

CBOE Holdings, Inc.  
Form 10-Q  
May 11, 2017

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2017

OR  
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 001-37732

CBOE HOLDINGS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware 20-5446972

(State

or (I.R.S.

Other Employer  
Jurisdiction

of

Incorporation  
Identification

or (No.)  
Organization)

400 South LaSalle Street Chicago, Illinois 60605  
(Address of Principal Executive Offices) (Zip Code)

(Registrant's telephone number, including area code)

(312) 786-5600

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.  
Large accelerated filer Accelerated filer

Non-accelerated filer Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
Yes      No

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date:

Class	May 5, 2017
Common Stock, par value \$0.01	112,042,728 shares

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CERTAIN DEFINED TERMS

Throughout this document, unless otherwise specified or the context so requires:

“CBOE Holdings,” “we,” “us,” “our” or “the Company” refers to CBOE Holdings, Inc. and its subsidiaries.

“Bats Global Markets” and “Bats” refer to our wholly-owned subsidiary Bats Global Markets, Inc., now known as CBOE V, LLC, and its subsidiaries.

“Bats Hotspot” and “Hotspot” refer to our foreign currency exchange. Hotspot operates in the United States and the United Kingdom.

“Bats Trading” and “Trading” refer to our broker-dealer entity, Bats Trading, Inc., operated in the United States.

“BTL” refers to Bats Trading Limited, the U.K. operator of our Multilateral Trading Facility (“MTF”), and our Regulated Market (“RM”), under its Recognized Investment Exchange (“RIE”) status, collectively known as “Bats Europe”.

“BYX” refers to Bats BYX Exchange, Inc., a wholly-owned subsidiary of CBOE Holdings, Inc.

“BZX” refers to Bats BZX Exchange, Inc., a wholly-owned subsidiary of CBOE Holdings, Inc.

“C2” refers to C2 Options Exchange, Incorporated, a wholly-owned subsidiary of CBOE Holdings, Inc.

“CBOE” refers to Chicago Board Options Exchange, Incorporated, a wholly-owned subsidiary of CBOE Holdings, Inc.

“CFE” refers to CBOE Futures Exchange, LLC, a wholly-owned subsidiary of CBOE Holdings, Inc.

“CFTC” refers to the U.S. Commodity Futures Trading Commission.

“Chi-X Europe” refers to our broker-dealer operated in the United Kingdom.

“EDGA” refers to Bats EDGA Exchange, Inc., a wholly-owned subsidiary of CBOE Holdings, Inc.

“EDGX” refers to Bats EDGX Exchange, Inc., a wholly-owned subsidiary of CBOE Holdings, Inc.

“FASB” refers to the Financial Accounting Standards Board.

“FCA” refers to the U.K. Financial Conduct Authority.

“GAAP” refers to Generally Accepted Accounting Principles in the United States.

“Merger” refers to our acquisition of Bats Global Markets, completed on February 28, 2017.

“OCC” refers to The Options Clearing Corporation, which is the issuer and registered clearing agency for all U.S. exchange-listed options and is the designated clearing organization for futures traded on CFE.

“Our exchanges” refers to CBOE, C2, CFE, BZX, BYX, EDGX, and EDGA.

“SEC” refers to the U.S. Securities and Exchange Commission.

“SPX” refers to our S&P 500 Index exchange-traded options products.

“VIX” refers to the CBOE Volatility Index methodology.

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TRADEMARK AND OTHER INFORMATION

CBOE®, Chicago Board Options Exchange®, CFE®, Bats®, BZX®, BYX®, EDGX®, EDGA®, Direct Edge®, Livevol®, CBOE Volatility Index® and VIX® are registered trademarks and CBOE Futures Exchange<sup>SM</sup> and CBOE Vest<sup>SM</sup> are service marks of CBOE Holdings, Inc. and its subsidiaries. C2<sup>SM</sup> and C2 Options Exchange<sup>SM</sup> are service marks of C2. Standard & Poor's®, S&P®, S&P 100® and S&P 500® are registered trademarks of Standard & Poor's Financial Services LLC and have been licensed for use by CBOE, C2 and CFE. Dow Jones®, Dow Jones Industrial Average®, DJIA® and Dow Jones Indexes are registered trademarks or service marks of Dow Jones Trademark Holdings, LLC, used under license. MSCI, and the MSCI index names are service marks of MSCI Inc., used under license. Russell®, Russell 1000® and Russell 2000® are registered trademarks of Frank Russell Company, used under license. FTSE® and the FTSE indexes are trademarks and service marks of FTSE International Limited, used under license. All other trademarks and service marks are the property of their respective owners.

This Quarterly Report on Form 10-Q includes market share and industry data that we obtained from industry publications and surveys, reports of governmental agencies and internal company surveys. Industry publications and surveys generally state that the information they contain has been obtained from sources believed to be reliable, but we cannot assure you that this information is accurate or complete. We have not independently verified any of the data from third-party sources nor have we ascertained the underlying economic assumptions relied upon therein. Statements as to our market position are based on the most currently available market data. While we are not aware of any misstatements regarding industry data presented herein, our estimates involve risks and uncertainties and are subject to change based on various factors. We refer you to the “Risk Factors” in Part II, Item 1A of this Quarterly Report on Form 10-Q and our other filings with the SEC.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve a number of risks and uncertainties. You can identify these statements by forward-looking words such as "may," "might," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," and the negative of these terms and other comparable terminology. All statements that reflect our expectations, assumptions or projections about the future other than statements of historical fact are forward-looking statements, including statements in the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this report. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from that expressed or implied by the forward-looking statements. In particular, you should consider the risks and uncertainties described under "Risk Factors" in Part II, Item 1A of this Quarterly Report on Form 10-Q and our other filings with the SEC. While we believe we have identified the risks that are material to us, these risks and uncertainties are not exhaustive. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Some factors that could cause actual results to differ include:

- the loss of our right to exclusively list and trade certain index options and futures products;
- economic, political and market conditions;
- compliance with legal and regulatory obligations;
- price competition and consolidation in our industry;
- decreases in trading volumes, market data fees or a shift in the mix of products traded on our exchanges;
- legislative or regulatory changes;
- increasing competition by foreign and domestic entities;
- our dependence on and exposure to risk from third parties;
- our index providers' ability to maintain the quality and integrity of their indexes and to perform under our agreements;
- our ability to operate our business without violating the intellectual property rights of others and the costs associated with protecting our intellectual property rights;
- our ability to attract and retain skilled management and other personnel, including those experienced with post-acquisition integration;
- our ability to accommodate trading volume and transaction traffic, including significant increases, without failure or degradation of performance of our systems;
- our ability to protect our systems and communication networks from security risks, including cyber-attacks and unauthorized disclosure of confidential information;
- challenges to our use of open source software code;
- our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status;
- damage to our reputation;
- the ability of our compliance and risk management methods to effectively monitor and manage our risks;
- our ability to manage our growth and strategic acquisitions or alliances effectively;
  - unanticipated difficulties or expenditures relating to the Merger, including, without limitation, difficulties that result in the failure to realize expected synergies, accretion, efficiencies and cost savings from the Merger within the expected time period (if at all), whether in connection with integration, migrating trading platforms, broadening distribution of product offerings or otherwise;



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restrictions imposed by our debt obligations;  
our ability to maintain an investment grade credit rating;  
potential difficulties in our migration of trading platforms and our ability to retain employees as a result of the Merger; and  
the accuracy of our estimates and expectations.

For a detailed discussion of these and other factors that might affect our performance, see Part II, Item 1A of this Report. We do not undertake, and expressly disclaim, any duty to update any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law. We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this filing.

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## PART I—FINANCIAL INFORMATION

## Item 1. Financial Statements.

## CBOE Holdings, Inc. and Subsidiaries

## Condensed Consolidated Balance Sheets

(in millions, except share and per share amounts)

	March 31, 2017 (unaudited)	December 31, 2016
Assets		
Current Assets:		
Cash and cash equivalents	\$ 153.3	\$ 97.3
Financial investments	41.3	—
Accounts receivables, net	233.3	76.7
Income taxes receivable	12.0	53.7
Other current assets	15.8	7.4
Total Current Assets	455.7	235.1
Investments	82.0	72.9
Land	4.9	4.9
Property and equipment, net	74.6	55.9
Goodwill	2,675.6	26.5
Intangible assets, net	1,996.0	8.7
Other assets, net	56.3	72.7
Total Assets	\$ 5,345.1	\$ 476.7
Liabilities, Redeemable Noncontrolling Interests and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued liabilities	\$ 149.7	\$ 82.4
Section 31 fees payable	76.3	4.4
Deferred revenue and other current liabilities	18.0	3.1
Income tax payable	10.3	—
Current portion of contingent consideration liability	6.6	—
Total Current Liabilities	260.9	89.9
Long-term Liabilities:		
Long-term debt, less current portion	1,486.7	—
Contingent consideration liability	49.1	—
Income tax liability	63.5	52.1
Deferred income taxes	720.6	—
Other non-current liabilities	6.3	4.2
Total Long-term Liabilities	2,326.2	56.3
Commitments and Contingencies		
Total Liabilities	2,587.1	146.2
Redeemable Noncontrolling Interest	12.6	12.6
Stockholders' Equity:		
Preferred stock, \$.01 par value: 20,000,000 shares authorized, no shares issued and outstanding at March 31, 2017 and December 31, 2016	—	—
Common stock, \$.01 par value: 325,000,000 shares authorized, 123,805,644 and 112,042,728 shares issued and outstanding, respectively at March 31, 2017 and 92,950,065 and 81,285,307 shares issued and outstanding, respectively at December 31, 2016	1.2	0.9
	(540.1	) (532.2 )

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Treasury Stock, at cost: 11,762,916 shares at March 31, 2017 and 11,664,758 shares at December 31, 2016

Additional paid-in capital	2,584.5	139.2
Retained earnings	697.7	710.8
Accumulated other comprehensive income (loss), net	2.1	(0.8 )
Total Stockholders' Equity	2,745.4	317.9
Total Liabilities and Stockholders' Equity	\$ 5,345.1	\$ 476.7

See accompanying notes to condensed consolidated financial statements.

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CBOE Holdings, Inc. and Subsidiaries  
Condensed Consolidated Statements of Income  
(unaudited)  
(in millions, except per share data)

	Three Months Ended March 31,	
	2017	2016
Revenues:		
Transaction fees	\$256.4	\$126.2
Access fees	17.8	13.2
Exchange services and other fees	15.4	11.4
Market data fees	22.5	8.0
Regulatory fees	38.3	9.1
Other revenue	5.8	2.6
Total Revenues	356.2	170.5
Cost of Revenues:		
Liquidity payments	105.3	6.6
Routing and clearing	6.3	1.7
Section 31 fees	30.0	—
Royalty fees	21.2	19.1
Total Cost of Revenues	162.8	27.4
Revenues less Cost of Revenues	193.4	143.1
Operating Expenses:		
Compensation and benefits	47.8	27.1
Depreciation and amortization	25.1	11.9
Technology support services	7.5	5.7
Professional fees and outside services	14.4	13.6
Travel and promotional expenses	3.3	2.5
Facilities costs	2.1	1.5
Acquisition-related costs	65.2	—
Change in contingent consideration	0.2	—
Other expenses	1.7	1.3
Total Operating Expenses	167.3	63.6
Operating Income	26.1	79.5
Non-operating (Expenses) Income:		
Interest (expense) income, net	(7.9)	)0.7
Other income	0.1	0.3
Income Before Income Tax Provision	18.3	80.5
Income tax provision	3.1	31.3
Net income	15.2	49.2
Net loss attributable to noncontrolling interests	0.3	0.2
Net Income Excluding Noncontrolling Interests	15.5	49.4
Change in redemption value of noncontrolling interests	(0.3)	)—
Net income allocated to participating securities	(0.1)	)(0.2)
Net Income Allocated to Common Stockholders	\$15.1	\$49.2
Net Income Per Share Allocated to Common Stockholders:		
Basic earnings per share	\$0.16	\$0.60
Diluted earnings per share	0.16	0.60

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Basic weighted average shares outstanding	91.9	81.8
Diluted weighted average shares outstanding	92.0	81.8

See accompanying notes to condensed consolidated financial statements.

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CBOE Holdings, Inc. and Subsidiaries  
 Condensed Consolidated Statements of Comprehensive Income  
 (unaudited)  
 (in millions)

	Three Months Ended March 31,	
	2017	2016
Net Income	\$15.2	\$49.2
Other comprehensive income		
Foreign currency translation adjustments	3.0	—
Post retirement benefit obligations	—	—
Comprehensive Income	18.2	49.2
Comprehensive loss attributable to noncontrolling interests	0.3	0.2
Comprehensive Income Excluding Noncontrolling Interests	18.5	49.4
Comprehensive income allocated to participating securities	(0.1 )	(0.2 )
Comprehensive Income Allocated to Common Stockholders	18.4	49.2
Income tax benefit	(0.1 )	—
Comprehensive Income Allocated to Common Stockholders, net of tax	\$18.3	\$49.2

See accompanying notes to condensed consolidated financial statements.

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CBOE Holdings, Inc. and Subsidiaries  
Condensed Consolidated Statement of Changes in Stockholders' Equity  
(unaudited)  
(in millions)

	Preferred Stock	Common Stock	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss), net	Total Stockholders' Equity	Redeemable Noncontrolling Interests
Balance at December 31, 2016	\$ —	—\$ 0.9	\$(532.2)	\$ 139.2	\$ 710.8	\$ (0.8 )	\$ 317.9	\$ 12.6
Issuance of stock for acquisition of Bats Global Markets, Inc.	—	0.3	—	2,424.4	—	—	2,424.7	—
Repurchase of restricted stock from employees	—	—	(7.9 )	—	—	—	(7.9 )	—
Stock-based compensation	—	—	—	20.9	—	—	20.9	—
Net income excluding noncontrolling interests	—	—	—	—	15.5	—	15.5	—
Cash dividends on common stock of \$0.25 per share	—	—	—	—	(28.3 )	—	(28.3 )	—
Other comprehensive income, net of tax	—	—	—	—	—	2.9	2.9	—
Net loss attributable to redeemable noncontrolling interest	—	—	—	—	—	—	—	(0.3 )
Redemption value adjustment	—	—	—	—	(0.3 )	—	(0.3 )	0.3
Balance at March 31, 2017	—	\$ 1.2	\$(540.1)	\$ 2,584.5	\$ 697.7	\$ 2.1	\$ 2,745.4	\$ 12.6

See accompanying notes to condensed consolidated financial statements.

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CBOE Holdings, Inc. and Subsidiaries  
Condensed Consolidated Statements of Cash Flows  
(unaudited)  
(in millions)

	Three Months Ended March 31,	
	2017	2016
Cash Flows from Operating Activities:		
Net income	\$15.2	\$49.2
Adjustments to reconcile net income to net cash (used in) provided by operating activities:		
Depreciation and amortization	25.1	11.9
Amortization of debt issuance cost	0.9	—
Change in fair value of contingent consideration	0.2	—
Realized gain on available-for-sale securities	0.1	—
Provision for deferred income taxes	2.1	(0.2 )
Stock-based compensation expense	20.9	3.4
Impairment of data processing software	14.8	—
Equity in investments	(0.3 )	(0.3 )
Excess tax benefit from stock-based compensation	1.6	—
Changes in assets and liabilities:		
Accounts receivable	(33.6 )	4.0
Income taxes receivable	47.1	23.1
Prepaid and other assets	—	(2.8 )
Other current assets	(4.7 )	0.4
Accounts payable and accrued liabilities	7.2	(9.3 )
Section 31 fees payable	(71.7 )	—
Deferred revenue	11.5	10.8
Income tax liability	(9.0 )	1.2
Income tax payable	(44.1 )	6.0
Other liabilities	(1.0 )	—
Net Cash Flows (used in) provided by Operating Activities	(17.7 )	97.4
Cash Flows from Investing Activities:		
Acquisitions, net of cash acquired	(1,405.4 )	(14.3 )
Purchases of available-for-sale financial investments	(20.3 )	—
Proceeds from maturities of available-for-sale financial investments	45.0	—
Investments	—	(4.7 )
Other	1.3	—
Purchases of property and equipment	(7.4 )	(8.9 )
Net Cash Flows used in Investing Activities	(1,386.8 )	(27.9 )
Cash Flows from Financing Activities:		
Proceeds from long-term debt	1,644.2	—
Principal payments of long term debt	(150.0 )	—
Debt issuance costs	(0.3 )	—
Distributions paid	(28.3 )	(18.9 )
Purchase of unrestricted stock from employees	(7.9 )	(4.1 )
Excess tax benefit from stock-based compensation	—	1.1
Purchase of common stock under announced program	—	(42.4 )
Net Cash provided by (used in) Financing Activities	1,457.7	(64.3 )
Effect of Foreign Currency Exchange Rate Changes on Cash and Cash equivalents	2.8	—

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Increase in Cash and Cash Equivalents	56.0	5.2
Cash and Cash Equivalents:		
Beginning of Period	97.3	102.3
End of Period	\$153.3	\$107.5
Supplemental disclosure of noncash investing activities:		
Accounts receivable acquired	\$117.8	\$—
Financial investments	66.0	—
Property and equipment acquired	21.8	—
Goodwill acquired	2,649.3	—
Intangible assets acquired	2,000.0	—
Other assets acquired	32.8	—
Accounts payable and accrued expenses acquired	(60.1 )	—
Section 31 fees payable acquired	(143.6 )	—
Deferred tax liability acquired	(718.5 )	—
Other liabilities assumed	(135.4 )	—
Issuance of common stock related to acquisition	(2,424.7 )	—
See accompanying notes to condensed consolidated financial statements.		



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CBOE Holdings, Inc. and Subsidiaries

Notes to Condensed Consolidated Financial Statements (unaudited)

1. ORGANIZATION AND BASIS OF PRESENTATION

CBOE Holdings, Inc. (CBOE Holdings or the Company) is the owner of the Chicago Board Options Exchange, the Bats exchanges, CBOE Futures Exchange (CFE) and other subsidiaries, is one of the world's largest exchange holding companies and a leader in providing global investors cutting-edge trading and investment solutions.

The Company offers trading across a diverse range of products in multiple asset classes and geographies, including options, futures, U.S. and European equities, exchange-traded products (ETPs), and multi-asset volatility and global foreign exchange ("FX") products. CBOE Holdings' fourteen trading venues include the largest options exchange in the U.S. and the largest stock exchange in Europe, and the Company is the second-largest stock exchange operator in the U.S. and a leading market globally for ETP trading.

Basis of Presentation

These interim unaudited condensed consolidated financial statements have been prepared in accordance with GAAP for interim financial information and with the instructions to Form 10-Q and should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

The preparation of consolidated 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, valuation of redeemable noncontrolling interests and reported amounts of revenues and expenses. On an ongoing basis, management evaluates its estimates based upon historical experience, observance of trends, information available from outside sources and various other assumptions that management believes to be reasonable under the circumstances. Actual results may differ from these estimates under different conditions or assumptions.

In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of financial position, results of operations and cash flows at the dates and for the periods presented have been included.

The results of operations for interim periods are not necessarily indicative of the results of operations for the full year.

For those consolidated subsidiaries in which the Company's ownership is less than 100% and for which the Company has control over the assets and liabilities and the management of the entity, the outside stockholders' interest are shown as non-controlling interests.

The Company made a change in the presentation of liquidity payments, or rebates paid to customers in accordance with published fee schedules, as a cost of revenue, which historically netted against transaction fees. The Company also changed the presentation of royalty fees to be a cost of revenue. Routing fees and costs were also presented in transaction fees in total revenues and routing and clearing in total cost of revenues. These fees were previously presented as a net operating expense. These changes were made to conform to current presentation and the changes have been reflected in all periods presented.

Segment information

The Company previously operated as a single reportable business segment. As a result of the Bats acquisition on February 28, 2017 (Note 3), the Company is reporting five business segments: Options, U.S. Equities, Futures, European Equities, and Global FX, which is reflective of how the Company's chief operating decision-maker reviews and operates the business (Note 15). This change has been reflected in all periods presented.

Recent Accounting Pronouncements - Adopted

In the first quarter of 2017, the Company adopted Accounting Standards Update (ASU) 2014-09, Revenue from Contracts with Customers (Topic 606). Under the standard, revenue is recognized when a customer obtains control of promised goods or services in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. In addition, the standard requires disclosure of the nature, amount, timing, and uncertainty of revenue and cash flows

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CBOE Holdings, Inc. and Subsidiaries

Notes to Condensed Consolidated Financial Statements (unaudited)

arising from contracts with customers. The Company applied the five step method outlined in the ASU to all revenue streams and elected the full retrospective implementation method. The additional disclosures required by the ASU have been included in Note 2.

In the first quarter of 2017, the Company also adopted ASU 2016-09, Compensation — Stock Compensation. This standard simplifies several aspects of the accounting for stock-based payment transactions, including the recognition of excess tax benefits and deficiencies, the classification of those excess tax benefits on the statement of cash flows, an accounting policy election for forfeitures, the amount an employer can withhold to cover income taxes and still qualify for equity classification and the classification of those taxes paid on the statement of cash flows. The Company has chosen to use the actual forfeiture rate and applied the prospective transition method for excess tax benefits and employees taxes paid. As of the adoption date, the Company did not have any awards classified as a liability under the previous guidance.

In the first quarter of 2017, the Company also adopted ASU 2016-16, Accounting for Income Taxes: Intra-Entity Transfers of Assets other than Inventory. The standard requires that the income tax impact of intra-entity sales and transfers of property, except for inventory, be recognized when the transfer occurs. The Company applied the full retrospective application which did not result in any impact to the financial statements.

Recent Accounting Pronouncements - Issued, not yet Adopted

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805)-Clarifying the Definition of a Business. ASU No. 2017-01 clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. There are three elements of a business: inputs, processes, and outputs. While an integrated set of assets and activities (collectively, a “set”) that is a business usually has outputs, outputs are not required to be present. Additionally, all of the inputs and processes that a seller uses in operating a set are not required if market participants can acquire the set and continue to produce outputs. ASU No. 2017-01 provides a screen to determine when a set is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. If, however, the screen is not met, then the amendments in this ASU (1) require that to be considered a business, a set must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output and (2) remove the evaluation of whether a market participant could replace missing elements. Finally, the amendments in this ASU narrow the definition of the term “output” so that it is consistent with the manner in which outputs are described in Topic 606 - Revenue from Contracts with Customers. For public entities, the update is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2018. Early adoption is permitted under certain circumstances. The Company is in the process of evaluating this guidance and assessing the impact the standard could have on our consolidated financial statements. The adoption of this standard will result in less real estate acquisitions qualifying as businesses and, accordingly, acquisition costs for those acquisitions that are not businesses will be capitalized rather than expensed.

In January 2017, the FASB issued ASU 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. This update simplifies the manner in which an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit’s goodwill with the carrying amount of that goodwill. In

computing the implied fair value of goodwill under Step 2, an entity, prior to the amendments in ASU No. 2017-04, had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities, including unrecognized assets and liabilities, in accordance with the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. However, under this ASU, an entity should (1) perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount, and (2) recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, with the understanding that the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. Additionally, ASU No. 2017-04 removes the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails such qualitative test, to perform Step 2 of the goodwill impairment test. For public entities, the update is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is in the process of evaluating this guidance and assessing the impact the standard could have on our consolidated financial statements.

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In February 2016, the FASB issued ASU 2016-02, Leases. This update requires a lessee to recognize on the balance sheet a liability to make lease payments and a corresponding right-of-use asset. The guidance also requires certain qualitative and quantitative disclosures about the amount, timing and uncertainty of cash flows arising from leases. This update is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted. The Company is in the process of evaluating this guidance and assessing the impact the standard could have on our consolidated financial statements.

In September 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230) — Classification of Certain Cash Receipts and Cash Payments (a consensus of the FASB Emerging Issues Task Force). ASU No. 2016-15 addresses eight specific cash flow issues in an effort to reduce diversity in practice: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon bonds; (3) contingent consideration payments made after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. The ASU is effective for the Company for fiscal years beginning after December 15, 2017, and for the interim periods within that fiscal year, Early adoption is permitted, including adoption during an interim period. The Company is in the process of evaluating this guidance and assessing the impact the standard could have on our consolidated financial statements.

## 2. REVENUE RECOGNITION

As of January 1, 2017, the Company adopted ASU 2014-09 Revenue from Contracts with Customers - Topic 606 and all subsequent ASUs that modified ASC 606. The Company has elected to apply the standard and all related ASUs retrospectively to each prior reporting period presented. The implementation of the new standard had no material impact on the measurement or recognition of revenue of prior periods, however additional disclosures have been added in accordance with the ASU.

The main types of revenue contracts are:

**Transaction fees** - Transaction fees represent fees charged by the Company for the performance obligation of executing a trade on its markets. These fees can be variable based on trade volume tiered discounts, however as all tiered discounts are calculated monthly, the actual discount is recorded on a monthly basis. Transaction fees, as well as any tiered volume discounts, are calculated and billed monthly in accordance with the Company's published fee schedules. Transaction fees are recognized across all segments. The Company also pays liquidity payments to customers based on its published fee schedules. The Company uses these payments to improve the liquidity on its markets and therefore recognizes those payments as a cost of revenue.

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

**Exchange services and other fees** - To facilitate trading, the Company offers technology services, terminal and other equipment rights, maintenance services, trading floor space and telecommunications services. Trading floor and equipment rights are generally on a month-to-month basis. Facilities, systems services and other fees are generally monthly fee-based, although certain services are influenced by trading volume or other defined metrics, while others are based solely on demand. All fees associated with the trading floor are recognized in the Options segment.

**Market data fees** - Market data fees represent the fees received by the Company from the U.S. tape plans and fees charged to customers for proprietary market data. Fees from the U.S. tape plans are collected monthly based on published fee schedules and distributed quarterly to the U.S. exchanges based on a known formula. A contract around proprietary market data is entered into and charged on a monthly basis in accordance with the Company's published fee schedules as the service is provided. Both types of market data are satisfied over time, and revenue is recognized

on a monthly basis as the customer receives and consumes the benefit as the Company provides the data. U.S. tape plan market data is recognized in the U.S. Equities and Options segment. Proprietary market data fees are recognized across all segments.

