

**CME Group**

**4Q 2017 Earnings**

**Q&A Conference Call**

# **APPENDIX SLIDES**

February 1, 2018

As a replacement to conference call prepared remarks, please see the CME Group 4Q 2017 Quarterly Earnings Commentary document posted with all other CME Group 4Q 2017 earnings documents at the following link:

<http://investor.cmegroup.com/investor-relations/results.cfm>

# Forward Looking Statements

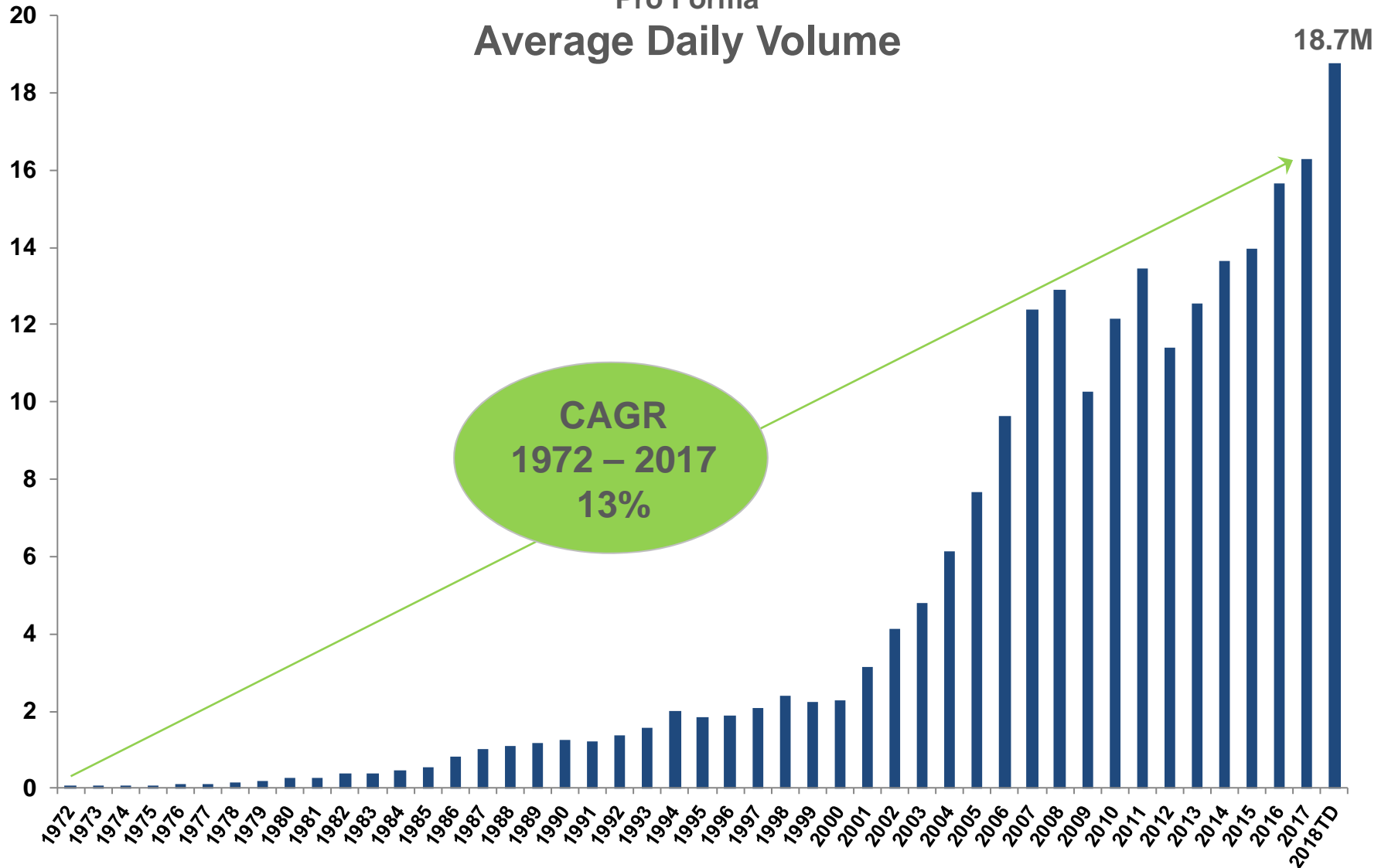
*Statements in this presentation that are not historical facts are forward-looking statements. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or implied in any forward-looking statements. We want to caution you not to place undue reliance on any forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. Among the factors that might affect our performance are increasing competition by foreign and domestic entities, including increased competition from new entrants into our markets and consolidation of existing entities; our ability to keep pace with rapid technological developments, including our ability to complete the development, implementation and maintenance of the enhanced functionality required by our customers while maintaining reliability and ensuring that such technology is not vulnerable to security risks; our ability to continue introducing competitive new products and services on a timely, cost-effective basis, including through our electronic trading capabilities, and our ability to maintain the competitiveness of our existing products and services, including our ability to provide effective services to the swaps market; our ability to adjust our fixed costs and expenses if our revenues decline; our ability to maintain existing customers, develop strategic relationships and attract new customers; our ability to expand and offer our products outside the United States; changes in regulations, including the impact of any changes in laws or government policy with respect to our industry, such as any changes to regulations and policies that require increased financial and operational resources from us or our customers; the costs associated with protecting our intellectual property rights and our ability to operate our business without violating the intellectual property rights of others; decreases in revenue from our market data as a result of decreased demand; changes in our rate per contract due to shifts in the mix of the products traded, the trading venue and the mix of customers (whether the customer receives member or non-member fees or participates in one of our various incentive programs) and the impact of our tiered pricing structure; the ability of our financial safeguards package to adequately protect us from the credit risks of clearing members; the ability of our compliance and risk management methods to effectively monitor and manage our risks, including our ability to prevent errors and misconduct and protect our infrastructure against security breaches and misappropriation of our intellectual property assets; changes in price levels and volatility in the derivatives markets and in underlying equity, foreign exchange, interest rate and commodities markets; economic, political and market conditions, including the volatility of the capital and credit markets and the impact of economic conditions on the trading activity of our current and potential customers; our ability to accommodate increases in contract volume and order transaction traffic and to implement enhancements without failure or degradation of the performance of our trading and clearing systems; our ability to execute our growth strategy and maintain our growth effectively; our ability to manage the risks and control the costs associated with our strategy for acquisitions, investments and alliances; our ability to continue to generate funds and/or manage our indebtedness to allow us to continue to invest in our business; industry and customer consolidation; decreases in trading and clearing activity; the imposition of a transaction tax or user fee on futures and options on futures transactions and/or repeal of the 60/40 tax treatment of such transactions; and the unfavorable resolution of material legal proceedings. For a detailed discussion of these and other factors that might affect our performance, see our filings with the Securities and Exchange Commission, including our most recent periodic reports filed on Form 10-K and Form 10-Q.*

*NOTE: Unless otherwise noted, all references to CME Group volume, open interest and rate per contract information in the text of this document is based on pro forma results assuming the merger with CBOT Holdings and the acquisition of NYMEX Holdings were completed as of the beginning of the period presented. All data exclude CME Group's non-traditional TRAKRS<sup>SM</sup> products, for which CME Group received significantly lower clearing fees of less than one cent per contract on average. Unless otherwise noted, all year, quarter and month to date volume is through 12/31/2017.*

# Long-Term Growth in a Variety of Environments

(round turns, in millions)

