
Third Quarter 2016 Earnings Presentation

October 28, 2016

Forward-Looking Statements

This presentation contains certain statements regarding intentions, beliefs and expectations or predictions for the future of CBOE Holdings, Inc. (“CBOE”) and Bats Global Markets, Inc. (“Bats”), which are forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, including statements regarding post-closing integration or optimization of the combined businesses, the expected benefits of the proposed transaction, the anticipated timing of the closing or integration efforts, CBOE’s anticipated financial condition and results of operations and CBOE’s plans with respect to CurveGlobal. Words such as “believes,” “expects,” “anticipates,” “estimates,” “intends,” “plans,” “seeks,” “projects” or words of similar meaning, or future or conditional verbs, such as “will,” “should,” “would,” “could,” “may” or variations of such words and similar expressions are intended to identify such forward-looking statements, which are not statements of historical fact or guarantees or assurances of future performance. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. Actual results could differ materially from those projected or forecast in the forward-looking statements. The factors that could cause actual results to differ materially include, without limitation, the following risks, uncertainties or assumptions: the satisfaction of the conditions precedent to the consummation of the proposed transaction, including, without limitation, the receipt of stockholder and regulatory approvals (including clearance by antitrust authorities necessary to complete the transaction) on the terms desired or anticipated; unanticipated difficulties or expenditures relating to the proposed transaction, including, without limitation, difficulties that result in the failure to realize expected synergies, efficiencies and cost savings from the proposed transaction within the expected time period (if at all), whether in connection with integration, combining trading platforms, broadening distribution of offerings or otherwise; CBOE’s ability to obtain and maintain an investment grade credit rating and obtain financing on the anticipated terms and schedule; risks relating to the value of CBOE’s shares to be issued in the transaction; disruptions of CBOE’s and Bats’ current plans, operations and relationships with market participants caused by the announcement and pendency of the proposed transaction; potential difficulties in CBOE’s and Bats’ ability to retain employees as a result of the announcement and pendency of the proposed transaction; legal proceedings that may be instituted against CBOE and Bats following announcement of the proposed transaction; and other factors described in CBOE’s annual report on Form 10-K for the fiscal year ended December 31, 2015, which was filed with the Securities and Exchange Commission (the “SEC”) on February 19, 2016, Bats’ final prospectus, which was filed with the SEC pursuant to Rule 424(b) on April 15, 2016, Bats’ quarterly report for the quarterly period ended June 30, 2016, which was filed with the SEC on August 5, 2016, and other filings made by CBOE and Bats from time to time with the SEC. The factors described in such SEC filings include, without limitation: CBOE’s ability to retain its right to exclusively list and trade certain index options and futures products; economic, political and market conditions; compliance with legal and regulatory obligations (and changes thereto), including obligations under agreements with regulatory agencies; increasing competition in the industries in which CBOE and Bats operate; CBOE’s and Bats’ ability to operate their respective businesses without violating the intellectual property rights of others and the costs associated with protecting their respective intellectual property rights; decreases in trading volumes or a shift in the mix of products traded on CBOE’s or Bats’ exchanges; each of CBOE’s and Bats’ ability to accommodate trading volume and transaction traffic, including significant increases, without failure or degradation of performance of their respective systems; CBOE’s and Bats’ ability to protect their respective systems and communication networks from security risks, including cyber-attacks; the ability to manage CBOE’s and Bats’ growth and strategic acquisitions or alliances effectively, including the ability to realize the anticipated benefits of past acquisitions; the ability to adapt successfully to technological changes to meet customers’ needs and developments in the marketplace; and the impact of legal and regulatory changes and proceedings, whether or not related to the proposed transaction. Neither CBOE nor Bats undertakes, and each of them expressly disclaims, any duty to update any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law. Investors are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation.

Additional Information

Additional Information Regarding the Transaction and Where to Find It

This presentation does not constitute an offer to sell or the solicitation of an offer to buy any securities or a solicitation of any vote or approval. This presentation is being made in respect of the proposed merger transaction involving CBOE, Bats, CBOE Corporation and CBOE V, LLC. The issuance of shares of CBOE common stock in connection with the proposed merger will be submitted to the stockholders of CBOE for their consideration, and the proposed merger will be submitted to the stockholders of Bats for their consideration. In connection therewith, the parties intend to file relevant materials with the SEC, including a definitive joint proxy statement/prospectus, which will be mailed to CBOE stockholders and Bats stockholders. However, such documents are not currently available. BEFORE MAKING ANY VOTING OR ANY INVESTMENT DECISION, INVESTORS AND SECURITY HOLDERS OF CBOE AND/OR BATS ARE URGED TO READ THE DEFINITIVE JOINT PROXY STATEMENT/PROSPECTUS REGARDING THE PROPOSED TRANSACTION AND ANY OTHER RELEVANT DOCUMENTS FILED OR TO BE FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Investors and security holders may obtain free copies of the definitive joint proxy statement/prospectus, any amendments or supplements thereto and other documents containing important information about each of CBOE and Bats, once such documents are filed with the SEC, through the website maintained by the SEC at www.sec.gov. Copies of the documents filed with the SEC by CBOE will be available free of charge on CBOE's website at <http://ir.cboe.com/financial-information/sec-filings.aspx> under the heading "SEC Filings" or by contacting CBOE's Investor Relations Department at (312) 786-7136. Copies of the documents filed with the SEC by Bats will be available free of charge on Bats' website at http://www.bats.com/investor_relations/financials/ under the heading "SEC Filings" or by contacting Bats' Investor Relations Department at (913) 815-7132.

Participants in the Solicitation

CBOE, Bats, their respective directors and executive officers, certain other members of CBOE's and Bats' respective management and certain of CBOE's and Bats' respective employees may be deemed to be participants in the solicitation of proxies in connection with the proposed transaction. Information about the directors and executive officers of CBOE is set forth in its proxy statement for its 2016 annual meeting of stockholders, which was filed with the SEC on April 6, 2016, and its annual report on Form 10-K for the fiscal year ended December 31, 2015, which was filed with the SEC on February 19, 2016, and information about the directors and executive officers of Bats is set forth in its final prospectus, which was filed with the SEC on April 15, 2016. Each of these documents can be obtained free of charge from the sources indicated above. Other information regarding the participants in the proxy solicitation and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the definitive joint proxy statement/prospectus and other relevant materials to be filed with the SEC when they become available.

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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

Edward Provost

President and Chief Operating Officer

John Deters

*Chief Strategy Officer and
Head of Corporate Initiatives*

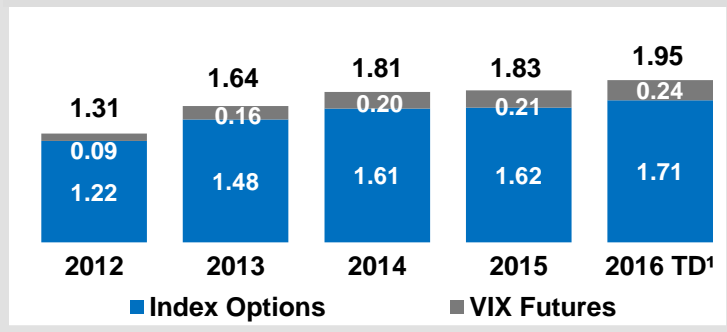
➤ **Strategic Review**
Edward Tilly
CEO

Solid Third-Quarter Results; Difficult Comparison to 3Q15 Record High

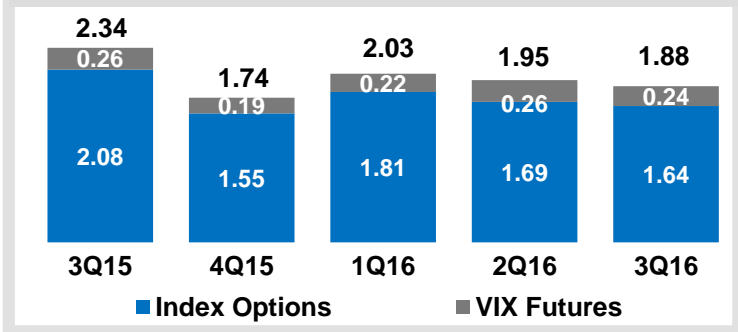
Trading in our proprietary index suite up 5% YTD¹

- 3Q16 adjusted EPS of \$0.58 on revenue of \$156 million
- ADV for CBOE’s index suite up 5% YTD¹, led by 14% increase in VIX futures
- ADV for multiply-listed options traded industrywide down 4% YTD¹

**Annual ADV for Index Suite:
Index Options and VIX Futures**
(in millions)



**Quarterly ADV for Index Suite:
Index Options and VIX Futures**
(in millions)



¹YTD through September 30, 2016

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

Bats acquisition expected to:

- ▶ **Expand and diversify CBOE's product line across new asset classes - cash equities, ETPs and foreign exchange**
- ▶ **Broaden CBOE's global reach with Bats' market-leading European presence and foothold in Asia**
- ▶ **Diversify revenue stream**
- ▶ **Streamline combined company's technology**
- ▶ **Enhance strong growth and margin profile**

Key Events in Roadmap to Completion

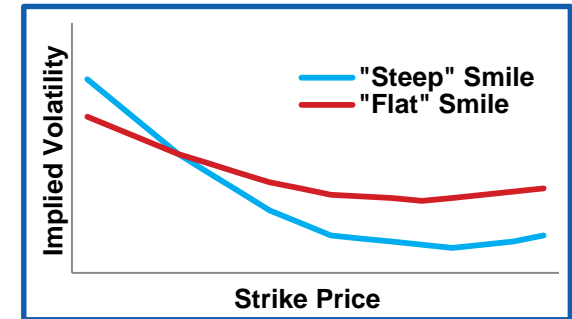
- ▶ File registration statement and joint proxy statement with SEC
- ▶ CBOE and Bats shareholder votes
- ▶ Regulatory clearances, approvals and notifications
- ▶ Transaction expected to close during first half of 2017



Product Development Remains Key to our Value Proposition

Product innovation is central to our value proposition and enables CBOE to offer the world's widest array of options and volatility products

- ▶ **Launched CBOE S&P 500 Smile Index in October**
 - A premium-capture strategy benchmark index
 - Constructed to perform in both bull and bear markets
- ▶ **Launched options on FTSE Emerging in September**
 - Expands CBOE's global-based index offering
 - Index tracks the performance of large and mid-cap companies from advanced and secondary emerging markets



Expanding Options and Volatility Trading

CBOE Vest Financial launched two new mutual funds

➤ CBOE Vest S&P 500 Buffer Protect Strategy Fund

- First mutual fund designed to provide investors with index-based buffer protection
- Designed to provide a risk-managed investment that seeks to protect against some downside losses in the S&P 500 index, while still participating in upside

