
First Quarter 2017 Earnings Presentation

May 9, 2017 (Updated May 11, 2017)



Agenda

Strategic Review

Edward Tilly

Chief Executive Officer

Financial Review

Alan Dean

*Executive Vice President,
CFO and Treasurer*

Questions and Answers

Edward Tilly

Alan Dean

Chris Concannon

President and Chief Operating Officer

John Deters

*Chief Strategy Officer,
Head of Corporate Initiatives*

Cautionary Statements Regarding Forward-Looking Information

This presentation 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. 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 those expressed or implied by the forward-looking statements.

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; increasing price competition in our industry; decreases in trading volumes 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 third party service providers; 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 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; the accuracy of our estimates and expectations; our ability to maintain access fee revenues; our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status; the ability of our compliance and risk management methods to effectively monitor and manage our risks; our ability to attract and retain skilled management and other personnel; our ability to manage our growth and strategic acquisitions or alliances effectively; restrictions imposed by our debt obligations; unanticipated difficulties or expenditures relating to the recently-completed acquisition of Bats Global Markets, Inc. (“Bats”), including, without limitation, difficulties that result in the failure to realize expected synergies, efficiencies and cost savings from the acquisition within the expected time period (if at all), whether in connection with integration, combining trading platforms, broadening distribution of product offerings or otherwise; our ability to maintain an investment grade credit rating; disruptions of our current plans, operations and relationships with market participants caused by the Bats acquisition; and potential difficulties in our ability to retain employees as a result of the Bats acquisition.

We do not undertake, and we 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. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

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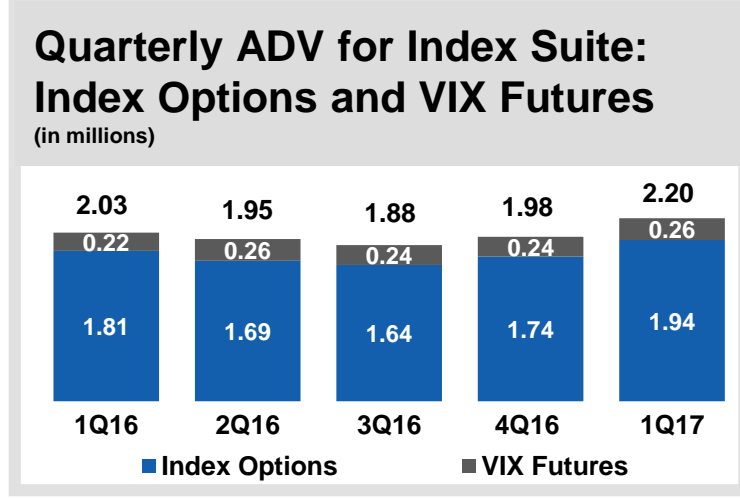
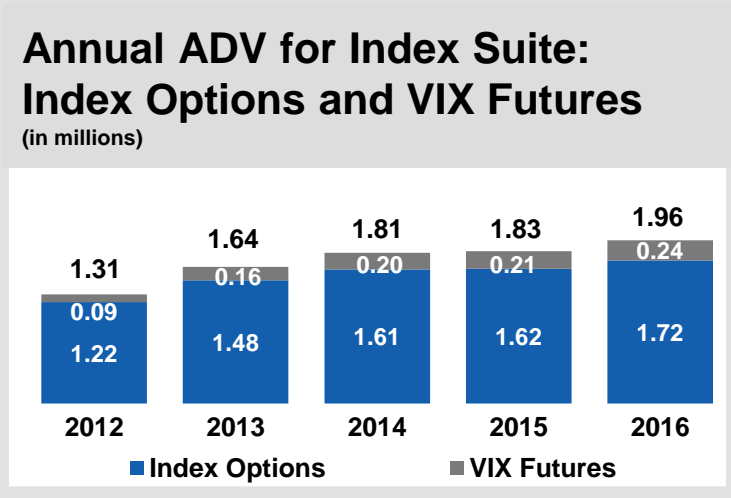
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 **Strategic Review**
Edward Tilly
CEO

Growth in Proprietary Index Suite Continues to Drive Revenue and Earnings

Trading in our proprietary index suite up 8% in 1Q17 vs 1Q16

- 1Q17 adjusted diluted EPS of \$0.78 on revenue of \$193.4 million
- Total options ADV up 9% year-over-year
 - SPX options had record quarterly ADV, up 15% year-over-year
 - VIX futures had third busiest quarter ever; ADV up 18%



Strengthening our Position as a Global Exchange Operator

Diversified Product Offering

Options

- 9% increase in ADV for 1Q17 versus 1Q16
- Record quarterly ADV in SPX options

U.S. Equities

- 1Q17 market share of 19.2% vs 21.3% in 1Q16
- Lower volatility; difficult comparisons

Futures

- 18% increase in ADV for 1Q17 versus 1Q16
- Third highest quarterly ADV in VIX futures

European Equities

- 1Q17 market share of 21.5% vs 23.5% in 1Q16¹
- Net capture up 18%

Global FX

- 1Q17 overall volume down versus prior year
- Record market share of 12.9% vs 11.8% in 1Q16²

¹Market share based on notional value traded.

²Market share represents Hotspot volume divided by total volume of publicly reporting spot FX venues (Hotspot, EBS, Thomson Reuters and FastMatch), which reflects readily available data from publicly reporting venues.

Strengthening CBOE's Global Position

Major Areas of Expected Benefit:



Grows our company



CBOE Holdings is now one of the world's largest exchange operators

Added to S&P 500 Index on March 1



Diversifies our product line into new asset classes



U.S. and European equities; ETF trading; global foreign exchange (FX) platform; equity, ETP and index options; futures; and multi-asset volatility products



Enhances innovation



Strengthens CBOE's position as the go-to partner to execute on innovative products and trading services



Expands our global customer base

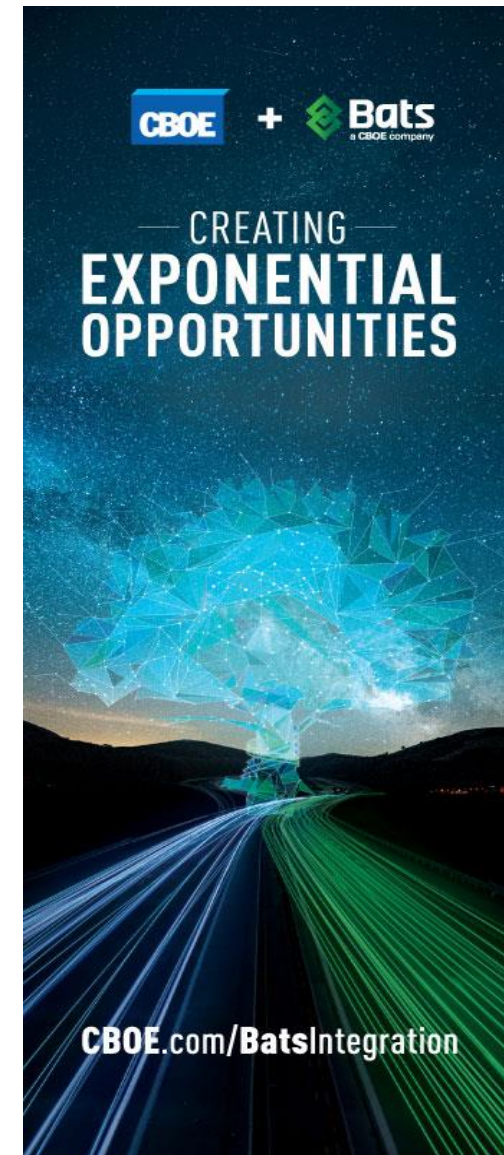


Broadens geographic reach and enables company to build on relationships with market participants

Strengthening CBOE's Global Position in Innovative, Tradable Products and Services

Executing Integration plan focused on realizing benefits of combining CBOE and Bats