## Pro Forma Average Daily Volume

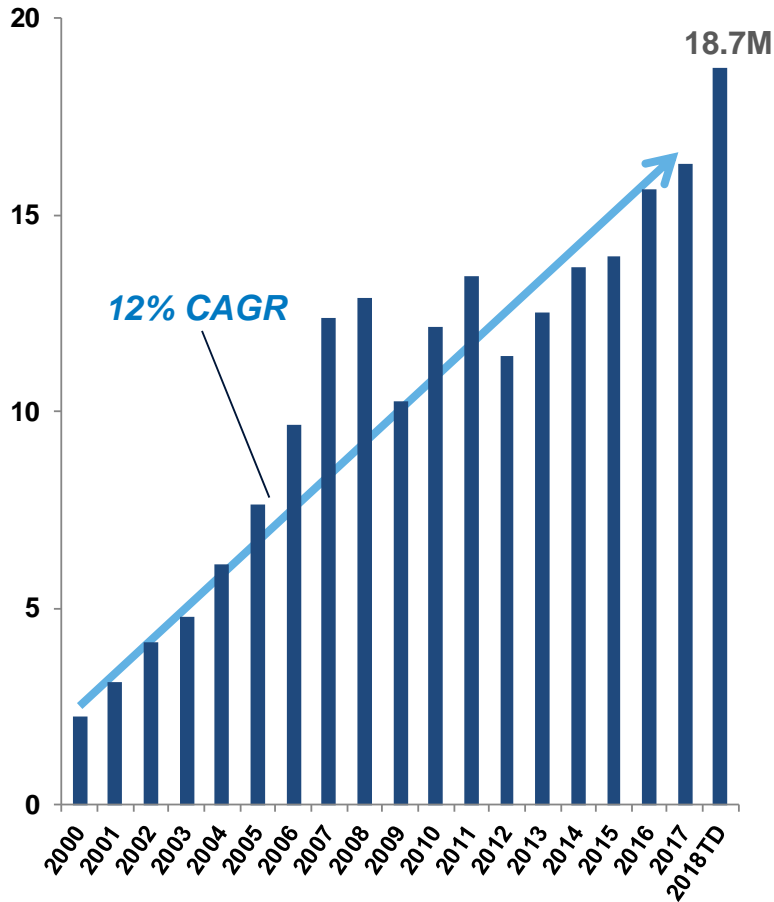


Note: Volumes are all pro forma as if CME owned NYMEX and CBOT over the illustrated period and 2018TD ADV is through 1/30/18

# Steady ADV Growth and Healthy Open Interest

## Annual ADV

Millions



12% CAGR

18.7M

### Q417

- Fifth consecutive record ADV quarter for Metals
- Henry Hub Natural Gas futures (NG) reached record ADV

## ADV

Year Over Year Growth Rates

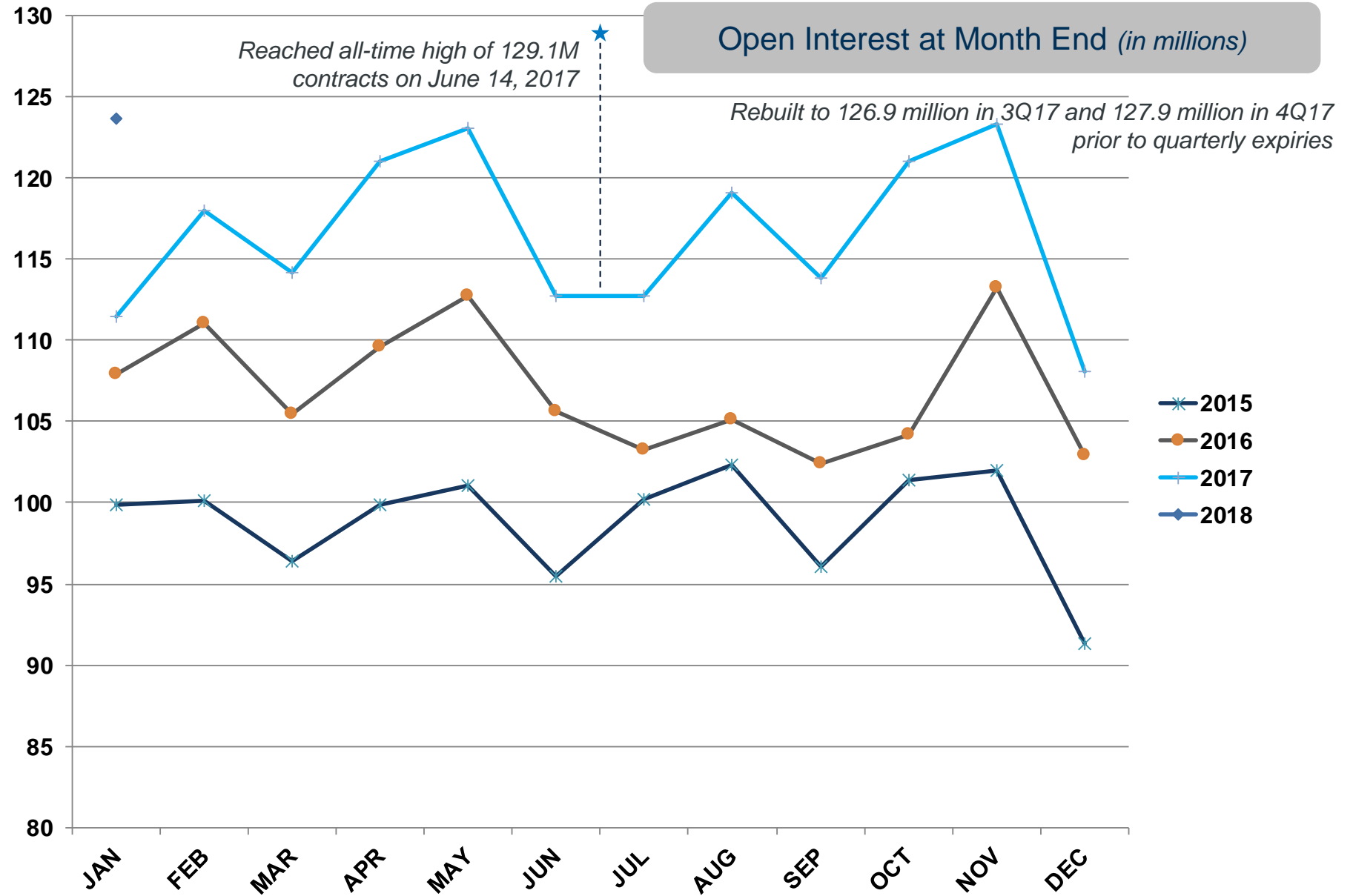
Double Digit Growth Across 5 of 6 Product Lines

Product Line	2018TD vs. 2017TD
Interest Rates	14%
Equities	22%
Energy	23%
Ag Commodities	8%
FX	20%
Metals	46%
<b>Total</b>	<b>17%</b>

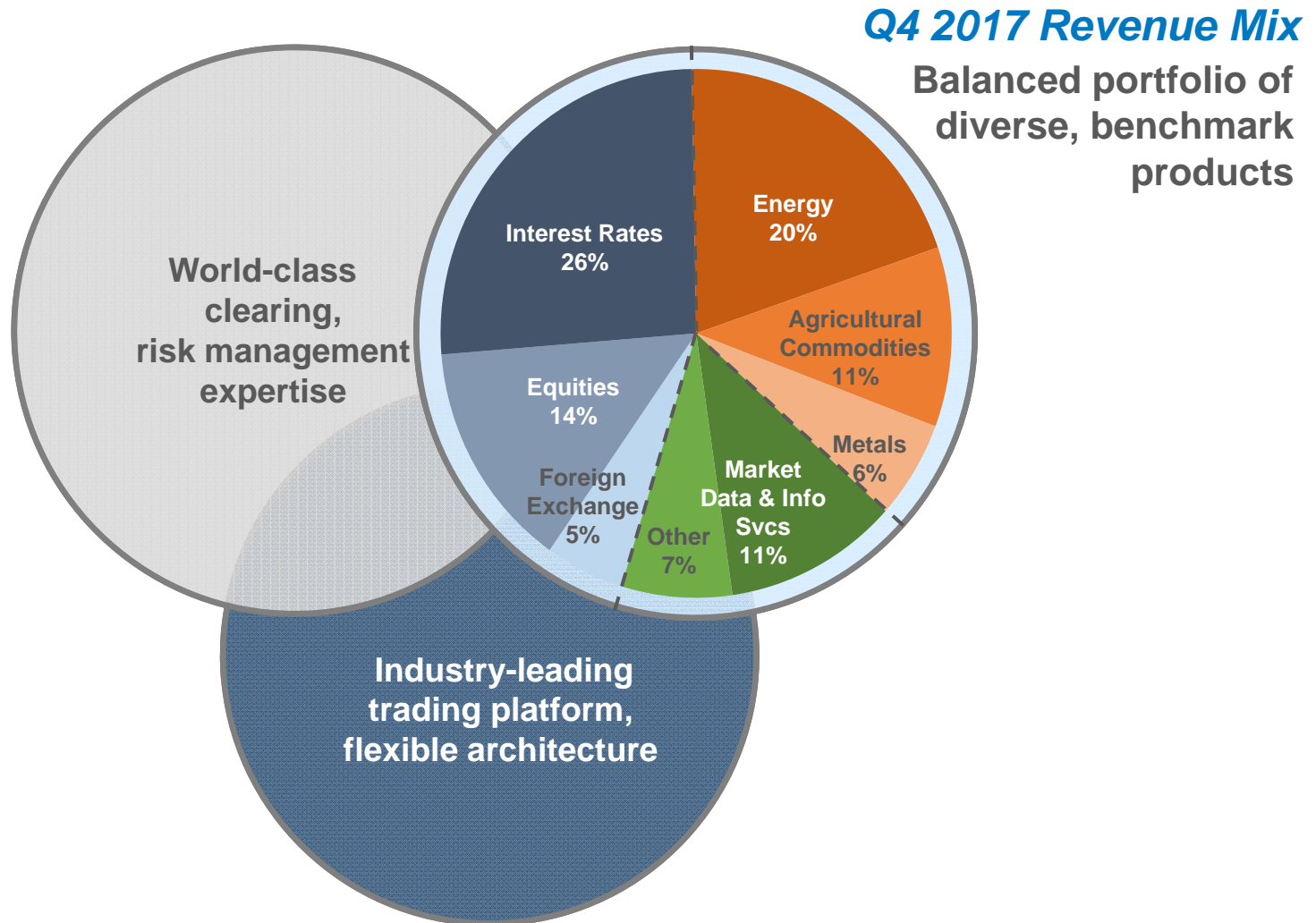
### Open Interest vs. Same Timeframe Last Year