➤ CBOE Vest Defined Distribution Strategy Fund

- Seeks to generate consistent monthly distributions while preserving capital over the long-term

➤ View target-based investing as a major trend that will further democratize the use of many of our proprietary products

Leveraging Partnerships With Index Providers to Grow Index Product Line

Expanding global customer base through joint trading and educational services with our index provider partners

- ▶ **In 2015, launched options on MSCI EAFE Index and MSCI Emerging Markets Index**
 - Following concentrated business development efforts, begun to see growing traction in MSCI trading
- ▶ **Plan to broaden distribution of data on these MSCI indexes through CBOE Market Data Express**
 - Plan to provide real-time values of the underlying indexes to broker-dealers and their customers, later this year
 - Supplements MSCI's distribution service, which focuses on institutional trading desks



Expanding Our Global Customer Base

Initiatives focused on education, business development and trading technology

- **Fifth annual CBOE Risk Management Conference (RMC) Europe took place Sept. 26 through 28 in Ireland**
- **Second RMC Asia to take place in Hong Kong**
 - Begins on November 30th
- **33rd annual CBOE RMC U.S. planned to take place in California on March 8-10, 2017**



Forming Alliances that Leverage Our Strengths

Teamed with London Stock Exchange Group (LSEG) and major dealer banks to form CurveGlobal, a new interest rate derivatives platform

- Launched on September 26th
- Products trade on the LSE Derivatives Market and clear through LCH.Clearnet
- Expected to provide more product choices, increased trading efficiencies and reduced transaction costs
- CBOE plans to develop products suited for this venue and introduce the platform to our U.S. customer base

CURVEGLOBAL

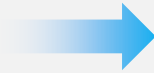
CBOE's mission: providing innovative products that facilitate and enhance trading in a global marketplace

CBOE's Strategic Initiatives

Transaction Aligns with Strategy



Develop unique products



Strengthens CBOE's global position in innovative, tradable products and services



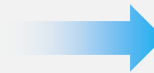
Expand our customer base



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



Form strategic partnerships that enhance and complement our core business



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

- **Financial Review**
Alan Dean
EVP, CFO and Treasurer

3Q16 Financial Overview

(in millions, except EPS and RPC)	3Q16	3Q15	\$ Change	% Change
Operating Revenue	\$156.2	\$187.0	\$30.8	-16%
Adjusted Operating Expenses ¹	81.4	85.9	-4.5	-5%
Adjusted Operating Income ¹	\$74.8	\$101.1	-\$26.3	-26%
<i>Adjusted Operating Margin %¹</i>	<i>47.9%</i>	<i>54.1%</i>		<i>-620 bps</i>
Adjusted Net Income Allocated to Common Stockholders ¹	\$47.2	\$ 63.0	\$15.8	-25%
Adjusted Diluted EPS ¹	\$0.58	\$ 0.76	-\$0.18	-24%
Total ADV	4.63	5.25		-12%
Revenue per Contract (RPC)	\$0.378	\$0.431	-\$0.053	-12%

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

Operating Revenue

Transaction fees main driver of revenue decline

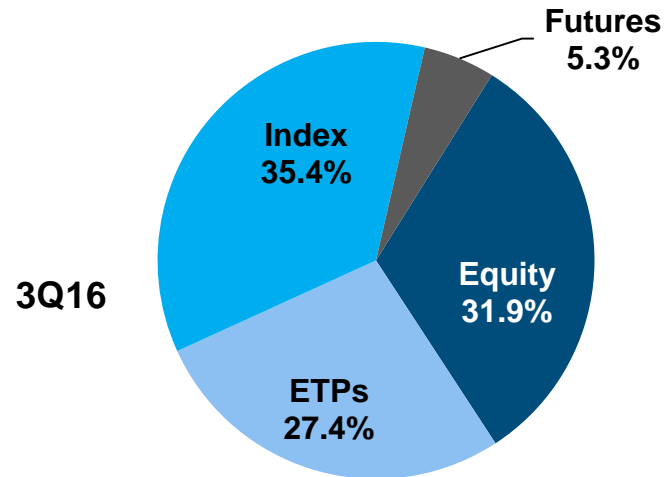
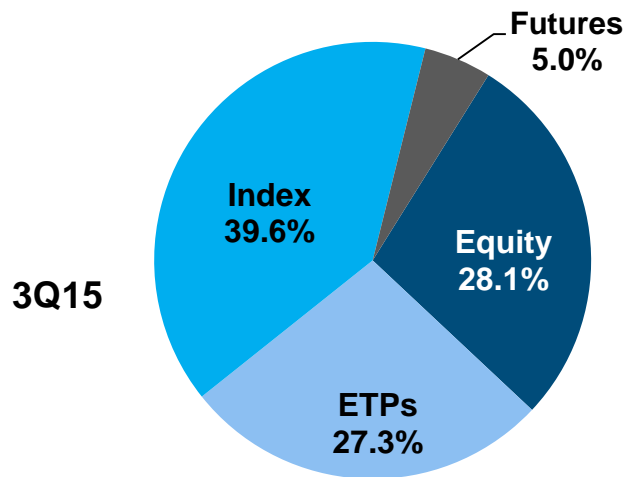
➤ Transaction fees down \$32.9MM

- 12% decrease in RPC
 - Shift in product mix
 - Higher volume-related discounts
- 12% decrease in trading volume

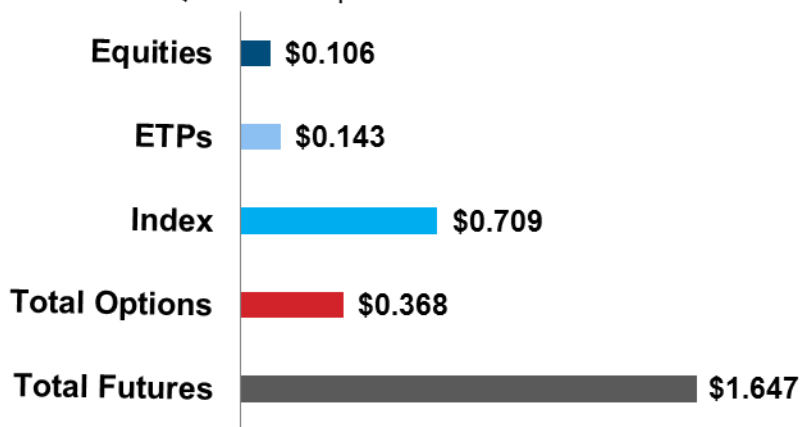
Operating Revenue (in millions)	3Q16	3Q15	% Chg
Transaction fees	\$111.9	\$144.8	-23%
Access fees	13.0	13.1	--
Exchange services and other fees	11.6	11.0	5%
Market data fees	8.2	7.1	15%
Regulatory fees	9.1	8.2	11%
Other revenue	2.4	2.8	-14%
Total Operating Revenue	\$156.2	\$187.0	-16%

RPC Variance Primarily Reflects Shift in Product Mix and Higher Volume-related Discounts

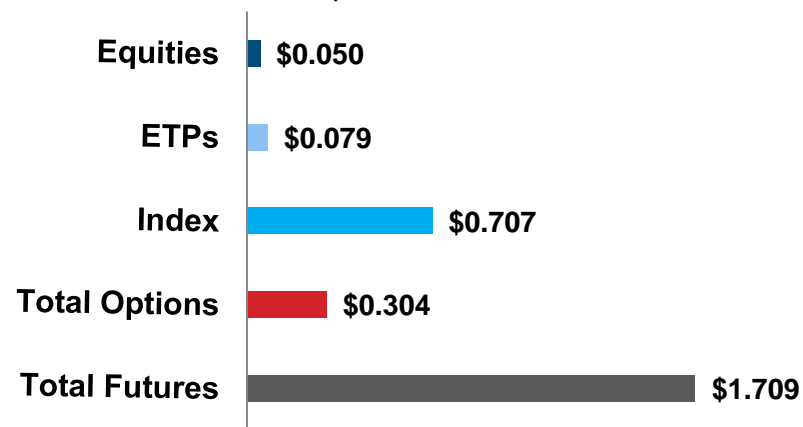
Trading volume mix and RPC 3Q15 versus 3Q16



3Q15 RPC \$0.431

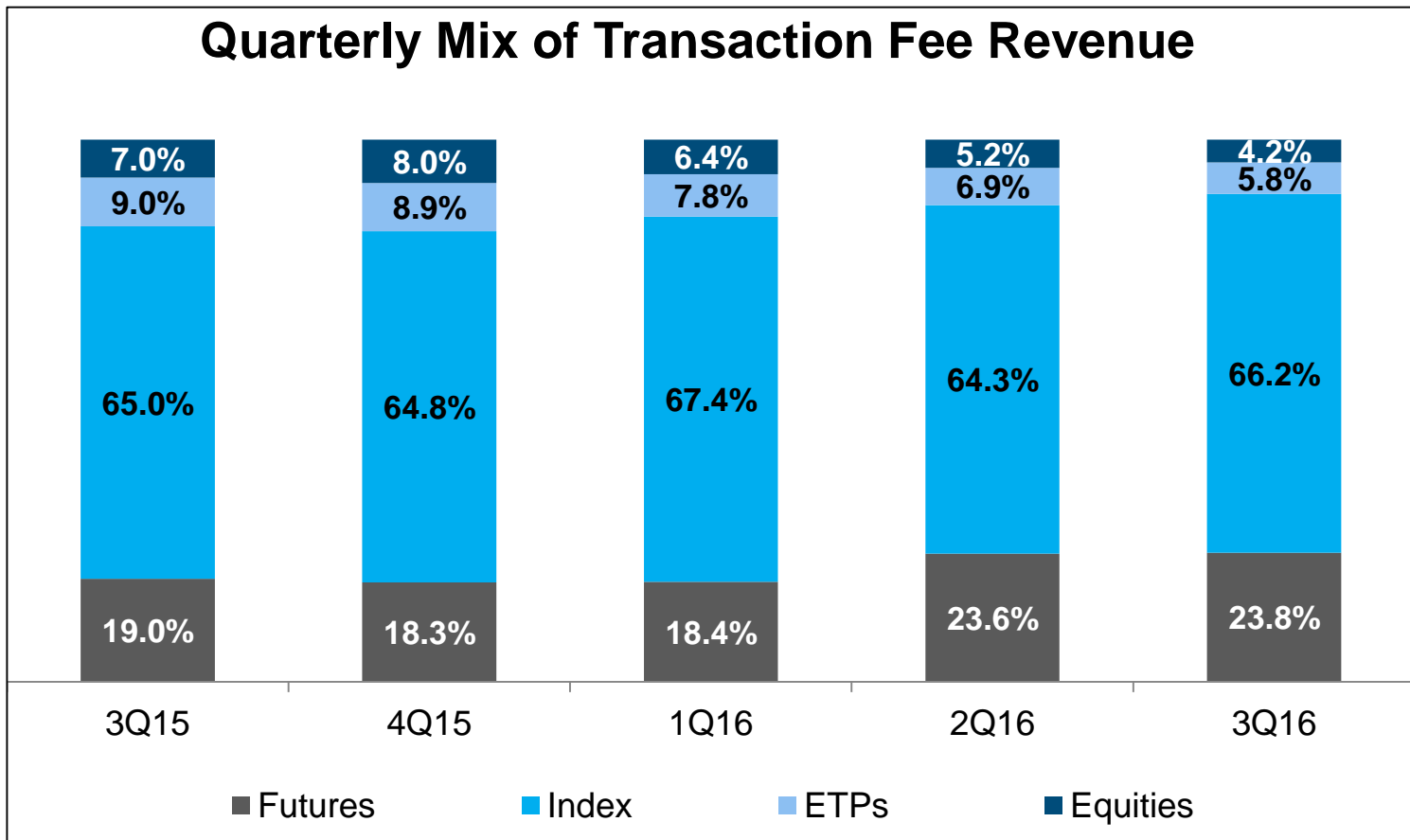


3Q16 RPC \$0.378



Proprietary Products Account for Growing Percentage of Transaction Fee Revenue

Index options and futures contracts accounted for 90.0% of transaction fees in 3Q16 versus 84.0% in 3Q15 and 87.9% in 2Q16