Regulatory fees - Regulatory fees represent fees collected by the Company to cover the Section 31 fees charged to the exchanges by the SEC. Consistent with industry practice, the fees charged to customers are based on the fee set by the SEC per notional value of the transaction executed on the Company's U.S. securities markets and calculated and billed monthly. These fees are recognized in the U.S. Equities and Options segments and as the exchanges are responsible for the ultimate payment to the SEC, the exchanges are considered the principals in these transactions. Regulatory fees

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also includes the options regulatory fee (ORF) which supports the Company's regulatory oversight function in the Options segment and other miscellaneous regulatory fees.

Other revenue - Other revenue primarily includes, among other items, revenue from various licensing agreements, all fees related to the trade reporting facility operated in the European Equities segment, and revenue associated with advertisements through the Company's website.

All revenue recognized in the income statement is considered to be revenue from contracts with customers. The following table depicts the disaggregation of revenue according to product line and segment (in millions):

		U.S.		European	Global	Corporate	
	Options	Equities	Futures	Equities	FX	Items and	Total
						Eliminations	
Three months ended March 31, 2017							
Transaction fees	\$ 140.2	\$ 76.7	\$ 27.6	\$ 7.2	\$ 3.6	\$ 1.1	\$256.4
Access fees	12.3	4.2	0.5	0.6	0.2	—	17.8
Exchange services and other fees	12.9	2.0	—	0.4	0.1	—	15.4
Market data fees	10.4	11.1	—	0.9	0.1	—	22.5
Regulatory fees	12.7	25.6	—	—	—	—	38.3
Other revenue	4.2	0.6	0.7	0.2	—	0.1	5.8
	\$ 192.7	\$ 120.2	\$ 28.8	\$ 9.3	\$ 4.0	\$ 1.2	\$356.2
Three months ended March 31, 2016							
Transaction fees	\$ 104.5	\$ —	\$ 20.8	\$ —	\$ —	\$ 0.9	\$126.2
Access fees	13.0	—	0.2	—	—	—	13.2
Exchange services and other fees	11.4	—	—	—	—	—	11.4
Market data fees	8.0	—	—	—	—	—	8.0
Regulatory fees	9.1	—	—	—	—	—	9.1
Other revenue	2.6	—	—	—	—	—	2.6
	\$ 148.6	\$ —	\$ 21.0	\$ —	\$ —	\$ 0.9	\$170.5
Timing of revenue recognition							
Services transferred at a point in time	\$ 192.7	\$ 120.2	\$ 28.8	\$ 9.3	\$ 4.0	\$ 1.2	\$356.2
Services transferred over time	—	—	—	—	—	—	—
	\$ 192.7	\$ 120.2	\$ 28.8	\$ 9.3	\$ 4.0	\$ 1.2	\$356.2

Contract liabilities for the period ended March 31, 2017 primarily represent prepayments of transaction fees and access fees to the Company's exchanges. The revenue recognized from contract liabilities and the remaining balance is shown below (in millions):

	January Cash	Revenue	March
	1, 2017	Recognition	31,
	Additions		2017
Liquidity provider sliding scale (1)	\$ —	\$ (3.0 )	\$9.0
Other, net	3.1	(2.5 )	9.0
Total deferred revenue	\$ 3.1	\$ (5.5 )	\$18.0

(1) Liquidity providers are eligible to participate in the sliding scale program, which involves prepayment of transaction fees, and receive reduced fees based on the achievement of certain volume thresholds within a calendar month. This amount is amortized and recorded ratably as the transactions occur, as transaction fees, over the period.

## 3. ACQUISITIONS

Bats Global Markets, Inc.

On February 28, 2017, pursuant to the Agreement and Plan of Merger, dated as of September 25, 2016 (the “Merger Agreement”), by and among CBOE Holdings, Inc., a Delaware corporation (“CBOE Holdings”), Bats Global Markets, Inc., a Delaware corporation (“Bats”), CBOE Corporation, a Delaware corporation and a wholly-owned subsidiary of CBOE Holdings

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(“Merger Sub”), and CBOE V, LLC, a Delaware limited liability company and a wholly-owned subsidiary of CBOE Holdings (“Merger LLC”), CBOE Holdings completed the merger (the “Merger”) of Merger Sub with and into Bats and the subsequent merger (the “Subsequent Merger”) of Bats with and into Merger LLC. As a result of the Merger, Bats became a wholly-owned subsidiary of CBOE Holdings.

The acquisition-date fair value of the consideration transferred totaled \$4.0 billion, which consisted of the following (in millions):

Cash	\$955.5
Common stock issued	2,387.3
Equity awards issued	37.4
	3,380.2
Debt extinguished	580.0
Total consideration paid	\$3,960.2

As a result of the Merger, each share of voting common stock of Bats, par value of \$0.01 per share (“Bats Voting Common Stock”), and each share of non-voting common stock of Bats, par value of \$0.01 per share (“Bats Non-Voting Common Stock” and, together with the Bats Voting Common Stock, “Bats Common Stock”), issued and outstanding immediately prior to the effective time of the Merger (the “Effective Time”) (other than shares held by CBOE Holdings, Bats or any of their respective subsidiaries, shares held by any holder of Bats Common Stock who was entitled to demand and properly demanded appraisal of such shares under Delaware law and unvested restricted shares of Bats Common Stock granted under any Bats equity incentive plan (all such shares described in this parenthetical, “Excluded Shares”)) was converted into, at the election of the holder of such share, either (i) 0.3201 of a share of common stock, par value of \$0.01 per share, of CBOE Holdings (“CBOE Holdings Common Stock”) and \$10.00 in cash (the “Mixed Consideration”), (ii) \$14.99 in cash and 0.2577 of a share of CBOE Holdings Common Stock (the “Cash Election Consideration”) or (iii) 0.4452 of a share of CBOE Holdings Common Stock (the “Stock Election Consideration”). Pursuant to the terms of the Merger Agreement, the Cash Election Consideration and Stock Election Consideration payable in the Merger were calculated based on the volume-weighted average price (rounded to four decimal places) of shares of CBOE Holdings Common Stock on The Nasdaq Stock Market LLC for the period of ten consecutive trading days ended on February 24, 2017, which was \$79.9289. The Cash Election Consideration and the Stock Election Consideration were subject to automatic adjustment, as described in the Merger Agreement and in the definitive joint proxy statement/prospectus dated December 9, 2016, filed by CBOE Holdings with the U.S. Securities and Exchange Commission (the “SEC”) on December 12, 2016, as amended and supplemented from time to time (the “Prospectus”), to ensure that the total amount of cash paid and the total number of shares of CBOE Common Stock issued in the Merger were the same as what would have been paid and issued if all holders of Bats Common Stock received the Mixed Consideration at the Effective Time.

The amounts in the table below represent the preliminary allocation of the purchase price and are subject to revision during the remainder of the measurement period, a period not to exceed 12 months from the acquisition date. Adjustments to the provisional values during the measurement period will be recorded in the reporting period in which the adjustment amounts are determined. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date (in millions):

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Cash and cash equivalents	\$ 130.1
Accounts receivable	117.8
Financial investments	66.0
Property and equipment	21.8
Other assets	32.8
Goodwill	2,649.3
Intangibles	2,000.0
Accounts payable	(33.7 )
Accrued expenses	(26.4 )
Section 31 fee payable	(143.6 )
Income tax payable	(52.8 )
Deferred tax liability	(718.5 )
Other liabilities	(82.6 )
	\$3,960.2

For tax purposes, no tax deductible goodwill was generated as a result of this acquisition. Goodwill was assigned to the Options, U.S. Equities, European Equities, and Global FX segments as further described in Note 9 and is attributable to the expansion of asset classes, broadening of geographic reach, and expected synergies of the combined workforce, products and technologies of the Company and Bats. The preliminary intangible assets were assigned to the Options, U.S. Equities, European Equities, and Global FX segments in the following manner and will be amortized over the following useful lives:

(amounts in millions)	Options	U.S. Equities	European Equities	Global FX	Useful life
Trading registrations and licenses	\$ 95.5	\$ 572.7	\$ 171.8	\$ —	indefinite
Customer relationships	37.1	222.9	160.0	140.0	20 years
Market data customer relationships	53.6	322.0	60.0	64.4	15 years
Technology	22.5	22.5	22.5	22.5	7 years
Trademarks and trade names	1.0	6.0	1.8	1.2	2 years
Goodwill	226.4	1,736.4	419.3	267.2	
	\$ 436.1	\$ 2,882.5	\$ 835.4	\$ 495.3	

There was no goodwill or intangible assets assigned to the Futures segment as a result of this transaction as Bats did not operate a Futures business and no synergies are attributable to this segment.

The fair value of accounts receivable acquired was \$117.8 million. The gross amount of accounts receivable was \$118 million of which \$0.2 million was deemed uncollectable.

The Company expensed \$65.2 million of acquisition-related costs during the three months ended March 31, 2017 that included \$30.2 million of compensation related costs, \$19.3 million of professional fees, \$14.8 million of an impairment of capitalized data processing software, and \$0.9 million of facilities expenses. These costs are included in acquisition-related costs in the condensed consolidated statements of income.

The amounts of revenue, operating loss and net income of Bats are included in the Company's condensed consolidated statements of income from the acquisition date to March 31, 2017 and are as follows (in millions):

	One
	Month
	Ended
	March
	31,
	2017
Revenue	\$ 159.8
Operating loss	(2.0 )
Net loss	(0.7 )

The financial information in the table below summarizes the combined results of operations of the Company and Bats, on a pro forma basis, as though the companies had been combined as of January 1, 2016. The pro forma financial information is

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## CBOE Holdings, Inc. and Subsidiaries

## Notes to Condensed Consolidated Financial Statements (unaudited)

presented for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of the period presented. Such pro forma financial information is based on the historical financial statements of the Company and Bats. This pro forma financial information is based on estimates and assumptions that have been made solely for purposes of developing such pro forma information, including, without limitation, preliminary purchase accounting adjustments. The pro forma financial information does not reflect any synergies or operating cost reductions that may be achieved from the combined operations. The pro forma financial information combines the historical results for the Company and Bats for the three months ended March 31, 2017 and 2016 in the following table (in millions, except per share amounts):

	Three Months Ended March 31,	
	2017	2016
Revenue	\$629.1	\$681.6
Operating income	106.9	107.0
Net income allocated to common stockholders	73.0	58.1
Earnings per share:		
Basic	\$0.65	\$0.52
Diluted	\$0.65	\$0.52

The supplemental 2017 and 2016 pro forma amounts have been calculated after applying the Company's accounting policies and adjusting the results to reflect the additional depreciation and amortization that would have been charged assuming the adjusted fair values of property and equipment and acquired intangible assets had been applied on January 1, 2017 and on January 1, 2016. The supplemental 2017 pro forma financial information includes pro forma adjustments of \$66.8 million for acquisition-related costs, such as fees to investment bankers, attorneys, accountants and other professional advisors, as well as severance to employees.

**4. SEVERANCE**

Subsequent to the Bats acquisition, the Company determined that certain employees' positions were redundant. As such, the Company communicated employee termination benefits to these employees.

The following is a summary of the employee termination benefits recognized within acquisition costs in the Corporate Items and Eliminations unit in the condensed consolidated statements of income (in millions):

	Employee Termination Benefits
Balance at December 31, 2016	\$ 0.4
Termination benefits accrued	20.5
Termination payments made	(9.2 )
Balance at March 31, 2017	\$ 11.7

As a result of ongoing integration activities, we are not in a position to provide the expected activity and completion dates.

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## 5. INVESTMENTS

As of March 31, 2017 and December 31, 2016, the Company's investments were comprised of the following (in millions):

	March 31, 2017	December 31, 2016
Equity Method		
Investment in Signal Trading Systems, LLC	\$ 13.2	\$ 12.4
Investment in EuroCCP	8.3	—
Total equity method investments	21.5	12.4
Cost Method		
Investment in OCC	30.3	30.3
Other cost method investments	30.2	30.2
Total cost method investments	60.5	60.5
 Total Investments	 \$ 82.0	 \$ 72.9

## Equity Method

Equity method investments include investments in Signal Trading Systems, LLC ("Signal") and EuroCCP, a Dutch domiciled clearing house. EuroCCP is one of three interoperable central counterparties, or CCPs, used to clear trades conducted on Bats Europe's markets. BTL owns 20% of EuroCCP and can exercise significant influence over the entity as an equal shareholder with four other investors.

In the three months ended March 31, 2017, the Company recorded contributions to Signal of \$0.5 million and equity earnings in Signal of \$0.3 million.

## Cost method

The carrying amount of cost method investments totaled \$60.5 million for March 31, 2017 and December 31, 2016, and is included in investments in the condensed consolidated balance sheet. The company accounts for these investments using the cost-method of accounting primarily as a result of the Company's inability to exercise significant influence as the Company is a smaller shareholder of these investments. As of March 31, 2017, cost method investments primarily reflect a 20% investment in OCC and minority investments in American Financial Exchange, CurveGlobal and Eris Exchange Holdings, LLC.

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 contributed \$30 million to OCC. On March 6, 2015, OCC informed CBOE that the SEC, acting though

delegated authority, had approved OCC's proposed rule filing for the capital plan. The SEC approval order was stayed on March 13, 2015 automatically as a result of the initiation of petitions to review the order. On September 10, 2015, the SEC issued orders that discontinued the automatic stay of the approval order and granted the petitions for the SEC to review the approval order. On September 15, 2015, the petitioners filed motions to reinstitute the automatic stay. On February 11, 2016, based on a de novo review of the entire record, the SEC approved the proposed rule change implementing OCC's capital plan and dismissed the petitions for

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review and the petitioners' motions. 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 and moved to stay the SEC approval order. On February 23, 2016, the Court denied the petitioners' motion to stay. The appeal of the SEC approval order remains pending. CBOE's contribution has been recorded under investments in the condensed consolidated balance sheets as of March 31, 2017.

**6. FINANCIAL INVESTMENTS**

The Company's financial investments with original or acquired maturities longer than three months, but that mature in less than one year from the condensed consolidated balance sheet date are classified as current assets and are summarized as follows (in millions):

	March 31, 2017			
	Cost basis	Unrealized gains	Unrealized losses	Fair value
Available-for-sale:				
U.S. Treasury securities	\$41.0	—	\$(0.2)	\$40.8
Trading securities:				
U.S. Treasury securities	0.5	—	—	0.5
Money market funds	46.5	—	—	46.5
Total financial investments	\$88.0	—	\$(0.2)	\$87.8
	December 31, 2016			
	Cost basis	Unrealized gains	Unrealized losses	Fair value
Money market funds	\$67.5	—	—	\$67.5
Total financial investments	\$67.5	—	—	\$67.5

**7. PROPERTY AND EQUIPMENT, NET**

Property and equipment consisted of the following as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, December 31,	
	2017	2016
Construction in progress	\$2.9	\$0.2
Building	77.3	77.0
Furniture and equipment	161.0	138.8
Total property and equipment	241.2	216.0
Less accumulated depreciation	(166.6)	(160.1)
Total property and equipment, net	\$74.6	\$55.9

Depreciation expense was \$6.4 million and \$11.5 million for the three months ended March 31, 2017 and 2016 respectively.

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## 8. OTHER ASSETS, NET

Other assets, net consisted of the following as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, December 31,	
	2017	2016
Software development work in progress	\$ 8.2	\$ 12.3
Data processing software	214.8	222.6
Less accumulated depreciation	(175.8 )	(172.0 )
Data processing software, net	47.2	62.9

Other assets (1) 9.1 9.8

Data processing software and other assets, net \$ 56.3 \$ 72.7

(1) At December 31, 2016, other assets included \$6.2 million of deferred financing costs and \$3.5 million of deferred tax assets. The deferred financing costs were subsequently reclassified and recorded as a reduction of long-term debt. As a result of the recording deferred tax liabilities related to the acquisition of Bats, as of March 31, 2017, the Company no longer has a deferred tax asset balance.

## 9. GOODWILL AND INTANGIBLE ASSETS, NET

The following table presents the details of goodwill by segment (in millions):

	U.S.		European	Global	Corporate Items and Eliminations	Total
	Options	Equities	Equities	FX		
Balance as of December 31, 2016	\$7.7	\$—	\$ —	\$—	\$ 18.8	\$26.5
Additions	226.4	1,736.4	419.3	267.2	—	2,649.3
Dispositions	(1.4 )	—	—	—	—	(1.4 )
Changes in foreign currency exchange rates	—	—	1.2	—	—	1.2
Balance as of March 31, 2017	\$232.7	\$1,736.4	\$ 420.5	\$267.2	\$ 18.8	\$2,675.6

Goodwill has been allocated to specific reporting units for purposes of impairment testing - Options, U.S. Equities, European Equities and Global FX. Goodwill impairment testing is performed annually in the fiscal fourth quarter or more frequently if conditions exist that indicate that the asset may be impaired. The allocation of the new goodwill did not impact the existing goodwill assignment to reporting units and there are no aggregate impairments of goodwill. The following table presents the details of the intangible assets (in millions):

	U.S.		European	Global	Corporate Items and Eliminations	Total
	Options	Equities	Equities	FX		
Balance as of December 31, 2016	\$2.0	\$—	\$—	\$—	\$ 6.7	\$8.7
Additions	209.7	1,146.1	416.1	228.1	—	2,000.0
Dispositions	(0.2 )	—	—	—	—	(0.2 )
Amortization	(1.6 )	(7.4 )	(2.3 )	(2.8 )	(0.3 )	(14.4 )
Changes in foreign currency exchange rates	—	—	1.9	—	—	1.9
Balance as of March 31, 2017	\$209.9	\$1,138.7	\$ 415.7	\$225.3	\$ 6.4	\$1,996.0

For the three months ended March 31, 2017 and March 31, 2016 amortization expense was \$14.4 million and \$0.4 million, respectively. The estimated future amortization expense is \$127.4 million for the remainder of 2017, \$158.5 million for 2018, \$137.5 million for 2019, \$121.1 million for 2020, \$105.8 million for 2021 and \$93.5 million for



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The amounts in the table below represent the preliminary allocation of the purchase price and are subject to revision during the remainder of the measurement period, a period not to exceed 12 months from the acquisition date. Adjustments to the provisional values during the measurement period will be recorded in the reporting period in which the adjustment amounts are determined.

The following tables present the categories of intangible assets as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, 2017					Weighted
	U.S.		European	Global FX	Corporate	Average
	Options	Equities	Equities		Items	Amortization
					and	Period (in years)
					Eliminations	
Trading registrations and licenses	\$95.5	\$572.7	\$ 172.6	\$ —	\$ —	Indefinite
Customer relationships	37.9	222.9	160.7	140.0	3.0	20
Market data customer relationships	53.6	322.0	60.3	64.4	—	15
Technology	23.4	22.5	22.6	22.5	4.0	7
Trademarks and tradenames	1.4	6.0	1.8	1.2	1.0	2
Other	0.2	—	—	—	—	
Accumulated amortization	(2.1 )	(7.4 )	(2.3 )	(2.8 )	(1.6 )	
	\$209.9	\$1,138.7	\$415.7	\$225.3	\$ 6.4	

	December 31, 2016					Weighted
	U.S.		European	Global FX	Corporate	Average
	Options	Equities	Equities		and Other	Amortization
						Period (in years)
Trading registrations and licenses	\$—	\$ —	—\$	—\$	—\$ —	—
Customer relationships	0.9	—	—	—	3.0	9
Market data customer relationships	—	—	—	—	—	—
Technology	1.1	—	—	—	4.0	4
Trademarks and tradenames	0.4	—	—	—	1.0	6
Other	0.2	—	—	—	—	2
Accumulated amortization	(0.6 )	—	—	—	(1.3 )	
	\$2.0	\$ —	—\$	—\$	—\$ 6.7	

**10. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES**

Accounts payable and accrued liabilities consisted of the following as of March 31, 2017 and December 31, 2016 (in millions):

	March	December
	31,	31, 2016
	2017	
Compensation and benefit related liabilities	\$7.7	\$ 25.5
Termination benefits	11.7	—
Royalties	18.7	17.8
Accrued liabilities	51.2	25.4
Marketing fee payable	9.0	7.2
Accounts payable	51.4	6.5

\$149.7 \$ 82.4

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CBOE Holdings, Inc. and Subsidiaries

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## 11. DEBT

The Company's long-term debt consisted of the following at March 31, 2017 and December 31, 2016 (in millions):

	March 31, 2017	December 31, 2016	
Term Loan Agreement	\$ 843.3	\$	—
3.650% Senior Notes	643.4	—	
Revolving credit agreement	—	—	
Total long-term debt	\$ 1,486.7	\$	—

In connection with the Merger, on December 15, 2016, the Company entered into a \$1.0 billion senior unsecured delayed draw term loan facility and on January 12, 2017, the Company issued \$650 million aggregate principal amount of our 3.650% Senior Notes due 2027. The proceeds from this delayed draw term loan facility and issuance of our senior notes, in addition to using cash on hand at CBOE Holdings and Bats, were used to finance a portion of the cash component of the Merger consideration, to refinance existing indebtedness of Bats and its subsidiaries and to pay related fees and expenses. In addition, on December 15, 2016, the Company entered into a \$150 million revolving credit facility to be used for working capital and other general corporate purposes.

## Term Loan Agreement

On December 15, 2016, the Company, as borrower, entered into a Term Loan Credit Agreement (the "Term Loan Agreement") with Bank of America, N.A., as administrative agent, certain lenders named therein (the "Term Lenders"), Merrill Lynch, Pierce, Fenner & Smith Incorporated, as sole lead arranger and sole bookrunner, Morgan Stanley MUFG Loan Partners, LLC, as syndication agent, and Citibank, N.A., PNC Bank, National Association and JPMorgan Chase Bank, N.A., as co-documentation agents. The Term Loan Agreement provided for a senior unsecured delayed draw term loan facility (the "Term Loan Facility") in an aggregate principal amount of \$1.0 billion.

Loans under the Term Loan Agreement bears interest, at our option, at either (i) the London Interbank Offered Rate ("LIBOR") periodically fixed for an interest period (as selected by us) of one, two, three or six months plus a margin (based on our public debt ratings) ranging from 1.00 percent per annum to 1.75 percent per annum or (ii) a daily floating rate based on the agent's prime rate (subject to certain minimums based upon the federal funds effective rate or LIBOR) plus a margin (based on our public debt ratings) ranging from zero percent per annum to 0.75 percent per annum. The Company was required to pay a ticking fee to the agent for the account of the Term Lenders which initially accrued at a rate (based on our public debt ratings) ranging from 0.10 percent per annum to 0.30 percent per annum multiplied by the undrawn aggregate commitments of the Term Lenders in respect of the Term Loan Facility, accruing during the period commencing on December 15, 2016 and ending on the earlier of the date on which the loans are drawn.

The Term Loan Agreement contains customary representations, warranties and affirmative and negative covenants for facilities of its type, including financial covenants, events of default and indemnification provisions in favor of the Term Lenders. The negative covenants include restrictions regarding the incurrence of liens, the incurrence of indebtedness by our subsidiaries and fundamental changes, subject to certain exceptions in each case. The financial covenants require us to meet a quarterly financial test with respect to a minimum consolidated interest coverage ratio of not less than 4.00 to 1.00 and a maximum consolidated leverage ratio of not greater than 3.50 to 1.00. At March 31, 2017, the Company was in compliance with these covenants.

On February 28, 2017, CBOE Holdings made a draw under the Term Loan Agreement in the amount of \$1.0 billion. CBOE Holdings used the proceeds to finance a portion of the cash component of the aggregate consideration for the

Merger, repaid certain existing indebtedness of Bats, paid fees and expenses incurred in connection with the transactions contemplated by the Merger Agreement, funded working capital needs, and for other general corporate purposes.

*3.650% Senior Notes due 2027*

On January 12, 2017, the Company entered into an indenture (the “Indenture”), by and between the Company and Wells Fargo Bank, National Association, as trustee (the “Trustee”), in connection with the issuance of \$650 million aggregate principal amount of the Company’s 3.650% Senior Notes due 2027 (the “Notes”). The form and terms of the Notes were established pursuant to an Officer’s Certificate, dated as of January 12, 2017 (the “Officer’s Certificate”), supplementing the Indenture.

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The Company used a portion of the net proceeds from the Notes to fund, in part, the Merger, including the payment of related fees and expenses and the repayment of Bats' existing indebtedness, and the remainder for general corporate purposes. The Notes mature on January 12, 2027 and bear interest at the rate of 3.650% per annum, payable semi-annually in arrears on January 12 and July 12 of each year, commencing July 12, 2017. The Notes are unsecured obligations of the Company and rank equally with all of the Company's other existing and future unsecured, senior indebtedness, but are effectively junior to the Company's secured indebtedness, to the extent of the value of the assets securing such indebtedness, and will not be the obligations of any of the Company's subsidiaries.

The indenture governing the Notes contains customary restrictions, including a limitation that restricts our ability and the ability of certain of our subsidiaries to create or incur secured debt. Such indenture also limits certain sale and leaseback transactions and contains customary events of default. At March 31, 2017, the Company was in compliance with these covenants.

The Company has the option to redeem some or all of the Notes, at any time in whole or from time to time in part, at the redemption prices set forth in the Officer's Certificate. The Company may also be required to offer to repurchase the Notes upon the occurrence of a Change of Control Triggering Event (as such term is defined in the Officer's Certificate) at a repurchase price equal to 101% of the aggregate principal amount of Notes to be repurchased.

Revolving Credit Agreement

On December 15, 2016, the Company, as borrower, entered into a Credit Agreement (the "Revolving Credit Agreement") with Bank of America, N.A., as administrative agent and as swing line lender, certain lenders named therein (the "Revolving Lenders"), Merrill Lynch, Pierce, Fenner & Smith Incorporated, as sole lead arranger and sole bookrunner, Morgan Stanley MUFG Loan Partners, LLC, as syndication agent, and Citibank, N.A., PNC Bank, National Association and JPMorgan Chase Bank, N.A., as co-documentation agents.