- Total up 14%
- Equities up 24% / FX up 21% / Interest Rates up 17% / Agricultural up 15% / Metals up 11% / Energy up 1%

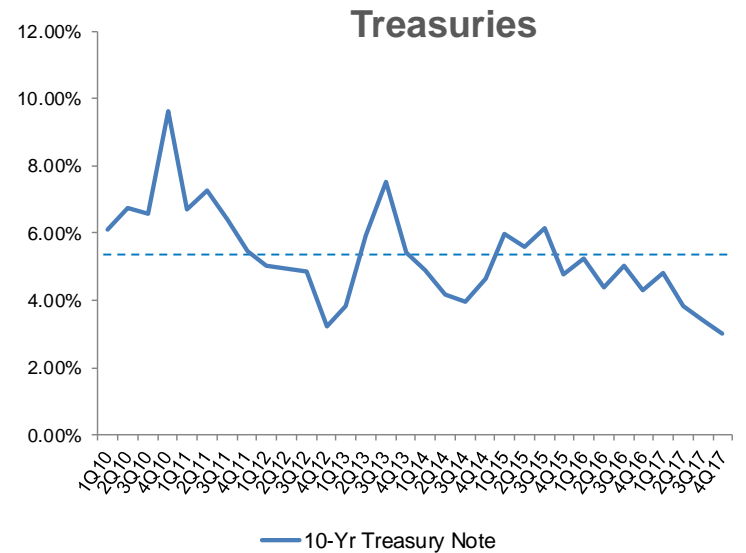
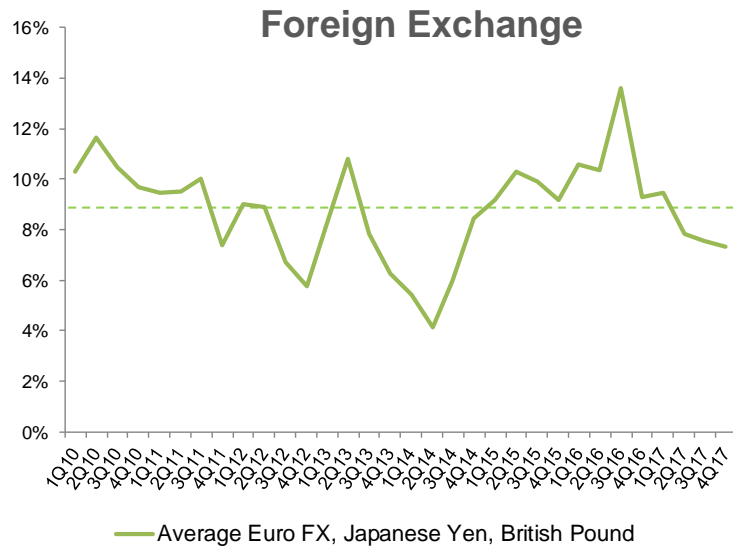
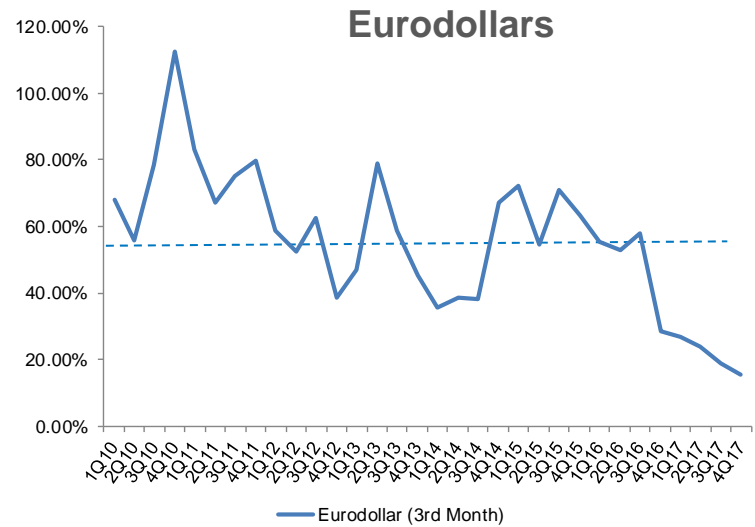
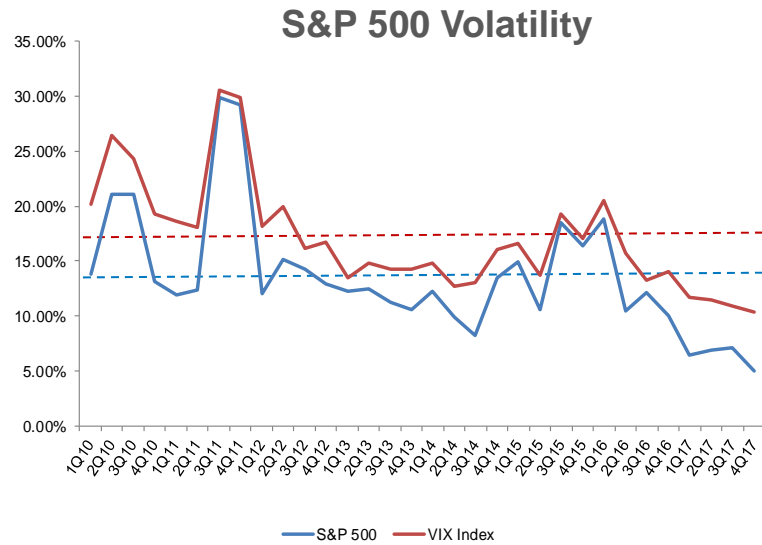
# Open Interest Starting the Year Strong