Other Factors Influencing Operating Revenue

- **Market data fees up \$1.1MM**
 - Higher revenue from OPRA market data and proprietary index data
- **Regulatory fees up \$0.9MM**
- **Exchange services and other fees up \$0.6MM**
 - Primarily reflects revenue from CBOE Livevol
- **Other revenue down \$0.4MM**
 - Mainly due to lower revenue from fines

Operating Revenue (in millions)	3Q16	3Q15	% Chg
Transaction fees	\$111.9	\$144.8	-23%
Access fees	13.0	13.1	--
Exchange services and other fees	11.6	11.0	5%
Market data fees	8.2	7.1	15%
Regulatory fees	9.1	8.2	11%
Other revenue	2.4	2.8	-14%
Total Operating Revenue	\$156.2	\$187.0	-16%

Ongoing Focus on Prudent Expense Management

Largest expense variances aligned with performance and volume:

- **Compensation and benefits down \$1.5MM**
- **Royalty fees down \$2.4MM**
- **Depreciation and amortization down \$2.5MM**

Adjusted Operating Expenses¹ (in millions)	3Q16	3Q15	% Chg
Compensation and benefits ¹	\$28.1	\$29.6	-5%
Depreciation and amortization ¹	9.9	12.4	-20%
Technology support services	5.6	5.3	6%
Professional fees and outside services ¹	12.8	12.6	2%
Royalty fees	19.4	21.8	-11%
Order Routing	0.5	0.6	-8%
Travel and promotional	2.6	1.4	85%
Facilities costs	1.3	0.9	44%
Other expenses	1.2	1.3	-8%
Total Adjusted Operating Expenses	\$81.4	\$85.9	-5%

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

Core Operating Expenses

Key drivers:

- **Travel and promotional up \$1.2MM**
 - Primarily due to increases in advertising and special events
- **Facilities costs up \$0.4MM**
- **Compensation and benefits down \$1.5MM**
 - Primarily due to lower incentive-based compensation

Core Operating Expenses ¹ (in millions)	3Q16	3Q15	% Chg
Compensation and benefits ¹	\$28.1	\$29.6	-5%
Technology support Services	5.6	5.3	6%
Professional fees and outside services ¹	12.8	12.6	2%
Travel and promotional	2.6	1.4	86%
Facilities costs	1.3	0.9	44%
Other expenses	1.2	1.3	-8%
Total	\$51.6	\$51.1	1%

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

2016 Full-Year Guidance

As of October 28, 2016 (\$ in millions)	Full-Year Guidance as of July 29, 2016	Updated Guidance as of October 28, 2016
Core operating expenses	\$211 to \$215	Expect to be slightly below range of \$211 to \$215
Continuing stock-based compensation ¹	\$13.5	\$13.5
Accelerated stock-based compensation ²	\$1.0	\$1.0
Depreciation and amortization	\$46 to \$48	Expect to be slightly below range of \$46 to \$48
Capital expenditures	\$47 to \$49	Expect to be slightly below range of \$47 to \$49
Effective tax rate	38.5% to 39.5%	38.5% to 39.5%

¹Stock-based compensation expense is included in compensation and benefits and excludes accelerated stock-based compensation.

²This expense is expected to be reported in compensation and benefits and included in the company's non-GAAP reconciliation as an adjusted financial measure.

Volume-based Expenses

➤ Royalty fees down \$2.4MM

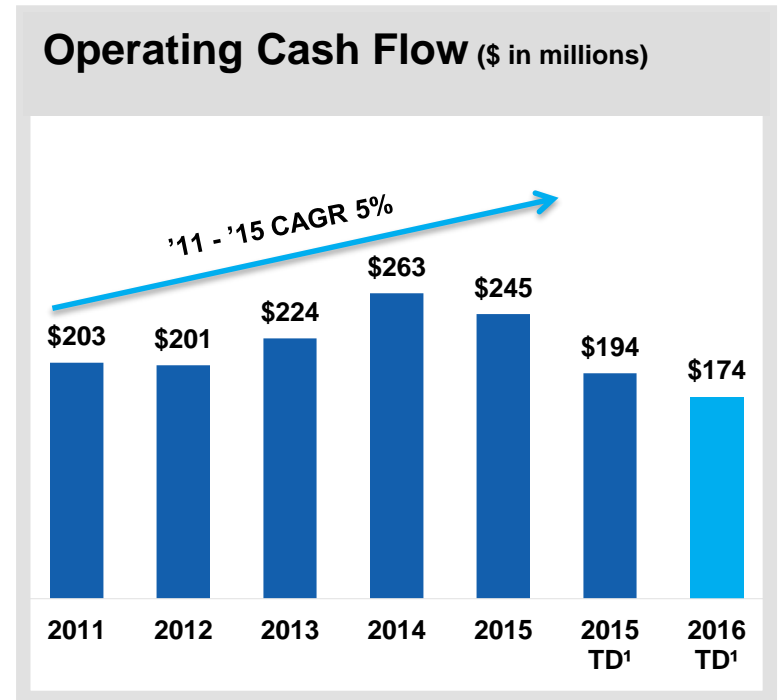
- Lower trading volume in licensed products in 3Q16 versus 3Q15
 - Index complex volume down 19%
- Shift in mix of licensed products traded resulted in higher royalty fee per licensed contract

Volume-based Expenses (in millions)	3Q16	3Q15	% Chg
Royalty fees	\$19.4	\$21.8	-11%
Order routing	0.5	0.6	-8%
Total	\$19.9	\$22.4	-11%

Enhancing Shareholder Value

Strong cash flow generation and disciplined approach to managing cash

- Cash of \$73 million at Sept. 30, 2016
- Generated \$174 million in operating cash flow YTD¹
- Capital outlays YTD¹:
 - \$36 million for capital expenditures
 - \$58 million to pay dividends
 - \$65 million to repurchase shares²
- \$97 million available under share repurchase program at Sept. 30, 2016



¹YTD through September 30, 2016

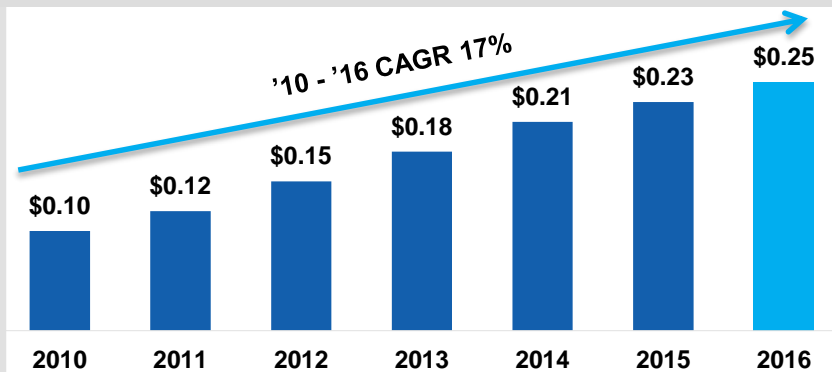
²Includes stock purchased under repurchase plan and from employees

Committed to Returning Capital to Shareholders

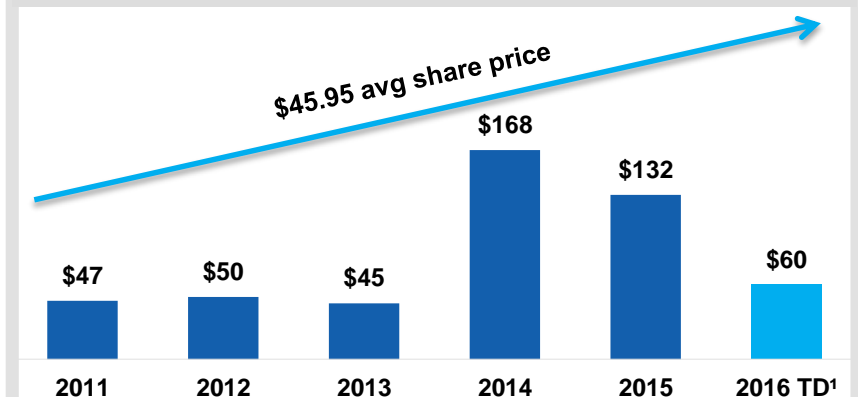
➤ **Expect to maintain a strong balance sheet and flexibility for:**

- Capital expenditures
- Dividend payments
- Opportunistic share repurchases
- Other strategic initiatives

Change in Quarterly Dividend Rate Per Share



Cash Used Under Share Repurchase Plan (\$ in millions)