- Reconfigured business development and sales operations to leverage expanded product line and geographic reach
- Leveraging marketing and educational offering across the combined company
- Expanded and reconfigured our Research and Development area



CBOE.com/BatsIntegration

Newly Launched Division Focused on Enhancing Innovation

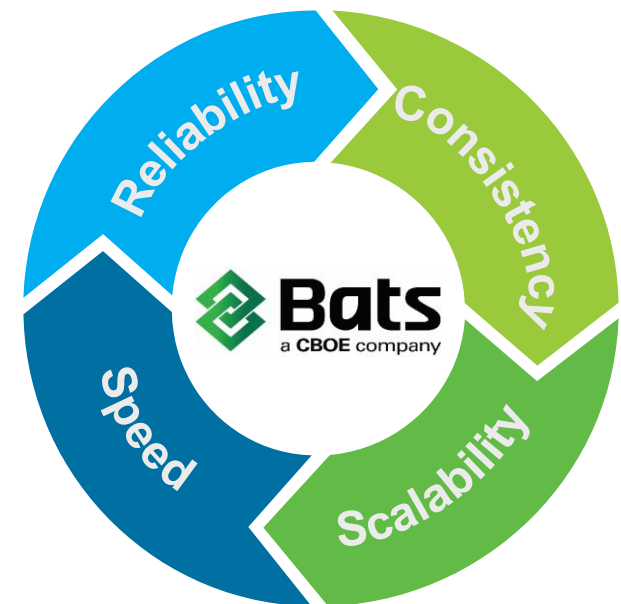
Enables an integrated approach to innovation across a broader array of products and services



Leveraging Bats' Leading Proprietary Trading Technology

Migrating trading technology onto Bats' proven platform to gain scale and efficiency

- A multi-year technology migration is underway, led by Chris Isaacson, CIO
- Plan to complete migration of CFE in February 2018
 - C2 and CBOE to follow
- Next customer call on systems integration planned for June 6
- Held customer call on launch of complex order book for Bats EDGX on May 4¹



¹Subject to regulatory approval

Excited About Opportunities Ahead

CBOE + **Bats**
a CBOE company

CREATING
**EXPONENTIAL
OPPORTUNITIES**

[CBOE.com/BatsIntegration](https://www.cboe.com/BatsIntegration)

➤ Financial Review
Alan Dean
EVP, CFO and Treasurer

1Q17 Financial Overview

Adjusted Pro Forma Financial Results ¹ (in millions)	1Q17	1Q16	\$ Change	% Change
Net Revenue ^{1,2}	\$265.3	\$255.2	\$10.1	4%
Adjusted Operating Expenses ¹	106.3	102.6	3.7	4%
Adjusted Operating Income ¹	\$159.0	\$152.6	\$6.4	4%
<i>Adjusted Operating Margin %¹</i>	<i>59.9%</i>	<i>59.8%</i>		10 bps
Adjusted Net Income Allocated to Common Stockholders ¹	\$105.8	\$85.5	\$20.3	24%
Adjusted Diluted EPS ¹	\$0.94	\$0.76	\$0.18	24%
Adjusted EBITDA ¹	\$172.0	\$167.4	\$4.6	3%
Adjusted EBITDA Margin ¹	64.8%	65.6%		-80 bps

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

²Net revenue referenced in this presentation represents revenue less cost of revenue

Net Revenue Growth Supported by both Transaction and Non-Transaction Revenue

Non-transaction revenue accounted for 42.9% of net revenue; up 160 bps versus 1Q16

- **Net transaction fees up \$3.6MM**
 - Primarily driven by growth in proprietary index products
- **Exchange services up \$3.2MM**
 - Primarily due to fee adjustments implemented January 1
- **Market data fees up \$2.9MM**
 - Mainly due to higher options market data revenue
- **Other revenue up \$3.1MM**
 - Increase in licensing revenue

Pro Forma Net Revenue ¹ (in millions)	1Q17	1Q16	% Chg
Net transaction fees	\$172.6	\$169.0	2%
Access fees	29.7	29.3	1%
Exchange services and other fees	20.4	17.2	18%
Market data fees	48.2	45.3	7%
Regulatory fees	8.8	9.8	-11%
Royalty fees	(21.2)	(19.1)	11%
Other revenue ¹	6.8	3.7	84%
Total Pro Forma Net Revenue¹	\$265.3	\$255.2	4%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Strengthening our Position as a Global Exchange Operator

Diversified Product Offering

Options

- 2% increase in net revenue
- Increase in ADV offset somewhat by decline in RPC

U.S. Equities

- Flat net revenue, decrease in net transaction fees offset by growth in non-transaction

Futures

- 37% increase in net revenue
- 18% increase in ADV and 10% increase in RPC

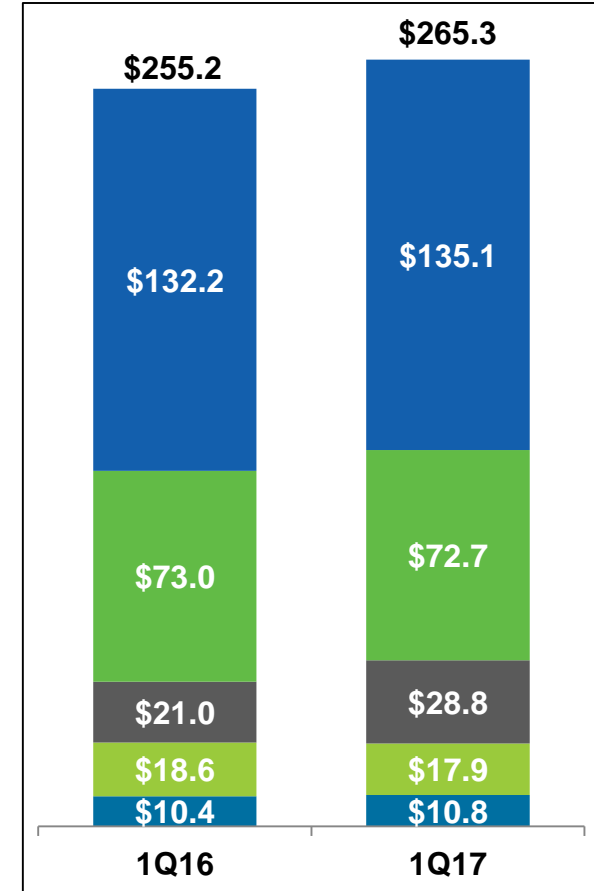
European Equities

- 4% decrease in net revenue due to stronger dollar
- Up 11% in local currency

Global FX

- 4% increase in net revenue driven by non-transaction revenue

Pro Forma Net Revenue¹



¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Options Pro Forma Net Revenue Up in Both Transaction and Non-Transaction Revenue

Record quarterly ADV in SPX options key growth driver

- Increase in index options net transaction fees offset somewhat by revenue decline in multiply-listed options
- Growth in market data revenue due to strong market share gains across each exchange

Options Pro Forma ¹ Statistics (\$ in millions, except RPC)	1Q17 Actual	1Q16 Actual	Change
Options Pro Forma Net Revenue	\$135.1	\$132.2	2%
Options Key Operating Statistics:			
Total market share	41.4%	36.8%	+4.6% pts
Total ADV (in thousands)	6,852	6,304	9%
Index options	1,938	1,811	7%
Multiply-listed options	4,914	4,493	9%
Total RPC	\$0.242	\$0.265	-9%
Index options	\$0.708	\$0.720	-2%
Multiply-listed options	\$0.059	\$0.081	-27%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Futures Net Revenue Up 37%