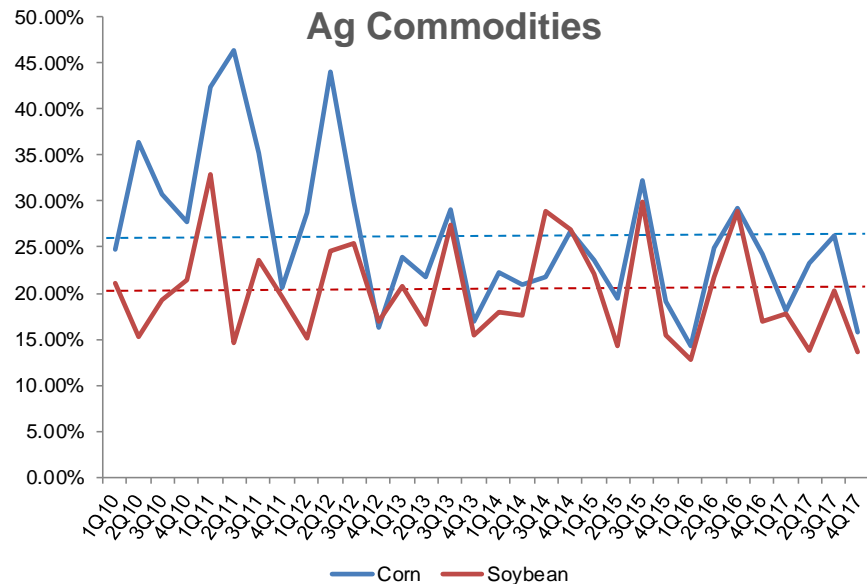
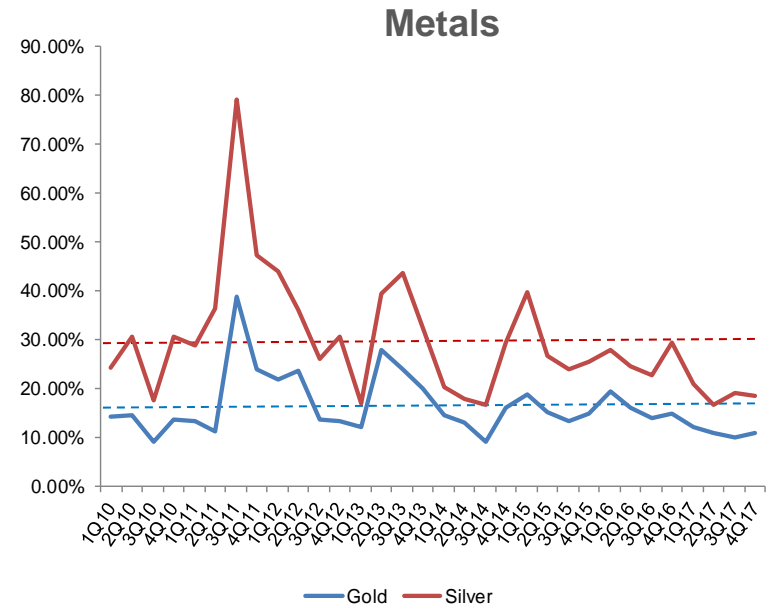
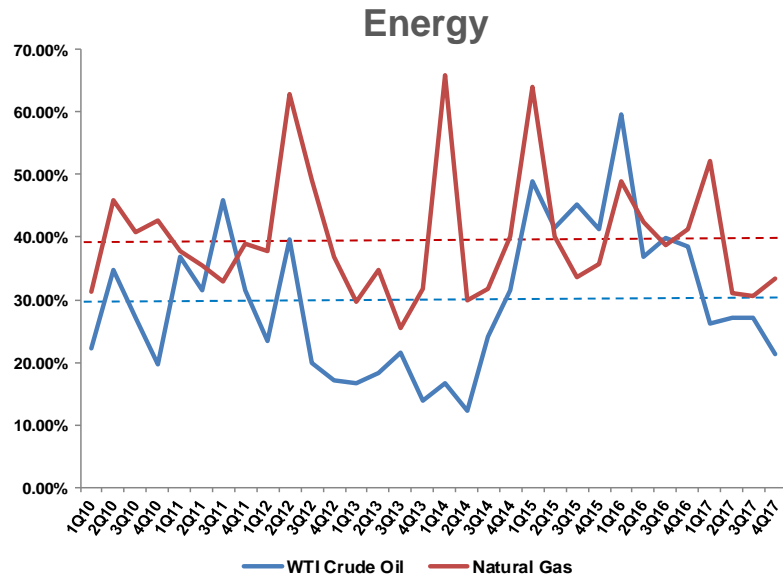
# Unique Assets Provide Competitive Advantages



# Volatility Through 4Q 2017



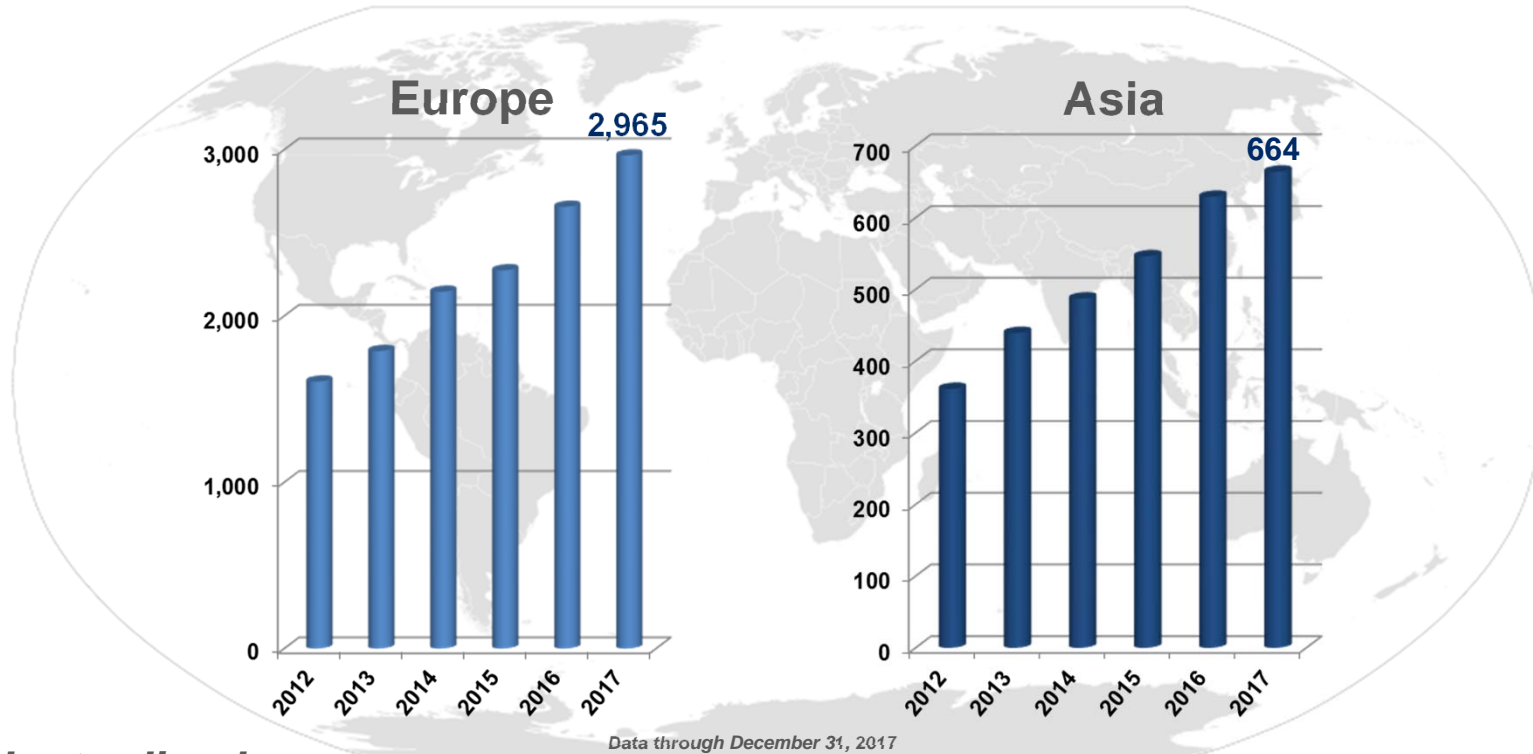
# Volatility Through 4Q 2017





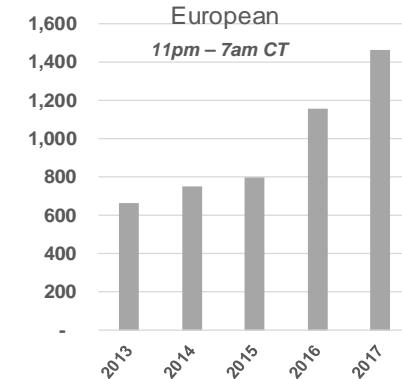
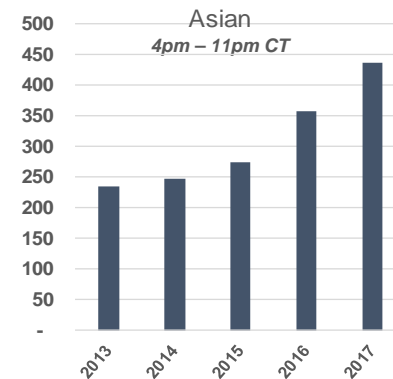
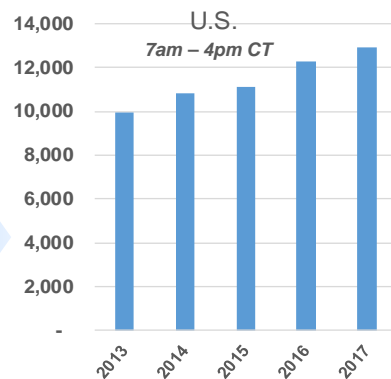
# Investments in Globalization Are Paying Off