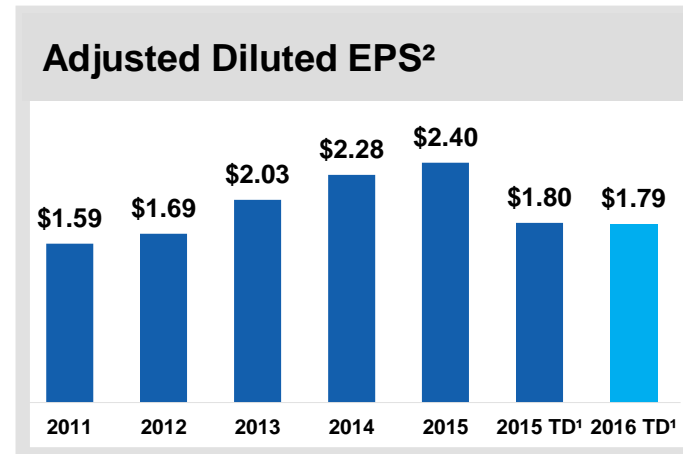
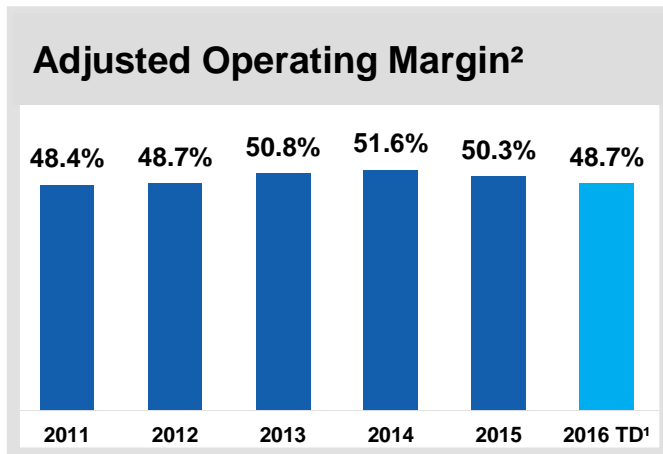
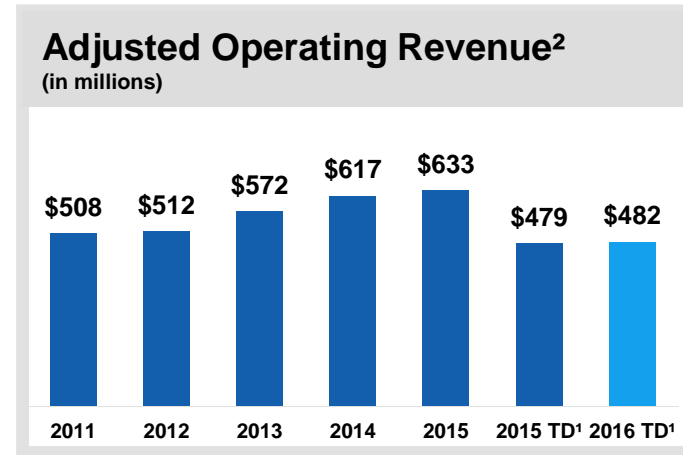
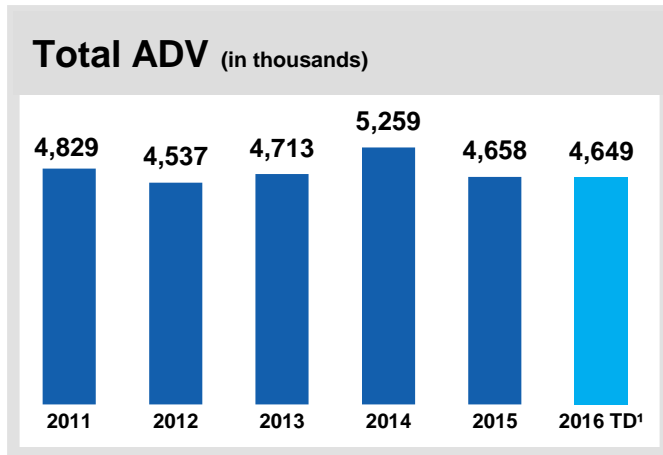


¹YTD through September 30, 2016

➤ Questions & Answers

➤ Appendix Materials

Solid YTD Results Reflect Companywide Commitment to Executing our Strategic Initiatives



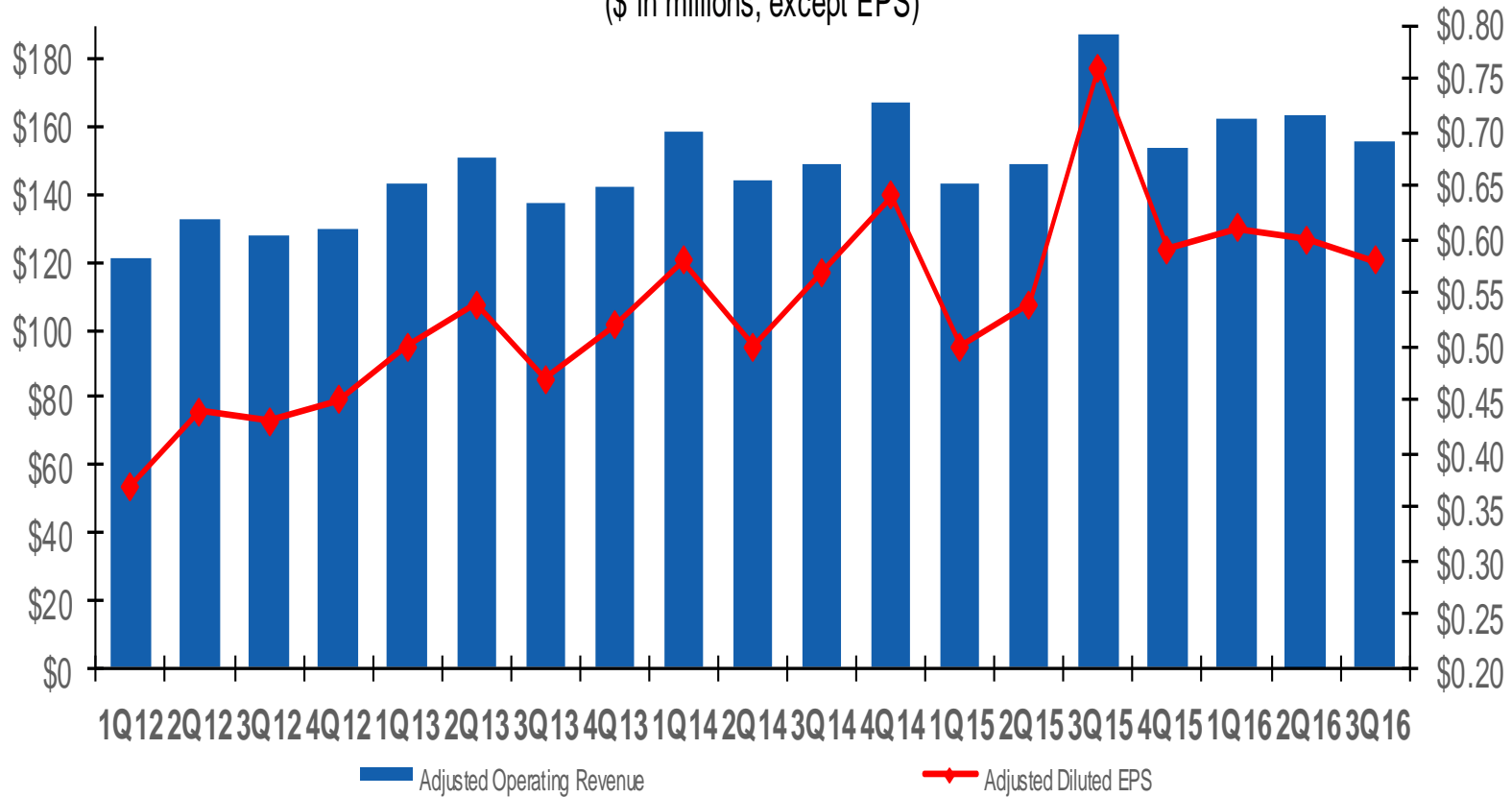
¹YTD through September 30, 2016

²Adjusted to reflect the impact of certain items. See appendix for "Non-GAAP Information."

Optimistic About Long-Term Growth Prospects

Adjusted Operating Revenue and Adjusted Diluted EPS¹

(\$ in millions, except EPS)



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

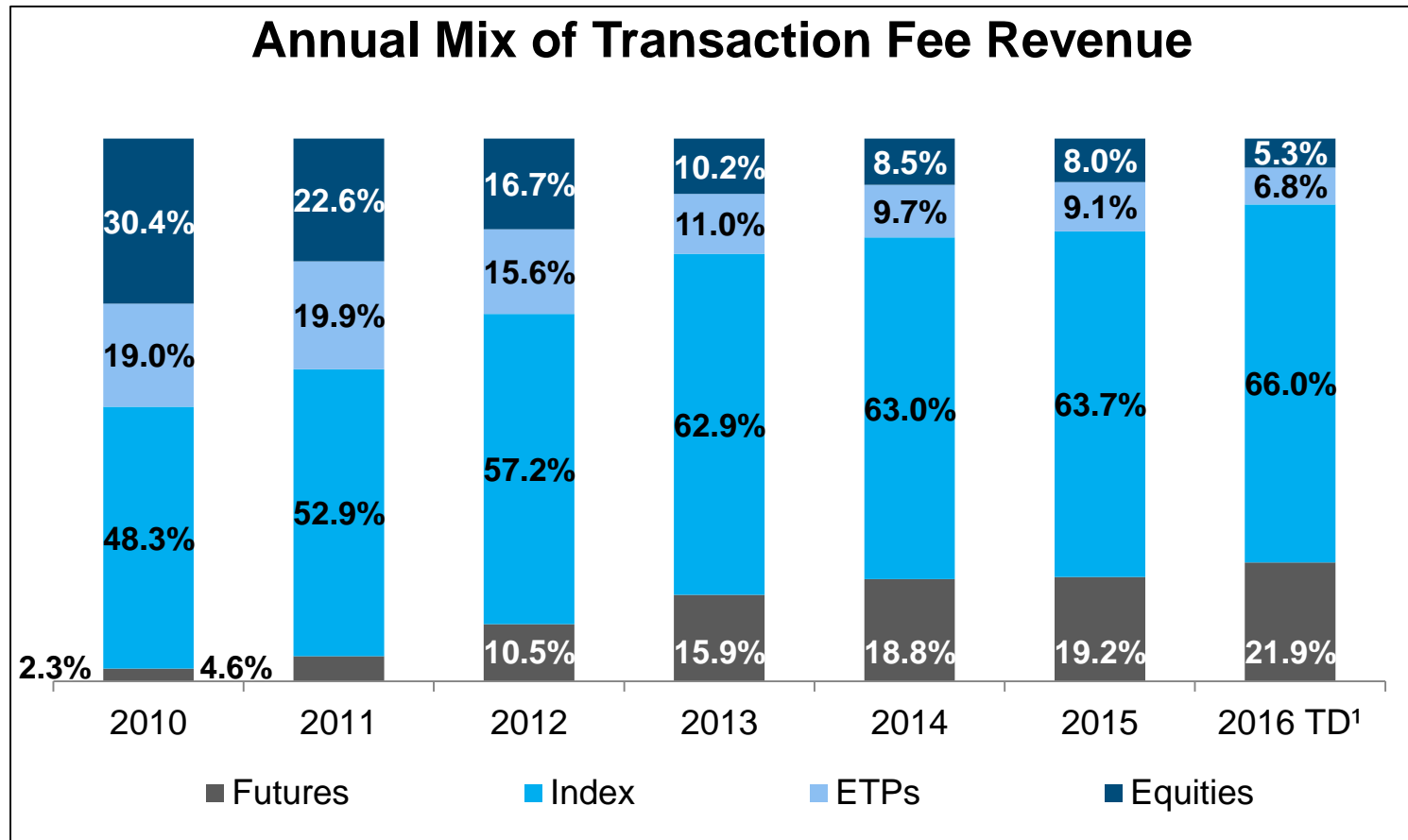
2016 Financial Overview

(in millions, except EPS and RPC)	9 mos. Ended 09/30/16	9 mos. Ended 09/30/15	\$ Change	% Change
Operating Revenue	\$481.9	\$478.6	\$3.3	1%
Adjusted Operating Expenses ¹	247.0	234.6	12.4	5%
Adjusted Operating Income ¹	\$234.9	\$244.0	-\$9.1	-4%
<i>Adjusted Operating Margin %¹</i>	<i>48.7%</i>	<i>51.0%</i>		230 bps
Adjusted Net Income Allocated to Common Stockholders ¹	\$145.6	\$149.9	-\$4.3	-3%
Adjusted Diluted EPS ¹	\$1.79	\$1.80	-\$0.01	-1%
Total ADV	4.65	4.80		-3%
Revenue per Contract	\$0.396	\$0.383	\$0.013	3%