1Q17 ADV for VIX futures third highest ever

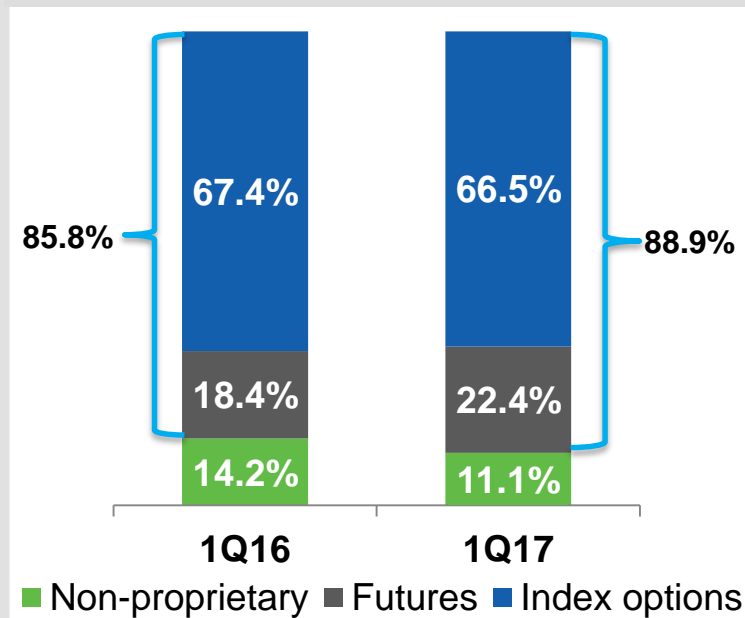
- ▶ 18% increase in ADV in 1Q17 vs 1Q16
- ▶ 10% increase in RPC in 1Q17 vs 1Q16

Futures Statistics (\$ in millions, except RPC)	1Q17 Actual	1Q16 Actual	Change
Futures Net Revenue	\$28.8	\$21.0	37%
Futures Key Operating Statistics:			
Total ADV (in thousands)	255	216	18%
Total RPC	\$1.814	\$1.643	10%

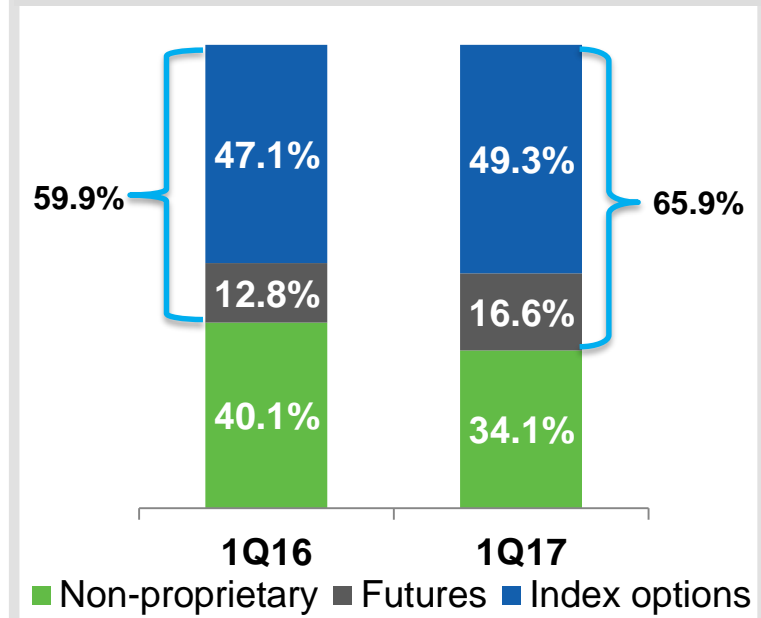
Proprietary Products Drive 8% Organic Revenue¹ Growth for Legacy CBOE

Proprietary Products account for majority of net transaction fees for both Legacy CBOE and Combined

Mix of Proprietary Products to Legacy CBOE Net Transaction Fees



Mix of Proprietary Products to Total Net Pro Forma Transaction Fees



¹See "Non-GAAP Information" in the appendix for reconciliation.

U.S. Equities Pro Forma Net Revenue Unchanged 1Q17 vs 1Q16

Low volatility and difficult comparison to record 1Q16

- Increase in non-transaction revenue offset decline in net transaction fees
- Bats maintained position as second-largest U.S. equities market operator in 1Q17

U.S. Equities Pro Forma ¹ Statistics (\$ in millions, except RPC)	1Q17	1Q16	Change
U.S. Equities Pro Forma Net Revenue	\$72.7	\$73.0	--
U.S. Equities Key Operating Statistics:			
Total market share	19.2%	21.3%	-2.1% pts
Market ADV (shares in billions)	6.8	8.6	-21%
ADV (matched shares in billions)	1.3	1.8	-28%
Net revenue capture (per 100 touched shares)	\$.023	\$.019	21%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

European Equities Pro Forma Net Revenue Impacted by Currency

Faced with difficult market conditions

- 4% decline due to stronger dollar relative to the pound sterling
- In local currency, net revenue grew 11%

European Equities Pro Forma ¹ Statistics (\$ in millions, except RPC)	1Q17	1Q16	Change
European Equities Pro Forma Net Revenue	\$17.9	\$18.6	-4%
European Equities Key Operating Statistics:			
Total market share	21.5%	23.5%	-2.0% pts
Market ADN ^V (Euros, in billions)	€45.5	€53.7	-15%
Net capture (in basis points)	0.169	0.143	18%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Global FX Pro Forma Net Revenue Increase Driven by Non-transaction

Hotspot market share reached a new high of 12.9%

- **Increase in net revenue due to higher non-transaction fees implemented in 2016**

Global FX Pro Forma¹ Statistics (\$ in millions, except RPC)	1Q17	1Q16	Change
Global FX Pro Forma Net Revenue	\$10.8	\$10.4	4%
Global FX Key Operating Statistics:			
Market share	12.9%	11.8%	1.1% pts
Average Daily Notional Value (\$ in billions)	\$28.8	\$29.4	-2%
Net revenue (per one million shares traded)	\$2.57	\$2.73	-6%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Pro Forma Operating Expenses

Key Variances:

- **Compensation and benefits up \$5.8MM**
 - Primarily higher incentive-based compensation
- **Depreciation and amortization down \$1.8MM**
 - Mainly due to the roll-off of fully-depreciated assets

Pro Forma Adjusted Operating Expenses ¹ (in millions)	1Q17	1Q16	% Chg
Compensation and benefits ¹	\$54.8	\$49.0	12%
Depreciation and amortization ¹	12.9	14.7	-12%
Technology support services ¹	11.5	11.2	3%
Professional fees and outside services ¹	17.8	18.2	-2%
Travel and promotional	3.9	3.8	3%
Facilities costs	2.7	2.4	13%
Change in contingent consideration ¹	0.2	0.9	78%
Other expenses	2.5	2.3	9%
Total	\$106.3	\$102.6	4%