Electronic ADV based on origin of trade, in 000s

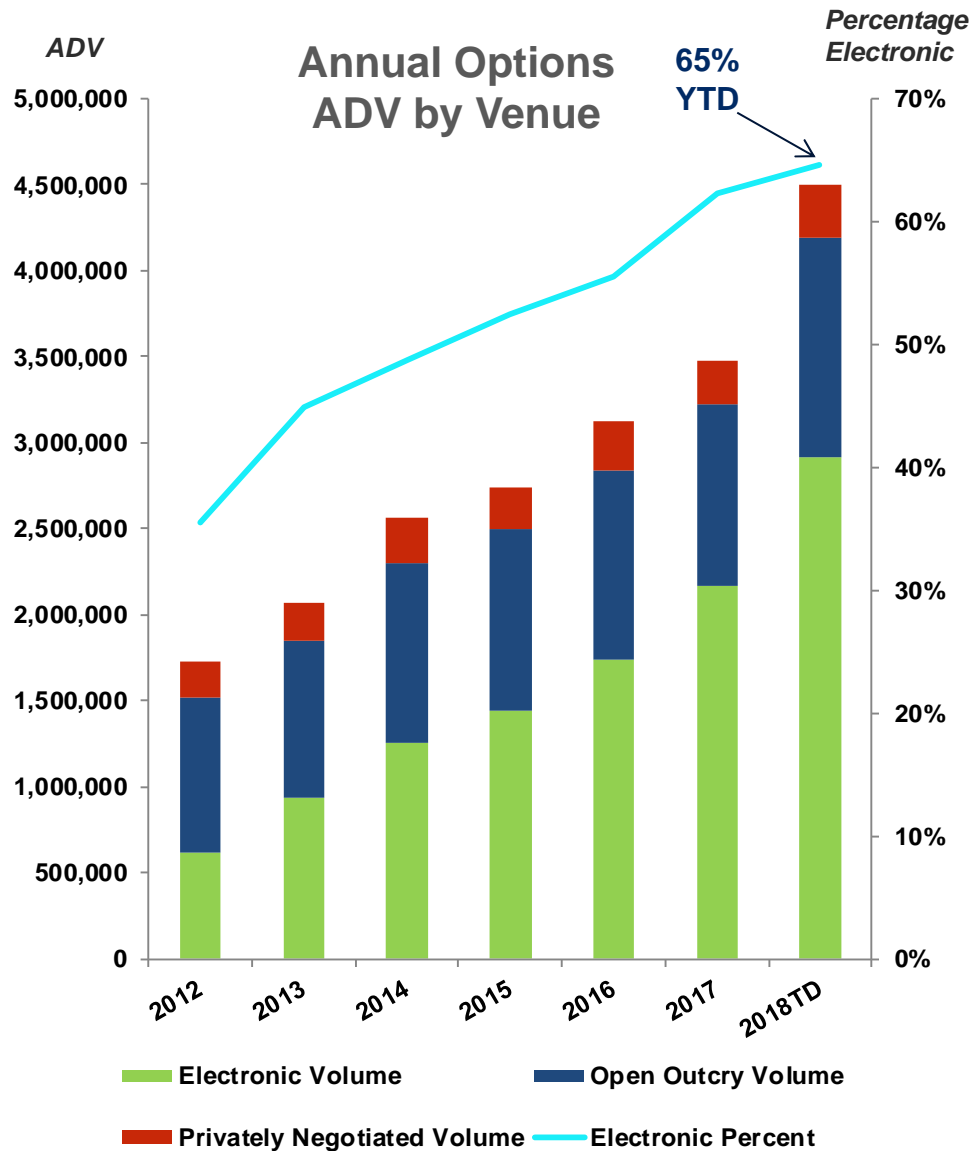


## ADV by trading hours, in 000s

- During 4Q17, 34% growth during European trading hours and 18% growth during Asian trading hours



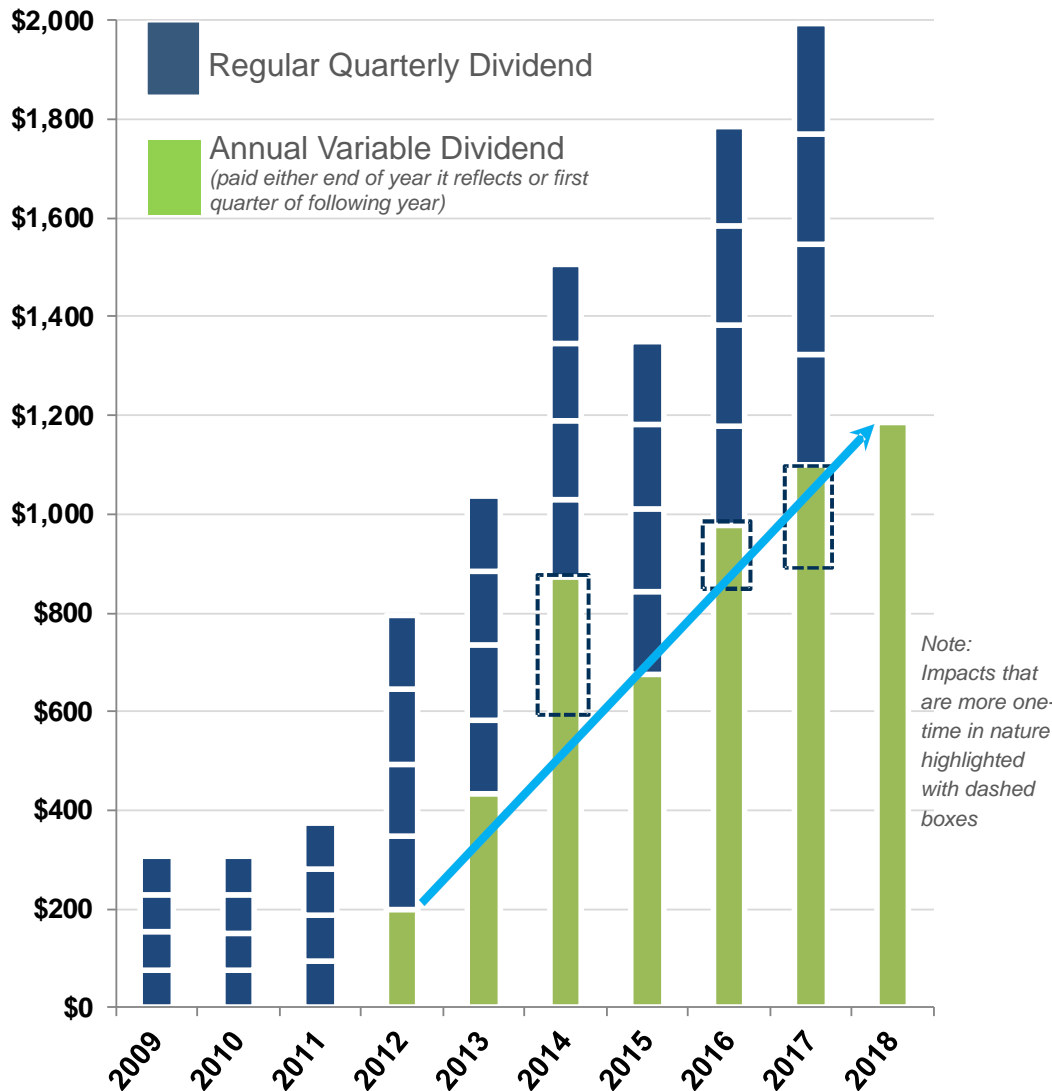
# Options Business – Continued Momentum



- 4Q17 Options ADV up 2%, with electronic Options ADV up 14%
- Shorter duration options are appealing to market participants
  - E-mini S&P 500 and Standard S&P 500 Monday and Wednesday weekly options averaged 79K contracts per day in 2017, and they made up 12% of all Equity Index options ADV
  - Announced October 30, 2017 launch of FX Wednesday Weekly options on five major currency pairs for clients to further refine their exposure mid-week
- Options are particularly useful for customers in a low volatility environment
  - While 2017 Equity Index futures were certainly impacted by lower volatility, 2017 Equity Index options ADV was up 6%

# Committed to Returning Cash to Shareholders

\$ (millions)



Note – Annual, variable dividend reflecting excess cash from 2011 was paid in 1Q 2012, and annual, variable dividend reflecting excess cash from 2012 (which is illustrated in 2013 on this chart), was paid early in 4Q 2012.

