8400	Market Maker/Proprietary
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 68214	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	80 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
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	NA	NA	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	6/3/2019	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
Clear Street, LLC	3/18/2019	NA	NA	NA	NA	NA	Member TPH	55 Broadway Suite 2102 New York, NY 10006	646-738-4068	Public Customer Business, Clearing, Proprietary Trading
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
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
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	10/8/2010	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
DRW Singapore Ltd.	11/19/2018	NA	NA	11/19/2018	NA	NA	Sponsored Participant	8 Marina View Asia Square Tower 1   #32-05 Singapore 018960	312-542-1005	Proprietary Trading
Dynamic Technology Lab Pte. Ltd.	11/5/2018	11/5/2018	11/5/2018	11/5/2018	NA	NA	Sponsored Participant	07-00, 178 Clemenceau Avenue Singapore 239926	658-610-4693	Proprietary Trading
E D & F Man Capital Markets Inc.	NA	NA	NA	NA	3/1/2019	NA	Member TPH	140 E. 45th Street 10th Floor New York, NY 10017	212-618-2800	Clearing, Public Customer Business
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
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
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
Gair Loch Enterprises Ltd.	2/22/2019	2/22/2019	4/8/2019	4/8/2019	NA	NA	Member TPH	540 W. Madison Suite 2500 Chicago, IL 60661	312-542-1193	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
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

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
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 Darvi 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
Headlands Technologies LLC	10/15/2018	10/15/2018	10/15/2018	10/15/2018	NA	NA	Sponsored Participant	155 N. Wacker Drive, Suite 1900 Chicago, IL 60606	312-601-8649	Proprietary Trading
Hehmeyer, 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
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 Execution Services 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
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
ICAP Corporates 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-Chicago LLC dba 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
IMC-Chicago LLC dba IMC Financial Markets	11/5/2018	11/5/2018	11/5/2018	11/5/2018	NA	NA	Sponsored Participant	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
Inslinet 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 49th Street New York, NY 10019	212-310-8500	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
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	1/2/2019	Member TPH	250 Vesey Street 5th Floor New York, NY 10281	646-759-6000	Market Maker, Proprietary Trading
Jane Street Execution Services LLC	1/24/2019	1/24/2019	1/24/2019	1/24/2019	NA	NA	Member TPH	250 Vesey Street 8th Floor New York, NY 10281	646-759-6381	Proprietary Trading
Jane Street Options, LLC	4/15/2016	NA	NA	11/9/2018	5/2/2005	1/2/2019	Member TPH	250 Vesey Street 5th Floor New York, NY 10281	646-759-6000	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	212-685-6300	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
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
Lamport 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

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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
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 58th 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	10/28/2010	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, 8th 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
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
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	5/28/2010	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 48th 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
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	65 Broad Street 22nd, 24th Floors New York, NY 10004	212-668-8000	Clearing, Transact Business with the Public
Optiver US, LLC	8/15/2009	NA	NA	5/30/2018	8/1/2005	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 8th 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
Pershing LLC	8/18/2008	9/15/2010	5/28/2010	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	5/28/2010	5/27/2010	NA	NA	Member TPH	1000 de la Gauchetiere West Suite 3100 Montreal, Quebec H3B 4W5	514-288-8161	Agency
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
Puma Capital, LLC	NA	NA	6/15/2016	8/15/2016	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
Pundion LLC	10/15/2018	10/15/2018	10/15/2018	10/15/2018	NA	NA	Sponsored Participant	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

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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
Radix Trading LLC	11/5/2018	11/5/2018	11/5/2018	11/5/2018	NA	NA	Sponsored Participant	353 N Clark Street Suite 3200 Chicago, IL 60654	773-377-8080	Research Firm
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	548 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	5/28/2010	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
Sea Otter Securities Group LLC	10/9/2018	10/9/2018	NA	10/9/2018	NA	NA	Sponsored Participant	107 Grand Street 7th Floor New York, NY 10013	646-762-9972	Proprietary Trading
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 614 New York, NY 10004	646-885-6486	Public Customer Business
SRT Securities 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
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	3/22/2019	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
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
SVB Leerink 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
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

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ThinkTrade, LLC	2/1/2010	10/20/2010	1/9/2015	1/9/2015	NA	NA	Sponsored Participant	2210 Encintas Boulevard Suite I Encintas, 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
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 Hefepolis, 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 29484	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	12/11/2006	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	312-682-5000	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
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