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

Proprietary Products Account for Growing Percentage of Transaction Fee Revenue

Index options and futures contracts account for 87.9% of transaction fees through Sept. '16, up from 50.6% in 2010

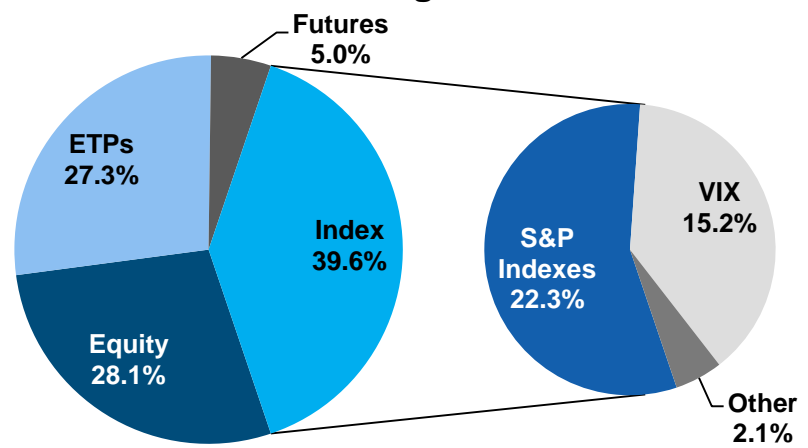


¹YTD Through September 30, 2016

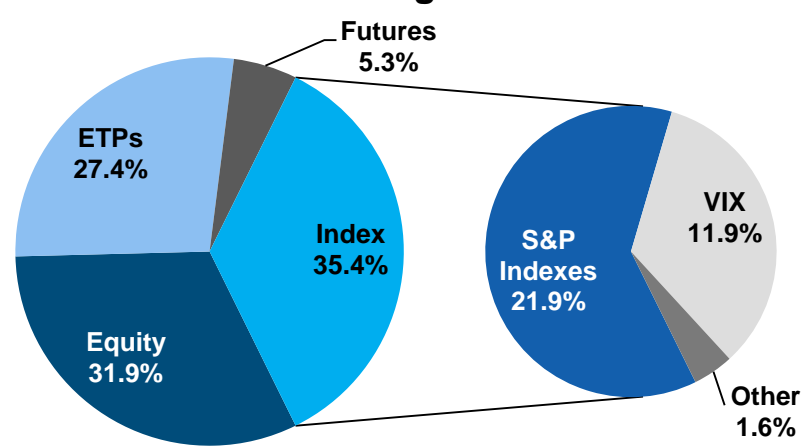
RPC Variance Primarily Reflects Shift in Product Mix and Higher Volume-related Discounts

Trading Volume Mix & RPC 3Q15 vs 3Q16

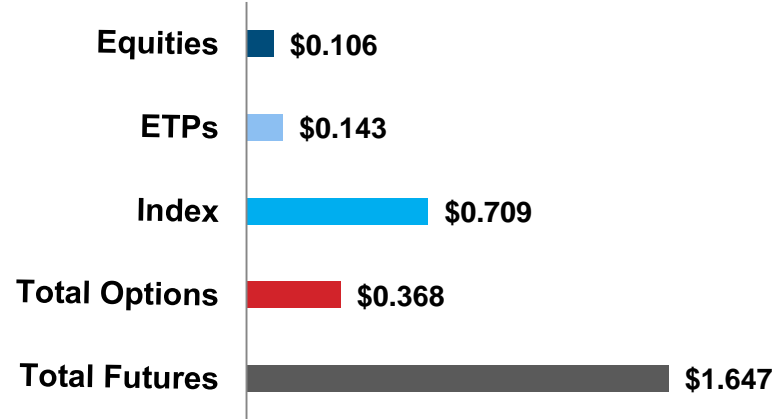
3Q15 Trading Volume Mix



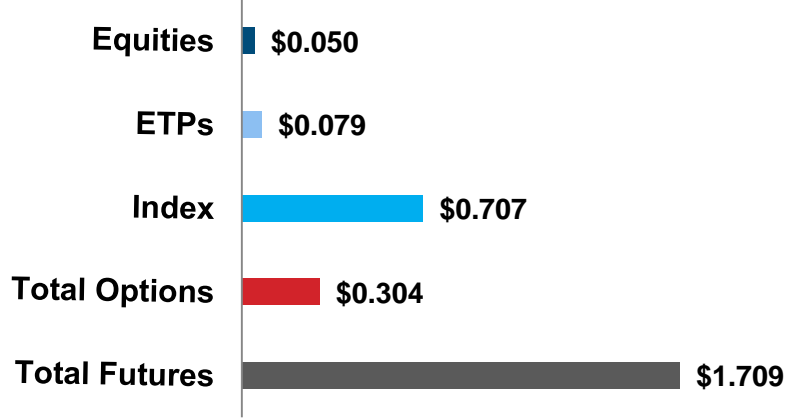
3Q16 Trading Volume Mix



3Q15 RPC \$0.431

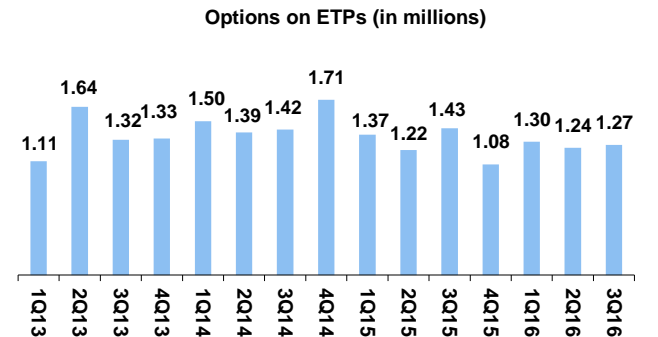
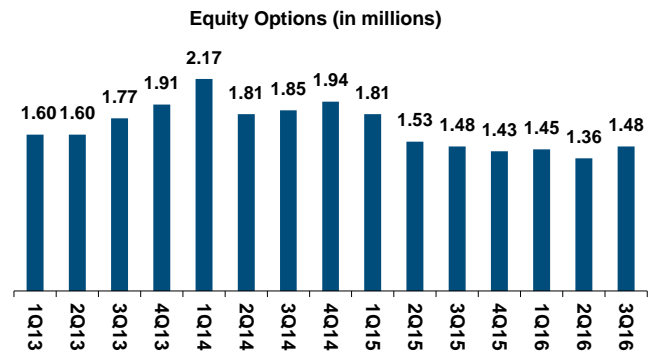
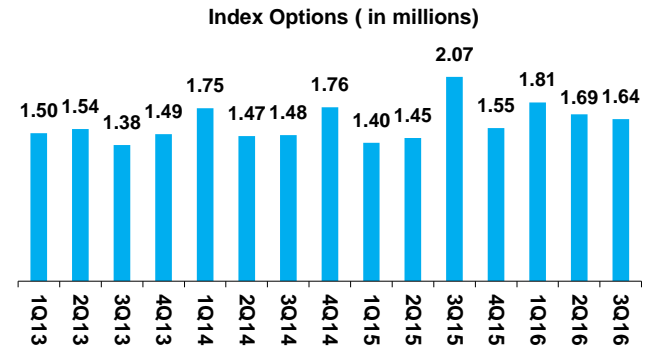
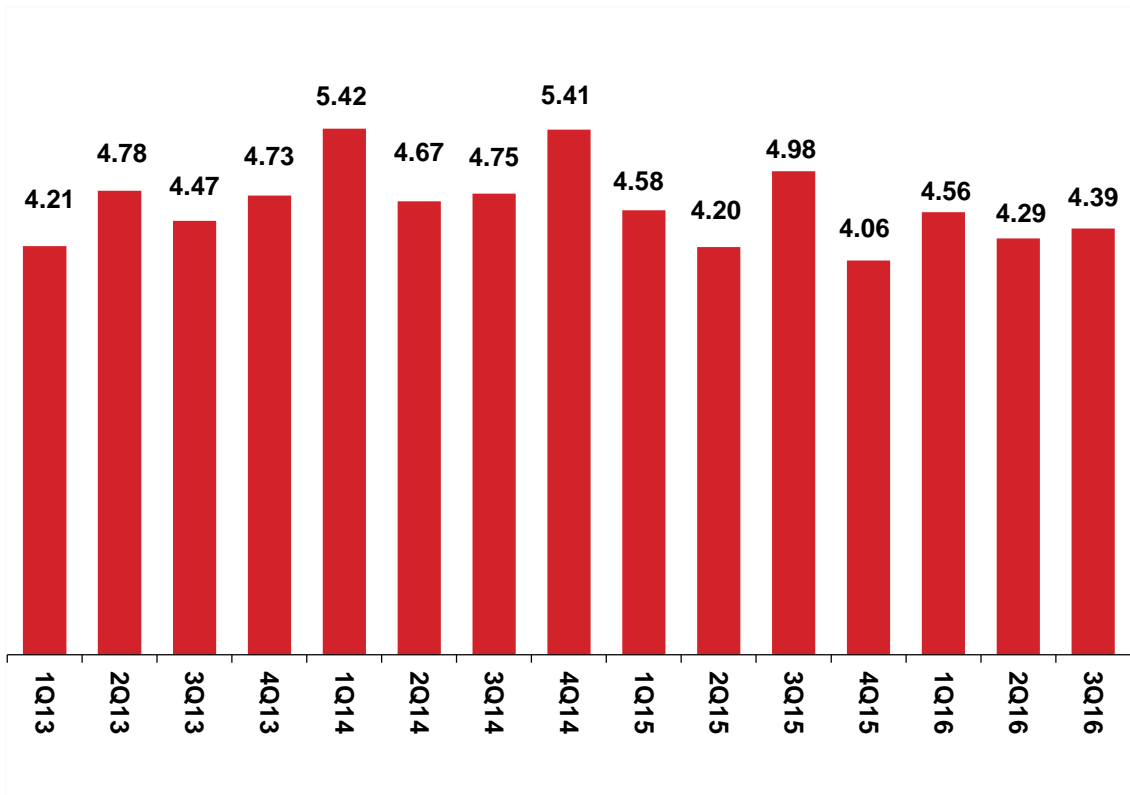