Note:  
Impacts that  
are more one-  
time in nature  
highlighted  
with dashed  
boxes

- Regular quarterly dividends in 2017 were paid/declared at \$0.66 per share, which was an increase of 10 percent from the regular quarterly dividends paid in 2016
- CME Group to keep \$700M minimum cash
- Creates opportunity to sweep excess cash to shareholders annually
- Unique annual, variable structure
- Have returned approximately \$9.6 billion to shareholders in dividends since beginning of variable dividend policy in early 2012
- Dividend yield over the last 6 years of more than 5 percent

# CME Group 4Q 2017 Adjusted Financial Results<sup>1</sup>

- Revenue of \$900M
- Operating Expense of \$325M
- Operating Income of \$575M
- Operating Margin of 63.9 percent
- Net Income of \$383M
- Diluted EPS of \$1.12

## CME Group Average Rate Per Contract (RPC)

<u>Product Line</u>	<u>4Q 2016</u>	<u>1Q 2017</u>	<u>2Q 2017</u>	<u>3Q 2017</u>	<u>4Q 2017</u>
Interest Rates	\$ 0.491	\$ 0.492	\$ 0.491	\$ 0.485	\$ 0.467
Equities	0.691	0.718	0.731	0.738	0.768
Foreign Exchange	0.804	0.823	0.807	0.796	0.785
Energy	1.099	1.130	1.096	1.072	1.133
Ag Commodities	1.336	1.334	1.300	1.251	1.251
Metals	1.486	1.496	1.449	1.376	1.315
<b>Average RPC</b>	<b>\$ 0.731</b>	<b>\$ 0.731</b>	<b>\$ 0.749</b>	<b>\$ 0.749</b>	<b>\$ 0.736</b>

1) A reconciliation of the non-GAAP financial results mentioned to the respective GAAP figures can be found within the Reconciliation of GAAP to Non-GAAP Measures chart at the end of the financial statements and in the following slides of this presentation.

# Notes / Guidance

- **4Q17 OTC Revenue**

- In 4Q17, OTC revenue of approximately \$21 million included \$5 million from customer contractual requirements related to the CME Clearing Europe and CME Europe wind down
- 

- **Adjusted Operating Expense**

- 2018 adjusted operating expense excluding license fees expected to be between \$1.100 billion and \$1.105 billion

- **Effective Tax Rate**

- 2018 adjusted effective tax rate expected to be approximately 24.5%

- **CAPEX**

- 2018 capital expenditures, net of leasehold improvement allowances, expected to be between \$90 million and \$100 million

# 4Q17 Reconciliation of GAAP to non-GAAP Measures

**CME Group Inc. and Subsidiaries**  
**Reconciliation of GAAP to non-GAAP Measures**  
(dollars in millions, except per share amounts; shares in thousands)

	Quarter Ended December 31,		Year Ended December 31,	
	2017	2016	2017	2016
<b>Net Income</b>	\$ 2,939.2	\$ 373.4	\$ 4,063.4	\$ 1,534.1
Restructuring and severance	2.9	12.9	6.8	12.9
Amortization of purchased intangibles	23.7	24.1	95.5	96.1
Losses on disposal of assets	—	4.0	0.6	9.3
Losses and expenses related to sale-leaseback of data center	—	—	—	28.6
Acceleration of contractual commitments	8.3	—	8.3	—
Foreign exchange transaction (gains) losses <sup>1</sup>	0.6	8.0	(9.4)	24.5
Net (gains) losses on CME Ventures investments	0.5	—	0.5	(1.4)
Gains on sale of BM&FBOVESPA shares	—	(42.0)	(86.5)	(48.4)
Gains on sale of Bolsa Mexicana shares	(0.3)	—	(2.3)	—
Income tax effect related to above	(17.7)	7.2	(43.1)	(30.1)
Other income tax item <sup>2</sup>	(2,574.2)	(0.3)	(2,410.2)	(89.3)
<b>Adjusted Net Income</b>	<b>\$ 383.0</b>	<b>\$ 387.3</b>	<b>\$ 1,623.6</b>	<b>\$ 1,536.3</b>
<b>GAAP Earnings per Common Share:</b>				
Basic	\$ 8.67	\$ 1.10	\$ 12.00	\$ 4.55
Diluted	8.63	1.10	11.94	4.53
<b>Adjusted Earnings per Common Share:</b>				
Basic	\$ 1.13	\$ 1.15	\$ 4.79	\$ 4.55
Diluted	1.12	1.14	4.77	4.53
<b>Weighted Average Number of Common Shares:</b>				
Basic	339,153	338,083	338,707	337,496
Diluted	340,490	339,338	340,226	338,966

1. Results include foreign exchange transaction net gains and losses principally related to cash held in British pounds within foreign entities whose functional currency is the U.S. dollar.

2. Income tax benefit primarily from the recognition of a reduction in deferred tax liabilities as a result of the Tax Cut and Jobs Act of 2017.

# GAAP Income Statement Trend Excluding Deferred Compensation, FX, Amortization of Intangibles and Other Historically Noted Adjustments<sup>1</sup>

**CME Group Inc. and Subsidiaries**  
**GAAP Income Statement Trend Excl Def Comp, FX, Amortization of intangibles and other historically noted adjustments<sup>1</sup>**  
(in millions, except per share amounts)