¹Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

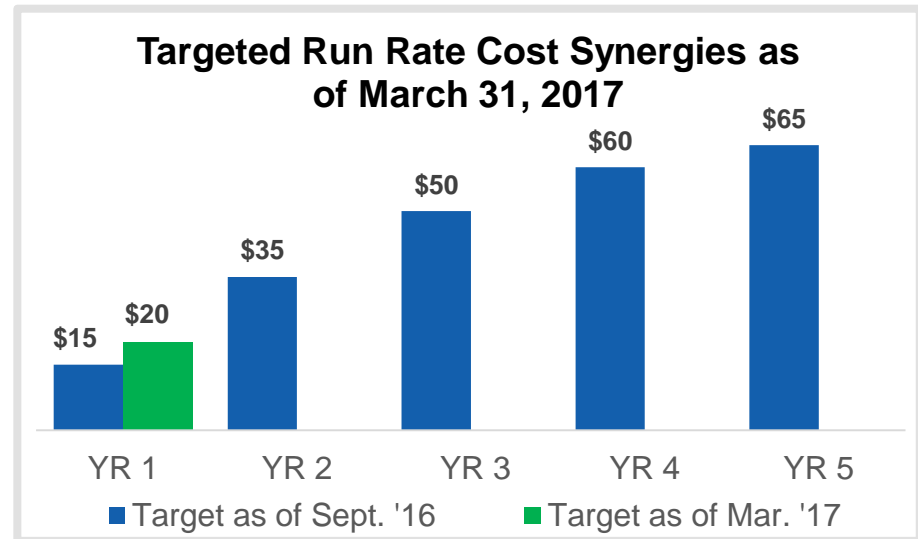
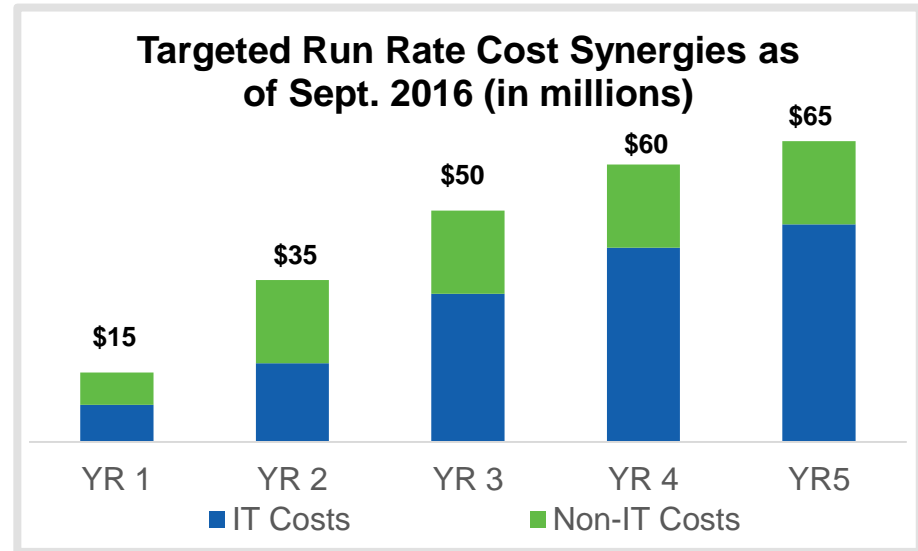
Estimated Cost Synergies Update

➤ Primary sources of synergies

- Compensation and benefits
- IT consultants
- Professional services
- Corporate expenses
- Systems development amortization

➤ Increasing annualized GAAP run rate synergies to \$20 million for 2017; cash synergies of \$25 million for 2017

➤ Synergies realized in 1Q17 of \$2.4 million pre-tax



2017 Full-Year Guidance

As of May 9, 2017 (\$ in millions)	2017 Pro Forma Full-Year Guidance ¹	2016 Pro Forma Comparison
Adjusted operating expenses ²	\$415 to \$423	\$417 ²
Depreciation and amortization ¹ (excluding amortization of acquired intangible assets)	\$52 to \$54	\$56
Capital expenditures	\$55 to \$60	\$53
Effective tax rate	35% to 37%	

¹See "Non-GAAP Information" in the appendix for reconciliation.

²Adjusted operating expenses exclude:

- acquisition-related expenses of \$65.2 million, which represents expenses recognized through March 31, 2017
- accelerated stock-based compensation of \$9.1 million - recognized in 1Q17
- amortization of acquired intangible assets of \$169 million

The company plans to include these adjustments in its non-GAAP reconciliation.

Debt and Interest Expense

- **Issued \$650 million Senior Notes on January 12, 2017**
- **\$1 billion term loan drawn upon closing of Bats acquisition**
 - Pay down of \$150 million during 1Q17
 - Initial interest rate of 2.304%, based on 3 month LIBOR plus 1.25 percent per annum
 - Spread subject to change based on credit rating, in a range from 1.00 to 1.75 percent

Debt Outstanding	As of March 31, 2017 (\$ in millions)
Bank Term Loan (2017-2022)	\$ 850
3.65% CBOE Senior Notes (2027)	650
Total	\$1,500

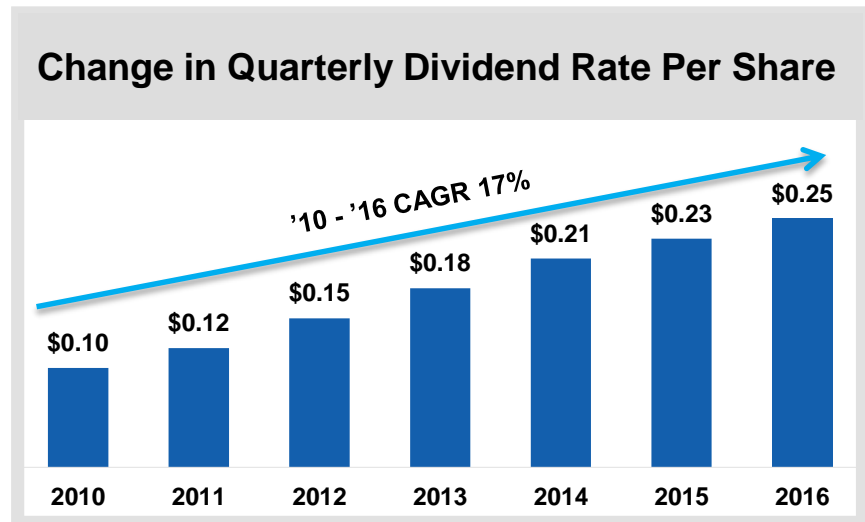
¹See "Non-GAAP Information" in the appendix for reconciliation.

Committed to Long-Term Value Creation for Shareholders

➤ **Expect to maintain a strong balance sheet and flexibility to:**

- Invest in the growth of our business
- Return capital through dividends
- Pay down debt
- Take an opportunistic approach towards share repurchases

	As of March 31, 2017 (\$ in millions)
Cash	\$ 153
Total Debt	\$1,500
Debt to EBITDA (TTMs)¹ at February 28, 2017	2.6x
Debt to EBITDA (TTMs)¹ at March 31, 2017	2.4x



¹See "Non-GAAP Information" in the appendix for reconciliation.

Delivering on Sources of Operating Leverage and Key Strategic Initiatives

Growth of Core Proprietary Products

- Achieved strong organic growth, driven by proprietary products

Diversification and Stabilization of Revenue Stream

- Increased non-transaction revenue

Scale of Business Model

- Solid expense controls
- Higher operating margins

Synergies Realization

- Strong start to realizing cost synergies

Capital Allocation

- Reduced debt by \$150 million in 1Q17

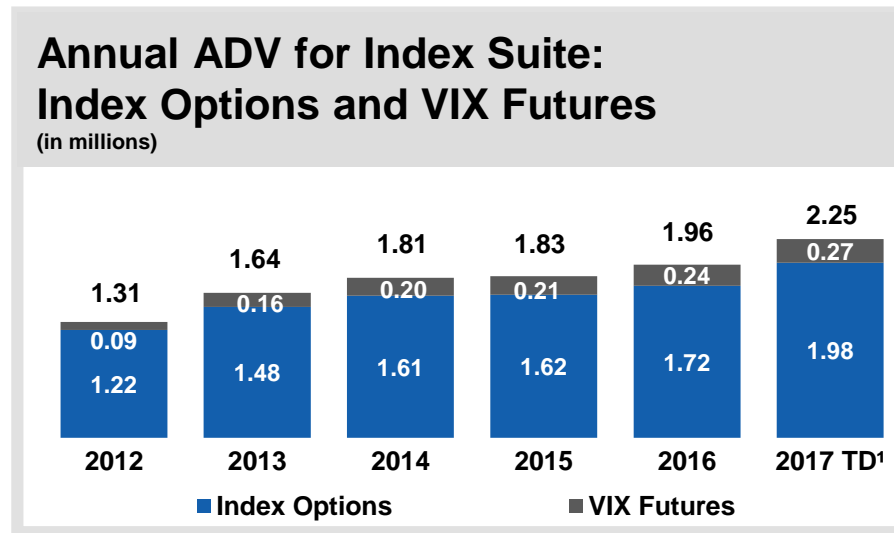
 **Questions & Answers**

➤ Appendix Materials

Growing Proprietary Index Suite

Index suite ADV up 15% through April 2017 versus same period last year

- SPX options posted record quarterly ADV in 1Q17
- 2016 was fourth consecutive year of record index trading with new highs in SPX options and VIX futures