The Revolving Credit Agreement provides for a senior unsecured \$150 million five-year revolving credit facility (the "Revolving Credit Facility") that includes a \$25 million swing line sub-facility. The Company may also, subject to the agreement of the applicable lenders, increase the commitments under the Revolving Credit Facility by up to \$100 million, for a total of \$250 million. Subject to specified conditions, the Company may designate one or more of its subsidiaries as additional borrowers under the Revolving Credit Agreement provided that it guarantees all borrowings and other obligations of any such subsidiaries. As of March 31, 2017, no subsidiaries were designated as additional borrowers.

Funds borrowed under the Revolving Credit Agreement may be used to fund working capital and for other general corporate purposes. As of March 31, 2017, no borrowings were outstanding under the Revolving Credit Agreement. Accordingly, at March 31, 2017, \$150 million of borrowing capacity was available for the purposes permitted by the Revolving Credit Agreement.

Loans under the Revolving Credit Agreement will bear interest, at our option, at either (i) LIBOR periodically fixed for an interest period (as selected by us) of one, two, three or six months plus a margin (based on our public debt ratings) ranging from 1.00 percent per annum to 1.75 percent per annum or (ii) a daily floating rate based on our prime rate (subject to certain minimums based upon the federal funds effective rate or LIBOR) plus a margin (based on our public debt ratings) ranging from zero percent per annum to 0.75 percent per annum.

Subject to certain conditions stated in the Revolving Credit Agreement, the Company may borrow, prepay and reborrow amounts under the Revolving Credit Facility at any time during the term of the Revolving Credit Agreement. The Revolving Credit Agreement will terminate and all amounts owing thereunder will be due and payable on December 15, 2021, unless the commitments are terminated earlier, either at our request or, if an event of default occurs, by the Revolving Lenders (or automatically in the case of certain bankruptcy-related events). The Revolving Credit Agreement contains customary representations, warranties and affirmative and negative covenants for facilities of its type, including financial covenants, events of default and indemnification provisions in favor of the Revolving Lenders. The negative covenants include restrictions regarding the incurrence of liens, the incurrence of indebtedness by our subsidiaries and fundamental changes, subject to certain exceptions in each case. The financial covenants require us to meet a quarterly financial test with respect to a minimum consolidated interest coverage ratio of not less than 4.00 to 1.00 and a maximum consolidated leverage ratio of not greater than 3.50 to 1.00. At March 31, 2017, the Company was in compliance with these covenants.

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## CBOE Holdings, Inc. and Subsidiaries

## Notes to Condensed Consolidated Financial Statements (unaudited)

## Bridge Facility

In connection with entering into the Merger Agreement, the Company entered into a commitment letter with Bank of America, N.A. and Merrill Lynch, Pierce, Fenner & Smith Incorporated (or any of its designated affiliates) (Bank of America, N.A., and other such financial institutions that accede as lender to such debt commitment letter in accordance with its terms are referred to herein as the “Lenders”), which provides that, subject to the satisfaction and waiver of certain conditions which are usual and customary for financing of this type, the Lenders are committed to provide debt financing for the purposes of funding (i) the cash consideration to be paid in the transactions contemplated by the Merger Agreement, (ii) the refinancing of certain existing indebtedness of Bats and its subsidiaries and (iii) related fees and expenses, which debt financing consists of a senior unsecured 364-day bridge loan facility in an aggregate principal amount of up to \$1.65 billion to the extent the Company fails to generate gross cash proceeds in an aggregate principal amount of up to \$1.65 billion from permanent financing including in the form of a senior unsecured term loan facility and the issuance of senior unsecured notes on or prior to the consummation of the transaction contemplated by the Merger Agreement. The Company paid commitment and structuring fees of \$6.0 million. Through March 31, 2017, the Company has amortized \$6.0 million of these fees as a result of the Company entering into more permanent debt arrangements. The Company entered into a term loan agreement and completed a notes offering, as described below, securing \$1.65 billion to finance the cash portion of its acquisition of Bats as well as the repayment of Bats' existing indebtedness. As a result of securing the financing discussed above the bridge facility was terminated.

## Loan payments and Contractual Interest

The future expected loan repayments related to the Term Loan for the three months ended March 31, 2017 is as follows (in millions):

2017	\$—
2018	—
2019	—
2020	100.0
2021	750.0
Thereafter	650.0
Principal amounts repayable	1,500
Debt issuance cost	(7.6 )
Unamortized discount on Notes	(5.7 )
Total debt outstanding	\$1,486.7

Interest expense recognized on the Term Loan and the Notes is included in interest expense, net in the condensed consolidated statements of income, for the three months ended March 31, 2017 and 2016 is as follows (in millions):

	Three Months Ended March 31, 2017 2016	
Components of interest expense:		
Contractual interest	\$7.6	\$—
Amortization of debt discount	—	—



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Amortization of debt issuance cost	0.9	—
Interest expense	\$8.5	\$—
Interest income	(0.6)	(0.7)
Interest expense, net	\$7.9	\$(0.7)

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CBOE Holdings, Inc. and Subsidiaries  
Notes to Condensed Consolidated Financial Statements (unaudited)

## 12. ACCUMULATED OTHER COMPREHENSIVE INCOME, NET

The following represents the changes in accumulated other comprehensive income by component, net of tax (in millions):

	Accumulated Other Comprehensive Income
Balance at December 31, 2016	\$ (0.8 )
Other comprehensive income, net of tax	2.9
Balance at March 31, 2017	\$ 2.1

## 13. FAIR VALUE MEASUREMENTS

Fair value is the price that would be received upon the sale of an asset or paid upon the transfer of a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the entity. In addition, the fair value of liabilities should include consideration of non-performance risk, including the Company's own credit risk.

The Company applied Financial Accounting Standards Board ("FASB") ASC 820, Fair Value Measurement and Disclosure, which provides guidance for using fair value to measure assets and liabilities by defining fair value and establishing the framework for measuring fair value. ASC 820 applies to financial and nonfinancial instruments that are measured and reported on a fair value basis. The three-level hierarchy of fair value measurements is based on whether the inputs to those measurements are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. The fair-value hierarchy requires the use of observable market data when available and consists of the following levels:

Level 1—Unadjusted inputs based on quoted markets for identical assets or liabilities.

- Level 2—Observable inputs, either direct or indirect, not including Level 1, corroborated by market data or based upon quoted prices in non-active markets.

Level 3—Unobservable inputs that reflect management's best assumptions of what market participants would use in valuing the asset or liability.

The Company has included a tabular disclosure for financial assets and liabilities that are measured at fair value on a recurring basis in the condensed consolidated balance sheet as of March 31, 2017 and December 31, 2016.

## Instruments Measured at Fair Value on a Recurring Basis

The following tables presents the Company's fair value hierarchy for those assets measured at fair value on a recurring basis as of March 31, 2017 and December 31, 2016 (in millions):

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Notes to Condensed Consolidated Financial Statements (unaudited)

	March 31, 2017			
	Total	Level 1	Level 2	Level 3
Assets:				
Available-for-sale securities:				
U.S. Treasury securities	\$40.8	\$ 40.8	\$ —	—
Trading securities:				
U.S. Treasury securities	0.5	0.5	—	—
Money market funds	46.5	46.5	—	—
Total assets	\$87.8	\$ 87.8	\$ —	—
Liabilities:				
Contingent consideration liability	\$55.7	\$ —	\$ —	—\$ 55.7
Total liabilities	\$55.7	\$ —	\$ —	—\$ 55.7
	December 31, 2016			
	Total	Level 1	Level 2	Level 3
Assets:				
Money market funds	67.5	67.5	—	—
Total assets	\$67.5	\$ 67.5	\$ —	—

The following is a description of the Company's valuation methodologies used for instruments measured at fair value on a recurring basis:

## Available-for-sale and trading securities

Financial investments classified as trading and available for sale consist of highly liquid U.S. Treasury securities. These securities are valued by obtaining feeds from a number of live data sources, including active market makers and inter dealer brokers and therefore categorized as Level 1.

## Contingent consideration liability

In connection with the acquisition of Bats, the Company acquired a contingent consideration arrangement with the former owners of Hotspot. The fair value of this liability at March 31, 2017 was \$55.7 million. That value is based on estimates of discounted future cash payments, a significant unobservable input, and is considered a Level 3 measurement.

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## CBOE Holdings, Inc. and Subsidiaries

## Notes to Condensed Consolidated Financial Statements (unaudited)

## Fair Value of Financial Instruments

The following table presents the Company's fair value hierarchy for those financial instruments held by the Company as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, 2017			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	\$ 153.3	\$ 153.3	\$ —	\$ —
Trading investments	0.5	0.5	—	—
Available-for-sale investments	40.8	40.8	—	—
Accounts receivable	233.3	233.3	—	—
Income tax receivable	12.0	12.0	—	—
Total assets	\$ 439.9	\$ 439.9	\$ —	\$ —
Liabilities:				
Accounts payable and accrued liabilities	\$ 51.4	\$ —	\$ 51.4	\$ —
Section 31 fees payable	76.3	—	76.3	—
Contingent consideration liability	55.7	—	—	55.7
Long-term debt	1,486.7	—	1,486.7	—
Total liabilities	\$ 1,670.1	\$ —	\$ 1,614.4	\$ 55.7
	December 31, 2016			
	Total	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	\$ 97.3	\$ 97.3	\$ —	\$ —
Accounts receivable	76.7	76.7	—	—
Income tax receivable	53.7	53.7	—	—
Total assets	\$ 227.7	\$ 227.7	\$ —	\$ —
Liabilities:				
Accounts payable	\$ 6.5	\$ —	\$ 6.5	\$ —
Total liabilities	\$ 6.5	\$ —	\$ 6.5	\$ —

The carrying amounts of cash and cash equivalents, accounts receivable, income tax receivable, accounts payable and Section 31 fees payable approximate fair value due to their liquid or short-term nature.

## Long-term debt

The carrying amount of long-term debt approximates its fair value based on quoted LIBOR at March 31, 2017 and is considered a Level 2 measurement.

## Information on Level 3 Financial Liabilities

The following table sets forth a summary of changes in the fair value of the Company's Level 3 financial liabilities during the three months ended March 31, 2017.

Level 3 Financial Liabilities for  
the Three Months Ended  
March 31, 2017  
Settlements

	Balance at Beginning of Period	Balances at end of period
Liabilities		
Contingent consideration liability	\$ 55.7	\$ 55.7
Total Liabilities	\$ 55.7	\$ 55.7

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With the acquisition of Bats, the Company purchased a contingent consideration agreement with the former owners of Hotspot. The fair value of this liability at March 31, 2017 is \$55.7 million. This value is based on estimates of discounted future cash payments under the contingent consideration agreement, a significant unobservable input, and is considered a Level 3 investment.

Allocation of goodwill and intangibles is considered Level 3 because of significant unobservable inputs.

**14. REDEEMABLE NONCONTROLLING INTEREST**

Redeemable noncontrolling interests are reported on the consolidated balance sheets in mezzanine equity in "Redeemable Noncontrolling Interests." The Company recognizes changes to the redemption value of redeemable noncontrolling interests as they occur and adjust the carrying value to equal the redemption value at the end of each reporting period. The resulting increases or decreases in the estimated redemption amount are affected by corresponding charges or credits against retained earnings, or in the absence of retained earnings, additional paid in capital. The redemption amounts have been estimated based on the fair value of the majority-owned subsidiary, determined based on a weighting of the discounted cash flow and other economic factors.

For the three months ended March 31, 2017, the following reflects changes in our redeemable noncontrolling interests (in millions):

	Redeemable Noncontrolling Interest
Balance as at December 31, 2016	\$ 12.6
Net income attributable to redeemable noncontrolling interest	(0.3 )
Redemption value adjustment	0.3
Balance as at March 31, 2017	\$ 12.6

**15. SEGMENT REPORTING**

The Company previously operated as a single reportable business segment as of December 31, 2016. As a result of the Merger, as of March 31, 2017, the Company is reporting five segments: Options, U.S. Equities, Futures, European Equities, and Global FX, which is reflective of how the Company's chief operating decision-maker reviews and operates the business (Note 1). This change has been reflected in all periods presented. Segment performance is primarily based on operating income (loss). The Company's chief decision maker does not review total assets or inter-segment revenues by segment, therefore, such information is not presented. The Company has aggregated all of its corporate costs, acquisition-related costs, as well as other business ventures, within the Corporate Items and Eliminations unit based on the decision that those activities should not be used to evaluate the segment's operating performance; however, operating expenses that relate to activities of a specific segment have been allocated to that segment.

The Options segment includes our options exchange business, which lists for trading options on listed market indexes (index options), mostly on an exclusive basis, 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) that occur on CBOE, C2, BZX and EDGX. It also includes the listed equity options routed transaction services that occur on Trading.

The Futures segment includes the business of our futures exchange, CFE, which includes offering for trading futures on the VIX Index and other futures products.

The U.S. Equities segment includes listed cash equities and ETP transaction services that occur on BZX, BYX, EDGX and EDGA. It also includes market data fees generated from the U.S. tape plans as well as fees generated from the sale of proprietary market data of these exchanges. It also includes the listed cash equities and ETPs routed transaction services. In addition, it includes the listings business where ETPs and the Company are listed on BZX and includes the recently acquired ETF.com.

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Notes to Condensed Consolidated Financial Statements (unaudited)

The European Equities segment includes the pan European listed cash equities transaction services, ETPs, exchange traded commodities, and international depository receipts that occur on the RIE, operated by BTL. It also includes the listed cash equities and ETPs routed transaction services that occur on Chi-X Europe, as well as the listings business where ETPs can be listed on BTL.

The Global FX segment includes institutional FX services that occur on the Hotspot Platform.

Summarized financial data of reportable segments was as follows (in millions):

	U.S.		European		Global	Corporate	Total
	Options	Equities	Futures	Equities	FX	eliminations	
Three months ended March 31, 2017							
Revenues	\$ 192.7	\$ 120.2	\$ 29.9	\$ 9.3	4.0	\$ 0.1	\$ 356.2
Operating income (loss)	65.0	12.2	25.9	1.6	(1.2 )	(77.4 )	26.1
Three months ended March 31, 2016							
Revenues	\$ 148.6	\$ —	\$ 21.9	\$ —	—	\$ —	\$ 170.5
Operating income (loss)	65.0	—	17.5	—	—	(3.0 )	79.5

**16. EMPLOYEE BENEFITS**

Legacy CBOE and new employees are eligible to participate in the Chicago Board Options Exchange SMART Plan (“SMART Plan”). The SMART Plan is a defined contribution plan, which is qualified under Internal Revenue Code Section 401(k). In addition, eligible employees may participate in the Supplemental Employee Retirement Plan, Executive Retirement Plan and Deferred Compensation Plan. Each plan is a defined contribution plan that is non-qualified under Internal Revenue Code. The Company contributed \$2.6 million and \$1.3 million to the defined contribution plans for the three months ended March 31, 2017 and 2016, respectively. For the three months ended March 31, 2017, \$1.2 million of this expense was related to the Bats Acquisition and is included in acquisition-related costs in the condensed consolidated statements of income. The remaining expense is included in compensation and benefits in the condensed consolidated statements of income.

Upon completion of the Merger, the Company assumed the BTL stakeholder contribution plan and the Bats' defined contribution plan that offers a 401(k) retirement plan eligible to all legacy Bats U.S. employees. Under the plan, the Company matches participating employee contributions dollar for dollar of up to five percent of salary. The Company's contribution amounted to \$0.2 million for the one month ended March 31, 2017. This expense is included in compensation and benefits in the condensed consolidated statements of income.

BTL operates a stakeholder contribution plan and contributes to employee selected stakeholder contribution plans. The Company matches participating employee contributions of up to five percent of salary. All employees of BTL are eligible to participate. The Company's contribution amounted to \$0.1 million for the three months ended March 31, 2017. This expense is included in compensation and benefits in the condensed consolidated statements of income.

**17. REGULATORY CAPITAL**

As a broker dealer registered with the SEC, Bats Trading, Inc. is subject to the SEC's Uniform Net Capital rule (Rule 15c3-1), which requires the maintenance of minimum net capital, as defined. The SEC's requirement also provides that equity capital may not be withdrawn or a cash dividend paid if certain minimum net capital requirements are not met. Trading computes the net capital requirements under the basic method provided for in Rule 15c3-1.



As of March 31, 2017, Trading is required to maintain net capital equal to the greater of 6.67% of aggregate indebtedness items, as defined, or \$0.1 million. At March 31, 2017, Trading had net capital of \$8.7 million, which was \$8.3 million in excess of its required net capital of \$0.4 million.

As entities regulated by the FCA, BTL is subject to the Financial Resource Requirement ("FRR") and Chi-X Europe is subject to the Capital Resources Requirement ("CRR"). As a RIE, BTL computes its FRR in accordance with its Financial Risk Assessment, as agreed by the FCA. This FRR was \$16.3 million at March 31, 2017. At March 31, 2017 BTL had capital in excess of its required FRR of \$15.6 million.

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As a Banks, Investment firms, PRUdential (BIPRU) 50k firm as defined by the Markets in Financial Instruments Directive of the FCA, Chi X Europe computes its CRR as the greater of the base requirement of \$0.1 million at March 31, 2017, or the summation of the credit risk, market risk and fixed overheads requirements, as defined. At March 31, 2017, Chi X Europe had capital in excess of its required CRR of \$0.4 million.

As a swap execution facility regulated by the CFTC, Bats Hotspot SEF, LLC is required to meet two capital adequacy tests: (i) its financial resources must be equal to at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets must be equal to at least six months of its projected operating costs. As of March 31, 2017, Bats Hotspot SEF, LLC had annual operating expenses of \$0.5 million and had financial resources that exceeded this amount. Additionally, as of March 31, 2017, Bats Hotspot SEF, LLC, had projected operating expenses from six months of \$0.6 million and had unencumbered, liquid financial assets that exceeded this amount.

As a designated contract market regulated by the CFTC, CFE is required to meet two capital adequacy tests: (i) its financial resources must be equal to at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets must be equal to at least six months of its projected operating costs. As of March 31, 2017, CFE had annual projected operating expenses of \$19.2 million and had financial resources that exceeded this amount. Additionally, as of March 31, 2017, CFE had projected operating expenses for six months of \$9.6 million and had unencumbered, liquid financial assets that exceeded this amount.

#### 18. STOCK-BASED COMPENSATION

Stock-based compensation is based on the fair value of the award on the date of grant, which is recognized over the related service period, net of actual forfeitures. The service period is the period over which the related service is performed, which is generally the same as the vesting period. In the first quarter of 2017, the Company adopted ASU 2016-09, Compensation — Stock Compensation. This standard simplifies several aspects of the accounting for stock-based payment transactions (See Note 1).

On February 19, 2017, the Company granted 251,273 restricted stock units ("RSUs"), each of which entitles the holder to one share of common stock upon vesting, to certain officers and employees at a fair value of \$80.40 per share. The RSUs vest ratably over three years, with one-third vesting on each anniversary of the grant date, and vesting accelerates upon the occurrence of a change in control. Unvested RSUs will be forfeited if the officer or employee leaves the Company prior to the applicable vesting date, except in limited circumstances. The RSUs have no voting rights but entitle the holder to receive dividend equivalents.

On February 28, 2017, the Company granted 68,254 RSUs, each of which entitles the holder to one share of common stock upon vesting, to certain officers and employees at a fair value of \$78.05 per share. The RSUs vest ratably over three years, with one-third vesting on each anniversary of the grant date, and vesting accelerates upon the occurrence of a change in control. Unvested RSUs will be forfeited if the officer or employee leaves the Company prior to the applicable vesting date, except in limited circumstances. The RSUs have no voting rights but entitle the holder to receive dividend equivalents.

On February 28, 2017, the Company granted 49,703 RSUs, each of which entitles the holder to one share of common stock upon vesting, to certain officers and employees at a fair value of \$78.05 per share. The RSUs vest on the third anniversary of the grant date, and vesting accelerates upon the occurrence of a change in control. Unvested RSUs will be forfeited if the officer or employee leaves the Company prior to the applicable vesting date, except in limited circumstances. The RSUs have no voting rights but entitle the holder to receive dividend equivalents.

The merger agreement provided that the number of shares of CBOE Holdings common stock into which each such award of CBOE Holdings Restricted Shares is converted will be equal to the number of shares of Bats common stock

subject to the corresponding Bats Restricted Share award multiplied by the exchange ratio, which is the sum of (a) 0.3201 of a share of CBOE Holdings common stock and (b) the quotient obtained by dividing \$10.00 by the volume-weighted average price, rounded to four decimal places, of shares of CBOE Holdings common stock on NASDAQ for the ten consecutive trading day period ending on the second full trading day prior to the effective time of the merger. The remaining service period will be completed post-merger and future vesting and expense will be recognized accordingly. Pursuant to the Merger Agreement, each award of restricted Bats common stock (“Bats restricted shares”) granted under any of the Bats Plans that was unvested immediately prior to the Effective Time was assumed by the Registrant and converted into awards of restricted shares totaling 622,527 of Common Stock at a fair value of \$78.05 per share.

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In addition, on February 19, 2017 and February 28, 2017, the Company granted 41,481 and 19,255 RSUs, respectively, contingent on the achievement of performance conditions at a fair value of \$111.00 and \$102.00, respectively, per RSU, related to total shareholder return during the performance period. The Company used the Monte Carlo valuation model method to estimate the fair value of the total shareholder return RSUs which incorporated the following assumptions: risk-free interest rate (0.90)%, three-year volatility (21.1)% and three year correlation with S&P 500 Index (0.41). Each of these performance shares has a performance condition under which the number of units ultimately awarded will vary from 0% to 200% of the original grant, with each unit representing the contingent right to receive one share of our common stock. The vesting period for the RSUs contingent on the achievement of performance is three years. For each of the performance awards, the RSUs will be settled in shares of our common stock following vesting of the RSU assuming that the participant has been continuously employed during the vesting period, subject to acceleration in the event of a change in control of the Company or in the event of a participant's earlier death or disability. Participants have no voting rights with respect to RSUs until the issuance of the shares of stock. Dividends are accrued by the Company and will be paid once the RSUs contingent on the achievement of performance conditions vest.

For the three months ended March 31, 2017 and 2016, the Company recognized \$20.9 million and \$3.4 million, respectively, of stock-based compensation expense related to equity awards. For the three months March 31, 2017, the Company recorded \$9.1 million of accelerated stock-based compensation expense, respectively, for certain officers and employees as a result of attaining certain age and service based requirements in our long-term incentive plan and award agreements. Stock-based compensation expense is included in compensation and benefits in the condensed consolidated statements of income.

As of March 31, 2017, the Company had unrecognized stock-based compensation expense of \$71.1 million. The remaining unrecognized stock-based compensation is expected to be recognized over a weighted average period of 2.7 years.

Pursuant to the Merger Agreement, each outstanding option to purchase Bats common stock (each, a "Bats stock option") granted under any of the Bats Global Markets, Inc. 2009 Stock Option Plan, the Bats Global Markets, Inc. Third Amended and Restated 2012 Equity Incentive Plan and the Bats Global Markets, Inc. 2016 Omnibus Incentive Plan (collectively, the "Bats Plans") that was outstanding immediately prior to the effective time of the Merger (the "Effective Time") was converted into an option to purchase Common Stock, on the same terms and conditions (including vesting schedule) as were applicable to such Bats stock option (but taking into account any changes, including any acceleration of vesting of such Bats stock option occurring by reason of the transactions contemplated by the Merger Agreement). The number of shares of Common Stock subject to each such converted stock option equals the number of shares of Bats common stock subject to the corresponding Bats stock option immediately prior to the Effective Time, multiplied by the exchange ratio (as defined below) (subject to certain adjustments and rounding). The exercise price per share for each such converted stock option equals the per share exercise price specified in the corresponding Bats stock option divided by the exchange ratio (rounded up to the nearest cent). The "exchange ratio" is equal to 0.4452, which equals the sum of 0.3201 plus the fraction obtained by dividing \$10.00 by the volume-weighted average price, rounded to four decimal points, of a share of Common Stock on the NASDAQ Stock Market LLC for the ten consecutive trading days ended February 24, 2017.

Pursuant to the Merger Agreement, each award of restricted Bats common stock ("Bats restricted shares") granted under any of the Bats Plans that was unvested immediately prior to the Effective Time was assumed by the Registrant and converted into an award of restricted shares of Common Stock, subject to the same terms and conditions (including vesting schedule) that applied to the applicable Bats restricted shares immediately prior to the Effective Time (but taking into account any changes, including any acceleration of vesting of such Bats restricted shares, occurring by reason provided for in the Merger Agreement). The number of shares of Common Stock subject to each such converted award of Bats restricted shares equals the number of shares of Bats common stock subject to the

corresponding Bats restricted share award multiplied by the exchange ratio (as defined above).

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Notes to Condensed Consolidated Financial Statements (unaudited)

The activity in the Company's stock options, restricted stock and restricted stock units for the three months ended March 31, 2017 was as follows:

## Stock Options

Summary stock option activity is presented below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in millions)
Outstanding, December 31, 2016	—	—	—	—
Granted	683,390	\$ 22.45	4.8 years	\$ 40.1
Outstanding at March 31, 2017	683,390	\$ 22.45	4.8 years	\$ 40.1
Exercisable at March 31, 2017	602,322	\$ 19.12	3.8 years	\$ 37.3
Vested or expected to vest	683,390	\$ 22.45	4.8 years	\$ 40.1

The Company estimated the grant date fair value of options awarded during 2017 using the Black-Scholes valuation model with the following assumptions:

	2017
Expected term (in years)	4.2
Expected volatility	19.8%
Expected dividend yield	1.3%
Risk-free rate	1.78%
Forfeiture rate	—%

Summary of the status of nonvested options is presented below:

Nonvested Options	Options	Weighted Average Grant-Date Fair Value
January 1, 2017 - Nonvested	—	\$ —
Vested	—	\$ —
Granted	81,068	\$ 49.17
Forfeited	—	\$ —
March 31, 2017 - Nonvested	81,068	\$ 49.17

As of March 31, 2017, there were \$3.3 million in total unrecognized compensation costs related to stock options. These costs are expected to be recognized over a weighted average period of 1.7 years as the stock options vest.