	Q115	Q215	Q315	Q415	Q116	Q216	Q316	Q416	Q117	Q217	Q317	Q417
<b>Revenues</b>												
Clearing and transaction fees	\$ 708.2	\$ 681.8	\$ 715.0	\$ 678.9	\$ 796.1	\$ 767.6	\$ 704.2	\$ 768.5	\$ 792.0	\$ 792.0	\$ 756.2	\$ 758.4
Market data and information services	98.0	102.8	99.5	99.1	102.4	102.9	101.1	100.1	96.8	96.1	96.9	102.0
Access and communication fees	21.3	21.5	21.6	21.7	21.6	22.3	23.8	23.7	24.3	24.9	25.7	25.9
Other	15.2	13.9	14.2	14.1	14.1	13.6	12.6	20.6	16.2	11.6	12.0	13.7
<b>Total Revenues</b>	<b>842.7</b>	<b>820.0</b>	<b>850.3</b>	<b>813.8</b>	<b>934.2</b>	<b>906.4</b>	<b>841.7</b>	<b>912.9</b>	<b>929.3</b>	<b>924.6</b>	<b>890.8</b>	<b>900.0</b>
<b>Expenses</b>												
Compensation and benefits	134.0	140.0	130.7	132.3	131.9	131.0	127.7	133.1	136.8	134.4	138.9	134.4
Communications	7.6	6.6	7.1	6.5	6.7	6.3	6.9	6.9	6.3	6.0	6.1	5.9
Technology support services	15.6	16.1	15.4	17.4	17.4	17.7	17.3	18.4	18.7	18.2	19.3	21.1
Professional fees and outside services	28.2	27.0	30.0	32.2	30.6	39.0	33.5	40.2	28.6	28.6	25.8	34.1
Amortization of purchased intangibles												
Depreciation and amortization	31.8	33.3	32.4	31.7	32.6	30.4	31.2	31.1	29.4	28.2	26.9	27.9
Occupancy and building operations	22.8	23.5	23.1	23.1	21.1	20.4	19.6	20.0	20.1	19.2	19.8	21.1
Licensing and other fee agreements	30.6	28.8	33.1	31.3	39.0	32.8	31.5	32.5	33.8	32.9	41.5	38.1
Other	21.7	23.5	20.5	37.4	23.4	25.2	20.8	40.7	27.4	26.6	21.2	42.4
<b>Total Expenses</b>	<b>292.3</b>	<b>298.8</b>	<b>292.3</b>	<b>311.9</b>	<b>302.7</b>	<b>302.8</b>	<b>288.5</b>	<b>322.9</b>	<b>301.1</b>	<b>294.1</b>	<b>299.5</b>	<b>325.0</b>
<b>Total Expenses less Licensing and other fee agreements</b>	<b>261.7</b>	<b>270.0</b>	<b>259.2</b>	<b>280.6</b>	<b>263.7</b>	<b>270.0</b>	<b>257.0</b>	<b>290.4</b>	<b>267.3</b>	<b>261.2</b>	<b>258.0</b>	<b>286.9</b>
<b>Operating Income</b>	<b>550.4</b>	<b>521.2</b>	<b>558.0</b>	<b>501.9</b>	<b>631.5</b>	<b>603.6</b>	<b>553.2</b>	<b>590.0</b>	<b>628.3</b>	<b>630.5</b>	<b>591.3</b>	<b>575.0</b>
<b>Non-Operating Income (Expense)</b>												
Investment income	3.9	12.3	9.1	13.1	17.8	20.3	22.0	27.7	48.6	109.6	135.4	138.5
Gain (losses) on derivative investments	-	-	-	-	-	-	-	-	-	-	-	-
Interest and other borrowing costs	(31.1)	(28.6)	(28.3)	(28.9)	(29.8)	(31.0)	(31.1)	(31.6)	(29.8)	(29.0)	(29.1)	(29.1)
Equity in net gains (losses) of unconsolidated subsidiaries	22.5	26.0	26.6	24.9	26.8	27.0	28.6	27.8	30.8	31.8	33.9	32.7
Other non-operating income (expense)	(0.8)	(1.1)	(0.8)	(0.8)	(10.0)	(10.4)	(10.5)	(12.7)	(34.1)	(83.5)	(105.3)	(106.7)
<b>Total Non-Operating</b>	<b>(5.5)</b>	<b>8.6</b>	<b>6.6</b>	<b>8.3</b>	<b>4.8</b>	<b>5.9</b>	<b>9.0</b>	<b>11.2</b>	<b>15.5</b>	<b>28.9</b>	<b>34.9</b>	<b>35.4</b>
<b>Income Before Income Taxes</b>	<b>544.9</b>	<b>529.8</b>	<b>564.6</b>	<b>510.2</b>	<b>636.3</b>	<b>609.5</b>	<b>562.2</b>	<b>601.2</b>	<b>643.8</b>	<b>659.4</b>	<b>626.2</b>	<b>610.4</b>
Income tax provision	199.6	194.0	204.8	183.2	231.2	222.2	205.6	213.9	228.3	240.5	220.0	227.4
<b>Net Income</b>	<b>345.3</b>	<b>335.8</b>	<b>359.8</b>	<b>327.0</b>	<b>405.1</b>	<b>387.3</b>	<b>356.6</b>	<b>387.3</b>	<b>415.5</b>	<b>418.9</b>	<b>406.2</b>	<b>383.0</b>
Less: net income (loss) attributable to non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	-
<b>Net Income Attributable to CME Group</b>	<b>\$ 345.3</b>	<b>\$ 335.8</b>	<b>\$ 359.8</b>	<b>\$ 327.0</b>	<b>\$ 405.1</b>	<b>\$ 387.3</b>	<b>\$ 356.6</b>	<b>\$ 387.3</b>	<b>\$ 415.5</b>	<b>\$ 418.9</b>	<b>\$ 406.2</b>	<b>\$ 383.0</b>
Earnings per Diluted Common Share Attributable to CME Group	\$1.02	\$0.99	\$1.06	\$0.97	\$1.20	\$1.14	\$1.05	\$1.14	\$1.22	\$1.23	\$1.19	\$1.12
Weighted Avg. Number of Diluted Common Shares	337.42	337.80	338.14	338.25	338.55	338.71	339.14	339.34	339.95	340.02	340.33	340.49
<b>Adjustments highlighted in above view:</b>												
Deferred compensation gain (loss)	1.8	0.3	(4.1)	2.2	(0.2)	0.7	2.9	0.8	3.7	2.8	2.5	2.2
Currency fluctuation gain (loss)	(10.0)	11.1	(7.2)	(5.2)	(3.9)	(11.6)	(1.0)	(8.0)	2.5	4.6	2.9	(0.6)

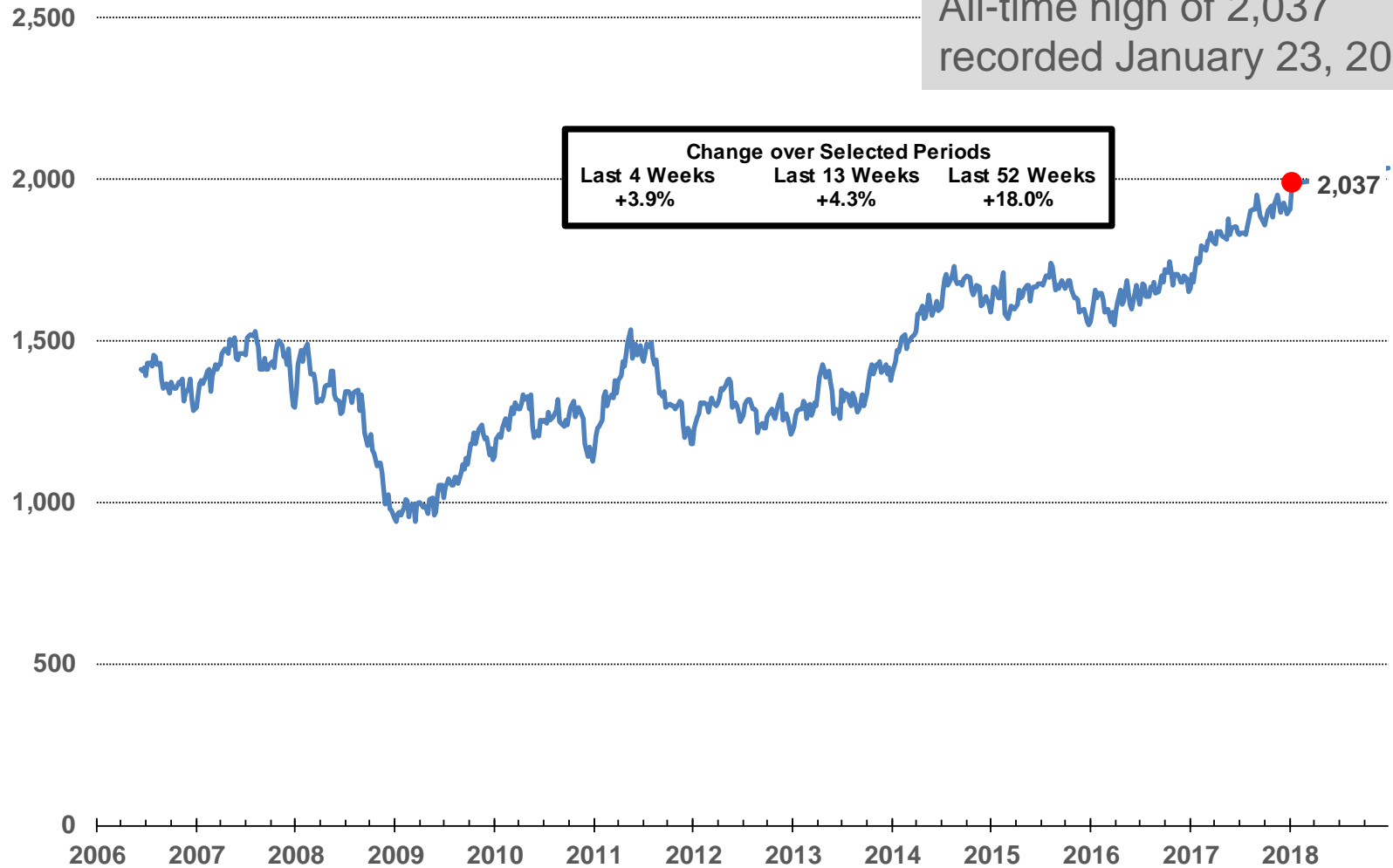
<sup>1</sup>) Please refer to each individual quarter's Reconciliation of GAAP to Non-GAAP Measures for the specific adjustments made during that period.