¹2017 TD through April 30, 2017

Growing Index Product Line

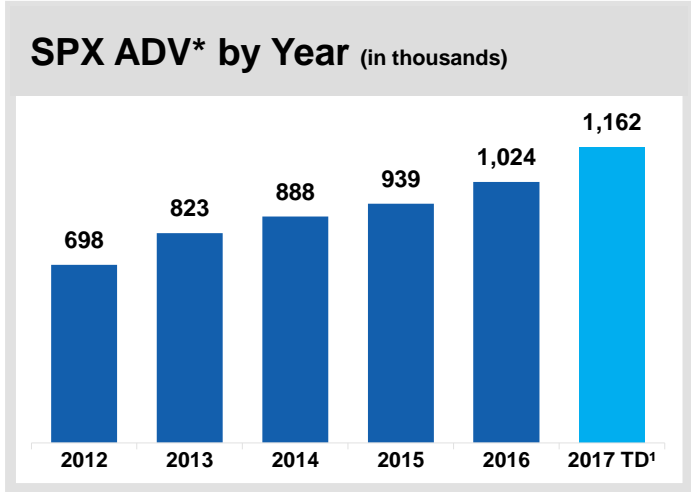
S&P 500 Index (SPX) options, the most actively traded U.S. index options

- **SPX ADV up 19% in 2017 TD¹**

 - SPX achieved record quarterly ADV in 1Q17
 - 2016 was fourth consecutive year of record volume

- **Added Wednesday- and Monday-expiring SPX Weeklys in 2016**

 - Increases opportunities to trade SPX



*Includes SPX Weeklys

¹2017 TD through April 30, 2017

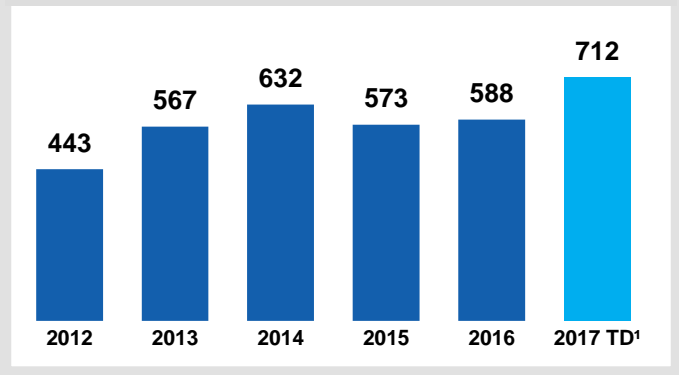
Volatility Index (VIX) Products

CBOE VIX options and futures anchor volatility products

- **VIX options ADV up 13% 2017 TD¹ versus prior year**
- **VIX futures ADV up 23% 2017 TD¹ versus prior year**
 - 2016 was 12th consecutive year of record volume
- **Began overnight dissemination of VIX Index in 2016**
 - Allows overseas investors to reference VIX during their regular trading hours

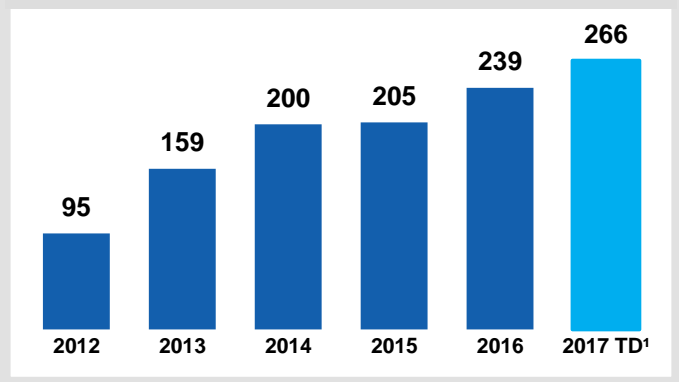
VIX Options ADV

(in thousands)



VIX Futures ADV

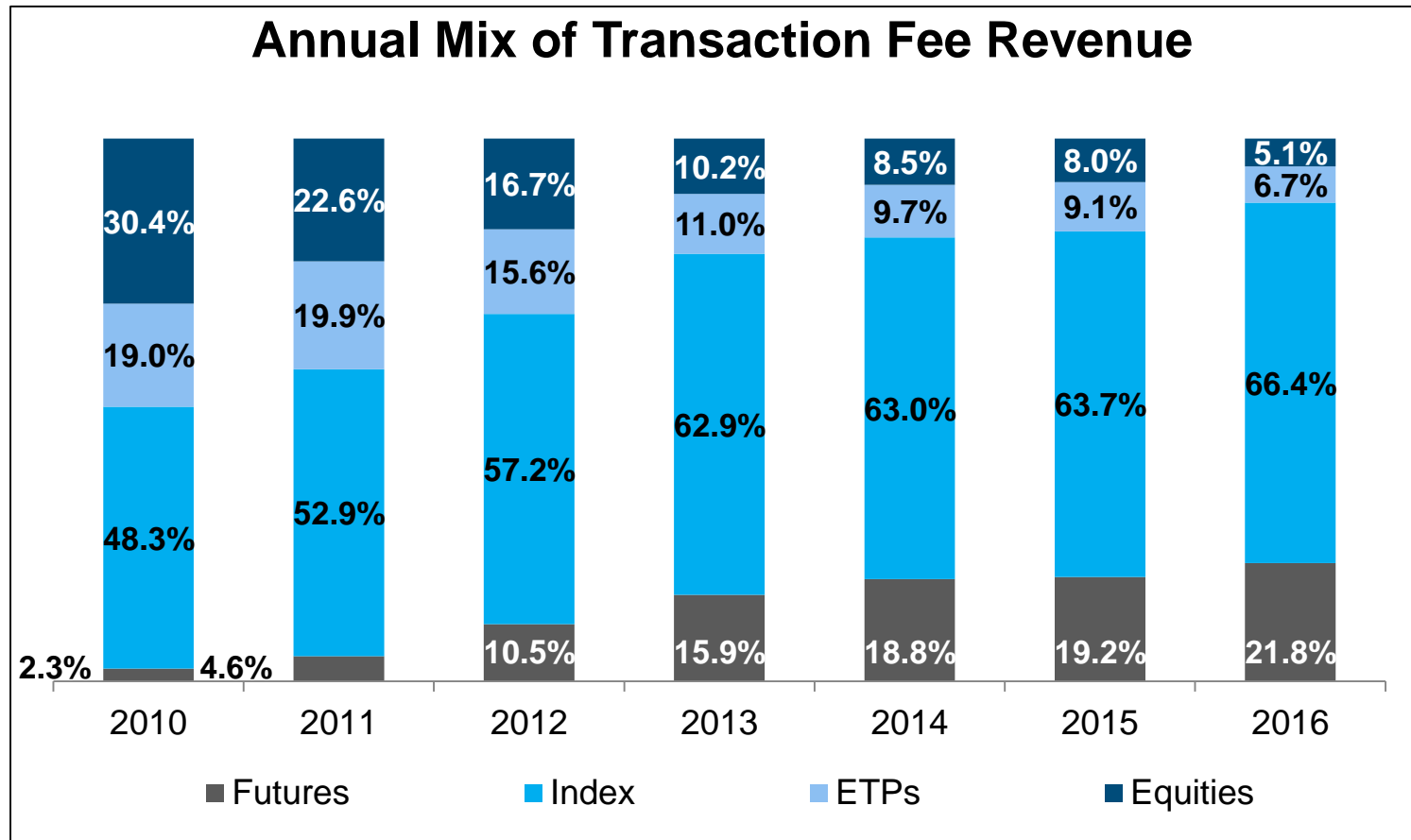
(in thousands)



¹2017 TD through April 30, 2017

Proprietary Products Account for Growing Percentage of Transaction Fee Revenue

Index options and futures contracts accounted for 88.2% of transaction fees in 2016, up from 50.6% in 2010



Non-GAAP Information

In addition to disclosing results determined in accordance with GAAP, CBOE Holdings has disclosed certain non-GAAP measures of operating performance. These measures are not in accordance with, or a substitute for, GAAP, and may be different from or inconsistent with non-GAAP financial measures used by other companies. The non-GAAP measures provided in this presentation include adjusted operating expenses, adjusted operating income, organic net revenue, adjusted operating margin, adjusted net income allocated to common stockholders and adjusted diluted earnings per share, EBITDA, EBITDA margin, adjusted EBITDA, adjusted EBITDA margin and Debt to EBITDA.