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## Restricted Stock and Restricted Stock Units

Summary restricted stock activity is presented below:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested stock at December 31, 2016	480,595	\$ 63.44
Granted	1,052,493	80.48
Vested	(269,427 )	64.86
Forfeited	(1,479 )	70.36
Nonvested stock at March 31, 2017	1,262,182	\$ 77.34

In the three months ended March 31, 2017, to satisfy employees' tax obligations upon the vesting of restricted stock, the Company purchased 98,208 shares totaling \$7.9 million as the result of the vesting of 269,427 shares of restricted stock.

## 19. INCOME TAXES

The Company records income tax expense during interim periods based on the best estimate of the full year's tax rate as adjusted for discrete items, if any, that are taken into account in the relevant interim period. Each quarter, the Company updates its estimate of the annual effective tax rate and any change in the estimated rate is recorded on a cumulative basis. The effective tax rate from continuing operations was 16.9% and 38.9% for the three months ended March 31, 2017 and 2016, respectively. The decrease in the effective tax rate for the three months ended March 31, 2017 against the comparable period in the prior year was due to discrete events during the quarter, mainly the re-measurement of tax reserves, which resulted in a favorable net tax benefit of \$4.3 million.

## 20. NET INCOME PER COMMON SHARE

The computation of basic net income allocated to common stockholders is calculated by reducing net income for the period by dividends paid or declared and undistributed net income for the period that are allocated to participating securities to arrive at net income allocated to common stockholders. Net income allocated to common stockholders is divided by the weighted average number of common shares outstanding during the period to determine net income per share allocated to common stockholders.

The computation of diluted earnings per share is calculated by dividing net income allocated to common stockholders by the sum of the weighted average number of common shares outstanding plus all additional common shares that would have been outstanding if the potentially dilutive common shares had been issued. The dilutive effect is calculated using the more dilutive of the two-class or treasury stock method.

Additionally, in accordance with accounting guidance, the change in the redemption value for the noncontrolling interest reduces net income allocated to common shareholders.

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The following table reconciles net income allocated to common stockholders and the number of shares used to calculate the basic and diluted net income per common share for the three ended March 31, 2017 and 2016:

(in millions, except per share amounts)	Three Months Ended March 31,	
	2017	2016
Basic EPS Numerator:		
Net Income	\$ 15.2	\$ 49.2
Loss attributable to noncontrolling interests	0.3	0.2
Net Income Excluding Noncontrolling Interests	15.5	49.4
Change in redemption value of noncontrolling interest	(0.3 )	—
Earnings allocated to participating securities	(0.1 )	(0.2 )
Net Income Allocated to Common Stockholders	\$ 15.1	\$ 49.2
Basic EPS Denominator:		
Weighted average shares outstanding	91.9	81.8
Basic Net Income Per Common Share	\$ 0.16	\$ 0.60
Diluted EPS Numerator:		
Net Income	\$ 15.2	\$ 49.2
Loss attributable to noncontrolling interests	0.3	0.2
Net Income Excluding Noncontrolling Interests	15.5	49.4
Change in redemption value of noncontrolling interest	(0.3 )	—
Earnings allocated to participating securities	(0.1 )	(0.2 )
Net Income Allocated to Common Stockholders	\$ 15.1	\$ 49.2
Diluted EPS Denominator:		
Weighted average shares outstanding	91.9	81.8
Dilutive common shares issued under stock program	0.1	—
Total Dilutive Weighted Average Shares	92.0	81.8
Diluted Net Income Per Common Share	\$ 0.16	\$ 0.60

For the periods presented, the Company did not have shares of restricted stock and restricted stock units that would have an anti-dilutive effect on the computation of diluted net income per common share.

**21. COMMITMENTS AND CONTINGENCIES****Legal Proceedings**

As of March 31, 2017, 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 March 31, 2017, 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, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any litigation is inherently uncertain and an adverse outcome from certain matters could have a material effect on our earnings in any given reporting

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period. However, in the opinion of management, the ultimate liability is not expected to have a material effect on our financial position, liquidity or capital resources.

The following information updates the legal proceedings disclosures in our Annual Report on Form 10-K for the year ended December 31, 2016.

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 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 “Court”) held oral argument on the pending Motion to Dismiss and thereafter, on August 26, 2015, the 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 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. 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 intend to litigate the matter vigorously.

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, BZX, BYX, EDGX and EDGA market data products and related services. Each application is being held in abeyance pending a decision on a separate SIFMA denial of access application held before an SEC’s administrative law judge (“ALJ”) regarding fees proposed by NASDAQ and the NYSE for their respective market data products. On June 1, 2016, the ALJ issued a decision rejecting SIFMA’s denial of access challenge to the NASDAQ and NYSE fees at issue. On July 19, 2016, SIFMA petitioned the SEC for review of the ALJ decision. An adverse ruling in that matter or a subsequent appeal could adversely affect exchange market data fees.

Other

As self-regulatory organizations under the jurisdiction of the SEC, CBOE, C2, BZX, BYX, EDGX and EDGA are subject to routine reviews and inspections by the SEC. As a designated contract market under the jurisdiction of the CFTC, CFE is subject to routine reviews and inspections by the CFTC. Bats Hotspot SEF LLC is a swap execution facility registered with the CFTC and subject to routine reviews and inspections by the CFTC. Bats Trading, Inc. is subject to reviews and inspections by FINRA. 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. In addition, while Bats

Trading Limited and Chi-X Europe have not been the subject of any material litigation or regulatory investigation in the past, there is always the possibility of such action in the future. As both companies are domiciled in the U.K., it is likely that any action would be taken in the U.K. courts in relation to litigation or by the FCA in relation to any regulatory enforcement action.

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

Contractual obligations

The Company currently leases office space, data centers and remote network operations centers, with lease terms remaining from 3 months to 103 months as of March 31, 2017. Total rent expense related to these lease obligations, reflected in

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## CBOE Holdings, Inc. and Subsidiaries

## Notes to Condensed Consolidated Financial Statements (unaudited)

technology support services and facilities costs line items on the Consolidated Statements of Income, for the three months ended March 31, 2017 and 2016 were \$1.7 million and \$1.1 million, respectively. Future minimum payments for our operating leases, contractual obligations, long-term debt and other liabilities for the next five years and thereafter are as follows at March 31, 2017 (in millions):

Year	Operating Leases	Contractual Obligations	Long-term Debt	Other Liabilities	Total
2017	\$ 3.3	\$ 25.5	\$ —	\$ 0.7	\$29.5
2018	3.9	31.1	—	49.0	84.0
2019	2.6	31.1	—	—	33.7
2020	2.2	22.8	100.0	—	125.0
2021	1.5	20.1	750.0	—	771.6
2022	0.3	5.0	—	—	5.3
Thereafter	9.2	55.9	650.0	—	715.1
Total	\$ 23.0	\$ 191.5	\$ 1,500.0	\$ 49.7	\$1,764.2

## 22. SUBSEQUENT EVENTS

There have been no additional subsequent events that would require disclosure in, or adjustment to, the condensed consolidated financial statements as of and for the quarter ended March 31, 2017.

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### Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with the accompanying unaudited condensed consolidated financial statements and the notes thereto, included in Item 1 in this Quarterly Report on Form 10-Q, and the audited consolidated financial statements in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, and as contained in that report, the information under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations." This discussion contains forward-looking information. Please see "Forward-Looking Statements" for a discussion of the uncertainties, risks and assumptions associated with these statements.

#### Overview

CBOE Holdings, Inc. (CBOE Holdings or the Company) is the owner of the Chicago Board Options Exchange, the Bats exchanges, CBOE Futures Exchange (CFE) and other subsidiaries, is one of the world's largest exchange holding companies and a leader in providing global investors cutting-edge trading and investment solutions.

The Company offers trading across a diverse range of products in multiple asset classes and geographies, including options, futures, U.S. and European equities, exchange-traded products (ETPs), and multi-asset volatility and global foreign exchange ("FX") products. CBOE Holdings' fourteen trading venues include the largest options exchange in the U.S. and the largest stock exchange in Europe, and the Company is the second-largest stock exchange operator in the U.S. and a leading market globally for exchange-traded fund (ETF) trading.

On February 28, 2017, pursuant to the Agreement and Plan of Merger, dated as of September 25, 2016, CBOE Holdings acquired Bats Global Markets, Inc. The three months ended March 31, 2017 included financial results for Bats for the period of March 1, 2017 through March 31, 2017.

#### Components of Revenues

##### Transaction Fees

Transaction fees represent fees charged by the Company for the performance obligation of executing a trade on its markets. These fees can be variable based on trade volume tiered discounts, however as all tiered discounts are calculated monthly, and the actual discount is recorded on a monthly basis. Transaction fees, as well as any tiered volume discounts, are calculated and billed monthly in accordance with the Company's published fee schedules. Transaction fees are recognized across all segments. The Company also pays liquidity payments to customers based on its published fee schedules. The Company uses these payments to improve the liquidity on its markets and therefore recognizes those payments as a cost of revenue.

##### Access Fees

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

##### Exchange Services and Other Fees

To facilitate trading, the Company offers technology services, terminal and other equipment rights, maintenance services, trading floor space and telecommunications services. Trading floor and equipment rights are generally on a month-to-month basis. Facilities, systems services and other fees are generally monthly fee-based, although certain services are influenced by trading volume or other defined metrics, while others are based solely on demand. All fees associated with the trading floor are recognized in the Options segment.

##### Market Data Fees

Market data fees represent the fees charged by the Company from the U.S. tape plans and fees from customers for proprietary market data. Fees from the U.S. tape plans are collected monthly based on published fee schedules and distributed quarterly to the U.S. exchanges based on a known formula using trading and/or quoting activity. A contract around proprietary market data is entered into and charged on a monthly basis in accordance with the Company's

published fee schedules as the service is provided. Both types of market data are satisfied over time, and revenue is recognized on a monthly basis as the customer receives and consumes the benefit as the Company provides the data. U.S. tape plan market data is recognized in the U.S. Equities and Options segments. Proprietary market data fees are recognized across all segments.

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### Regulatory Fees

Regulatory fees primarily represent fees collected by the Company to cover the Section 31 fees charged to the exchanges by the SEC. Consistent with industry practice, the fees charged to customers are based on the fee set by the SEC per notional value of the transaction executed on the Company's markets and calculated and billed monthly. These fees are recognized in the U.S. Equities and Options segments and as the exchanges are responsible for the ultimate payment to the SEC, the exchanges are considered the principals in these transactions. Regulatory fees also include the options regulatory fee (ORF) which supports the Company's regulatory oversight function in the Options segment.

### Other Revenue

Other revenue primarily includes among other items, revenue from various licensing agreements, all fees related to the trade reporting facility operated in the European Equities segment, and revenue associated with advertisements through the Company's website.

### Components of Cost of Revenues

#### Liquidity Payments

Liquidity payments are directly correlated to the volume of securities traded on our markets. As mentioned above, we record the liquidity rebate paid to market participants providing liquidity, in the case of C2, BZX, EDGX and Bats Europe, as cost of revenue. BYX and EDGA offer a pricing model pursuant to which we rebate liquidity takers for executing against an order resting on our book, which is also recorded as a cost of revenue.

#### Section 31 Fees

Exchanges under the authority of the SEC (CBOE, C2, BZX, BYX, EDGX and EDGA) are assessed fees pursuant to the Exchange Act designed to recover the costs to the U.S. government of supervision and regulation of securities markets and securities professionals. We treat these fees as a pass-through charge to customers executing eligible listed cash equities and listed equity options trades. Accordingly, we recognize the amount that we are charged under Section 31 as a cost of revenues and the corresponding amount that we charge our customers as regulatory transaction fees revenue. Since the regulatory transaction fees recorded in revenues are equal to the Section 31 fees recorded in cost of revenues, there is no impact on our operating income. CFE, BTL and Hotspot are not U.S. national securities exchanges, and accordingly do not pay Section 31 fees.

#### Royalty Fees

Royalty fees primarily consist of license fees paid by us for the use of underlying indexes in our proprietary products usually based on contracts traded. The Company has licenses with the owners of the S&P 500 Index, S&P 100 Index and certain other S&P indexes, the DJIA, MSCI, FTSE Russell indexes and certain other index products. This category also includes fees related to the dissemination of market data related to S&P indexes.

#### Routing and clearing

Order routing consists of market linkage expenses incurred to send certain orders to other exchanges. In our Options and U.S. Equities business, if a competing exchange quotes a better price, we route the customer's order to that exchange and pay certain of the associated costs. Regardless of whether the transaction is traded on our exchanges, the order flow potential enhances our overall market position and participation and provides cost savings to customers.

### Components of Operating Expenses

#### Compensation and Benefits

Compensation and benefits are our most significant expenses and include salaries and benefits, stock-based compensation, incentive compensation, severance and employer taxes. Salaries and benefits represent our largest expense category and tend to be driven by both our staffing requirements and the general dynamics of the employment market. Stock-based compensation is a non-cash expense related to equity awards. Stock-based compensation can vary depending on the quantity and fair value of the award on the date of grant and the related service period.

#### Depreciation and Amortization

Depreciation and amortization expense results from the depreciation of long-lived assets purchased and the amortization of purchased and internally developed software, as well as amortization of intangible assets.





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### Technology Support Services

Technology support services expense consists primarily of costs related to the maintenance of computer equipment supporting our system architecture, circuits supporting our wide area network, support for production software, fees paid to information vendors for displaying data and off-site system hosting fees.

### Professional Fees and Outside Services

Professional fees and outside services consist primarily of consulting services, which include: the supplementation of staff for activities primarily related to systems development and maintenance, legal, regulatory and audit, and tax advisory services.

### Acquisition-Related Costs

Acquisition-related and integration costs relate to acquisitions and other strategic opportunities. The acquisition-related transaction costs include fees for investment banking advisors, lawyers, accountants, tax advisors, public relations firms, severance, write-offs of obsolete systems and other external costs directly related to the mergers and acquisitions.

### Travel and Promotional Expenses

Travel and promotional expenses primarily consist of advertising, costs for special events, sponsorship of industry conferences, options education seminars and travel-related expenses.

### Facilities Costs

Facilities costs primarily consist of expenses related to owned and leased properties including rent, maintenance, utilities, real estate taxes and telecommunications costs.

### Other Expenses

Other expenses represent costs necessary to support our operations that are not already included in the above categories.

### Other Income/(Expense)

Income and expenses incurred through activities outside of our core operations are considered non-operating and are classified as other income/(expense). These activities primarily include interest earned on the investing of excess cash, interest expense related to outstanding debt facilities, dividend income and equity earnings or losses from our investments in other business ventures.

### Business Segments

The Company previously operated as a single reportable business segment as of December 31, 2016. As a result of the Merger, as of March 31, 2017, the Company is reporting five segments: Options, U.S. Equities, Futures, European Equities, and Global FX. Segment performance is primarily based on operating income (loss). The Company has aggregated all of its corporate costs and eliminations, as well as other business ventures, within Corporate Items and Eliminations; however, operating expenses that relate to activities of a specific segment have been allocated to that segment. Our management allocates resources, assesses performance and manages our business according to these segments:

**Options.** Our Options segment includes listed market indexes (index options), mostly on an exclusive basis, 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) that occur on CBOE, C2, BZX and EDGX. It also includes the listed equity and ETP options routed transaction services that occur on Trading.

**U.S. Equities.** Our U.S. Equities segment includes listed cash equities and ETP transaction services that occur on BZX, BYX, EDGX and EDGA. It also includes the listings business where ETPs and the Company are listed on BZX and the recently acquired ETF.com.

**Futures.** Our Futures segment includes trading of futures on the VIX Index and other products that occur on CFE, our all-electronic futures exchange.

European Equities. Our European Equities segment includes pan European listed equities transaction services, ETPs, exchange traded commodities, and international depository receipts that occur on our MTF, and a listing and trading venue on our RM, which together we refer to as Bats Europe. It also includes the listed cash equities and exchange-traded products routed transaction services that occur on Chi-X Europe, as well as the listings business where ETPs can be listed on BTL.

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Global FX. Our Global FX segment includes institutional FX services that occur on the Hotspot platform.

## General Factors Affecting Results of Operations

In broad terms, our business performance is impacted by a number of drivers, including macroeconomic events affecting the risk and return of financial assets, investor sentiment, the regulatory environment for capital markets, geopolitical events, central bank policies and changing technology, particularly in the financial services industry. Our future revenues and net income will continue to be influenced by a number of domestic and international economic trends, including:

- trading volumes on our proprietary products such as the VIX options and futures and SPX options;
- trading volumes in listed cash equity securities and ETPs in both the U.S. and Europe, volumes in listed equity options and volumes in institutional FX trading, which are driven primarily by overall macroeconomic conditions;
- the demand for the U.S. tape plan market data distributed by the Securities Information Processors (SIPs), which determines the pool size of the industry market data revenue we receive based on our market share;
- the demand for information about, or access to, our markets, which is dependent on the products we trade, our importance as a liquidity center and the quality and pricing of our data and access services;
- continuing pressure in transaction fee pricing due to intense competition in the United States and Europe; and
- regulatory changes relating to market structure or affecting certain types of instruments, transactions, pricing structures, capital market participants or reporting or compliance requirements, including any changes resulting from Brexit.

A number of significant structural, political and monetary issues continue to confront the global economy, and instability could return at any time, resulting in an increased level of market volatility, increased trading volumes and a return of uncertainty. In contrast, many of the largest customers of our transactional businesses continue to adapt their business models as they address the implementation of regulatory changes initiated following the global financial crisis.

## Financial Summary

The comparability of our results of operations between reported periods is impacted by the acquisition of Bats on February 28, 2017. Operating results and other financial metrics for U.S. Equities, European Equities and Global FX represent activity for the one month ended March 31, 2017. The following summarizes changes in financial performance for the three months ended March 31, 2017 and 2016.

	Three Months Ended March 31,		Increase/ (Decrease)	Percent Change
	2017	2016		
	(in millions, except trading days, percentages and as noted below)			
Total revenues	\$356.2	\$170.5	\$185.7	108.9 %
Total cost of revenues	162.8	27.4	135.4	494.2 %
Revenues less cost of revenues	193.4	143.1	50.3	35.2 %
Total operating expenses	167.3	63.6	103.8	163.1 %
Operating income	26.1	79.5	(53.5 )	(67.2 )%
Income before income tax provision	18.3	80.5	(62.2 )	(77.3 )%
Income tax provision	3.1	31.3	(28.2 )	(90.1 )%
Net income	15.2	49.2	(34.0 )	(69.1 )%
Net income allocated to common stockholders	\$15.1	\$49.2	\$(34.1 )	(69.3 )%
Basic earnings per share	\$0.16	\$0.60	\$(0.44 )	(72.5 )%
Diluted earnings per share	0.16	0.60	(0.44 )	(72.5 )%
Organic net revenue (1)	154.2	143.1	11.1	7.8 %
EBITDA(2)	51.2	91.7	(40.4 )	(44.1 )%
EBITDA margin(3)	26.5 %	64.1 %	(37.6 )%	*
Adjusted EBITDA(2)	\$125.7	\$92.6	\$33.2	35.9 %

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Adjusted EBITDA margin(4)	65.0	%	64.7	%	0.3	%	*
Adjusted earnings(5)	\$72.2		\$49.9		\$22.3		44.8 %
Diluted weighted average shares outstanding	92.0		81.8		10.2		44.7 %

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Diluted adjusted earnings per share	\$0.78	\$0.61	\$0.17	27.9 %
Options:				
Average Daily Volume (ADV):				
Matched contracts	5.6	4.6	1.0	21.7 %
Routed contracts	—	—	—	*
Total touched contracts	5.6	4.6	1.0	21.7 %
Market ADV	16.6	17.1	(0.5 )	(2.9 )%
Index contract ADV	1.9	1.8	0.1	5.6 %
Trading days	62	61	1	1.6 %
U.S. Equities:				
ADV:				
Matched shares ADV (in billions)	1.3	—	1.3	*
Routed shares ADV (in billions)	0.1	—	0.1	*
Total touched shares ADV (in billions)	1.4	—	1.4	*
Market ADV (in billions)	6.9	—	6.9	*
Trading days	23	—	23	*
U.S. ETPs: launches (number of launches)	15	—	15	*
U.S. ETPs: listings (number of listings)	159	—	159	*
Futures:				
ADV (in thousands)	255.2	216.4	38.8	17.9 %
Trading days	62	61	1	1.6 %
European Equities:				
Average Daily Notional Value (ADNV):				
Matched and touched ADNV (in billions)	€10.2	€—	€10.2	*
Market ADNV (in billions)	€47.4	€—	€47.4	*
Trading days	23	—	23	*
Average Euro/British pound exchange rate	£0.866	£—	£0.866	*
Global FX:				
ADNV (in billions)	\$29.7	\$—	\$29.7	*
Trading days	23	—	23	*
Market share:				
Options	33.7 %	26.6 %	7.1 %	*
U.S. Equities	19.2 %	— %	19.2 %	*
ETPs	21.7 %	— %	21.7 %	*
ETPs: launches	32.6 %	— %	32.6 %	*
ETPs: listings	8.0 %	— %	8.0 %	*
European Equities	21.4 %	— %	21.4 %	*
Net capture:				
Total Options (revenue per contract)(6)	\$0.287	\$0.346	\$0.022	8.3 %
Multiply Listed Options	0.068	0.100	(0.013 )	(16.0)%
Index Options	0.708	0.720	(0.012 )	(1.7 )%
U.S. Equities (net capture per one hundred touched shares)(7)	0.024	—	0.024	*
Futures	1.814	1.643	0.171	10.4 %
European Equities (net capture per matched notional value in basis points)(8)	0.161	—	0.161	*
Global FX (net capture per one million dollars traded)(9)	\$2.61	\$—	\$2.61	*
Average British pound/U.S. dollar exchange rate	\$1.234	\$1.432	\$(0.198)	*

\* Not meaningful

(1) Organic net revenue is defined as revenues less cost of revenues excluding revenues less cost of revenues of any acquisition for the quarter the business was acquired. Organic net revenue does not represent, and should not be

considered as, an alternative to revenues less cost of revenues, or net revenue, as determined in accordance with GAAP. We have presented organic net revenue because we consider it an important supplemental measure of our performance and we use it as the basis for monitoring our operating financial performance before the effects of acquisitions. We also believe that it is

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frequently used by analysts, investors and other interested parties in the evaluation of companies. We believe that investors may find this non-GAAP measure useful in evaluating our performance compared to that of peer companies in our industry. Other companies may calculate organic net revenue differently than we do. Organic net revenue has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP.

The following is a reconciliation of revenues less cost of revenues to organic net revenue (in millions):

	Three Months Ended	
	March 31	2017
	2017	2016
Revenues less cost of revenues	\$193.4	\$143.1
Recent acquisitions:		
Bats revenues less cost of revenues (for the one month ended March 31, 2017)	(39.2 )	—
Organic net revenue	\$154.2	\$143.1

EBITDA is defined as income before interest, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before acquisition-related costs and accelerated stock-based compensation. EBITDA and adjusted EBITDA do not represent, and should not be considered as, alternatives to net income or cash flows from operations, each as determined in accordance with GAAP. We have presented EBITDA and adjusted EBITDA because we consider them important supplemental measures of our performance and believe that they are (2) frequently used by analysts, investors and other interested parties in the evaluation of companies. In addition, we use adjusted EBITDA as a measure of operating performance for preparation of our forecasts, evaluating our leverage ratio for the debt to earnings covenant included in our outstanding credit facility. Other companies may calculate EBITDA and adjusted EBITDA differently than we do. EBITDA and adjusted EBITDA have limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under GAAP.

The following tables are reconciliations of net income to EBITDA and adjusted EBITDA (in millions):

	Three Months Ended March 31, 2017						
	Options	U.S. Equities	Futures	European Equities	Global FX	Corporate Items and Eliminations	Total
Net income (loss)	\$62.8	\$11.9	\$25.9	\$1.0	\$(1.1)	\$(85.4 )	\$15.1
Interest	—	—	—	—	—	7.9	7.9
Income tax provision	2.1	0.3	—	0.7	—	—	3.1
Depreciation and amortization	10.9	8.1	0.3	2.5	3.0	0.3	25.1
EBITDA	75.8	20.3	26.2	4.2	1.9	(77.2 )	51.2
Acquisition-related costs	—	—	—	—	0.2	65.2	65.4
Accelerated stock-based compensation	—	—	—	—	—	9.1	9.1
Adjusted EBITDA	\$75.8	\$20.3	\$26.2	\$4.2	\$2.1	\$(2.9 )	\$125.7
	Three Months Ended March 31, 2016						
	Options	U.S. Equities	Futures	European Equities	Global FX	Corporate Items and Eliminations	Total
Net income (loss)	\$34.7	\$—	-\$17.5	\$—	-\$—	-\$ (3.0 )	\$49.2
Interest	(0.7 )	—	—	—	—	—	(0.7 )
Income tax provision	31.3	—	—	—	—	—	31.3
Depreciation and amortization	10.7	—	0.9	—	—	0.3	11.9
EBITDA	76.0	—	18.4	—	—	(2.7 )	91.7
Acquisition-related costs	—	—	—	—	—	0.4	0.4
Assessment of computer-based lease taxes	—	—	—	—	—	0.3	0.3

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Compensation and benefits	—	—	—	—	—	0.2	0.2
Adjusted EBITDA	\$76.0	\$	-\$ 18.4	\$	-\$	-\$ (1.8	) \$92.6

(3) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

(4) Adjusted EBITDA margin represents adjusted EBITDA divided by revenues less cost of revenues.