3Q16 RPC \$0.378



Quarterly Options ADV

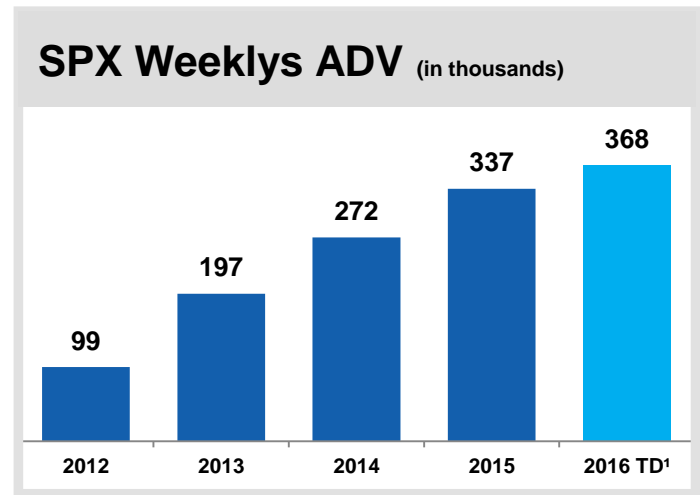
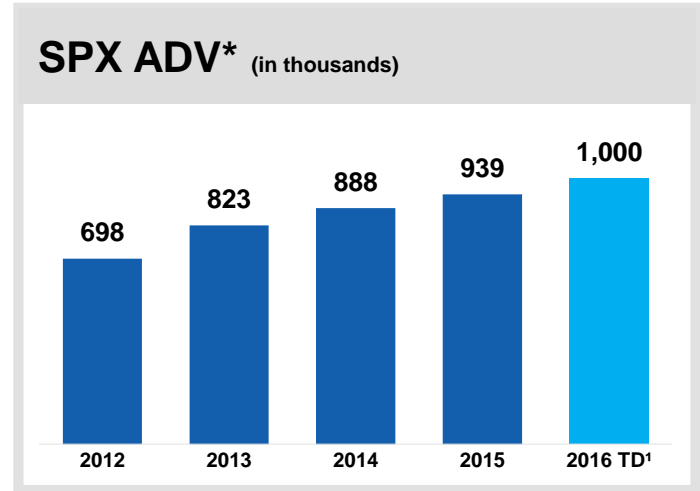
CBOE and C2 Quarterly Options ADV (in millions)



Further Developing Current Products to Grow Index Product Line

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

- **SPX ADV up 5% YoY through September**
- **Introduced SPX Weeklys with Wednesday Expirations on Feb. 23**
 - Increases opportunities to trade SPX
 - Wednesday expirations averaged 84,000 contracts per day in 3Q16
- **Added Monday-expiring Weeklys on August 15**
 - Monday-expiring SPX Weeklys averaging over 50,000 contracts per day since launch



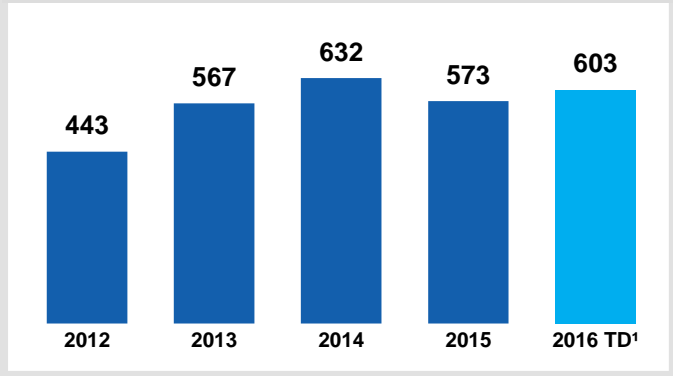
*Includes SPX Weeklys
¹YTD through September 30, 2016

Leveraging VIX[®] Methodology to Create New Products and Grow Index Product Line

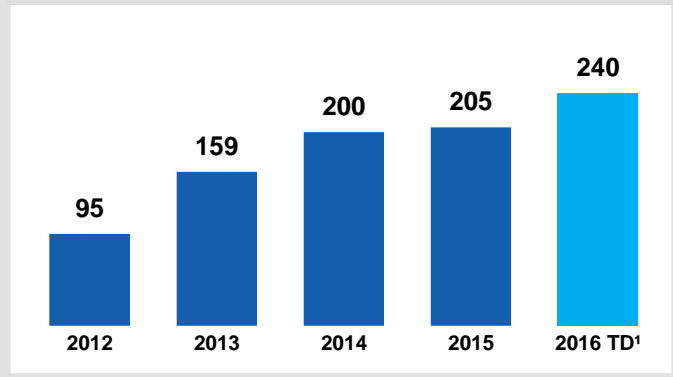
CBOE Volatility Index[®] (VIX Index) is considered the world's barometer of equity market volatility

- **VIX options ADV up 4% YoY through September**
- **VIX futures ADV up 14% YoY through September**
- **Launched VIX Weeklys futures in July 2015, options in October of 2015**
- **Began overnight dissemination of VIX Index on April 15, 2016**
 - **Allows overseas investors to reference VIX during their regular trading hours**

VIX Options ADV
(in thousands)



VIX Futures ADV
(in thousands)



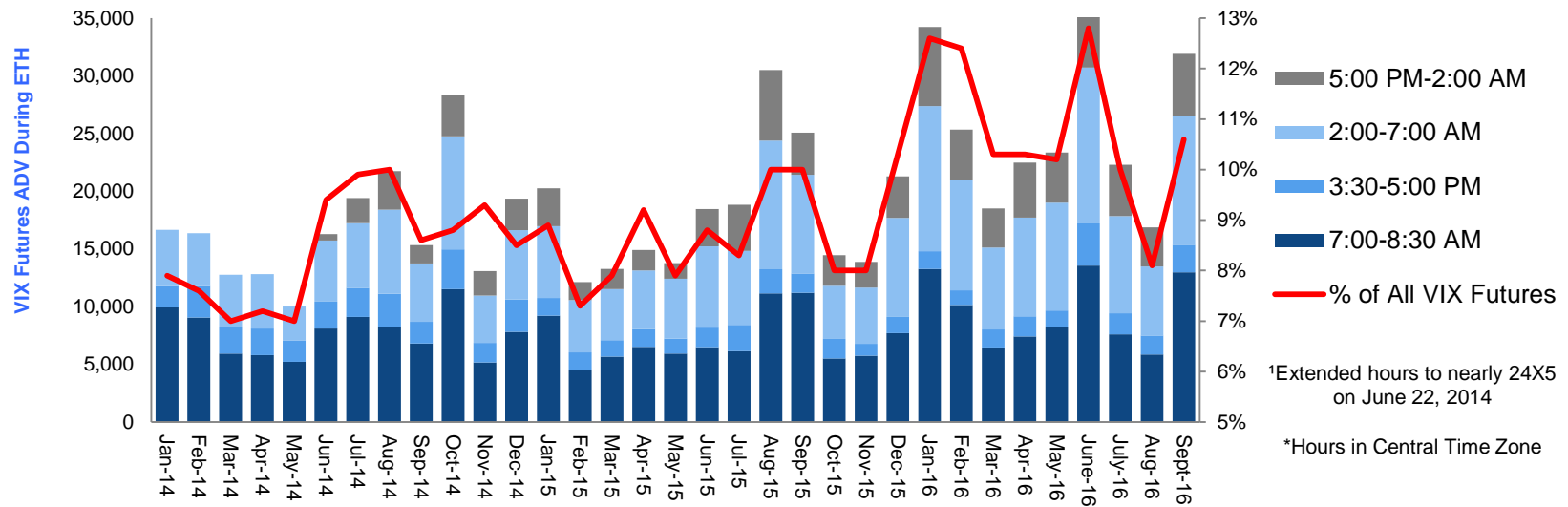
¹YTD through September 30, 2016

Broadening Access to Proprietary Products

Over 11% of VIX futures traded during non-U.S. hours through September 2016, up from 9% for full-year 2015

- Generally, on days when volatility spikes, overnight volume increases and accounts for higher percentage of total VIX futures volume

VIX Futures ADV During Non-U.S. Trading Hours (ETH)¹ - By Time Period*



¹Extended hours to nearly 24X5 on June 22, 2014

*Hours in Central Time Zone

CBOE Holdings Rolling 3-Month RPC

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Equities	\$0.095	\$0.092	\$0.085	\$0.081	\$0.075	\$0.070	\$0.063	\$0.057	\$0.050			
Exchange-traded products	0.138	0.131	0.117	0.111	0.104	0.103	0.096	0.089	0.079			
Indexes	0.738	0.733	0.720	0.706	0.698	0.701	0.704	0.706	0.707			
Total options RPC	0.351	0.351	0.346	0.335	0.326	0.328	0.326	0.320	0.304			
Futures	1.636	1.623	1.643	1.697	1.721	1.682	1.677	1.702	1.709			
Total RPC	\$0.412	\$0.413	\$0.405	\$0.397	\$0.394	\$0.405	\$0.401	\$0.395	\$0.378			

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Equities	\$0.069	\$0.070	\$0.077	\$0.077	\$0.087	\$0.093	\$0.098	\$0.104	\$0.106	\$0.105	\$0.098	\$0.097
Exchange-traded products	0.111	0.115	0.118	0.115	0.114	0.117	0.123	0.133	0.143	0.146	0.144	0.143
Indexes	0.702	0.704	0.712	0.707	0.701	0.697	0.702	0.703	0.709	0.706	0.718	0.726
Total options RPC	0.279	0.283	0.284	0.280	0.290	0.308	0.328	0.352	0.368	0.370	0.357	0.349
Futures	1.647	1.649	1.705	1.762	1.775	1.758	1.712	1.661	1.647	1.662	1.686	1.686
Total RPC	\$0.333	\$0.340	\$0.340	\$0.336	\$0.348	\$0.368	\$0.391	\$0.416	\$0.431	\$0.432	\$0.417	\$0.408