Management believes that the non-GAAP financial measures presented in this presentation, including adjusted net revenue, organic net revenue and adjusted operating expenses, provide useful and comparative information to assess trends in our core operations and a means to evaluate period-to-period comparisons. Non-GAAP financial measures disclosed by management are provided as additional information to investors in order to provide them with an alternative method for assessing our financial condition and operating results.

Adjusted operating expense guidance: Specific quantifications of the amounts that would be required to reconcile the company's adjusted operating expenses guidance are not available. The company believes that there is uncertainty and unpredictability with respect to certain of its GAAP measures, primarily related to acquisition-related expenses, that would be required to reconcile to GAAP operating expenses, which preclude the company from providing accurate guidance on certain forward-looking GAAP to non-GAAP reconciliations. The company believes that providing estimates of the amounts that would be required to reconcile the range of the company's adjusted operating expenses would imply a degree of precision that would be confusing or misleading to investors for the reasons identified above.

Organic net revenue: Is a non-GAAP financial measure that excludes or has otherwise been adjusted for the impact of our acquisition of Bats. Management believes the organic net revenue (non-GAAP) growth measure provides users with useful supplemental information regarding the company's ongoing revenue performance and trends by presenting revenue growth excluding the impact of the Bats acquisition.

Amortization expense of acquired intangible assets: We amortize intangible assets acquired in connection with various acquisitions. Amortization of intangible assets is inconsistent in amount and frequency and is significantly affected by the timing and size of our acquisitions. As such, if intangible asset amortization is included in performance measures, it is more difficult to assess the day-to-day operating performance of the businesses, the relative operating performance of the businesses between periods and the earnings power of CBOE. Therefore, we believe performance measures excluding intangible asset amortization expense provide investors with a more useful and consistent basis for comparison across accounting periods.

Acquisition-related expenses: From time to time, we have pursued small bolt-on acquisitions and in 2017 completed a larger transformative acquisition, which have resulted in expenses which would not have otherwise been incurred. These expenses include integration costs, as well as legal, due diligence and other third party transaction costs. The frequency and the amount of such expenses vary significantly based on the size, timing and complexity of the transaction. Accordingly, we exclude these costs for purposes of calculating non-GAAP measures which provide a more meaningful analysis of CBOE's ongoing operating performance or comparisons in CBOE's performance between periods.

Other significant items: We have excluded certain other charges that are the result of other non-comparable events to measure operating performance. For 2017, other significant items primarily included interest and other borrowing costs incurred prior to the close of the Bats transaction and accelerated stock-based compensation that was incurred due to a change in the vesting schedule for equity award grants.

Non-GAAP Information

Table 1						
First Quarter GAAP Actual and Non-GAAP Adjusted Results (\$ in millions except per share)	1Q17	1Q16	Change	1Q17	1Q16	Change
	GAAP	GAAP		Adjusted¹	Adjusted¹	
Total Revenue Less Cost of Revenue	\$ 193.4	\$ 143.1	35%	\$ 193.4	\$ 143.1	35%
Total Operating Expenses	\$ 167.3	\$ 63.6	163%	\$ 78.4	\$ 62.5	25%
Operating Income	\$ 26.1	\$ 79.5	(67)%	\$ 115.0	\$ 80.6	43%
Operating Margin %	13.5%	55.6%	NM	59.5%	56.3%	320 bps
Net Income Allocated to Common						
Stockholders	\$ 15.1	\$ 49.2	(69)%	\$ 72.2	\$ 49.9	45%
Diluted EPS	\$ 0.16	\$ 0.60	(73)%	\$ 0.78	\$ 0.61	28%
EBITDA	\$ 51.2	\$ 91.7	(44)%	\$ 125.7	\$ 92.6	36%
EBITDA Margin %	26.5%	64.1%	NM	65.0%	64.7%	30 bps

Table 2						
First Quarter Non-GAAP Pro Forma Actual Results and Adjusted (\$ in millions except per share)	1Q17	1Q16	Change	1Q17	1Q16	Change
	Pro Forma¹	Pro Forma¹		Adjusted Pro Forma¹	Adjusted Pro Forma¹	
Total Net Revenue Less Cost of Revenue	\$ 265.3	\$ 255.2	4%	\$ 265.3	\$ 255.2	4%
Total Operating Expenses	\$ 158.4	\$ 148.2	7%	\$ 106.3	\$ 102.6	4%
Operating Income	\$ 106.9	\$ 107.0	--	\$ 159.0	\$ 152.6	4%
Operating Margin %	40.3%	41.9%	(160) bps	59.9%	59.8%	10 bps
Net Income Allocated to Common						
Stockholders	\$ 73.0	\$ 58.1	26%	\$ 105.8	\$ 85.5	24%
Diluted EPS	\$ 0.65	\$ 0.52	25%	\$ 0.94	\$ 0.76	24%
EBITDA	\$ 162.3	\$ 164.2	(1)%	\$ 172.0	\$ 167.4	3%
EBITDA Margin %	61.2%	64.3%	(310) bps	64.8%	65.6%	(80) bps

¹A full reconciliation of our non-GAAP and pro forma results to our GAAP results is included in the attached tables. See "Non-GAAP Information" in the accompanying financial tables.

Non-GAAP Information

Table 3						
Revenue Less Cost of Revenue by Business Segment (in millions)	1Q17 GAAP	1Q16 GAAP	Change	1Q17 Pro Forma	1Q16 Pro Forma	Change
Options	\$ 129.0	\$ 122.1	6%	\$ 135.1	\$ 132.2	2 %
U.S. Equities	\$ 25.5	\$ —	—	\$ 72.7	\$ 73.0	— %
Futures	\$ 28.8	\$ 21.0	37%	\$ 28.8	\$ 21.0	37 %
European Equities	\$ 6.1	\$ —	—	\$ 17.9	\$ 18.6	(4)%
Global FX	\$ 4.0	\$ —	—	\$ 10.8	\$ 10.4	4 %
Total	\$ 193.4	\$ 143.1	35%	\$ 265.3	\$ 255.2	4 %

Table 4 (in millions)	Three Months Ended March 31,	
	2017	2016
Reconciliation of Revenue Less Cost of Revenue to Organic Net Revenue		
Revenue less cost of revenue (net revenue)	\$ 193.4	\$ 143.1
Recent acquisitions:		
Bats revenue less cost of revenue (for the one month ended March 31, 2017)	(39.2)	—
Organic net revenue	\$ 154.2	\$ 143.1

Non-GAAP Information

Reconciliation of GAAP and non-GAAP Information

The information below shows the reconciliation of each financial measure from GAAP to non-GAAP. The non-GAAP financial measures exclude the impact of those items detailed below and are referred to as adjusted financial measures