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Adjusted earnings is defined as net income adjusted for amortization of purchased intangibles, acquisition-related costs and accelerated stock-based compensation, net of the income tax effects of these adjustments. Adjusted earnings does not represent, and should not be considered as, an alternative to net income, as determined in accordance with GAAP. We have presented adjusted earnings because we consider it an important supplemental measure of our performance and we use it as the basis for monitoring our own core operating financial (5) performance relative to other operators of electronic exchanges. We also believe that it is frequently used by analysts, investors and other interested parties in the evaluation of companies. We believe that investors may find this non-GAAP measure useful in evaluating our performance compared to that of peer companies in our industry. Other companies may calculate adjusted earnings differently than we do. Adjusted earnings has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP.

The following is a reconciliation of net income to adjusted earnings (in millions):

	Three Months Ended March 31	
	2017	2016
Net income	\$ 15.1	\$ 49.2
Amortization	14.4	0.2
Acquisition-related costs	65.4	0.4
Acceleration of stock based compensation	9.1	0.2
Interest expenses on bridge financing	4.3	—
Assessment of computer-based lease taxes	—	0.3
Change in redemption value of noncontrolling interest	0.3	—
Tax effects of adjustments	(36.0)	(0.4)
Net income allocated to participating securities	(0.4)	—
Adjusted earnings	\$ 72.2	\$ 49.9

(6) Revenue per contract represents transaction fees less liquidity payments and routing and clearing costs divided by total touched contracts.

Net capture per one hundred touched shares refers to transaction fees less liquidity payments and routing and (7) clearing costs divided by the product of one-hundredth ADV of touched shares on BZX, BYX, EDGX and EDGA and the number of trading days for the period.

Net capture per matched notional value refers to transaction fees less liquidity payments in British pounds divided (8) by the product of ADV in British pounds of shares matched on Bats Europe and the number of trading days for the period.

Net capture per one million dollars traded refers to transaction fees less liquidity payments, if any, divided by the (9) product of one-thousandth of ADV traded on the Hotspot FX market and the number of trading days, divided by two, which represents the buyer and seller that are both charged on the transaction for the period.

## Revenues

Total revenues increased in the three months ended March 31, 2017, primarily as a result of our acquisition of Bats. The following summarizes changes in revenues for the three months ended March 31, 2017, compared to the three months ended March 31, 2016:

	Three Months Ended		Increase/ (Decrease)	Percent Change
	March 31 2017	March 31 2016		

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(in millions, except percentages)

Transaction fees	\$256.4	\$126.2	\$ 130.2	103.2 %
Access fees	17.8	13.2	4.6	34.8 %
Exchange services and other fees	15.4	11.4	4.0	35.1 %
Market data fees	22.5	8.0	14.5	181.3 %
Regulatory fees	38.3	9.1	29.2	320.9 %
Other revenue	5.8	2.6	3.2	123.1 %
Total revenues	\$356.2	\$170.5	\$ 185.7	108.9 %

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## Transaction Fees

Transaction fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the acquisition of Bats that contributed \$111.0 million. In addition to the merger-related items, the increase in transaction fees was primarily due to higher trading volume, primarily driven by SPX options and VIX futures, partially offset by a decrease in average options revenue per contract.

## Access fees

Access fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the Bats acquisition that contributed \$5.9 million.

## Exchange services and other fees

Exchange services and other fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the Bats acquisition that contributed \$2.5 million.

## Market Data Fees

Market data fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily due to the Bats acquisition that contributed \$13.0 million.

## Regulatory Fees

Regulatory transaction fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily due to the acquisition of Bats that contributed \$26.6 million.

## Other Revenue

Other revenue increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily due to an increase in licensing revenue. Also contributing to the increase was incremental revenue from the Bats acquisition of \$0.8 million.

## Cost of Revenues

Cost of revenues increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily due to the acquisition of Bats.

The following summarizes changes in cost of revenues for the three months ended March 31, 2017 compared to the three months ended March 31, 2016:

	Three Months Ended March 31 2017		2016		
			Increase/ (Decrease)	Percent Change	
	(in millions, except percentages)				
Liquidity payments	\$105.3	\$6.6	\$ 98.7	*	
Section 31 fees	30.0	—	30.0	*	
Royalty fees	21.2	19.1	2.1	11.0	%
Routing and clearing	6.3	1.7	4.6	270.6	%
Total cost of revenues	\$162.8	\$27.4	\$ 135.4	494.2	%

## Liquidity Payments

Liquidity payments increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the Bats acquisition that contributed \$91.0 million.

## Section 31 Fees

Section 31 fees increased for the three months ended March 31, 2017 compared to the same periods in 2016 primarily driven by the Bats acquisition that contributed \$26.3 million.

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## Royalty Fees

Royalty fees increased for the three months ended March 31, 2017 compared to the same periods in 2016 primarily due to higher trading volume in licensed products.

## Routing and Clearing

The increase in routing and clearing fees for the three months ended March 31, 2017 compared to the same periods in 2016 was primarily driven by the Bats acquisition that contributed \$3.2 million.

## Revenues Less Cost of Revenues

Revenues less cost of revenues increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily due to the acquisition of Bats.

The following tables summarize the components of revenues less cost of revenues for the three months ended March 31, 2017, presented as a percentage of revenues less cost of revenues and compared to the three months ended March 31, 2016:

	Three Months Ended		Percent Change	Percentage of Revenues Less Cost of Revenues Three Months Ended		
	March 31 2017	March 31 2016		2017	2016	
	(in millions)					
Transaction fees less liquidity payments and routing and clearing costs	\$144.8	\$117.9	22.8	% 74.9	% 82.4	%
Access fees	17.8	13.2	34.8	% 9.2	% 9.2	%
Exchange services and other fees	15.4	11.4	35.1	% 8.0	% 8.0	%
Market data fees	22.5	8.0	181.3	% 11.6	% 5.6	%
Regulatory fees, less Section 31 fees	8.3	9.1	(8.8)	% 4.3	% 6.4	%
Royalty fees	(21.2)	(19.1)	11.0	% (11.0)	% (13.4)	%
Other	5.8	2.6	123.1	% 3.0	% 1.8	%
Revenues less cost of revenues	\$193.4	\$143.1	35.2	% 100.0	% 100.0	%

## Transaction Fees Less Liquidity Payments and Routing and Clearing Costs

Transaction fees less liquidity payments and routing and clearing costs increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the acquisition of Bats that contributed \$39.2 million. In addition to the merger-related items, the increase was primarily due to higher trading volume, primarily driven by SPX options and VIX futures, partially offset by a decrease in average options revenue per contract.

## Access Fees

Access fees increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the Bats acquisition that contributed \$5.9 million.

## Exchange Services and Other Fees

Exchange services and other fees increased for the three months ended March 31, 2017 compared to the same periods in 2016 primarily driven by the Bats acquisition that contributed \$2.5 million.

## Market Data Fees

Market data fees increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by the Bats acquisition that contributed \$13.0 million.

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## Regulatory Fees less Section 31 Fees

Regulatory fees decreased in the three months ended March 31, 2017 compared to the same period in 2016 primarily due to a decrease in options regulatory fees.

## Other

Other revenue increased in the three months ended March 31, 2017 compared to the same period in 2016 primarily due to an increase in licensing revenue. Also contributing to the increase was incremental revenue from the Bats acquisition of \$0.8 million.

## Operating Expenses

Total operating expenses increased 163.1% for the three months ended March 31, 2017 compared to the three months ended March 31, 2016 primarily due to acquisition-related costs of \$65.2 million for the Bats acquisition. Incremental operating expense of Bats from the acquisition date to March 31, 2017 also drove operating expense increases primarily in depreciation and amortization and compensation and benefits. The following summarizes changes in operating expenses for the three months ended March 31, 2017, compared to the three months ended March 31, 2016:

	Three Months Ended March 31		Increase/ Percent	
	2017	2016	(Decrease)	Change
	(in millions, except percentages)			
Operating expenses:				
Compensation and benefits	\$47.8	\$27.1	\$ 20.7	76.4 %
Depreciation and amortization	25.1	11.9	13.2	110.9%
Technology support services	7.5	5.7	1.8	31.6 %
Professional fees and outside services	14.4	13.6	0.8	5.9 %
Travel and promotional expenses	3.3	2.5	0.8	32.0 %
Facilities costs	2.1	1.5	0.6	40.0 %
Acquisition-related costs	65.2	—	65.2	*
Change in contingent consideration	0.2	—	0.2	*
Other expenses	1.7	1.3	0.4	30.8 %
Total operating expenses	\$167.3	\$63.6	\$ 103.7	163.1%

\* Not meaningful

## Compensation and Benefits

Compensation and benefits increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by \$9.1 million of accelerated stock compensation expense recognized in the first quarter of 2017. Also contributing to the increase was \$7.3 million of incremental costs for additional employees from the Bats acquisition.

## Depreciation and Amortization

Depreciation and amortization increased for the three months ended March 31, 2017 compared to the same periods in 2016 primarily driven by amortization of purchased intangible assets acquired from the acquisition of Bats.

## Technology Support Services

Systems and data communication costs increased for the three months ended March 31, 2017 compared to the same periods in 2016 primarily driven by incremental expense from the acquisition of Bats.

## Professional and Outside Services

Professional and contract services fees increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by incremental expense from the acquisition of Bats.



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Acquisition-related costs

Acquisition-related costs increased for the three months ended March 31, 2017 compared to the same period in 2016 primarily driven by our acquisition of Bats. Acquisition-related costs include fees for investment banking advisors, lawyers, accountants, tax advisors, public relations firms, severance costs, impairment of capitalized software and other external costs directly related to the mergers and acquisitions.

Operating Income

As a result of the items above, operating income for the three months ended March 31, 2017 was \$26.1 million compared to \$79.5 million for same period in 2016.

Interest Expense, Net

Net interest expense increased in the three months ended March 31, 2017 primarily due to \$8.5 million in interest expense related to the financing of the Bats acquisition, offset by \$0.6 million in interest income. To finance the cash required for the acquisition, we entered into a \$1.0 billion term loan agreement and \$650 million in 3.650% senior notes. See Note 11, Debt, to the condensed consolidated financial statements for a discussion of debt agreements.

Other Income

Other income increased stayed relatively flat for the three months ended March 31, 2017 compared to the three months ended March 31, 2016.

Income Before Income Tax Provision

As a result of the above, income before income tax provision for the three months ended March 31, 2017 was \$18.3 million compared to \$80.5 million for the same period in 2016, a decrease of \$62.2 million.

Income Tax Provision

For the three months ended March 31, 2017, the income tax provision was \$3.1 million compared with \$31.3 million for the same period in 2016. The effective tax rate for the three months ended March 31, 2017 was 16.9% compared to 38.9% for the three months ended March 31, 2016. The decrease in the effective tax rate for the three months ended March 31, 2017 against the comparable period in the prior year was due to discrete events during the quarter, mainly the re-measurement of tax reserves, which resulted in a favorable net tax benefit of \$4.3 million.

Net Income

As a result of the items above, net income for the three months ended March 31, 2017 was \$15.2 million compared to \$49.2 million for the three months ended March 31, 2016, an decrease of \$34 million.

Segment Operating Results

We previously operated as a single reportable business segment as of December 31, 2016. As a result of the Merger, as of March 31, 2017, the Company is reporting five segments: Options, U.S. Equities, Futures, European Equities, and Global FX. Segment performance is primarily based on operating income (loss). The Company's chief decision maker does not review total assets or inter-segment revenues by segment, therefore, such information is not presented. The Company has aggregated all of its corporate costs, acquisition-related costs, as well as other business ventures, within Corporate Items and Eliminations unit based on the decision that those activities should not be used to evaluate the segment's operating performance; however, operating expenses that relate to activities of a specific segment have been allocated to that segment.

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The following summarizes our total revenues by segment (in millions):

	Three Months Ended		Percent Change	Percentage of Total Revenues Three Months Ended	
	March 31, 2017	March 31, 2016		March 31, 2017	March 31, 2016
Options	\$192.7	\$148.6	29.7 %	54.1 %	87.2 %
U.S. Equities	120.2	—	*	33.7 %	— %
Futures	29.9	21.9	36.5 %	8.4 %	12.8 %
European Equities	9.3	—	*	2.6 %	— %
Global FX	4.0	—	*	1.1 %	— %
Corporate Items and Eliminations	0.1	—	*	— %	— %
Total revenues	\$356.2	\$170.5	108.9 %	100.0 %	100.0 %

\* Not meaningful

Options

The following summarizes revenues less cost of revenues, operating expenses, operating income, and EBITDA for our Options segment:

	Three Months Ended		Percent Change
	March 31, 2017	March 31, 2016	
	(in millions, except percentages)		
Revenues less cost of revenues	\$128.9	\$122.1	5.6 %
Operating expenses	63.9	57.1	11.9 %
Operating income	\$65.0	\$65.0	— %
EBITDA (1)	\$75.8	\$76.0	(0.3) %
EBITDA margin (2)	58.8	%62.2	%*

\* Not meaningful

(1) See footnote (1) to the table under “Financial Summary” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

For the three months ended March 31, 2017, the Options segment’s operating income was flat compared to the three months ended March 31, 2016. Revenues less cost of revenues increased \$6.8 million for the three months ended March 31, 2017, compared to the three months ended March 31, 2016, primarily driven by our acquisition of Bats and a 5.6% increase in index ADV partially offset by a 1.7% decrease in index options RPC.



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## U.S. Equities

The following summarizes revenues less cost of revenues, operating expenses, operating income, and EBITDA for our U.S. Equities segment:

	Three Months Ended March 31		Percent Change
	2017	2016	
	(in millions, except percentages)		
Revenues less cost of revenues	\$25.5	\$	* <del></del>
Operating expenses	13.3	—	*
Operating income	\$12.2	\$	* <del></del>
EBITDA (1)	\$20.3	\$	* <del></del>
EBITDA margin (2)	79.6	%*	*

\* Not meaningful

(1) See footnote (1) to the table under “Financial Summary” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

For the three months ended March 31, 2017, U.S. Equities contributed revenues less costs of revenues of \$25.5 million and operating income of \$12.2 million resulting from our acquisition of Bats on February 28, 2017.

## Futures

The following summarizes revenues, operating expenses, operating income, and EBITDA for our Futures segment:

	Three Months Ended March 31			Percent Change
	2017	2016		
	(in millions, except percentages)			
Total revenues	\$29.9	\$21.9	36.5	%
Operating expenses	2.9	3.5	(17.1)	%
Operating income	\$25.9	\$17.5	48.0	%
EBITDA (1)	\$26.2	\$18.4	42.4	%
EBITDA margin (2)	91.0	%87.6	%*	

\* Not meaningful

(1) See footnote (1) to the table under “Financial Summary” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

For the three months ended March 31, 2017 compared to the same period in 2016, the operating income increased \$8.4 million, primarily driven by a 17.9% increase in ADV, from 216.4 thousand contracts per day in 2016 to 255.2 thousand contracts per day in 2017 and a 10.4% increase in revenue per contract.

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## European Equities

The following summarizes revenues less cost of revenues, operating expenses, operating income, and EBITDA for our European Equities segment:

	Three Months Ended		Percent Change
	March 31 2017	2016	
	(in millions, except percentages)		
Revenues less cost of revenues	\$6.1	\$ *	
Operating expenses	4.5	—	*
Operating income	\$1.6	\$ *	
EBITDA (1)	\$4.2	\$ *	
EBITDA margin (2)	71.2 %	*	*

\* Not meaningful

(1) See footnote (1) to the table under “Financial Summary” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

For the three months ended March 31, 2017, the European Equities segment contributed revenues less cost of revenues of \$6.1 million and operating income of \$1.6 million resulting from our acquisition of Bats on February 28, 2017.

## Global FX

The following summarizes revenues, cost of revenues, operating expenses and operating income for our Global FX segment:

	Three Months Ended		Percent Change
	March 31 2017	2016	
	(in millions, except percentages)		
Revenues less cost of revenues	\$4.0	\$ *	
Operating expenses	5.2	—	*
Operating (loss) income	\$(1.2)	\$ *	
EBITDA (1)	\$1.9	\$ *	
EBITDA margin (2)	47.5 %	*	*

\* Not meaningful

(1) See footnote (1) to the table under “Financial Summary” above for a reconciliation of net income to EBITDA and adjusted EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

For the three months ended March 31, 2017, the Global FX segment contributed revenues less cost of revenues of \$4.0 million and an operating loss of \$1.2 million resulting from our acquisition of Bats on February 28, 2017.

## Seasonality

In the securities and FX industries, quarterly revenue fluctuations are common and are due primarily to seasonal variations in trading volumes, as well as competition and technological and regulatory changes. Our business may experience seasonal fluctuations, reflecting reduced trading activity.



Table of Contents**Liquidity and Capital Resources**

Historically, we have financed our operations, capital expenditures and other cash needs through cash generated from operations. Our cash requirements principally consisted of funding operating expenses, capital expenditures, actual and anticipated quarterly and special dividend payments and common stock repurchases under the previously announced program. We expect our cash on hand at March 31, 2017 and other available resources to be sufficient to continue to meet our 2017 cash requirements. In the near term, we expect that our operations and availability under our revolving credit facility will meet our cash needs to fund our operations, capital expenditures, debt repayments and any dividends. See Note 11 “Debt” of the condensed consolidated financial statements for further information. Our long-term cash needs will depend on many factors including an introduction of new products, enhancements of current products, the geographic mix of our business and any potential acquisitions. We believe our operations and the availability under our revolving credit facility will meet any long-term needs unless an acquisition is identified.

Cash and cash equivalents include cash in banks and all non-restricted, highly liquid investments with original maturities of three months or less at the time of purchase. Cash and cash equivalents as of March 31, 2017 increased \$56.0 million from December 31, 2016 primarily driven by the proceeds from long-term debt offset by the Bats acquisition and changes in various other balance sheet accounts. See “—Cash Flow” below for further discussion.

Our cash and cash equivalents held outside of the United States in various foreign subsidiaries totaled \$38.1 million as of March 31, 2017. The remaining balance was held in the United States and totaled \$115.2 million as of March 31, 2017. No cash or cash equivalents was held outside of the United States as of December 31, 2016. The majority of cash held outside the United States is available for repatriation, but under current law, could subject us to additional United States income taxes, less applicable foreign tax credits. In connection with ETF.com, we have \$1.8 million of restricted cash held to be paid to the sellers of ETF.com within 18 months after acquisition date upon release of seller indemnifications per the terms of the acquisition agreement.

Our financial investments include investments with original or acquired maturities longer than three months but that mature in less than one year from the statement of financial condition date and are recorded at fair value. As of March 31, 2017 and December 31, 2016, financial investments primarily consisted of U.S. Treasury securities.

**Cash Flow**

The following table summarizes our cash flow data for the three months ended March 31, 2017:

	Three Months Ended March 31	
	2017	2016
Net cash (used in) provided by operating activities	\$(17.7)	\$97.4
Net cash used in investing activities	(1,386.8)	(27.9)
Net cash provided by (used in) financing activities	1,457.7	(64.3)
Effect of foreign currency exchange rate changes on cash and cash equivalents	2.8	—
	\$56.0	\$5.2

**Net Cash Flows (Used in) Provided by Operating Activities**

During the three months ended March 31, 2017, net cash provided by operating activities was \$32.9 million less than net income. The variance is primarily attributed to our acquisition of Bats. As a result of the acquisition we acquired Section 31 fees payable totaling \$71.7 million as of March 31, 2017. This amount was partially offset by a non-cash adjustment for depreciation and amortization of \$25.1 million, stock-based compensation expense of \$20.9 million and the impairment of asset of \$14.8 million.

**Net Cash Flows Used in Investing Activities**

Net cash flows used in investing activities for the three months ended March 31, 2017 and 2016 were \$1,386.8 million and \$27.9 million. The variance is primarily attributed to our acquisition of Bats on February 28, 2017.

**Net Cash Flows Provided by (Used in) Financing Activities**

Net cash flows provided by (used in) financing activities for the three months ended March 31, 2017 and 2016 were \$1,449.6 million and \$(64.3) million, respectively. We received proceeds from long-term debt of \$1,644.3 million while making principal payments on long-term debt of \$150.0 million and paying dividends totaling \$28.3 million.



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## Financial Assets

The following summarizes our financial assets as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, 2017	December 31, 2016
Cash and cash equivalents	\$153.3	\$ 97.3
Financial investments	41.3	—
Cash collected for Section 31 fees	(41.0)	—
Adjusted cash (1)	\$153.6	\$ 97.3

(1) Adjusted cash is a non-GAAP measure and represents cash and cash equivalents minus cash collected for Section 31 fees, which will need to be remitted in the near term. We have presented adjusted cash because we consider it an important supplemental measure of our liquidity and believe that it is frequently used by analysts, investors and other interested parties in the evaluation of companies.

## Debt

The following summarizes our debt obligations as of March 31, 2017 and December 31, 2016 (in millions):

	March 31, 2017	December 31, 2016
Term loans outstanding	\$843.3	\$ —
3.650% Senior Notes	643.4	—
Revolving credit facility	—	—
Long-term debt	\$1,486.7	\$ —

As of March 31, 2017 and December 31, 2016, we were in compliance with the covenants of our debt agreements. In addition to the debt outstanding, as of March 31, 2017, we had an additional \$150.0 million available through our revolving credit facility. Together with adjusted cash, we had \$303.6 million available to fund our operations, capital expenditures, potential acquisitions, debt repayments and any dividends as of March 31, 2017.

## Commercial Commitments and Contractual Obligations

As of March 31, 2017, our commercial commitments and contractual obligations included real property leases, operating leases, data and telecommunications agreements, equipment leases, our long-term debt outstanding, contingent consideration and other obligations. See Note 21, Commitments and Contingencies, to the condensed consolidated financial statements for a discussion of commitments and contingencies.

## Off Balance Sheet Arrangements

As of March 31, 2017 and December 31, 2016, we did not have any off-balance sheet arrangements.

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## Item 3. Quantitative and Qualitative Disclosures about Market Risk

As a result of our operating activities, we are exposed to market risks such as foreign currency exchange rate risk, equity risk and credit risk. We have implemented policies and procedures to measure, manage and monitor and report risk exposures, which are reviewed regularly by management and our board of directors.

**Foreign Currency Exchange Rate Risk**

As a result of the acquisition of Bats, we expanded our operations in Europe and now have operations in Asia and are subject to increased currency translation risk as revenues and expenses are denominated in foreign currencies, primarily the British pound, Singapore dollar and the Euro. We also have de minimis exposure to other foreign currencies, including the Swiss Franc, Norwegian Kroner, Swedish Krona and Danish Kroner.

For the three months ended March 31, 2017, our exposure to foreign-denominated revenues and expenses is presented by primary foreign currency in the following table:

	Three Months Ended March 31, 2017		Three Months Ended March 31, 2016	
	British Euro(1) Pound (1)		British Euro(1) Pound (1)	
Foreign denominated % of:				
Revenues	1.1 %	1.1 %	1.1 %	1.1 %
Cost of revenues	— %	— %	— %	— %
Operating expenses	— %	— %	— %	— %
Impact of 10% adverse currency fluctuation on:				
Revenues	\$4.1	\$3.8	\$4.1	\$3.8
Cost of revenues	—	—	—	—
Operating expenses	—	—	—	—

(1) An average foreign exchange rate to the U.S. dollar for the period was used.

**Equity Risk**

Our investment in European operations is exposed to volatility in currency exchange rates through translation of our net assets or equity to U.S. dollars. The assets and liabilities of our European business are denominated in British pounds. Fluctuations in currency exchange rates may create volatility in our reported results as we are required to translate foreign currency reported statements of financial condition and income into U.S. dollars for consolidated reporting. The translation of these non-U.S. dollar statements of financial condition into U.S. dollars for consolidated reporting results in a cumulative translation adjustment, which is recorded in accumulated other comprehensive loss (income) within stockholders' equity on our consolidated statements of financial condition. Our primary exposure to this equity risk as of March 31, 2017 is presented by foreign currency in the following table:

	British Pound (1) (in millions)
Net equity investment in Bats Europe	\$ 654.2
Impact on consolidated equity of a 10% adverse currency fluctuation	\$ 65.4

(1) Converted to U.S. dollars using the foreign exchange rate of British pounds into U.S. dollars as of March 31, 2017.

Credit Risk

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We are exposed to credit risk from third parties, including customers, counterparties and clearing agents. These parties may default on their obligations due to bankruptcy, lack of liquidity, operational failure or other reasons. We limit our exposure to credit risk by selecting the counterparties with which we make investments and execute agreements.

We do not have counterparty credit risk with respect to trades matched on our exchanges in the U.S and Europe. With respect to listed cash equities, we deliver matched trades of our customers to NSCC without taking on counterparty risk for those trades. NSCC acts as a central counterparty on all transactions occurring on BZX, BYX, EDGX and EDGA and, as such, guarantees clearance and settlement of all of our matched equity trades. Similarly, with respect to U.S. listed equity options, we deliver matched trades of our customers to the OCC, which acts as a central counterparty on all transactions occurring on CBOE, C2, BZX, EDGX and CFE and, as such, guarantees clearance and settlement of all of our matched options and futures trades.

With respect to orders Bats Trading routes to other markets for execution on behalf of our customers, Bats Trading is exposed to some counterparty credit risk in the case of failure to perform on the part of our clearing firms, Morgan Stanley or Wedbush Securities. Morgan Stanley and Wedbush Securities guarantee trades until one day after the trade date, after which time NSCC provides a guarantee. Thus, Bats Trading is potentially exposed to credit risk to the counterparty to a trade routed to another market center between the trade date and one day after the trade date in the event that Morgan Stanley or Wedbush Securities fails. We believe that any potential requirement for us to make payments under these guarantees is remote and accordingly, have not recorded any liability in the consolidated financial statements for these guarantees.