2014	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Equities	\$0.079	\$0.079	\$0.081	\$0.082	\$0.081	\$0.079	\$0.074	\$0.076	\$0.077	\$0.078	\$0.074	\$0.068
Exchange-traded products	0.124	0.119	0.117	0.113	0.113	0.111	0.112	0.114	0.115	0.112	0.107	0.105
Indexes	0.664	0.667	0.669	0.674	0.674	0.670	0.671	0.677	0.680	0.690	0.692	0.696
Total options RPC	0.273	0.281	0.281	0.277	0.275	0.275	0.275	0.281	0.275	0.288	0.279	0.284
Futures	1.602	1.614	1.617	1.610	1.616	1.639	1.651	1.631	1.625	1.598	1.628	1.616
Total RPC	\$0.317	\$0.329	\$0.329	\$0.325	\$0.321	\$0.322	\$0.324	\$0.336	\$0.329	\$0.344	\$0.331	\$0.340

2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Equities	\$0.149	\$0.153	\$0.140	\$0.114	\$0.094	\$0.090	\$0.082	\$0.081	\$0.077	\$0.076	\$0.076	\$0.075
Exchange-traded products	0.194	0.181	0.155	0.127	0.119	0.119	0.121	0.122	0.123	0.124	0.126	0.125
Indexes	0.665	0.670	0.671	0.679	0.674	0.675	0.670	0.671	0.669	0.666	0.666	0.666
Total options RPC	0.340	0.341	0.333	0.308	0.295	0.289	0.282	0.278	0.273	0.278	0.275	0.275
Futures	1.484	1.560	1.618	1.598	1.594	1.544	1.544	1.533	1.559	1.548	1.556	1.565
Total RPC	\$0.376	\$0.382	\$0.378	\$0.357	\$0.341	\$0.334	\$0.324	\$0.321	\$0.315	\$0.320	\$0.315	\$0.316

Quarterly Core Operating Expenses¹

(\$ in thousands)

	3Q 2016	% rev	2Q 2016	% rev	1Q 2016	% rev	4Q 2015	% rev	3Q 2015	% rev
Total Operating Expenses	\$90,557	58%	\$85,361	53%	\$82,849	51%	\$80,052	52%	\$85,925	43%
Less:										
Depreciation and amortization	10,200	7%	12,259	8%	11,851	7%	12,202	8%	12,394	7%
Compensation and benefits ²	212	-	892	-	200	-	-	-	-	-
Assessment of computer-based lease taxes for prior years ³	-	-	-	-	298	-	-	-	-	-
Acquisition related expenses ⁴	8,635	-	300	-	368	-	-	-	-	-
Volume-based expenses:										
Royalty fees	19,399	12%	19,336	12%	19,114	12%	17,830	12%	21,840	10%
Order routing	536	-	(83)	-	104	-	299	-	581	-
Core Operating Expenses (non-GAAP)¹:	\$51,575	33%	\$52,657	32%	\$50,914	31%	\$49,721	32%	\$51,110	27%
Less: Continuing stock-based compensation	3,554	2%	3,472	2%	3,163	2%	3,194	2%	3,185	2%
Core Operating Expenses excluding continuing stock-based compensation (non-GAAP)¹:	\$48,021	31%	\$49,185	30%	\$47,751	29%	\$46,527	30%	\$47,925	25%
Core Operating Expense Detail:										
Compensation and benefits	\$28,132	18%	\$27,638	17%	\$26,906	17%	\$26,768	17%	\$29,583	14%
Technology support services	5,608	4%	5,658	3%	5,380	3%	5,182	3%	5,342	3%
Profession fees and outside services	12,746	8%	14,445	9%	13,263	8%	12,897	8%	12,619	7%
Travel and promotional expenses	2,610	2%	2,492	2%	2,515	2%	2,548	2%	1,407	1%
Facilities costs	1,322	1%	1,418	1%	1,528	1%	1,446	1%	874	-
Other expenses	1,157	1%	1,006	1%	1,322	1%	880	1%	1,285	0%
Total	\$51,575	33%	\$52,657	32%	\$50,914	31%	\$49,721	32%	\$51,110	27%
Number of full-time employees at quarter end	570		569		561		564		553	

¹Please see our disclaimer regarding non-GAAP financial measures.

²For the third quarter of 2016, represents \$212 for accelerated stock-based compensation expenses. Year-to-date 2016, represents \$682 for accelerated stock-based compensation expenses and \$622 in additional bonus accrual resulting from legal settlement income.

³Year-to-date 2016, represents \$296 for assessment of computer-based lease taxes for prior period use, reported in technology support services.

⁴For the third quarter of 2016, represents professional fees and outside services related to CBOE Holdings' planned acquisition of Bats. Year-to-date 2016, represents professional fees and outside services related to CBOE Holdings' investments in CBOE Vest Financial, CurveGlobal and its planned acquisition of Bats

May not foot due to rounding

Annual Core Operating Expenses¹

(\$ in thousands)

	2016 YTD	% rev	2015	% rev	2014	% rev	2013	% rev	2012	% rev
Total Operating Expenses	\$258,768	54%	\$314,617	50%	\$303,424	49%	\$286,236	50%	\$268,241	52%
Less:										
Depreciation and amortization	34,311	7%	46,274	7%	39,913	6%	34,488	6%	31,485	6%
Acquisitions related expenses	9,303	2%								
Accelerated stock-based compensation	1,305	-	-	-	2,530	-	3,996	1%	343	-
Assessment of computer-based lease taxes for prior period use	296									
Severance	-	-	-	-	1,863	-	-	-	-	-
Estimated liability/expense related to SEC investigation	-	-	-	-	-	-	1,000	-	5,000	1%
Volume-based expenses:										
Royalty fees	57,849	12%	70,574	11%	66,110	11%	56,576	10%	46,135	9%
Order routing	557	-	2,293	-	4,080	1%	4,355	1%	6,275	1%
Core Operating Expenses (non-GAAP)¹:	\$155,147	32%	\$195,476	31%	\$188,928	31%	\$185,821	32%	\$179,003	35%
Less: Continuing stock-based compensation	10,189	2%	12,181	2%	13,047	2%	16,828	3%	12,005	2%
Core Operating Expenses excluding continuing stock-based compensation (non-GAAP)¹:	\$144,958	30%	\$183,295	29%	\$175,881	28%	\$168,993	30%	\$166,998	33%
Core Operating Expense Detail:										
Compensation and benefits	\$82,675	17%	\$105,925	17%	\$117,341	19%	\$114,087	20%	\$103,853	20%
Technology support services	16,944	4%	20,662	3%	19,189	3%	17,898	3%	19,603	4%
Professional fees and outside services	40,455	8%	50,060	8%	31,976	5%	34,473	6%	36,300	7%
Travel and promotion expenses	7,616	2%	8,982	1%	9,046	1%	9,806	2%	10,006	2%
Facilities costs	4,268	1%	4,998	1%	5,721	1%	5,053	1%	5,066	1%
Other expenses	3,189	1%	4,849	1%	5,655	1%	4,504	1%	4,175	1%
Total	\$155,147	32%	\$195,476	31%	\$188,928	31%	\$185,821	32%	\$179,003	35%
Number of Full Time Employees at year end	570		564		520		650		605	

¹Please see our disclaimer regarding non-GAAP financial measures.

May not foot due to rounding

GAAP to Non-GAAP Reconciliation For 2010 and 2011

GAAP to Non-GAAP Reconciliation
(in thousands, except per share amounts)

	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11	FY2010	FY2011
Reconciliation of GAAP Net Income Allocated to Common Stockholder to Non-GAAP								
GAAP net income allocated to common stockholders	\$ 20,020	\$ 30,687	\$ 32,089	\$ 32,609	\$ 40,597	\$ 31,287	\$ 98,166	\$ 136,582
Less: Recognition of prior-period revenue		(4,406)					(4,406)	
Add: Accelerated stock-based compensation	10,965	2,004	340	113			12,968	453
Add: Severance expense pursuant to an executive employment agreement						3,709		3,709
Add: Impairment change		1,620	460				1,620	460
Income tax benefit/(expense) related to the items above	(4,461)	291	(337)	(46)		(1,478)	(4,034)	(1,861)
Add: Income tax provision adjustment					4,223	(322)		3,901
Net income allocated to participating securities - effect on reconciling items	(144)	11	(11)	(2)	(75)	(32)	(76)	(109)
Adjusted net income allocated to common stockholders	\$ 26,380	\$ 30,207	\$ 32,540	\$ 32,674	\$ 44,745	\$ 33,164	\$ 104,238	\$ 143,134

Reconciliation of GAAP Diluted EPS to Non-GAAP

GAAP diluted earnings per common share	\$ 0.20	\$ 0.31	\$ 0.36	\$ 0.36	\$ 0.45	\$ 0.35	\$ 1.03	\$ 1.52
Per share impact of items above	0.06				0.05	0.02	0.06	0.07
Non-GAAP diluted earnings per common share	\$ 0.26	\$ 0.31	\$ 0.36	\$ 0.36	\$ 0.50	\$ 0.37	\$ 1.09	\$ 1.59

Reconciliation of GAAP Operating Margin to Non-GAAP

GAAP operating revenue	\$ 106,015	\$ 117,391	\$ 124,042	\$ 120,290	\$ 143,604	\$ 120,208	\$ 437,104	\$ 508,144
Non-GAAP adjustments noted above		(4,406)					(4,406)	
Adjusted operating revenue	\$ 106,015	\$ 112,985	\$ 124,042	\$ 120,290	\$ 143,604	\$ 120,208	\$ 432,698	\$ 508,144
GAAP operating income	\$ 34,933	\$ 51,854	\$ 57,535	\$ 56,452	\$ 74,966	\$ 52,679	\$ 167,341	\$ 241,632
Non-GAAP adjustments noted above	10,965	(2,402)	340	113	-	3,709	8,562	4,162
Adjusted operating income	\$ 45,898	\$ 49,452	\$ 57,875	\$ 56,565	\$ 74,966	\$ 56,388	\$ 175,903	\$ 245,794
Adjusted operating margin	43.3%	43.8%	46.7%	47.0%	52.2%	46.9%	40.7%	48.4%

For further information go to cboe.com/Investor Relations

May not foot due to rounding and/or change in shares outstanding

GAAP to Non-GAAP Reconciliation For 2012 and 2013

GAAP to Non-GAAP Reconciliation
(in thousands, except per share amounts)