Table 5	Three Months Ended March 31,	
(in millions, except per share amounts)	2017	2016
Reconciliation of GAAP Net Income Allocated to Common Stockholders to Non-GAAP		
(As shown on Table 1)		
GAAP net income allocated to common stockholders	\$ 15.1	\$ 49.2
Non-GAAP adjustments		
Compensation and benefits (1)	9.1	0.2
Acquisition-related expenses (2)	65.2	0.4
Amortization of acquired intangible assets (3)	14.4	0.2
Assessment of computer-based lease taxes for prior period use	—	0.3
Change in contingent consideration	0.2	—
Change in redemption value of non-controlling interests	0.3	—
Interest and other borrowing costs (4)	4.3	—
Total Non-GAAP adjustments	93.5	1.1
Income tax expense related to the items above	(36.0)	(0.4)
Net income allocated to participating securities - effect on reconciling items	(0.4)	—
Adjusted net income allocated to common stockholders	\$ 72.2	\$ 49.9
Reconciliation of GAAP Diluted EPS to Non-GAAP		
GAAP diluted earnings per common share	\$ 0.16	\$ 0.60
Per share impact of non-GAAP adjustments noted above	0.62	0.01
Adjusted diluted earnings per common share	\$ 0.78	\$ 0.61
Reconciliation of GAAP Operating Margin to Non-GAAP		
GAAP revenue less cost of revenue	\$ 193.4	\$ 143.1
Non-GAAP adjustments noted above	—	—
Adjusted revenue less cost of revenue	\$ 193.4	\$ 143.1
GAAP operating expenses	\$ 167.3	\$ 63.6
Non-GAAP adjustments noted above	(88.9)	(1.1)
Adjusted operating expenses	\$ 78.4	\$ 62.5
GAAP operating income	\$ 26.1	\$ 79.5
Non-GAAP adjustments noted above	88.9	1.1
Adjusted operating income	\$ 115.0	\$ 80.6
Adjusted operating margin	59.5 %	56.3 %

¹⁾This amount represents accelerated stock-based compensation expenses.

²⁾This amount includes professional fees and outside services, severance, write-off of certain software and other costs related to the company's acquisition of Bats.

³⁾This amount represents the amortization of acquired intangible assets for Bats for the month of March.

⁴⁾This amount represents interest and other borrow costs incurred prior to the close of the Bats acquisition.

Non-GAAP Information

EBITDA (earnings before interest, income taxes, depreciation and amortization) is a widely used non-GAAP financial measure of operating performance. EBITDA margin represents EBITDA divided by revenues less cost of revenues (net revenue). It is presented as supplemental information that the Company believes is useful to investors to evaluate its results because it excludes certain items that are not directly related to the Company's core operating performance. EBITDA is calculated by adding back to net income interest expense, income tax expense, depreciation and amortization. EBITDA should not be considered as substitutes either for net income, as an indicator of the Company's operating performance, or for cash flow, as a measure of the Company's liquidity. In addition, because EBITDA may not be calculated identically by all companies, the presentation here may not be comparable to other similarly titled measures of other companies. EBITDA margin represents EBITDA divided by net revenue.

Table 6		Three Months Ended March 31,	
(in millions)			
Reconciliation of Net Income Allocated to Common Stockholders to EBITDA and Adjusted EBITDA			
(Per Table 1)		2017	2016
Net income allocated to common stockholders	\$	15.1	\$ 49.2
Interest		7.9	(0.7)
Income tax provision		3.1	31.3
Depreciation and amortization		25.1	11.9
EBITDA		51.2	91.7
EBITDA Margin¹		26.5 %	64.1 %
Non-GAAP adjustments not included in above line items			
Compensation and benefits (accelerated stock-based compensation)		9.1	0.2
Acquisition-related expenses		65.2	0.4
Other		0.2	0.3
Adjusted EBITDA	\$	125.7	\$ 92.6
Adjusted EBITDA Margin¹		65.0 %	64.7 %
(in millions)		Three Months Ended March 31,	
Reconciliation of Pro Forma Net Income Allocated to Common Stockholders to EBITDA and Adjusted EBITDA (Per Table 2)			
		2017	2016
Pro forma net income allocated to common stockholders	\$	73.0	\$ 58.1
Interest		12.0	10.2
Income tax provision		22.0	38.5
Depreciation and amortization		55.3	57.4
Pro Forma EBITDA		162.3	164.2
Pro Forma EBITDA Margin¹		61.2 %	64.3 %
Non-GAAP adjustments not included in above line items			
Compensation and benefits (accelerated stock-based compensation)		9.1	0.2
Other		0.6	3.0
Adjusted Pro Forma EBITDA	\$	172.0	\$ 167.4
Adjusted Pro Forma EBITDA Margin¹		64.8 %	65.6 %

¹EBITDA margin represents the respective EBITDA divided by the respective net revenue as shown in the non-GAAP reconciliations provided.

Non-GAAP Information

The following unaudited pro forma condensed consolidated financial statements have been prepared by recording pro forma adjustments to the historical consolidated financial statements of CBOE Holdings. The pro forma consolidated condensed income statements for the three months ended March 31, 2017 and 2016 have been prepared as if the Bats acquisition closed on January 1, 2016.

Due to the transformative nature of the Bats acquisition, the company believes that providing a discussion of its results and operations on a pro forma basis provides management and investors a more meaningful perspective on the company's financial and operational performance and trends.

These pro forma consolidated financial statements are not necessarily indicative of the financial position or results of operations that would have occurred had the transactions been effected on the assumed dates. Additionally, future results may vary significantly from the results reflected in the pro forma consolidated income statements. These statements should be read in conjunction with our audited consolidated financial statements and the related notes for the year ended December 31, 2016 included in our 2016 Form 10-K and other filings made from time to time with the SEC.

Non-GAAP Information (see footnotes to Table 7 on Slide 42)

Three months ended March 31, 2017 - Table 7

(in millions, except per share amounts)	CBOE Reported	Bats Historical ¹	Pro Forma Adjustments	Footnote Reference	Pro Forma Combined Per Table 2	Non-GAAP Adjustments	Foot- note	Adjusted Pro Forma Combined Per Table 2
Revenues	\$ 356.2	\$ 272.9	\$ —		\$ 629.1	\$ —		\$ 629.1
Cost of revenues	\$ 162.8	\$ 201.0	\$ —		\$ 363.8	\$ —		\$ 363.8
Net revenue:								
Net transaction fees	\$ 144.8	\$ 27.8	\$ —		\$ 172.6	\$ —		\$ 172.6
Access fees	17.8	11.9	—		29.7	—		29.7
Exchange services and other fees	15.4	5.0	—		20.4	—		20.4
Market data fees	22.5	25.7	—		48.2	—		48.2
Regulatory fees	8.3	0.5	—		8.8	—		8.8
Royalty fees	(21.2)	—	—		(21.2)	—		(21.2)
Other	5.8	1.0	—		6.8	—		6.8
Revenue less cost of revenue	\$ 193.4	\$ 71.9	\$ —		\$ 265.3	\$ —		\$ 265.3
Operating expenses:								
Compensation and benefits	\$ 47.8	\$ 16.1	\$ —		\$ 63.9	\$ (9.1)	(4)	\$ 54.8
Depreciation and amortization	25.1	6.7	23.5	(1)	55.3	(42.4)	(4)	12.9
Technology support services	7.5	4.0	—		11.5	—		11.5
Professional fees and outside services	14.4	27.2	(23.4)	(2)	18.2	(0.4)	(4)	17.8
Travel and promotional expenses	3.3	0.6	—		3.9	—		3.9
Facilities costs	2.1	0.6	—		2.7	—		2.7
Acquisition related costs	65.2	—	(65.2)	(2)	—	—		—
Change in contingent consideration	0.2	0.2	—		0.4	(0.2)	(4)	0.2
Other expenses	1.7	0.8	—		2.5	—		2.5
Total operating expenses	\$ 167.3	\$ 56.2	\$ (65.1)		\$ 158.4	\$ (52.1)		\$ 106.3
Operating income	\$ 26.1	\$ 15.7	\$ 65.1		\$ 106.9	\$ 52.1		\$ 159.0
Operating margin (5)	13.5%	21.8%			40.3%			59.9%
Non-operating (expense)/income	\$ (7.8)	\$ (17.7)	\$ 13.6	(3)	\$ (11.9)	\$ —		\$ (11.9)
Income (loss) before income tax provision	\$ 18.3	\$ (2.0)	\$ 78.7		\$ 95.0	\$ 52.1		\$ 147.1
Income tax provision	\$ 3.1	\$ (1.8)	\$ 20.7		\$ 22.0	\$ 19.3		\$ 41.3
Net income allocated to common stockholders	\$ 15.2	\$ (0.2)	\$ 58.0		\$ 73.0	\$ 32.8		\$ 105.8
Diluted EPS					\$ 0.65	\$ 0.29		\$ 0.94
Total non-transaction revenue	\$ 69.8	\$ 44.1						\$ 113.9
Total non-transaction revenue as a percent of revenue less cost of revenue (6)								42.9%