Similarly, with respect to orders in U.S. listed equity options, we route orders for execution to other national securities exchanges through either Bats Trading or through affiliates of Bank of America Merrill Lynch, Wedbush Securities, Wolverine Execution Services, L.L.C. (“WEX”) and Compass Professional Services, L.L.C. (“Compass”). Bats Trading has counterparty credit risk exposure to these firms until a trade settles (generally one day after the trade date). We believe that any potential requirement for us to make payments under these guarantees is remote. Accordingly, we have not recorded any liability in our consolidated financial statements for these guarantees.

Historically, we have not incurred any liability due to a customer’s failure to satisfy its contractual obligations as counterparty to a system trade. Credit difficulties or insolvency, or the perceived possibility of credit difficulties or insolvency, of one or more larger or visible market participants could also result in market-wide credit difficulties or other market disruptions.

We do not have counterparty credit risk with respect to institutional spot FX trades occurring on our platform because Hotspot is not a counterparty to any FX transactions. All transactions occurring on our platform occur bilaterally between two banks or prime brokers as counterparties to the trade. While Hotspot does not have direct counterparty risk, Bats Hotspot may suffer a decrease in transaction volume if a bank or prime broker experiences an event that causes other prime brokers to decrease or revoke the credit available to the prime broker experiencing the event. Therefore, Bats Hotspot may have risk that is related to the credit of the banks and prime brokers that trade FX on the Bats Hotspot Platform.

We also have credit risk related to transaction fees that are billed in arrears to customers on a monthly basis. Our potential exposure to credit losses on these transactions is represented by the receivable balances in our consolidated statements of financial condition. Our customers are financial institutions whose ability to satisfy their contractual obligations may be impacted by volatile securities markets.

On a regular basis, we review and evaluate changes in the status of our counterparties’ creditworthiness. Credit losses such as those described above could adversely affect our consolidated financial position and results of operations. Any such effects to date have been minimal.

### Item 4. Controls and Procedures

a) Disclosure controls and procedures. The Company’s management, with the participation of its Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company’s disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)) as of the end of the period covered by this report. Based upon that evaluation, the Company’s Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company’s disclosure controls and procedures are effective.

(b) Internal controls over financial reporting. On February 28, 2017, we acquired Bats. In conducting our evaluation of the effectiveness of internal controls over financial reporting, we will elect to exclude Bats when conducting our annual evaluation of internal controls as permitted by applicable regulations. The Company is implementing internal controls over significant processes specific to the acquisition that management believes are appropriate in consideration of related integration of operations, systems, control activities, and accounting for the merger and merger-related transactions. As of the date of this Quarterly Report on Form 10-Q, we are in the process of further integrating the acquired Bats operations into our overall internal controls over financial reporting. The Merger resulted in changes in the operating results for the quarter ended March 31, 2017 compared to the quarter ended March 31, 2016. Revenue less cost of revenue increased to \$193.4 million, an increase

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of 35% over the three months ended March 31, 2016. Total operating expenses increased 163% to \$167.3 million. As a result, net income allocated to common stockholders decreased 69% to \$15.1 million.

Except as described above, no changes occurred in the Company's internal control over financial reporting during first quarter 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

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PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

For the three months ended March 31, 2017, CBOE Holdings, Inc. incorporates herein by reference the discussion set forth in Note 21 (“Commitments and Contingencies—Legal Proceedings”) of the condensed consolidated financial statements included herein.

Item 1A. Risk Factors.

The risks and uncertainties described below are those that we believe are material at this time relating to our business and relating to the Merger. These risks and uncertainties, however, are not the only risks and uncertainties that we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also significantly impact us. Any of these risks and uncertainties may materially and adversely affect our business, financial condition or results of operations, liquidity, cash flows and the Merger.

The risk factors below reflect updates and additions, including risks associated with the business acquired through the Merger, and restate the risk factors set forth in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016.

Risks Relating to Our Business

Loss of our right to exclusively list and trade certain index options and futures could have a material adverse effect on our financial performance.

We hold exclusive licenses to list securities index options on the S&P 500 Index, the Russell 2000 Index, as well as others, granted to us by the owners of such indexes and based on which we have developed our proprietary VIX methodology. In 2016, approximately 88.2% of our transaction fees were generated by futures and index options, the overwhelming majority of which were generated by our exclusively-licensed products and products based on the VIX methodology. If the Bats acquisition had occurred on January 1, 2016, a significant portion of our 2016 transaction fees would have been generated by futures and index options, the overwhelming majority of which were generated by our exclusively-licensed products and products based on the VIX methodology. The bulk of this revenue is attributable to our S&P 500 Index options and VIX Index options and futures. As a result, our operating revenues are dependent in large part on the exclusive licenses we hold for these products and our ability to maintain our exclusive VIX methodology.

There is a risk, with respect to each of our current exclusive licenses, that the owner of the index may not renew the license with us on an exclusive basis or at all. In the first event, we would be subject to multiple listing in the trading of what is now an exclusive index product, which could result in a loss of market share and negatively impact our profitability. In the second event, we could lose the right to list the index product entirely. The loss or limited use of any of our exclusive index licenses, especially for the S&P 500 Index, for any reason could have a material adverse effect on our business and profitability.

In addition to the risks related to our exclusive licenses, if we are unable to retain exclusive proprietary rights in the VIX methodology, our volatility products could be subject to multiple listing, which could have a material adverse effect on us.

The European Union (“E.U.”) has adopted legislation commonly referred to as MiFIR (as defined below) that will require the person with proprietary rights to a benchmark to provide non-discriminatory access to that benchmark to trading venues and central counterparty clearing houses for the purposes of trading and clearing. Licenses to the benchmark must be provided on fair, reasonable and non-discriminatory terms. In addition, the E.U. is considering other legislation known as the Benchmark Regulation that may impact the ability of European investors to trade our U.S. benchmark products if they are not recognized, authorized, endorsed or deemed equivalent in the E.U. While similar legislation to MiFIR has not been proposed in the U.S., if it were passed, it could cause us to lose exclusivity in our internally developed and licensed index products. The adopted and proposed European legislation may impact

our expansion activities of our U.S. benchmark products in Europe, and may reduce the volume on our US options and futures exchanges from international customers.

Furthermore, our competitors may succeed in providing a market for the trading of index-based or volatility products that are economically similar to those that we offer. It is also possible that a third party may offer trading in index-based products that are the same as those that are the subject of one of our exclusive licenses, but in a jurisdiction in which the index owner cannot require a license or in a manner otherwise not covered by our exclusive license.

The value of our exclusive licenses to list securities index options also depends on the continued ability of index owners to require licenses for the trading of options based on their indexes. Although we and the index owners have prevailed

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in legal actions challenging our rights to exclusively license indexes, we may be subject to changes in the law or other actions taken in the future that might impede our ability to exclusively offer trading in certain index options.

General economic conditions and other factors beyond our control could significantly reduce demand for our products and services and harm our business.

The volume of exchange transactions and the demand for our products and services are directly affected by economic, political and market conditions in the U.S., Europe and elsewhere in the world that are beyond our control, including:

- economic, political and geopolitical market conditions;
- broad trends in business and finance;
- concerns over inflation and wavering institutional or retail confidence levels;
- government or central bank actions, such as changes in government fiscal and monetary policy and foreign currency exchange rates;
- other legislative and regulatory changes;
- the availability of short-term and long-term funding and capital;
- the perceived attractiveness of the U.S. or European capital markets;
- the availability of alternative investment opportunities;
- changes in the level of trading activity in underlying instruments;
- changes and volatility in the prices of securities;
- changes in the volume of foreign currency transactions;
- changes in supply and demand for currencies;
- movements in currency exchange rates;
- the level and volatility of interest rates;
- changes in the financial strength of market participants;
- unforeseen market closures or other disruptions in trading; and
- disruptions due to terrorism, war, extreme weather events or other catastrophes.

Any of these factors, individually or collectively, could have a material adverse effect on our business, financial condition and operating results by causing a substantial decline in the financial services markets and reducing trading volumes and demand for market data.

We operate in a highly regulated industry and may be subject to censures, fines and other legal proceedings if we fail to comply with legal and regulatory obligations.

CBOE, C2, BZX, BYX, EDGX and EDGA are registered national securities exchanges and self-regulatory organizations (“SROs”), and, as such, are subject to comprehensive regulation by the SEC. CFE is a designated contract market (“DCM”), and Bats Hotspot SEF LLC (“Hotspot SEF”) is a swap execution facility (“SEF”), each registered with the CFTC and subject to comprehensive regulation by the CFTC. In addition to its other SRO responsibilities, BZX, as a listing market, also is responsible for evaluating applications submitted by issuers interested in listing their securities on BZX and monitoring each issuer’s compliance with BZX’s continued listing standards. Failure to comply with these SRO responsibilities could result in potential sanctions or fines and a negative impact on Bats’ reputation or branding. Our European business is subject to regulatory oversight in the U.K. by the U.K. Financial Conduct Authority (“FCA”), which through the “passporting” regime provides authorization to carry on business in other Member States of the E.U. and the European Economic Area in accordance with the applicable E.U. legislation and regulation to which our European business is subject. If a regulatory authority makes a finding of non compliance, conditional fines could be imposed, and our licenses could be revoked. Any such fine or revocation of a license could have a material adverse effect on our business, financial condition and operating results.

In addition to the requirements related to operating our U.S. markets imposed by the SEC and the CFTC, we also have certain responsibilities for regulating the TPHs and members that trade on our exchanges. While we have entered into agreements under which Financial Industry Regulatory Authority (“FINRA”) with respect to our options and equities

exchanges, and National Futures Association (“NFA”) with respect to our futures exchange, provide certain regulatory services, we retain ultimate responsibility for the regulation of our TPHs and members.

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Our ability to comply with applicable laws and rules is largely dependent on the establishment and maintenance of appropriate systems and procedures, our ability to attract and retain qualified personnel, the ability of FINRA and NFA to perform under the regulatory services agreements and our oversight of the work done by FINRA and NFA. The SEC and CFTC have broad powers to audit, investigate and enforce compliance and to punish noncompliance by, as applicable, SROs, DCMs and SEFs pursuant to applicable laws, rules and regulations.

If a regulatory authority were to find one of our programs of enforcement or compliance to be deficient, our exchanges could be the subject of investigations and enforcement proceedings that may result in substantial sanctions, including revocation of an exchange's registration as a national securities exchange or DCM. Any such investigations or proceedings, whether successful or unsuccessful, could result in substantial costs, the diversion of resources, including management time, and potential harm to our reputation, which could have a material adverse effect on our business, financial condition and operating results. In addition, our exchanges may be required to modify or restructure their regulatory functions in response to any changes in the regulatory environment, or they may be required to rely on third parties to perform regulatory and oversight functions, each of which may require us to incur substantial expenses and may harm our reputation if our regulatory services are deemed inadequate. For example, if we are unable to fulfill our obligations under the consent orders with the SEC with respect to CBOE and C2 or with respect to BZX, BYX, EDGX and EDGA, it may have a significant adverse impact on our business, financial condition and operating results. In addition, SROs such as CBOE, C2, BZX, BYX, EDGX and EDGA are required by federal law to perform a variety of regulatory functions. In light of those responsibilities, courts have held that SROs are immune from damages for some civil claims related to actions that are incident to their regulatory responsibilities. There is a risk that a court might not adopt the immunity doctrine, and whether a court that recognizes the doctrine would apply it to a claim depends on the nature of the claim. In addition, we could be exposed to liability to regulators or other governmental authorities even in situations where immunity would bar a civil claim.

Our business may be adversely affected by price competition.

The securities trading industry and foreign exchange products ("FX") market are characterized by intense price competition, especially with respect to transaction fees. We may be required to adjust pricing to respond to actions by new or existing competitors, which could adversely impact our business, financial condition and operating results. We also compete with respect to the pricing of market data and value-added market data, such as historical market data. In our options segment, the pricing model for trade execution has changed in response to competitive market conditions, and our competitors have adjusted transaction fees and fee structures accordingly, including by opening new exchanges, which allow them to offer multiple pricing models that can appeal to different segments of market participants. These changes have resulted in significant pricing pressures on us, especially on transaction fees and incentives for multiply-listed products. As a result of these pricing pressures, our average rate per multiply-listed options contract may decrease. It is likely that this pressure will continue and even intensify as our competitors continue to seek to increase their share of trading by further reducing their transaction fees or by offering other financial incentives to order providers and liquidity providers to induce them to direct orders to their markets. In addition, one or more competitors may engage in aggressive pricing strategies and significantly decrease or completely eliminate their profit margin for a period of time in order to capture a greater share of trading volume. Some order-providing firms on our exchanges have taken ownership positions in options exchanges that compete with us and such exchanges have given those firms added economic incentives to direct orders to them.

With respect to our proprietary products, we compete with futures exchanges and swap execution facilities that offer similar products and other financial market participants that offer over-the-counter derivatives. We also compete on price against certain multiply-listed options products, including SPY, which offer some of the features of our proprietary products.

To attract market share, we may offer "inverted" pricing specials or no transaction fee trading from time to time. For example, our electronic trading platform for institutional spot FX has at times offered trading of spot gold and silver pairs without any transaction fee or waived fees for certain transactions. In addition, BZX recently began offering to pay an incentive fee to exchange traded investment funds that list their shares on BZX. BZX also offers a "cross asset add volume tier" that gives a bigger rebate for additional volume on both the BZX equities and options platforms.



These forms of promotions may adversely affect our profitability.

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If we are unable to compete successfully with respect to the pricing of our services and products, our business, financial condition and operating results may be adversely affected. We could lose a substantial percentage of our share of trading if we are unable to price transactions in a competitive manner. Also, our profits could decline if competitive pressures force us to reduce fees.

A significant portion of our operating revenues is generated by our transaction-based business. If the amount of trading volume on our exchanges decreases, or the product mix shifts to lower revenue products, our revenues from transaction fees will decrease.

In 2016, approximately 70.5% of our operating revenues were generated by our transaction-based business. If the Bats acquisition had occurred on January 1, 2016, a significant portion of our 2016 operating revenues would have been generated by our transaction-based business. This business is dependent on our ability to attract and maintain order flow, both in absolute terms and relative to other market centers. If the amount of trading volume on our exchanges, CFE or notional value traded on Bats Hotspot and Bats Europe exchanges decreases, we will lose transaction fees. Revenue from our spot FX business is influenced by the general level of trading activity in the spot FX market. Trading volume on our exchanges and markets can be influenced by a number of factors, including market volatility. Our total trading volumes could decline if our market participants reduce their trading activity for any reason, such as:

- heightened capital requirements;
- regulatory or legislative actions;
- reduced access to capital required to fund trading activities; or
- significant market disruptions.

Over the past few years, a number of legislative actions have been taken, both domestically and internationally, that may cause market participants to be subject to increased capital requirements and additional compliance burdens. These actions, including Basel III, Dodd-Frank, the Collins Amendment to Dodd-Frank, MiFID II and MiFIR (as defined below) may cause market participants to reduce the number of trades they make on our exchanges. In addition, the transaction fees generated are different based on type of product and other factors, including the type of customer and certain volume discounts. If the amount of our trading volume decreases, or the mix traded shifts to our lower revenue per contract products, our revenues from transaction fees will decrease. We can offer no assurance that we would be able to reduce our costs to match the amount of any such decrease. Our market data fees and revenues may be reduced due to declines in our market share, trading volumes or regulatory changes.

The occurrence of any event that reduces the amount of market data fees that we receive, whether as a result of fee reductions, fewer members subscribing to the U.S. tape plans, declines in market share or trading volumes (or notional volume in the case of Bats Europe) or regulatory changes, will have a direct negative impact on our business, financial condition and operating results. For example, if our market share of U.S. listed cash equities and options, or Bats' European cash equities trading, were to decline, our share of market data fees could also decline. Moreover, market data fees could decline as a result of a reduction in the numbers of market data users, for example because of consolidation among market data subscribers or due to a decline in professional subscriptions as a result of staff reductions in the financial services industry or otherwise.

Regulatory and legal developments could also impact the fees we receive from market data, or our cost in providing such services. In the U.S., we are generally required to file with the SEC any changes to the fees that we charge for our securities market data products. In recent years, certain industry groups have objected to the ability of exchanges to charge for certain market data products. Specifically, the Securities Industry and 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 our market data products and related services. An adverse ruling in these matters could cause the SEC to more closely examine exchange market data fees, which in turn could result in our having to reduce the fees we charge for market data and there could be a negative impact on our revenues. See Note 21 ("Commitments and Contingencies—Legal Proceedings") for more information.



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We believe Bats Europe currently offers market data to customers on a non-discriminatory basis at a reasonable cost. As regulators determine how market data should be disaggregated and what is a reasonable commercial basis for providing market data, it could affect our ability to offer market data products in the same manner that we do today thereby causing an adverse effect on our European market data revenues. While MiFID II and MiFIR aim to encourage a commercial solution to a consolidated tape in Europe, should this fail to materialize, policy makers might be encouraged to implement a mandatory solution that could impact our ability to develop our own commercial offering.

Legislative or regulatory changes affecting our markets could have a material adverse effect on our business, financial condition and operating results.

Changes in regulation by the SEC, CFTC, FCA, foreign regulators or other government action, including SEC approval of rule filings by other SROs or entities, including OCC, could materially affect our markets. In recent years, the securities and futures industries have been subject to regulatory changes as a result of increasing government and public scrutiny of the securities and futures industries. We have also experienced an increase in rulemaking and legislation that could affect our business.

In 2010, Congress passed the Dodd-Frank Act and other legislation. While many of its requirements have been implemented or are in the process of being implemented, some of the provisions in Dodd-Frank that impact our markets require additional action by the SEC or the CFTC. Depending on how the SEC and CFTC interpret, implement or alter these laws, exchanges like ours could be subject to additional costs. We could also see reduced trading by our customers due to margin or other requirements placed on them.

Under the Collins Amendment to the Dodd-Frank Act, starting in 2015, large U.S. banks were required to use a new approach to compute their risk-weighted assets, which include exchange-traded options and futures. This, and other rulemaking, has led to further increases in capital requirements for U.S. bank holding companies, and bank subsidiaries involved in the trading and clearing of derivatives. These increased capital requirements may reduce trading in options and futures due to bank-affiliated clearing members and broker-dealers reducing their own trading, charging their customers more to trade, reducing the type or number of customers or withdrawing from the business of market-maker clearing.

In 2016, the SEC approved a plan to create, implement and maintain a consolidated audit trail, which would serve as a comprehensive audit trail of orders that will allow regulators to efficiently and accurately track all activity in Regulation NMS securities in the U.S. market. In addition to increased regulatory obligations, implementation of a consolidated audit trail could result in significant additional expenditures, including to implement any new technology to meet any plan's requirements.

In addition, the SEC approved a two-year "tick pilot" program to impose wider minimum quoting and/or trading increments, or tick sizes, in certain securities in an effort to incentivize liquidity provision in those securities. The tick pilot began on October 3, 2016 and consists of a control group of approximately 1,400 securities. The exchanges, including BZX, BYX, EDGX and EDGA, and FINRA are required to submit their initial assessments on the tick pilot's impact 18 months after the pilot begins based on data generated during the first 12 months of its operation. The tick pilot requires BZX, BYX, EDGX and EDGA to devote significant additional resources to implement and report on the program, increasing our costs. In addition, for tick pilot test group securities where execution at price increments narrower than the permitted quote is permitted, the implementation of the tick pilot could incentivize additional trading away from the exchanges, reducing the volume of orders executed on BZX, BYX, EDGX and EDGA.

Further, Congress, regulators and some media have been increasingly scrutinizing electronic trading, the structure of equity markets and high frequency trading in recent years. The SEC continues to consider various potential market structure changes, which could result in reduced trading volumes, or which could negatively affect our business. To the extent the SEC adopts regulatory changes, our business, financial condition and operating results could be negatively impacted. In addition, the continued growth of high frequency trading has been the subject of private litigation and regulatory enforcement actions alleging that high frequency trading firms have received unfair advantages at the expense of other traders. High frequency trading accounts for a meaningful percentage of the daily

volume in the U.S. and European equity markets, and these actions and other efforts to slow trading could lead to a reduction in trading volumes, negatively impacting all trading markets, including our business.

Under E.U. regulations, European banks and other European financial institutions become subject to punitive capital charges if they transact options or futures through a non-qualifying clearinghouse. OCC, our clearinghouse for options and futures, is not currently recognized as a qualified clearinghouse by the E.U. The current deadline for the E.U. to qualify foreign clearinghouses as equivalent is June 15, 2017. If the E.U. does not recognize OCC as a qualified clearinghouse by such date (or by a subsequent date in the event that the current deadline is extended), then European market participants that clear through

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OCC would become subject to punitive capital charges. As a result, we could experience the loss of a significant number of European market participants and a significant reduction in trading activity on our options and futures markets, which could have a material adverse effect on our business, financial condition and operating results. The Markets in Financial Instruments Directive (Directive 2004/39/EC) (“MiFID”), came into effect in 2007, regulating the market for execution services within European listed cash equity securities. MiFID will be superseded and enhanced by the Directive on Markets in Financial Instruments (Directive 2014/65/EU) repealing Directive 2004/39/EC and the Regulation on Markets in Financial Instruments (Regulation (EU) No 600/2014), commonly referred to as “MiFID II and MiFIR,” respectively, which are expected to be implemented at the beginning of 2018. The implementation of MiFID II and MiFIR in Europe will result in an alteration of the existing MiFID structure that has encouraged competition among market centers in Europe. The impact of MiFID II and MiFIR is likely to be significant, and could reduce trading volumes and trading fees, while increasing our costs of operating in Europe. Despite the U.K.’s vote to leave the E.U., it is expected that MiFID II and MiFIR will be implemented in the U.K. ahead of any exit.

For example, MiFID II and MiFIR introduce a number of new rules which apply directly to European trading venues such as our MTF and RM. These rules include provisions governing high frequency algorithmic trading and specific obligations on firms operating RMs and MTFs to put in place systems, procedures and arrangements to ensure the trading venue is resilient, has sufficient capacity to cope with order flow, has effective business continuity arrangements, etc. In particular, there are new rules specifically governing tick sizes, synchronization of business clocks and the imposition of limits on the ratio of orders to transactions which RMs and MTFs will need to implement. In addition, MiFID II and MiFIR introduce enhanced internal organizational and compliance monitoring requirements for RMs and MTFs which will require us to enhance our internal compliance arrangements, processes and procedures. MiFIR may also have an adverse impact on our U.S. listed cash equity operations as a result of the introduction of a mandatory equity trading rule which would require E.U. investment firms to trade equities which are either admitted to trading on an RM or traded on an E.U. trading venue only on RMs, MTFs, with systematic internalisers or with third country trading venues which have been specifically assessed to be equivalent. Since a significant number of U.S. listed cash equities can be traded on E.U. trading venues, E.U. investment firms may be required to undertake trades in such U.S. listed cash equities only on those European markets unless and until an equivalence assessment is made in respect of our U.S. exchanges.

MiFIR also introduces a much broader transparency regime for RMs and MTFs covering not only pre and post trade transparency for equities but also for equity like instruments, derivatives (including certain currency products) and fixed income instruments.

The legislative and regulatory environment in which the spot FX market operates is evolving and has undergone significant changes in the recent past, and there may be future regulatory changes in the spot FX industry. Spot FX market participants have seen an increasing number of law enforcement actions and regulatory inquiries into their business practices. The governmental bodies and regulatory organizations that regulate parts of the spot FX market have enacted, proposed and may consider additional legislative and regulatory initiatives and may adopt new or revised laws and regulations. Changes in the interpretation or enforcement of existing laws and regulations by these entities, or the adoption of new legal or regulatory requirements, may also adversely affect our spot FX business. In addition, a global central bank and industry group initiative, instigated by the Bank of International Settlements, has sought to develop a single set of global principles of good practice for the wholesale FX market. This global code of conduct (the “Global Code”) is being developed to provide a common set of guidelines to promote the integrity and effective functioning of the FX market. Although the Global Code does not impose legislative or regulatory obligations on market participants, following its publication in May 2017 our spot FX business may be subject to commercial pressures to accommodate its clients’ demands in terms of Global Code adherence, as well as demands to demonstrate our own compliance with the principles set forth therein.

It is also possible that there will be additional legislative and regulatory changes or efforts in the environment in which we operate our businesses, although we cannot predict the nature of these changes or their impact on our business at this time. Actions on any of the specific regulatory issues currently under review in the U.S. or Europe and other proposals could have a material impact on our business.

In addition, U.S. and foreign legislatures and regulators and other regulatory authorities could impose legislative or regulatory changes that could adversely impact the ability of our market participants to use our markets, or participate in the securities industry at all. Any such changes could result in the loss of a significant number of market participants or a reduction in trading activity on our markets, either of which could have a material adverse effect on our business, financial condition and

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operating results. Changes or proposed changes in regulation may also result in additional costs of compliance and modification of market participants' trading activity on our exchanges and markets.

The Brexit Vote could have a negative impact on the U.K. and E.U. economies and lead to considerable uncertainty while new treaties are negotiated.

On June 23, 2016, the U.K. voted to leave the E.U. in a referendum (the "Brexit Vote"). On March 28, 2017, the U.K. invoked Article 50 with its notice to leave the E.U. The terms and the exact timing of the U.K.'s exit from the E.U. ("Brexit") remain unclear, although it is unlikely to be completed before the end of March 2019. In addition to the economic uncertainty the Brexit Vote brings, there are a number of potential risks that investors should consider: Political uncertainty. Following the Brexit Vote, the U.K. has entered into a period of acute political uncertainty both as to the nature and timing of the negotiations with the E.U. A general election has also been called for June 8, 2017. Such uncertainty could lead to a high degree of economic and market disruption and legal uncertainty. It is not possible to ascertain how long this period will last and the impact it will have on the U.K. in general and markets more broadly.

Legal uncertainty. A significant proportion of English law currently derives from or is designed to operate in concert with E.U. law. This is especially true of English law relating to financial markets, financial services, prudential and conduct regulation of financial institutions, bank recovery and resolution, payment services and systems, settlement finality, and market infrastructure. Depending on the timing and terms of the U.K.'s exit from the E.U., significant changes to English law are likely, and we cannot predict what these changes will be and how they may affect our business.