	1Q12	2Q12	3Q12	4Q12	FY2012	1Q13	2Q13	3Q13	4Q13	FY2013
Reconciliation of GAAP Net Income Allocated to Common Stockholder to Non-GAAP										
GAAP net income allocated to common stockholders	\$ 32,863	\$ 37,903	\$ 45,243	\$ 39,246	\$ 155,254	\$ 41,789	\$ 45,477	\$ 40,955	\$ 45,649	\$ 173,863
Add: Accelerated stock-based compensation	194			149	343	3,180	816			3,996
Add: Estimated liability related to SEC investigation				5,000	5,000		1,000			1,000
Add: Impairment charge						245				245
Income tax benefit/(expense) related to the items above	(80)			(63)	(139)	(1,311)	(313)			(1,611)
Add: Income tax provision adjustment			(7,654)	(5,415)	(13,054)					
Net income allocated to participating securities - effect on reconciling items	(2)		86	4	106	(29)	(22)			(46)
Adjusted net income allocated to common stockholders	\$ 32,975	\$ 37,903	\$ 37,675	\$ 38,921	\$ 147,510	\$ 43,874	\$ 46,958	\$ 40,955	\$ 45,649	\$ 177,447
Reconciliation of GAAP Diluted EPS to Non-GAAP										
GAAP diluted earnings per common share	\$ 0.37	\$ 0.44	\$ 0.52	\$ 0.45	\$ 1.78	\$ 0.48	\$ 0.52	\$ 0.47	\$ 0.52	\$ 1.99
Per share impact of items above			(0.09)		(0.09)	0.02	0.02			0.04
Non-GAAP diluted earnings per common share	\$ 0.37	\$ 0.44	\$ 0.43	\$ 0.45	\$ 1.69	\$ 0.50	\$ 0.54	\$ 0.47	\$ 0.52	\$ 2.03
Reconciliation of GAAP Operating Margin to Non-GAAP										
GAAP operating revenue	\$ 121,392	\$ 132,549	\$ 128,319	\$ 130,077	\$ 512,338	\$ 142,705	\$ 150,772	\$ 136,743	\$ 141,830	\$ 572,050
Non-GAAP adjustments noted above										
Adjusted operating revenue	\$ 121,392	\$ 132,549	\$ 128,319	\$ 130,077	\$ 512,338	\$ 142,705	\$ 150,772	\$ 136,743	\$ 141,830	\$ 572,050
GAAP operating income	\$ 57,415	\$ 66,069	\$ 60,861	\$ 59,752	\$ 244,097	\$ 69,430	\$ 75,358	\$ 68,427	\$ 72,599	\$ 285,814
Non-GAAP adjustments noted above	194			5,149	5,343	3,180	1,816			4,996
Adjusted operating income	\$ 57,609	\$ 66,069	\$ 60,861	\$ 64,901	\$ 249,440	\$ 72,610	\$ 77,174	\$ 68,427	\$ 72,599	\$ 290,810
Adjusted operating margin	47.5%	49.8%	47.4%	49.9%	48.7%	50.9%	51.2%	50.0%	51.2%	50.8%

For further information go to cboe.com/Investor Relations

May not foot due to rounding and/or change in shares outstanding

GAAP to Non-GAAP Reconciliation

For 2014 and 2015

GAAP to Non-GAAP Reconciliation

(in thousands, except per share amounts)

	1Q14	2Q14	3Q14	4Q14	FY2014	1Q15	2Q15	3Q15	4Q15	FY2015
Reconciliation of GAAP Net Income Allocated to Common Stockholder to Non-GAAP										
GAAP net income allocated to common stockholders	\$ 48,528	\$ 42,598	\$ 48,146	\$ 49,119	\$ 188,392	\$ 42,079	\$ 44,646	\$ 67,219	\$ 50,180	204,125
Less: Revenue recognized from prior years									\$ (1,995)	(1,995)
Add: Accelerated stock-based compensation	2,530				2,530					-
Add: Seavance expense related to outsourcing certain regulatory services				1,863	1,863					-
Add: Impairment charge				3,000	3,000	364				364
Add: Tax adjustment related to prior year				1,600	1,600			(4,286)		(4,286)
Income tax benefit/(expense) related to the items above	(1,009)			(2,005)	(2,861)	(142)			732	620
Net income allocated to participating securities - effect on reconciling items	(15)			(20)	(43)	(3)		19	6	26
Adjusted net income allocated to common stockholders	\$ 50,034	\$ 42,598	\$ 48,146	\$ 53,557	\$ 194,481	\$ 42,299	\$ 44,646	\$ 62,952	\$ 48,923	\$ 198,854
Reconciliation of GAAP Diluted EPS to Non-GAAP										
GAAP diluted earnings per common share	\$ 0.56	\$ 0.50	\$ 0.57	\$ 0.58	\$ 2.21	\$ 0.50	\$ 0.54	\$ 0.81	\$ 0.61	\$ 2.46
Per share impact of items above	0.02			0.06	0.07			(0.05)	(0.02)	(0.06)
Non-GAAP diluted earnings per common share	\$ 0.58	\$ 0.50	\$ 0.57	\$ 0.64	\$ 2.28	\$ 0.50	\$ 0.54	\$ 0.76	\$ 0.59	\$ 2.40
Reconciliation of GAAP Operating Margin to Non-GAAP										
GAAP operating revenue	\$ 157,885	\$ 143,942	\$ 148,910	\$ 166,487	\$ 617,225	\$ 142,839	\$ 148,725	\$ 187,035	\$ 155,946	\$ 634,545
Non-GAAP adjustments noted above									(1,995)	(1,995)
Adjusted operating revenue	\$ 157,885	\$ 143,942	\$ 148,910	\$ 166,487	\$ 617,225	\$ 142,839	\$ 148,725	\$ 187,035	\$ 153,951	\$ 632,550
GAAP operating income	\$ 82,038	\$ 69,716	\$ 75,084	\$ 86,962	\$ 313,801	\$ 69,553	\$ 73,370	\$ 101,110	\$ 75,894	\$ 319,928
Non-GAAP adjustments noted above	2,530			1,863	4,393				(1,995)	(1,995)
Adjusted operating income	\$ 84,568	\$ 69,716	\$ 75,084	\$ 88,825	\$ 318,194	\$ 69,553	\$ 73,370	\$ 101,110	\$ 73,899	\$ 317,933
GAAP operating expenses								\$85,925		
Non-GAAP adjustments noted above										
Adjusted operating expenses								\$85,925		
Adjusted operating margin	53.6%	48.4%	50.4%	53.4%	51.6%	48.7%	49.3%	54.1%	48.0%	50.3%
Free Cash Flow Reconciliation										
Net cash flows provided by operating activities										\$ 245,278
Capital expenditures										(39,340)
Free Cash Flow										\$ 205,938

For further information go to cboe.com/Investor Relations

May not foot due to rounding and/or change in shares outstanding

GAAP to Non-GAAP Reconciliation For 2016

Reconciliation of GAAP Net Income Allocated to Common Stockholder to Non-GAAP

	1Q16	2Q16	3Q16	4Q16	FY2016
GAAP net income allocated to common stockholders	\$ 49,198	\$ 50,719	\$ 40,280		\$ 139,974
Add: Compensation and benefits (1)	200	892	212		1,305
Add: Acquisition related expenses reported in professional fees and outside services (2)	368	300	8,635		9,303
Add: Amortization of intangible assets reported in depreciation and amortization	261	340	300		901
Add: Change in redemption value of noncontrolling interest		299	270		792
Add: Assessment of computer-based lease taxes for prior period use, reported in technology support services	296	-	-		296
Less: Gain on settlement of contingent consideration			(1,399)		(1,399)
Add: Deferred financing costs			232		232
Less: Revenue recognized from legal settlement (3)	-	(5,500)	-		(5,500)
Income tax expense related to the items above (4)	(378)	1,614	(2,993)		(1,983)
Uncertain tax position related to research and development credits (5)			1,661		1,661
Net income allocated to participating securities - effect on reconciling items	(3)	10	29		23
Adjusted net income allocated to common stockholders	\$ 49,942	\$ 48,674	\$ 47,227		\$ 145,605

Reconciliation of GAAP Diluted EPS to Non-GAAP

GAAP diluted earnings per common share	\$ 0.60	\$ 0.62	\$ 0.50		\$ 1.72
Per share impact of non-GAAP adjustments noted above	0.01	(0.02)	0.08		0.07
Non-GAAP diluted earnings per common share	\$ 0.61	\$ 0.60	\$ 0.58		\$ 1.79

Reconciliation of GAAP Operating Margin to Non-GAAP

GAAP operating revenue	\$ 162,330	\$ 163,329	\$ 156,207		\$ 481,866
Non-GAAP adjustments noted above	-	-	-		-
Adjusted operating revenue	\$ 162,330	\$ 163,329	\$ 156,207		\$ 481,866
GAAP operating expenses	\$ 82,849	\$85,362	\$90,557		\$ 258,768
Non-GAAP adjustments noted above	(1,125)	(1,532)	(9,147)		(11,805)
Adjusted operating expenses	\$ 81,724	\$ 83,830	\$ 81,410		\$ 246,963
GAAP operating income	\$ 79,481	\$ 77,967	\$ 65,650		\$ 223,098
Non-GAAP adjustments noted above	1,125	1,532	9,147		11,805
Adjusted operating income	\$ 80,606	\$ 79,499	\$ 74,797		\$ 234,903
Adjusted operating margin	49.7%	48.7%	47.9%		48.7%

¹For the third quarter of 2016, represents \$212 for accelerated stock-based compensation expenses. Year-to-date 2016, this amount represents \$683 for accelerated stock-based compensation expenses and \$622 in additional bonus accrual resulting from legal settlement income.

²For the third quarter of 2016, this amount represents professional fees and outside services related to CBOE Holdings' planned acquisition of Bats. Year-to-date 2016, this amount represents professional fees and outside services related to CBOE Holdings' investments in CBOE Vest Financial and CurveGlobal and its planned

³Settlement received for attorney fees and expenses relating to a litigation matter, reported in investment and other income.

⁴GAAP to Non-GAAP reconciling items that are associated with our controlling interest in Vest Financial Group Inc. are not tax effected.

⁵For the third quarter of 2015, the company recorded a benefit from the release of an uncertain tax position related to research and development credits, which were effectively settled. For the third quarter of 2016, the company no longer considers certain positions to be effectively settled and therefore recorded a related increase in unrecognized tax benefits.

May not foot due to rounding and/or change in shares outstanding

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 core operating expenses, adjusted operating revenue, adjusted operating expenses, adjusted operating income, adjusted operating margin, adjusted net income allocated to common stockholders, and adjusted diluted earnings per share.
- Management believes that the non-GAAP financial measures in this presentation, including adjusted net income allocated to common stockholders and core 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, including adjusted diluted EPS, are provided as additional information to investors in order to provide them with an alternative method for assessing our financial condition and operating results.
- Core operating expenses is the company's operating expenses after excluding (i) volume-based expenses, (ii) depreciation and amortization expense, (iii) accelerated stock-based compensation expense and (iv) other unusual or one-time expenses.

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