Non-GAAP Information (see footnotes to Table 8 on slide 42)

Three months ended March 31, 2016 - Table 8								
(in millions, except per share amounts)	CBOE Historical	Bats Historical¹	Pro Forma Adjustments	Footnote Reference	Pro Forma Combined Per Table 2	Non-GAAP Adjustments	Foot- note	Adjusted Pro Forma Combined Per Table 2
Revenues	\$ 170.5	\$ 511.1			\$ 681.6			\$ 681.6
Cost of revenues	\$ 27.4	\$ 399.0			\$ 426.4			\$ 426.4
Net revenue:								
Net transaction fees	\$ 117.9	\$ 51.1			\$ 169.0			\$ 169.0
Access fees	13.2	16.1			29.3			29.3
Exchange services and other fees	11.4	5.8			17.2			17.2
Market data fees	8.0	37.3			45.3			45.3
Regulatory fees	9.1	0.7			9.8			9.8
Royalty fees	(19.1)	—			(19.1)			(19.1)
Other	2.6	1.1			3.7			3.7
Revenues less cost of revenues	\$ 143.1	\$ 112.1			\$ 255.2			\$ 255.2
Operating expenses:								
Compensation and benefits	\$ 27.1	\$ 22.1			\$ 49.2	\$ (0.2)	(3)	\$ 49.0
Depreciation and amortization	11.9	10.4	35.1	(1)	57.4	(42.4)	(3)	15.0
Technology support services	5.7	5.8			11.5	(0.3)	(3)	11.2
Professional fees and outside services	13.6	6.9			20.5	(2.7)	(3)	17.8
Travel and promotional expenses	2.5	1.3			3.8			3.8
Facilities costs	1.5	1.0			2.5			2.5
Acquisition related costs	—	—			—			—
Change in contingent consideration	—	0.9			0.9			0.9
Other expenses	1.3	1.1			2.4			2.4
Total operating expenses	\$ 63.6	\$ 49.5	\$ 35.1		\$ 148.2	\$ (45.6)		\$ 102.6
Operating income	\$ 79.5	\$ 62.6	\$ (35.1)		\$ 107.0	\$ 45.6		\$ 152.6
Operating margin (4)	55.6%	55.8%			41.9%			59.8%
Non-operating (expense)/income	\$ 1.0	\$ (12.3)	\$ 0.9	(2)	\$ (10.4)			\$ (10.4)
Income (loss) before income tax provision	\$ 80.5	\$ 50.3	\$ (34.2)		\$ 96.6	\$ 45.6		\$ 142.2
Income tax provision	\$ 31.3	\$ 21.0	\$ (13.8)		\$ 38.5	\$ 18.2		\$ 56.7
Net income allocated to common stockholders	\$ 49.2	\$ 29.3	\$ (20.4)		\$ 58.1	\$ 27.4		\$ 85.5
Diluted EPS					\$ 0.52	\$ 0.24		\$ 0.76
Total non-transaction revenue	\$ 44.3	\$ 61.0						\$ 105.3
Total non-transaction revenue as a percent of revenues less cost of revenues (5)								41.3%

Non-GAAP Information

Table 7 Footnotes:

¹Bats Historical activity for 2017 reflects activity for the period beginning January 1, 2017 through February 28, 2017.

(1) Reflects adjustments to reduce Bats historical amortization of acquired intangibles by \$4.5 million and increase amortization of acquired intangibles by \$28.0 million for the periods January and February 2017.

(2) Reflects adjustments to reduce acquisition costs by \$65.2 million for CBOE Historical and reduce professional fees for Bats historical by \$23.4 million which are costs associated with the CBOE merger.

(3) Reflects the adjustments above and a net \$13.6 million increase in other income resulting from adjustment of interest expense and loss on extinguishment of Bats historical debt.

(4) Reflects adjustment of amortization of purchased intangibles totaling \$42.4 million and acceleration of stock-based compensation and other expenses totaling \$9.7 million.

(5) Operating margin represents operating income divided by revenue less cost of revenue.

(6) The percentage of non-transaction revenue represents the sum of access fees, exchange services and other fees, market data fees, regulatory fees and other divided by revenue less cost of revenue.

Table 8 Footnotes:

¹Bats Historical activity for 2016 reflects activity for the period beginning January 1, 2016 through March 31, 2016.

(1) Reflects adjustments to reduce Bats historical amortization of acquired intangibles by \$6.9 million and increase amortization of acquired intangibles by \$42.0 million.

(2) Reflects the adjustments above and net other income of \$0.9 million resulting from interest expense on CBOE debt less Bats historical interest expense.

(3) Reflects adjustment of amortization of purchased intangibles totaling \$42.4 million and other items totaling \$3.2 million.

(4) Operating margin represents operating income divided by revenue less cost of revenue.

(5) The percentage of non-transaction revenue represents the sum of access fees, exchange services and other fees, market data fees, regulatory fees and other divided by revenue less cost of revenue.

Non-GAAP Information

Adjusted Pro Forma Combined Operating Expenses for the Year Ended December 31, 2016 - Table 9

(in millions)	CBOE Historical	Bats Historical ¹	Pro Forma Adjustments	Footnote Reference	Pro Forma Combined	Non-GAAP Adjustments	Foot- note	Adjusted Pro Forma Combined for Year-Ended December 31, 2016
Operating expenses:								
Compensation and benefits	\$ 113.1	\$ 92.0			\$ 205.1	\$ (1.4)	(3)	\$ 203.7
Depreciation and amortization	44.3	41.7	140.0	(1)	226.0	(169.6)	(3)	56.4
Technology support services	22.5	23.1			45.6	(0.3)	(3)	45.3
Professional fees and outside services	53.4	30.5	(5.4)	(2)	78.5	(2.7)	(3)	75.8
Travel and promotional expenses	11.0	5.3			16.3	(0.7)	(3)	15.6
Facilities costs	5.7	4.1			9.8			9.8
Acquisition related costs	12.9	—	(12.9)	(2)	—	—		—
Change in contingent consideration	—	3.0			3.0	(3.0)	(3)	—
Other expenses	4.3	6.2			10.5	(0.5)	(3)	10.0
Total operating expenses	\$ 267.2	\$ 205.9	\$ 121.7		\$ 594.8	\$ (178.2)		\$ 416.6

¹Bats Historical activity for 2016 reflects activity for the period beginning January 1, 2016 through December 31, 2016.

(1) Reflects adjustments to reduce Bats historical amortization of acquired intangibles by \$28.0 million and increase amortization of acquired intangibles by \$168.0 million.

(2) Reflects adjustments to reduce acquisition costs by \$12.9 million for CBOE Historical and reduce professional fees for Bats historical by \$5.4 million which are costs associated with the CBOE merger.

(3) Reflects adjustment of amortization of purchased intangibles totaling \$169.6 million and other items totaling \$26.9 million.

Non-GAAP Information

Debt to EBITDA - Trailing Twelve Months (TTM) - Table 10		
(\$ in millions)	LTM Ended 2/28/17	LTM Ended 3/31/17
Pro forma net income allocated to common stockholders	\$ 235.6	\$ 212.0
Interest	45.7	49.8
Income tax provision	157.4	139.6
Depreciation and amortization	84.5	95.7
Pro forma EBITDA	\$ 523.2	\$ 497.1
Non-GAAP adjustments not included in above line items		
Accelerated stock-based compensation	-	9.1
Acquisition-related expenses	83.1	117.9
Other	22.3	12.0
Adjusted pro forma EBITDA	\$ 628.6	\$ 636.1
Debt at end of period	\$ 1,650.0	\$ 1,500.0
Debt to EBITDA	2.6X	2.4x

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