Regulatory uncertainty. There is significant uncertainty about how the remaining E.U. ("EU27") financial institutions with assets (including branches) in the U.K. and U.K. financial institutions with assets in the EU27 will be regulated. At present, E.U. single market regulation allows regulated financial institutions (including credit institutions, investment firms, alternative investment fund managers, insurance and reinsurance undertakings) to benefit from a passporting system for regulatory authorizations required to conduct their businesses, as well as facilitating mutual rights of access to important elements of market infrastructure such as payment and settlement systems. E.U. law is also the framework for mutual recognition of bank recovery and resolution regimes.

Once the U.K. ceases to be a member state of the E.U., the current passporting arrangements are expected to cease to be effective, as will the current mutual rights of access to market infrastructure and current arrangements for mutual recognition of bank recovery and resolution regimes. The ability of regulated financial institutions to continue to do business between the U.K. and the EU27 after the U.K. ceases to be a member state of the E.U. would therefore be subject to separate arrangements between the U.K. and the EU27. There can be no assurance that there will be any such arrangements concluded and, if they are concluded, on what terms.

Market uncertainty. Since the Brexit Vote, there has been volatility and disruption of the capital, currency and credit markets. If this disruption continues, it may adversely impact our business, financial condition and operating results. In 2016, Bats derived 5.7% of its total revenues from its U.K. operations. Depending on the outcome of the Brexit negotiations, companies with operations in the U.K. may face unfavorable business conditions to access the single market. In such a case, Bats Europe may choose to move some or all of its operations to the E.U. and the related costs and expenses could have a material adverse effect on our business, financial condition and operating results.

Intense competition could materially adversely affect our market share and financial performance.

The market for trade execution services and products is intensely competitive in the asset classes and geographies in which we operate. Increased competition may result in a decline in our share of trading activity and a decline in our revenues from transaction fees and market data fees, thereby adversely affecting our operating results. We compete with a number of entities on several different fronts, including the cost, quality and speed of our trade execution, functionality and ease of use of our trading platform, range of our products and services, our technological innovation and adaptation and our reputation. We compete with futures exchanges and swap execution facilities that offer



comparable products and with the over-the-counter market with respect to our proprietary products. With respect to our multiply-listed products, our principal competitors are the eleven other U.S. options exchanges as of March 31, 2017. See the risk factor entitled "Our business may be adversely affected by price competition."

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Most of the equity options and options on exchange-traded products listed and traded on our exchanges are also listed and traded on other options exchanges. Changes we have implemented in response to competitive pressures may not be successful in maintaining or expanding our market share in those products in the future. Likewise, our future responses to these or other competitive developments may not be successful in maintaining or expanding our market share.

Our U.S. listed cash equity securities compete against national exchanges, regional exchanges and several alternative trading systems (“ATs”). Market participants have multiple venues for the execution of orders, including national securities exchanges as well as numerous off exchange venues, including ATs operating “dark pools” that do not publicly display quotations, “lit” ATs that publicly display quotations operating as electronic communication networks, and broker dealers who internalize orders off exchange. If off-exchange trading expands further, it will adversely affect our market share in the U.S. In addition, newer market entrants with different models may seek status as national securities exchanges, further competing with our exchange business.

The market for execution services within European listed cash equity securities has become significantly more competitive since MiFID and MiFID II and MiFIR. MiFID created a structure for pan-European competition versus other exchange monopolies throughout the E.U. countries. As a result, new MTFs emerged that have captured significant market share from existing national exchanges. Our major competitors in Europe include 12 other equities exchanges as of March 31, 2017.

The spot FX market remains severely fragmented, with transparent automated marketplaces such as Bats Hotspot, challenging two primary competitors. The electronic spot FX market is also intensely competitive, with over ten other venues competing for market share as of March 31, 2017. Additionally, exchange operators are actively expanding into the global spot FX market.

In addition, indexes underlying our products, including the VIX Index and SPX, may be licensed for use in similar competing OTC options. Needs or preferences of investors could change leading to a migration to the OTC market of some trades that today could be entered into on our exchanges. Options on ETFs and ETNs that have such licenses on these indexes are available for trading. As a result, trading in our options and futures products could decrease due to competitive pressures from these alternative products.

Some of our competitors and potential competitors have greater financial, marketing, technological, personnel and other resources than we do. These factors may enable them to develop similar or more innovative products, to offer lower transaction fees or better execution to their customers or to execute their business strategies more quickly or efficiently than we can. In addition, our business, financial condition and operating results may be adversely affected if we cannot successfully develop, introduce and/or market new services and products or if we need to adopt costly and customized technology for our services and products.

Furthermore, new or existing competitors may:

- respond more quickly to competitive pressures;
- develop products that compete with our products or are preferred by our customers;
- offer products and services at prices below ours to gain market share and to promote other businesses;
- develop and expand their technology and service offerings more efficiently;
- provide better, more user-friendly and more reliable technology;
- take greater advantage of acquisitions, alliances and other opportunities;
- market, promote, bundle and sell their products and services more effectively;
- leverage existing relationships with customers and alliance partners more effectively or exploit brand names to market and sell their services; and
- exploit regulatory disparities between traditional, regulated exchanges and alternative markets, including over-the-counter markets, that benefit from a reduced regulatory burden and lower-cost business model.

If our products, markets, services and technology are not competitive or we fail to anticipate or respond adequately to changes in technology, customer preferences and regulatory requirements or any significant delays in product development efforts our business, financial condition and operating results could be materially harmed.

Further consolidation and alliances among our competitors could impair our competitive position.

In recent years, the securities trading industry has witnessed increased consolidation among market participants, such as Bats' acquisition of Direct Edge Holdings LLC in January 2014 and our own acquisition of Bats in February 2017.

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Additional consolidations and alliances among market participants may create larger internal liquidity pools that may attract trading volume and liquidity away from our exchanges and, therefore, lead to decreased revenues. In addition, consolidations or alliances among our current competitors may achieve cost reductions or other increases in efficiency, which may allow our competitors to offer lower prices or better customer service than we do. These post merger competitors may be able to achieve efficiencies that allow them to offer lower transaction fees or other financial incentives, which may hinder our ability to stay competitive in listed cash equity securities, options, futures and spot FX. In addition, these mergers may result in stronger competitors than the premerger entities as stand alone businesses in other markets that we may decide to enter.

We depend on third-party service providers for certain services that are important to our business. An interruption or cessation of such service by any third party could have a material adverse effect on our business, financial condition and operating results.

We depend on a number of service providers, including clearing organizations such as OCC, the National Securities Clearing Corporation (“NSCC”), LCH.Clearnet Group Limited (“LCH”), EuroCCP N.V., a Dutch domiciled clearing house (“EuroCCP”) and SIX x clear Ltd (“SIX x-clear”); securities information processors such as the Consolidated Tape Association (“CTA”), UTP Securities Information Processor and OPRA; regulatory service providers such as FINRA and NFA; the hosts of our data and disaster recovery centers; and various vendors of communications and networking products and services. In addition, Bats Trading depends on routing and clearing firms who are involved in processing transactions on our behalf, including Wedbush Securities Inc. (“Wedbush”), Merrill Lynch, Pierce, Fenner & Smith Incorporated (“BofA Merrill Lynch”) and Morgan Stanley & Co. LLC (“Morgan Stanley”). More specifically: OCC is the sole provider of clearing on all of our options and futures exchanges. NSCC is a provider of clearing on our U.S. listed cash equity exchanges. Bats Europe relies on EuroCCP, LCH and SIX x-clear to clear trades in European listed equity securities as part of an interoperable clearing model. If they were unable to perform clearing services, or their clearing members were unable or unwilling to clear through them, transactions could likely not occur on our markets or there may be delays.

OPRA, UTP Securities Information Processor and the CTA consolidate options and equities market information such as last sale reports and quotations. If any of them were unable to provide this information for a sustained period of time, we may be unable to offer trading on our options and equities markets.

We are heavily dependent on technology for our markets, including our data and disaster recovery centers, including those housed by third parties, and certain communications and networking products and services. If this technology is unavailable, and cannot be replaced in a short time period, we may be unable to operate our markets.

FINRA and NFA provide certain regulatory services and functions for our options, equities and futures exchanges, while we retain regulatory responsibilities for such services. If FINRA or NFA stopped providing services, or provided inadequate services, we may be subject to action by the SEC or CFTC, or may have limitations placed upon our markets.

We rely on Wedbush and Morgan Stanley to clear trades in U.S. listed cash equity securities routed by us to other markets, and we rely on BofA Merrill Lynch, Wedbush, Wolverine Execution Services, L.L.C. (“WEX”) and Compass Professional Services, L.L.C. (“Compass”) to execute trades in options that we route to other markets.

With respect to options, all contracts traded on our exchanges must be cleared through clearing members of OCC. At March 31, 2017, there were one hundred one TPHs that are clearing members of OCC. Two clearing members accounted for approximately 40% of transaction and other fees collected through OCC in 2017. The next largest clearing member accounted for approximately 15% of transaction and other fees collected through OCC. Additionally, the two largest clearing members clear the majority of the market-maker sides of transactions at CBOE, C2 and at all of the options exchanges. Should a clearing member or liquidity provider withdraw from our options exchanges and

market-makers were unable to transfer to another clearing member or other liquidity providers were unable to provide additional liquidity, this could create a significant disruption to the options markets, including ours.

We cannot provide assurance that any of these providers will be able to continue to provide these services in an efficient manner or that they will be able to adequately expand their services to meet our needs. An interruption or malfunction in or the cessation of an important service by a third party could cause us to halt trading in some or all of our products or our services, or make us unable to conduct other aspects of our business. In addition, our inability to make alternative arrangements in a timely manner, or at all, could have a material adverse impact on our business, financial condition and operating results.

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If one or more of the index providers from which we have licenses or service providers with respect to proprietary products fails to maintain the quality and integrity of their indexes or fails to perform under our agreements with them or if customer preferences change, revenues we generate from trading in these proprietary products may suffer.

We are a party to an increasing number of license agreements pursuant to which we may list for trading securities options on various indexes including license agreements that we have with S&P, for the S&P 500 Index and S&P 100 Index, S&P Dow Jones Indices, LLC, for the Dow Jones Industrial Average, LSEG, for more than two dozen FTSE Russell indexes, including the Russell 2000 Index, and MSCI Inc., for six MSCI indexes, including the MSCI EAFE Index and MSCI Emerging Markets Index. These license agreements provide that we are authorized to list options on their indexes, and some of the resulting index options are among the most actively traded products on our exchanges. The quality and integrity of each of these indexes are dependent on the ability of the index providers to maintain the index, including by means of the calculation and rebalancing of the index, and we are dependent on the index providers for a number of things, including the provision of index data to us. We also rely on index providers to enforce intellectual property rights against unlicensed uses of the indexes and uses of the indexes that infringe on our licenses. Furthermore, some of our agreements concerning our proprietary products provide for the parties to those agreements to provide important services to us. If any of our index providers are unable to maintain the quality and integrity of their indexes, or if any of the index providers or service providers fail to perform their obligations under the agreements, trading in these products, and therefore transaction fees we receive, may be adversely affected or we may not receive the financial benefits of the agreements that we negotiated.

We and our licensors may not be able to protect our respective intellectual property rights.

We rely on patent, trade secret, copyright and trademark laws, the law of the doctrine of misappropriation and contractual protections to protect our proprietary technology, proprietary products, index methodologies and other proprietary rights. In addition, we rely on the intellectual property rights of our licensors in connection with our listing of exclusively-licensed index and futures products. We and our licensors may not be able to prevent third parties from copying, or otherwise obtaining and using, our intellectual property without authorization, listing our proprietary or exclusively-licensed index products without licenses or otherwise infringing on our rights. We and our licensors may have to rely on litigation to enforce our intellectual property rights, determine the validity and scope of the proprietary rights of others or defend against claims of infringement or invalidity. We and our licensors may not be successful in this regard. Such litigation, whether successful or unsuccessful, could result in substantial costs to us, diversion of our resources or a reduction in our revenues, any of which could materially adversely affect our business.

Any infringement by us on intellectual property rights of others could result in litigation and could have a material adverse effect on our operations.

Our competitors, as well as others, have obtained, or may obtain, patents or may otherwise may hold intellectual property rights that are related to our technology or the types of products and services we offer or plan to offer. We may not be aware of all intellectual property that may pose a risk of infringement by our products, services or technologies. In addition, some patent applications in the U.S. are confidential until a patent is issued, and therefore we cannot evaluate the extent to which our products and services may be covered or asserted to be covered in pending patent applications. Thus, we cannot be sure that our products and services do not infringe on the rights of others or that others will not make claims of infringement against us. Claims of infringement are not uncommon in our industry, and even if we believe that such claims are without merit, they can be time-consuming and costly to defend and divert management resources and attention. If one or more of our products, services or technologies were determined to infringe a patent or other intellectual property right held by another party, we may be required to pay damages, stop using, developing or marketing those products, services or technologies, obtain a license from the holders of the patents or redesign those products, services or technologies to avoid infringing the patent. If we were required to stop using, developing or marketing certain products, our business, financial condition and operating results could be materially harmed. Moreover, if we were unable to obtain required licenses, we may not be able to redesign our products, services or technologies to avoid infringement, which could materially adversely affect our business, financial condition and operating results.

If we fail to attract or retain highly skilled management and other employees, including those experienced with integration of our business, our business may be harmed.

Our success largely depends on the skills, experience and continued efforts of management and other key personnel. As a result, to be successful, we must retain and motivate executives and other key employees. We expect to benefit from the integration experience of certain employees who were formerly Bats personnel. However, we have no assurances that these employees will remain with us. The roles and responsibilities of departing executive officers and employees will need to be filled either by existing or new officers and employees, which may require us to devote time and resources to identifying, hiring

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and integrating replacements for the departed executives and employees that could otherwise be used to advance integration or otherwise pursue business opportunities, which could have a material adverse effect on our overall business, financial condition and operating results.

Additionally, certain of our information technology employees will be important to retain during the migration period to effectively manage our technology platforms and to assist in the process of migrating our systems to the Bats' technology platform. Many of these employees have extensive knowledge and experience in highly technical and complex aspects of CBOE's technology platform. Because of the complexity and risks associated with our business and the specialized knowledge required to conduct this business effectively, and because the growth in our industry has increased demand for qualified personnel, many of our employees could find employment at other companies if they chose to do so, particularly if we fail to continue to provide competitive levels of compensation. Also, our employees may experience uncertainty about their future roles until integration strategies following the Merger are executed. These circumstances may adversely affect our ability to retain key personnel. We also must continue to motivate employees and maintain their focus on our strategies and goals. Doing so may be difficult due to the uncertainty and challenges associated with post-merger integration. In addition, if these personnel were to leave or we are unable to recruit highly qualified personnel, we may experience increased difficulty in the integration process, synergy realization, maintenance of the current technology platform and may not be able to adequately replace such personnel, which could have a material adverse effect on our overall business, results of operations and financial condition.

There is substantial competition for qualified and capable personnel in the technology space, which may make it difficult for us to retain and recruit qualified employees in sufficient numbers. If we fail to retain our current employees, it would be difficult and costly to identify, recruit and train replacements needed to continue to conduct and expand our business. In particular, failure to retain and attract qualified systems personnel could result in systems failures. Consequently, our reputation may be harmed, we may incur additional costs and our profitability could decline. There can be no assurance that we will be able to retain and motivate our employees in the same manner as we have historically done.

Additionally, effective succession planning is also important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving our management team and key employees could hinder our strategic planning and execution.

Computer and communications systems failures and capacity constraints could harm our reputation and our business. Our business depends on the integrity and performance of our computer and communications systems. If our systems cannot expand to cope with increased demand or otherwise fail to perform, including during migrations from the CBOE Command platform to the Bats technology platform, we could experience unanticipated disruptions in service, slower response times and delays in the introduction of new products and services. These consequences could result in trading outages, lower trading volumes, financial losses, decreased customer service and satisfaction and regulatory sanctions and could have a material adverse effect on our ability to conduct our business. Although we have a back-up of trading and key corporate systems, the back-up systems or disaster recovery plans may prove to be inadequate in the event of a systems failure or cyber-security breach. Despite having disaster recovery facilities, there can be no guarantees that we will be able to open an efficient, transparent and liquid marketplace, if we can open at all, following a systems failure. Moreover, with extended trading hours, we have to operate our systems longer and have fewer non-trading hours to address any potential concerns with the systems on which we rely.

We expect to migrate CBOE, C2 and CFE from the CBOE Command platform to the legacy Bats technology platform. Bats' markets have experienced occasional systems failures and delays in the past, and we could experience future systems failures and delays. For example, serious technical failures forced Bats to cancel its initial public offering and played a role in the halting of another issuer's stock for five minutes. Bats has since remedied the failures, but there can be no guarantee that we will not suffer a similar technological failure in the future that damages our reputation and results in increased regulatory scrutiny by the SEC and other governmental authorities.

More specifically, our systems may fail, in whole or in part, or may operate slowly, causing, including, one or more of the following:



- unanticipated disruption in service to our participants;
- failures or delays during peak trading times or times of unusual market volatility;
- slower response times and delays in trade execution and processing;
- incomplete or inaccurate accounting, recording or processing of trades; and
- distribution of inaccurate or untimely market data to participants who rely on this data in their trading activity.

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Any of these events may cause:

- a loss in transaction or other fees due to the inability to provide services for a time;
- requests by market participants or others that we reimburse them for financial loss, either within the constraints of the limited liability provisions of our exchanges' rules or in excess of those amounts;
- trading to diminish on our exchanges due to dissatisfaction with the platform; and
- one or more of our regulators to investigate or take enforcement action against us.

As a consequence of any of these events, our business, financial condition and results of operations could suffer materially.

In addition to other measures, we test our systems to confirm whether they will be able to handle anticipated present and future peak trading activity or times of unusual market volatility. However, we cannot assure you that our estimates of future trading volume will be accurate or that our systems will always be able to accommodate actual trading volume without failure or degradation of performance.

We anticipate that we will need to continue to make significant investments in hardware, software and telecommunications infrastructure to accommodate the increases in traffic. If we cannot increase the capacity and capabilities of our systems to accommodate increasing trading activity and to execute our business strategy, our ability to maintain or expand our businesses would be adversely affected.

The computer systems and communication networks upon which we rely may be vulnerable to security risks or unauthorized disclosure of confidential information and other disruptions that could harm our business.

The secure and reliable operation of our computer systems, our communications networks and the systems of our service providers and market participants is a critical element of our operations. These systems and communications networks may be vulnerable to unauthorized access, including the improper access or disclosure of confidential or personally identifiable information, malware and other security problems, as well as to acts of terrorism, natural disasters, human error, power loss and other events that are beyond our control. Our treatment of confidential information may also be subject to contractual restrictions. Although we currently maintain and expect to maintain security measures designed to protect the integrity of our systems and to protect against unauthorized access, such security measures, systems and facilities may prove inadequate. If our security measures are inadequate or if there are interruptions or malfunctions in our systems or communications networks, we may be subject to contractual liability and damages, loss of business, penalties, unfavorable publicity and our financial condition and operating results could be materially impacted. We may be required to expend significant resources in the event of any real or threatened breaches in security or system failures, including to protect against threatened breaches and to alleviate harm caused by an actual breach, and may suffer harm to our reputation and litigation. Measures we implement for security and otherwise to provide for the confidentiality, integrity and reliability of our systems may prove to be inadequate in preventing system failures or delays in our systems or communications networks, which could lower trading volume and have an adverse effect on our business, financial condition and operating results.

Our use of open source software code may subject our software to general release or require us to re engineer our software, which could harm our business.

The Bats technology platform uses open source software code. Companies that incorporate open source software into their products have, from time to time, faced claims challenging the ownership of open source software. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open source software. In addition, some open source software licenses require users who distribute open source software as part of their software to publicly disclose all or part of the source code in their software and make any derivative works of the open source code available on unfavorable terms or at no cost. Open source license terms may be ambiguous, and many of the risks associated with usage of open source software cannot be eliminated. We believe that our use of open source software is in compliance with the relevant open source software licenses and does not require disclosure of any of our source code. However, if we were found to have inappropriately used open source software, we may be required to release our proprietary source code, re engineer or discontinue use of our software or take other remedial action.



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Potential conflicts of interest between our for-profit status and our regulatory responsibilities may adversely affect our business.

As a for-profit business with regulatory responsibilities, we are responsible for disciplining TPHs and members for violating our rules, including by imposing fines and sanctions. This may create a conflict of interest between our business interests and our regulatory responsibilities. Any failure by us to fulfill our regulatory obligations could significantly harm our reputation, increase regulatory scrutiny or cause the SEC or CFTC to take action against us, all of which could adversely affect our business, results of operations or financial condition.

Damage to our reputation could have a material adverse effect on our business, financial condition and operating results.

We believe one of our competitive strengths is our strong industry reputation. Various issues may give rise to reputational risk, including issues relating to:

- the representation of our business in the media;
- the quality and benefits of using our proprietary products, including the reliability and functionality of our transaction based business, and the accuracy of our market data;
- the ability to execute our business plan, key initiatives or new business ventures and the ability to keep up with changing customer demands and regulatory initiatives;
- our regulatory compliance and our enforcement of compliance on our customers;
- the accuracy of our financial statements and other financial and statistical information;
- the quality of our corporate governance structure;
- the quality of our disclosure controls and internal controls over financial reporting, including any failures in supervision;
- the integrity and performance of our computer and communications systems;
- security breaches, including any unauthorized delivery of proprietary data to third parties;
- management of our outsourcing relationships, including our relationship with FINRA and NFA;
- any misconduct or fraudulent activity by our employees, especially senior management, or other persons formerly or currently associated with us;
- our listings business and our enforcement of our listing rules; and
- any negative publicity surrounding our listed companies.

Damage to our reputation could cause a reduction in the trading volume on our exchanges or cause us to lose customers. This, in turn, may have a material adverse effect on our business, financial condition and operating results. If our risk management and compliance methods are not effective, our business, financial condition and operating results may be adversely affected.

Our ability to comply with all applicable laws and rules is largely dependent on our establishment and maintenance of compliance, audit, risk and reporting systems and procedures, as well as our ability to attract and retain qualified compliance, audit and risk management personnel. These systems and procedures may not be fully effective. We face the risk of intervention by regulatory authorities, including extensive examination and surveillance activity. In the case of actual or alleged non compliance with applicable laws or regulations, we could be subject to investigations and judicial or administrative proceedings that may result in substantial penalties, settlements or civil lawsuits, including by customers, for damages, which may be substantial. In the past, the SEC has brought actions against exchange operators, including us, for failing to fulfill their obligations to have an effective regulatory system. Any failure to comply with applicable laws and rules could adversely affect our business, reputation, financial condition and operating results and, in extreme cases, our ability to conduct our business or portions thereof. As the parent company for SROs, we are responsible for maintaining exchanges that comply with securities and futures laws, SEC and CFTC regulations and the rules of the respective exchanges.

We have methods to identify, monitor and manage our risks. Management of legal and regulatory risk requires policies and procedures to properly monitor, record and verify a large number of transactions and events. If our policies, procedures, and compliance systems are not effective or we are not successful in monitoring or evaluating the risks to which we are or may be exposed, our business, reputation, financial condition and operating results could be

materially adversely affected. We cannot provide assurance that our policies and procedures will always be effective, or that our compliance, enterprise risk management and internal audit functions would be able to identify any such ineffectiveness. If these functions, policies and procedures are not effective, we may be subject to monetary or other penalties by our regulators, and our insurance policies may not provide adequate coverage.

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Misconduct by our Trading Permit Holders (TPHs), members or others could harm us.

We run the risk that our TPHs, members or other persons who use our markets or our employees may engage in fraud, market manipulation or other misconduct, which could result in regulatory sanctions and serious harm to our reputation, especially because we are the parent company of SROs. It is not always possible to deter misconduct or market manipulation, and the precautions we take to prevent and detect this activity may not be effective in all cases. In addition, misconduct or market manipulation by, or failures of, participants on our exchanges may discourage trading on our exchanges, which could reduce revenues.

Financial or other problems experienced by third parties could have an adverse effect on our business.

We are exposed to credit risk from third parties, including customers, clearing agents and counterparties. For example, we are exposed to credit risk for transaction fees we bill to customers on a monthly basis in arrears. Our customers and other third parties may default on their obligations to us due to a lack of liquidity, operational failure, bankruptcy or other reasons.

In addition, with respect to orders Bats Trading routes to other markets for execution on behalf of our customers, Bats Trading is exposed to counterparty credit risk in the case of failure to perform on the part of our routing and clearing firms who are involved in processing transactions on our behalf, including Wedbush, BofA Merrill Lynch and Morgan Stanley, as well as failure on the part of such brokers to pass back any transactional rebates. Wedbush, BofA Merrill Lynch and Morgan Stanley guarantee trades until one day after the trade date, after which time NSCC provides a guarantee. Thus, Bats Trading is potentially exposed to credit risk to the counterparty to a trade routed to another market center between the trade date and one day after the trade date in the event that Wedbush, BofA Merrill Lynch or Morgan Stanley fails to perform.

With respect to U.S. equities, Bats Trading has counterparty credit risk exposure to Wedbush and Morgan Stanley related to clearing until the day following the trade date. Bats Trading uses Wedbush to clear trades routed through affiliates of Credit Suisse Securities (USA) LLC as well as for trades routed directly to other exchanges and optionally dark pools. Morgan Stanley clears trades routed through the Morgan Stanley routing brokers and also clears executions routed to most dark pools. Bats Trading maintains counterparty credit risk exposure from routing brokers with respect to rebates earned until completion of the routing brokers next invoice cycle following the execution.

With respect to U.S. listed equity and exchange traded product options, Bats Trading is subject to counterparty credit risk exposure from Wedbush and BofA Merrill Lynch related to clearing until the day following the trade date. For U.S. listed equity options, Bats Trading uses Wedbush to clear trades routed through affiliates of Lime Brokerage Holdings LLC as well as trades sent directly to another exchange. BofA Merrill Lynch clears trades routed through its own routing broker. We also use WEX and Compass to execute trades in options that we route to other markets.

Counterparty credit risk also exists with respect to rebates earned from routing brokers until completion of the routing brokers' next invoice cycle has completed for an execution.

Our exposure to credit risk may be further impacted by volatile securities markets that may affect the ability of our customers and other third parties to satisfy their contractual obligations to us. Moreover, we may not be successful in managing our credit risk through reporting and control procedures or by maintaining credit standards. Any losses arising from such defaults or other credit losses could adversely affect our financial condition and operating results. While Bats Hotspot does not have direct counterparty risk, Bats Hotspot may suffer a decrease in transaction volume if a bank or prime broker experiences an event that causes other prime brokers to decrease or revoke the credit available to the prime broker experiencing the event. Therefore, Bats Hotspot may have risk that is related to the credit of the banks and prime brokers that trade spot FX on the Bats Hotspot platform.

We may be required to assume ownership of a position in securities in connection with our order routing service, which could subject us to trading losses when our broker-dealer disposes of that position.

We offer a smart order routing service through our broker dealer subsidiary, Bats Trading, which provides its customers with access to other market centers when we route their orders to those market centers for execution. In connection with this service, we may assume ownership of a position in securities. This may occur, for example, when a market center to which we have routed a customer's order experiences systems problems and is unable to determine the status of that order. When this happens, we may make a business decision to provide a cancellation notice to our customer, relieving our customer of any liability with respect to the order. We may be informed later, however, that the order

was executed at the market center to which we routed it, in which case Bats Trading would be required to take ownership of that securities position. Our clearing brokers, Wedbush, BofA Merrill Lynch and Morgan Stanley, maintain error accounts on behalf of Bats Trading into which such

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positions settle, and we require the respective clearing broker to trade out of those positions as expeditiously as possible, which could result in our incurring trading losses.

We may not effectively manage our growth, which could materially harm our business, financial condition and operating results.

From 2011 to 2016, we have experienced significantly increased volume on our futures exchange, extended trading hours on our futures exchange and in SPX and VIX options and developed several proprietary products. We also experienced a substantial expansion of our business following our acquisition of Bats, which significantly expanded our product line across asset classes, broadened our geographic reach with strong pan-European equities and global FX positions and diversified our business mix with significant non-transactional revenue streams. Bats has also experienced significant growth in its business since its inception in 2005, with material expansions into diverse businesses including European listed cash equity securities, U.S. listed equity options and global institutional spot FX trading. In addition, in 2016, we made a majority equity investment in CBOE Vest, an investment manager focused on Target Outcome Investment strategies, and made a minority equity investment Eris, a U.S.-based futures exchange group offering swap futures as a capital-efficient alternative to over-the-counter swaps.

We expect that our business will continue to grow, which may place a significant strain on our management, personnel, systems and resources. We must continually improve our operational, financial and regulatory systems and managerial controls and procedures, and may need to continue to expand, train and manage our workforce. We must also maintain close coordination among our technology, legal, accounting, finance, marketing, sales, regulatory and compliance functions. We cannot assure you that we will manage our growth effectively. If we fail to do so, our business, financial condition and operating results could be materially harmed. Furthermore, failure to successfully expand into new asset classes or new geographies may adversely affect our growth strategy and our future profitability.

Our continued growth will require increased investment by us in technology, facilities, personnel, and financial and management systems and controls. It also will require expansion of our procedures for monitoring and assuring our compliance with applicable regulations, and we will need to integrate, train and manage a growing employee base. The expansion of our existing businesses, any expansion into new businesses and the resulting growth of our employee base will increase our need for internal audit and monitoring processes, which may be more extensive and broader in scope than those we have historically required. We may not be successful in identifying or implementing all of the processes that are necessary. Further, unless our growth results in an increase in our revenues that is proportionally greater than or equal to the increase in our costs associated with this growth, our business, financial condition and operating results will be adversely affected.

Our ability to implement or amend rules could be limited or delayed because of regulation, which could negatively affect our ability to implement needed changes.

Our exchanges registered with the SEC must submit proposed rule changes to the SEC for its review and, in many cases, its approval. Even where a proposed rule change may be effective upon filing with the SEC, the SEC retains the right to suspend and disapprove such a rule change. Also, the CFTC may stay or disapprove rules that we file with it for CFE or Hotspot SEF. The rule review process can be lengthy and can significantly delay the implementation of proposed rule changes that we believe are necessary to the operation of our markets. If the SEC or CFTC delays or does not allow one of our exchanges to implement a rule change, this could negatively affect our ability to make needed changes or implement business activities.

Similarly, the SEC must approve amendments to our exchange subsidiaries' certificates of incorporation and bylaws as well as certain amendments to the certificate of incorporation and bylaws of CBOE Holdings. The SEC may decide not to approve a proposed amendment or may delay such approval in a manner that could negatively affect our ability to make a desired change, which could prevent or delay us from improving the operations of our markets or recognize income from new products.

As one of the world's largest exchange holding companies, we may be at a greater risk for a cyber attack and other cyber security risks.

The frequency of cyber attacks is increasing in general, and a variety of threat actors have specifically targeted the financial services industry. At the date of this filing, we have no evidence of any material cases of data theft,



corruption or destruction of data or compromised customer data. However, there is no assurance that this will remain the case. Security breaches may lead to increased scrutiny by our regulators and have significant costs in terms of cash outlays, business disruption, revenue losses, internal labor, overhead and other expenses. Measures we implement to monitor our network

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environment and protect our infrastructure against security breaches and misappropriation of our intellectual property assets may prove insufficient, which could cause us to lose market participants, experience lower trading volume, incur significant liabilities or have a negative impact on our competitive advantage.

Changes in the tax laws and regulations affecting us and our market participants could have a material adverse effect on our business.

Legislation may be proposed, both domestically and internationally, that could change the way that our market participants are taxed on the products they trade on our markets. If such proposals were to become law, they could have a negative impact on the securities industry and on us by making transactions more costly to market participants, which may reduce trading and could make our markets less competitive.

In 2015, the Internal Revenue Service issued final and temporary regulations under Section 871(m) that require dividend tax withholding for certain transactions completed by foreign persons that could result in a reduction in trading by such foreign persons, either by their choice or as a result of brokers refusing to execute certain option trades for such persons.

In addition to proposed tax changes that could affect our market participants, like other corporations, we are subject to taxes at the federal, state and local levels, as well as in non-U.S. jurisdictions. Changes in tax laws, regulations or policies could result in our having to pay higher taxes, which would in turn reduce our net income. There has been a trend toward states changing income tax laws to increase the apportionment factors on which state income taxes are based and becoming more aggressive asserting nexus over corporations that are not domiciled in the state. If state income tax laws change, or if states are successful asserting nexus against us, we may become subject to income taxes in additional states or at a higher rate in the states where income tax filing requirements exists. If this occurs, we may experience a higher effective state tax rate.

We selectively explore acquisition opportunities and strategic alliances relating to other businesses, products or technologies. We may not be successful in integrating other businesses, products or technologies with our business. Any such transaction also may not produce the results we anticipate, which could adversely affect our business, financial condition and operating results.

We selectively explore and pursue acquisition and other opportunities to strengthen our business and grow our company. We may enter into business combination transactions, make acquisitions or enter into strategic partnerships, joint ventures or alliances, any of which may be material. The market for acquisition targets and strategic alliances is highly competitive, which could make it more difficult to find appropriate merger or acquisition opportunities. If we are required to raise capital by incurring debt or issuing additional equity for any reason in connection with a strategic acquisition or investment, financing may not be available or the terms of such financing may not be favorable to us and our stockholders, whose interests may be diluted by the issuance of additional stock.

The process of integration may produce unforeseen regulatory issues and operating difficulties and expenditures and may divert the attention of management from the ongoing operation of our business and harm our reputation. We may not successfully achieve the integration objectives, and we may not realize the anticipated cost savings, revenue growth and synergies in full or at all, or it may take longer to realize them than expected, any of which could negatively impact our business, financial condition and operating results. See also “Risks Relating to the Merger” for additional information.

Prior to the Merger, Bats generated a significant percentage of its total revenues from, and was provided with significant liquidity in its markets and other services by, entities who are affiliates of its former significant stockholders, and there is no assurance that such entities will continue to generate such revenue or provide such liquidity and other services following the Merger.

Prior to the Merger, Bats earned a significant percentage of its revenue from customers who are affiliates of its former significant stockholders. In addition, Bats relied on, and we continue to rely on, certain entities who are affiliates of former significant Bats stockholders to route orders that were not routed directly by Bats and to clear certain trades routed to other markets. The proportionate stake in the combined company of these former Bats stockholders is significantly less than their stake in Bats prior to the Merger, so there may be less incentive for the affiliates of Bats’ former stockholders to maintain their business relationships with us at the pre-existing levels or at all. If the affiliates of Bats’ former stockholders do not remain customers at their pre-existing levels or at all or if any of the affiliates of

Bats' former stockholders do not continue to route and clear trades as they did prior to the Merger, we may experience decreased revenues and business interruptions, which could have a material adverse effect on our business, financial condition and operating results.

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Fluctuations in our quarterly operating results may negatively affect the valuation of our common stock. Our business experiences seasonal fluctuations, reflecting reduced trading activity generally during the third quarter of each year and during the last month of each year. As a result, it is possible that our operating results or other operating metrics may fail to meet the expectations of stock market analysts and investors. If this happens, the market price of our common stock may be adversely affected.

We may be required to inject further capital into OCC or EuroCCP.

OCC is the sole provider of clearing on all of our options and futures exchanges. Under OCC's capital plan, each of OCC's existing exchange stockholders, which include CBOE, agreed 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. In addition, BTL owns 20% of EuroCCP, which is one of three interoperable central counterparties used to clear trades conducted on Bats Europe. If OCC or EuroCCP were to experience financial difficulties, CBOE and Bats Europe, as applicable, might be required to inject further capital into them in order to maintain their working or regulatory capital. In a worst case scenario, OCC or EuroCCP, as applicable, might have their regulatory license suspended or withdrawn, or might have to wind down. This may result in a loss to CBOE and Bats Europe of their respective investments in OCC and EuroCCP and withdrawals of OCC or EuroCCP as clearing houses, which could have a material adverse effect on our business, financial condition and operating results.

Our operations outside of the U.S. expose us to currency risk.

In addition to our operations in the U.S., we have operations in the U.K., continental Europe, Ecuador and Singapore. We, therefore, have significant exposure to exchange rate movements between the British pound, the Euro, the Singapore dollar against the U.S. dollar. Significant inflation or changes in foreign exchange rates with respect to one or more of these currencies could occur as a result of general economic conditions, acts of war or terrorism, changes in governmental monetary or tax policy, Brexit or changes in local interest rates. These exchange rate differences will affect the translation of our non U.S. results of operations and financial condition into U.S. dollars as part of our consolidated financial statements.

Any decision to pay dividends on our common stock is at the discretion of our board of directors and depends upon the earnings of our operating subsidiaries. Accordingly, there can be no guarantee that we will pay dividends to our stockholders.

Any decision to pay dividends on our common stock in the future will be at the discretion of our board of directors, which may determine not to declare dividends at all or at a reduced amount. The board's determination to declare dividends will depend upon our profitability and financial condition, contractual restrictions, restrictions imposed by applicable law and the SEC and other factors that the board deems relevant. As a holding company with no significant business operations of its own, CBOE Holdings depends entirely on distributions, if any, it may receive from its subsidiaries to meet its obligations and pay dividends to its stockholders. If these subsidiaries are not profitable, or even if they are and they determine to retain their profits for use in their businesses, we will be unable to pay dividends to our stockholders.

Certain provisions in our organizational documents could prevent or delay a change of control.

Our organizational documents contain provisions that could block actions that stockholders might find favorable, including discouraging, delaying or preventing a change of control or any unsolicited acquisition proposals for us.

These include provisions:

- prohibiting stockholders from acting by written consent;
- requiring advance notice of director nominations and of business to be brought before a meeting of stockholders; and
- limiting the persons who may call special stockholders' meetings.

In addition, our organizational documents include provisions that:

- restrict any person from voting or causing the voting of shares of stock representing more than 20% of our outstanding voting capital stock; and
-

restrict any person from beneficially owning shares of stock representing more than 20% of the outstanding shares of our capital stock.

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Furthermore, our board of directors has the authority to issue shares of preferred stock in one or more series and to fix the rights and preferences of these shares without stockholder approval. Any series of our preferred stock is likely to be senior to our common stock with respect to dividends, liquidation rights and, possibly, voting rights. The ability of the board of directors to issue preferred stock also could have the effect of discouraging unsolicited acquisition proposals, thus adversely affecting the market price of our common stock.

Delaware law makes it difficult for stockholders that have recently acquired a large interest in a corporation to cause the merger or acquisition of the corporation against the board's wishes. Under Section 203 of the Delaware General Corporation Law, a Delaware corporation may not engage in any merger or other business combination with an interested stockholder for a period of three years following the date that the stockholder became an interested stockholder except in limited circumstances, including by approval of the corporation's board of directors.

We indirectly hold 100% of the issued share capital and voting rights in BTL and its wholly owned subsidiary, Chi-X Europe. As a result, any person who holds, or has voting power with respect to, 10% or more of the outstanding shares of our common stock is subject to certain regulatory requirements under U.K. law.

A person that indirectly acquires control in a FCA entity is required to file a change in control notice with the FCA. Though both are FCA regulated entities, the statutorily prescribed change in control notification threshold for BTL is acquisition of voting power with respect to 20% or more of the issued share capital thereof. The change in control notification threshold for Chi-X Europe is acquisition of voting power with respect to 10% or more of the issued share capital thereof. Therefore, any person who holds, or has voting power with respect to, 10% or more of the outstanding shares of our common stock will be required to file a change in control notice in respect of Chi-X Europe and, if this holding is in excess of 20%, also for BTL. This obligation may discourage, delay or prevent accumulations of 10% or more of our common stock.

### Risks Relating to the Merger

We may not realize all of the anticipated benefits of the Merger or such benefits may take longer to realize than expected.

Our ability to realize the anticipated benefits of the Merger will depend, to a large extent, on our ability to integrate our businesses with Bats' businesses. The combination of two independent companies is a complex, costly and time-consuming process. As a result, our combined company is required to devote significant management attention and resources to integrating our business practices and operations with those of Bats. If integration is implemented ineffectively, it could preclude realization of the full benefits expected from the Merger, including synergies, cause an interruption of, or a loss of momentum in, the activities of the combined company and could seriously harm our results of operations. In addition, the overall integration of the two companies may result in material unanticipated problems, expenses, liabilities, competitive responses, loss of client relationships and diversion of management's attention, and may cause our stock price to decline. The difficulties of operating our combined company include:

- unanticipated issues in migrating information technology, communications and other systems;
- unforeseen expenses or delays associated with the integration or the Merger;
- managing a significantly larger company;
- the potential diversion of management focus and resources from other strategic opportunities and from operational matters;
- maintaining employee morale and retaining key management and other key employees;
- integrating two unique business cultures, which may prove to be incompatible;
- the possibility of faulty assumptions underlying expectations regarding the integration process and expense synergies;
- integrating corporate and administrative infrastructures and eliminating duplicative operations;
- coordinating geographically separate organizations;
- managing costs or inefficiencies associated with integrating the operations of the combined company;
- and
- making any necessary modifications to internal financial control standards to comply with the Sarbanes Oxley Act of 2002 and the rules and regulations promulgated thereunder.

Many of these factors are outside of our control, and any one of them could result in increased costs, decreases in the amount of expected revenues and diversion of management's time and energy, which could materially adversely impact our business, financial condition and results of operations. In addition, even if the combined company's operations are integrated successfully, we may not realize the full benefits of the Merger, including the synergies, cost savings and growth opportunities. These benefits may not be achieved within the anticipated time frame, or at all. As a result, we cannot assure you that the Merger will result in the realization of the full benefits anticipated.

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We incurred substantial indebtedness to finance the Merger, which may decrease our business flexibility and adversely affect our business, financial condition and operating results.

We incurred indebtedness of approximately \$1.65 billion to finance a portion of the cash component of the Merger consideration, refinance indebtedness of Bats and its subsidiaries and pay related fees and expenses. The indebtedness consists of a \$1 billion unsecured term loan facility and \$650 million in senior unsecured notes. We also entered into a \$150 million revolving credit facility in December 2016, which may be used to fund working capital and for other general corporate purposes. Prior to entering into the merger agreement, we did not have any indebtedness and were not subject to any financial covenants. The financial and other covenants to which we have agreed and our increased indebtedness may have the effect of reducing our flexibility to respond to changing business and economic conditions, thereby placing us at a competitive disadvantage compared to competitors that have less indebtedness and making us more vulnerable to general adverse economic and industry conditions. Our increased indebtedness will also increase future borrowing costs, and the covenants pertaining thereto may also limit our ability to repurchase shares of our common stock, increase dividends or obtain additional financing to fund working capital, capital expenditures, acquisitions or general corporate requirements. We are also required to dedicate a larger portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow for other purposes, including working capital, capital expenditures and general corporate purposes. Further, a portion of our borrowings are at variable rates of interest, which exposes us to the risk of increased interest rates unless we enter into offsetting hedging transactions.

Our ability to make payments on and to refinance our debt obligations and to fund planned capital expenditures depend on our ability to generate cash from our operations. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We may not be able to refinance any of our indebtedness on commercially reasonable terms, or at all. If we cannot service our indebtedness, we may have to take actions such as selling assets, seeking additional equity or reducing or delaying capital expenditures, strategic acquisitions, investments and alliances, any of which could impede the implementation of our business strategy or prevent us from entering into transactions that would otherwise benefit our business. Additionally, we may not be able to effect such actions, if necessary, on commercially reasonable terms, or at all. Any of the foregoing consequences could adversely affect our business, financial condition and operating results.

Deterioration in our credit profile may increase our costs of borrowing money.

We have received investment grade credit ratings from S&P Global Ratings (BBB+) and Moody's Investor Service (Baa1). Ratings from credit agencies are not recommendations to buy, sell or hold our securities, and each rating should be evaluated independently of any other rating. There is no assurance that we will maintain such credit ratings, since credit ratings may be lowered or withdrawn entirely by a rating agency if, in its judgment, the circumstances warrant. If a rating agency were to downgrade our rating below investment grade, our borrowing costs could increase. A failure to migrate our information technology systems successfully following the Merger or a material disruption in our information technology systems could adversely affect our business, financial condition and operating results.

We rely extensively on our information technology systems. The failure of information technology systems to operate effectively, difficulty in migrating our information technology systems, inconsistencies in standards, controls, procedures and policies and problems with transitioning to upgraded or replacement systems could adversely impact our business, financial condition and operating results. In addition, a number of our TPHs are not connected to Bats' technology platforms and must complete the process of connecting to these platforms as part of the migration.

The process of migrating information technology systems may take longer, cost more and provide fewer synergies than initially anticipated. There may also be new regulations adopted during the transition period that require systems changes, which could divert attention away from migration process and cause delays. To the extent this occurs, the benefits of the proposed transaction may be reduced or delayed or may never come to fruition. Although our combined management team has experience with migrating other businesses to Bats' technology platform, there are certain portions of our business, such as open outcry trading and complex order trading that have not yet been supported by Bats' technology platform.



We currently expect to complete the migration of our information technology systems in phases over a four-year period following the Merger. However, we may not be able to successfully achieve the transition on the timetable currently contemplated, and the transition may not be successful or could encounter various difficulties and unexpected issues. Any delays or issues that we encounter in the transition could have a material adverse effect on our businesses and could negatively

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affect our reputation, which in turn could have a material adverse effect on our overall business, results of operations and financial condition, as well as impair customer confidence in our product offerings and overall services. If our goodwill, investments in non-consolidated subsidiaries and intangible assets become impaired, the resulting charge to earnings may be significant.

Accounting standards in the U.S. require that one party to the Merger be identified as the acquirer. In accordance with these standards, the Merger was accounted for as an acquisition of Bats by CBOE Holdings and will follow the acquisition method of accounting for business combinations. The assets and liabilities of Bats were consolidated with our assets and liabilities. The excess of the purchase price over the fair values of Bats' assets and liabilities was recorded as goodwill.

We will be required to assess investments in non-consolidated subsidiaries and intangible assets for impairment at least annually. Goodwill impairment testing is performed annually in the fiscal fourth quarter or more frequently if conditions exist that indicate that the asset may be impaired. In the future, we may take charges against earnings resulting from impairment. Any determination requiring the write-off of a significant portion of our goodwill, intangible assets or investments in non-consolidated subsidiaries could adversely affect our results of operations and financial condition.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

## Share repurchase program

In 2011, the board of directors approved an initial authorization for the Company to repurchase shares of its outstanding common stock of \$100 million and approved additional authorizations of \$100 million in each of 2012, 2013, 2014, 2015, and February 2016 for a total authorization of \$600 million. The program permits the Company to purchase shares through a variety of methods, including in the open market or through privately negotiated transactions, in accordance with applicable securities laws. It does not obligate the Company to make any repurchases at any specific time or situation.

As of March 31, 2017, the Company had \$97.0 million of availability remaining under its existing share repurchase authorizations. We were not active in our share repurchase program during the first quarter of 2017.

## Purchase of common stock from employees

The table below reflects the purchase of common stock by the Company in the three months ended March 31, 2017 to satisfy employees' tax obligations upon the vesting of restricted stock:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
January 1, 2017 – January 31, 2017	—	\$ —	—	—
February 1, 2017 – February 28, 2017	92,962	80.72	—	—
March 1, 2017 – March 31, 2017	5,246	81.32	—	—
Totals	98,208	\$ 80.75	—	—

## Use of Proceeds

None.

Purchases of Equity Securities

None.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

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Not applicable.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

The exhibits to this Report are listed in the Exhibit Index included elsewhere herein.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CBOE HOLDINGS, INC.

Registrant

By: /s/ Edward T. Tilly

Edward T. Tilly

Chief Executive Officer (Principal Executive Officer)

Date: May 11, 2017

By: /s/ Alan J. Dean

Alan J. Dean

Executive Vice President and Chief Financial Officer (Principal Financial Officer)

Date: May 11, 2017

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EXHIBIT INDEX

Exhibit No. Description

- 10.1 Bats Global Markets, Inc. 2009 Stock Option Plan, incorporated by reference to Exhibit 10.1 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on December 16, 2015.\*
- 10.2 Bats Global Markets, Inc. Third Amended and Restated 2012 Equity Incentive Plan, incorporated by reference to Exhibit 10.2 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on December 16, 2015.\*
- 10.3 Form of Stock Option Award Agreement pursuant to the Bats Global Markets, Inc. 2009 Stock Option Plan, incorporated by reference to Exhibit 10.3 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on December 16, 2015.\*
- 10.4 Form of Stock Option Award Agreement pursuant to the Bats Global Markets, Inc. Third Amended and Restated 2012 Equity Incentive Plan, incorporated by reference to Exhibit 10.4 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on December 16, 2015.\*
- 10.5 Form of Restricted Stock Award Agreement pursuant to the Bats Global Markets, Inc. Third Amended and Restated 2012 Equity Incentive Plan, incorporated by reference to Exhibit 10.5 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on December 16, 2015.\*
- 10.6 Bats Global Markets, Inc. 2016 Omnibus Incentive Plan, incorporated by reference to Exhibit 99.3 to Bats Global Markets, Inc.'s Registration Statement on Form S-8 (File No. 333-210841) filed on April 20, 2016.\*
- 10.7 Form of Restricted Stock Award Agreement under Bats Global Markets, Inc. 2016 Omnibus Incentive Plan (filed herewith).\*
- 10.8 Form of U.S. Executive Employment Agreement between Bats Global Markets, Inc. and certain executive officers, incorporated by reference to Exhibit 10.15 to Amendment No. 3 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on April 4, 2016.\*
- 10.9 Form of U.K. Executive Employment Agreement between Bats Global Markets, Inc. and certain executive officers, incorporated by reference to Exhibit 10.16 to Amendment No. 3 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on April 4, 2016.\*
- 10.10 Employment Agreement, by and among CBOE Holdings, Inc., Chicago Board Options Exchange, Incorporated, C2 Options Exchange, Incorporated and Edward Tilly, dated February 27, 2017 (filed herewith).\*
- 10.11 Employment Agreement, by and among CBOE Holdings, Inc., Chicago Board Options Exchange, Incorporated, C2 Options Exchange, Incorporated and Christopher Concannon, dated February 27, 2017 (filed herewith).\*
- 10.12 Offer Letter Agreement, by and between CBOE Holdings, Inc. and Christopher Isaacson, dated September 25, 2016 (filed herewith).\*
- 10.13

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Offer Letter Agreement, by and between CBOE Holdings, Inc. and Mark Hemsley, dated September 25, 2016 (filed herewith).\*

10.14 Retirement Agreement, by and among CBOE Holdings, Inc., Chicago Board Options Exchange, Incorporated, C2 Options Exchange, Incorporated and Edward Provost, dated February 28, 2017 (filed herewith).\*

10.15 Retirement Agreement, by and among CBOE Holdings, Inc., Chicago Board Options Exchange, Incorporated, C2 Options Exchange, Incorporated and Gerald O'Connell, dated February 27, 2017 (filed herewith).\*

10.16 Amended and Restated CBOE Holdings, Inc. Executive Severance Plan (filed herewith).\*

10.17 Form of Restricted Stock Award Agreement for Non-employee Directors (filed herewith).\*

31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14 (Filed herewith).

31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14 (Filed herewith).

32.1 Certificate of Chief Executive Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (Filed herewith).

32.2 Certificate of Chief Financial Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (Filed herewith).

101.INS XBRL Instance Document (Filed herewith).

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Exhibit No. Description

101.SCH	XBRL Taxonomy Extension Schema Document (Filed herewith).
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document (Filed herewith).
101.DEF	XBRL Taxonomy Extension Definition Linkbase (Filed herewith).
101.LAB	XBRL Taxonomy Extension Label Linkbase Document (Filed herewith).
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document (Filed herewith).

\*Indicates Management Compensatory Plan, Contract or Arrangement.