# Interest Rate Futures – Large Open Interest Holders

CME Group Interest Rate Futures  
Aggregate Number of Large Open Interest Holders\*

Source: CFTC

All-time high of 2,037  
recorded January 23, 2018

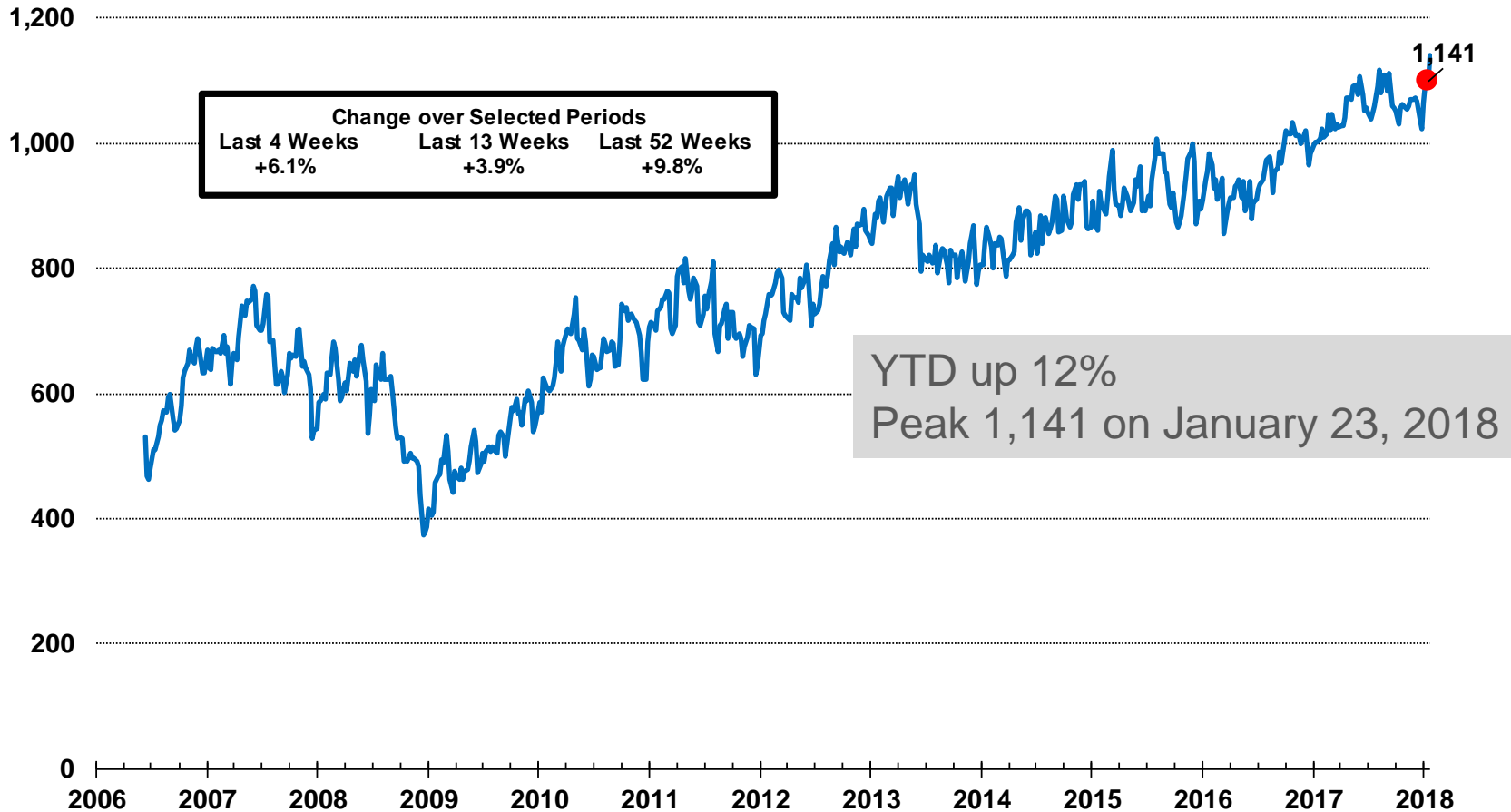




# FX Futures – Large Open Interest Holders

## CME Group Foreign Exchange Futures Aggregate Number of Large Open Interest Holders\*

Source: CFTC

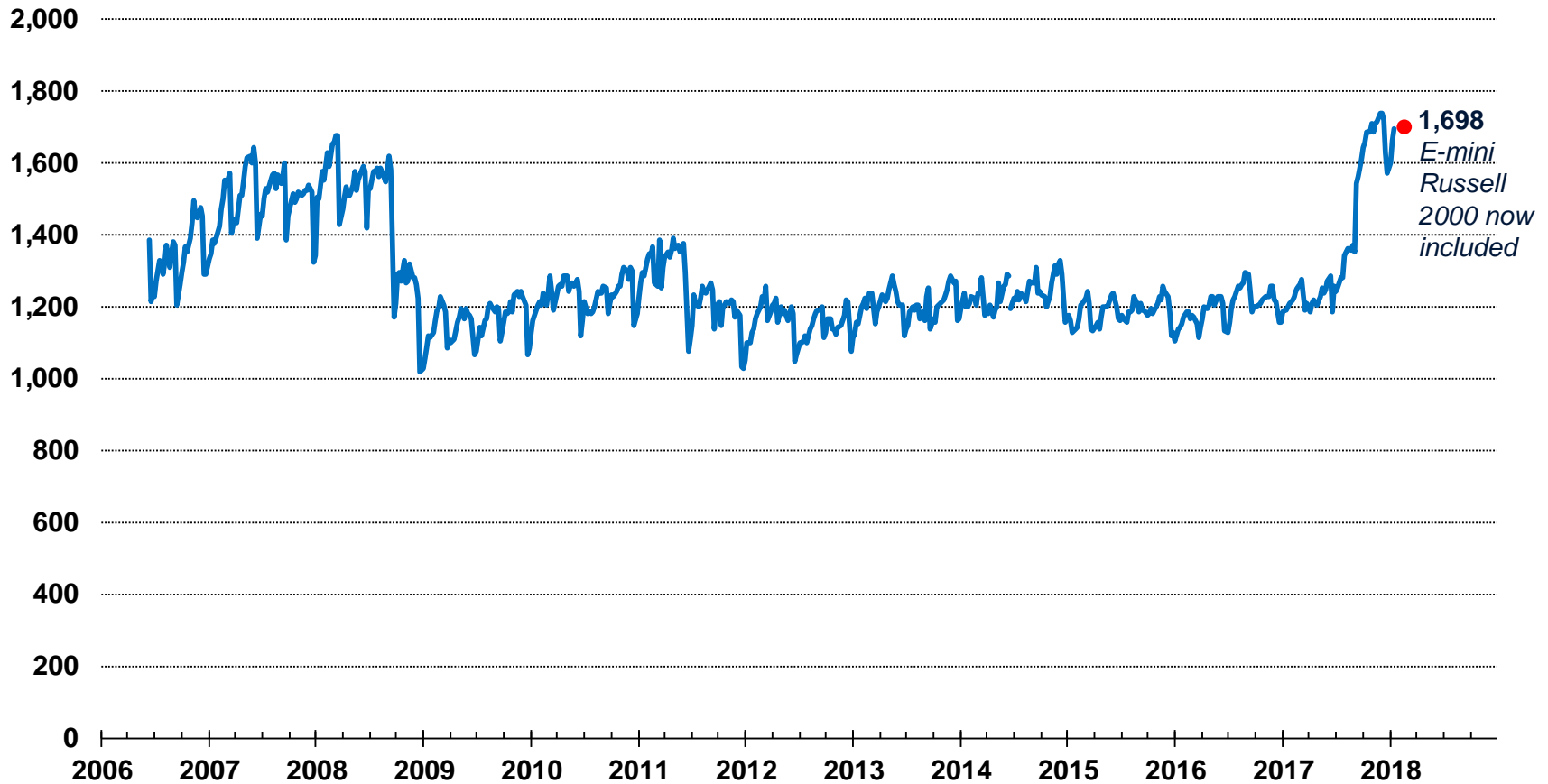


\*The CFTC defines large open interest holders as having at least **400** open contracts in Major Foreign Currency futures and at least **100** open contracts in Other Foreign Currency futures.

# Equity Futures – Large Open Interest Holders

CME Group Equity Index Futures  
Aggregate Number of Large Open Interest Holders\*

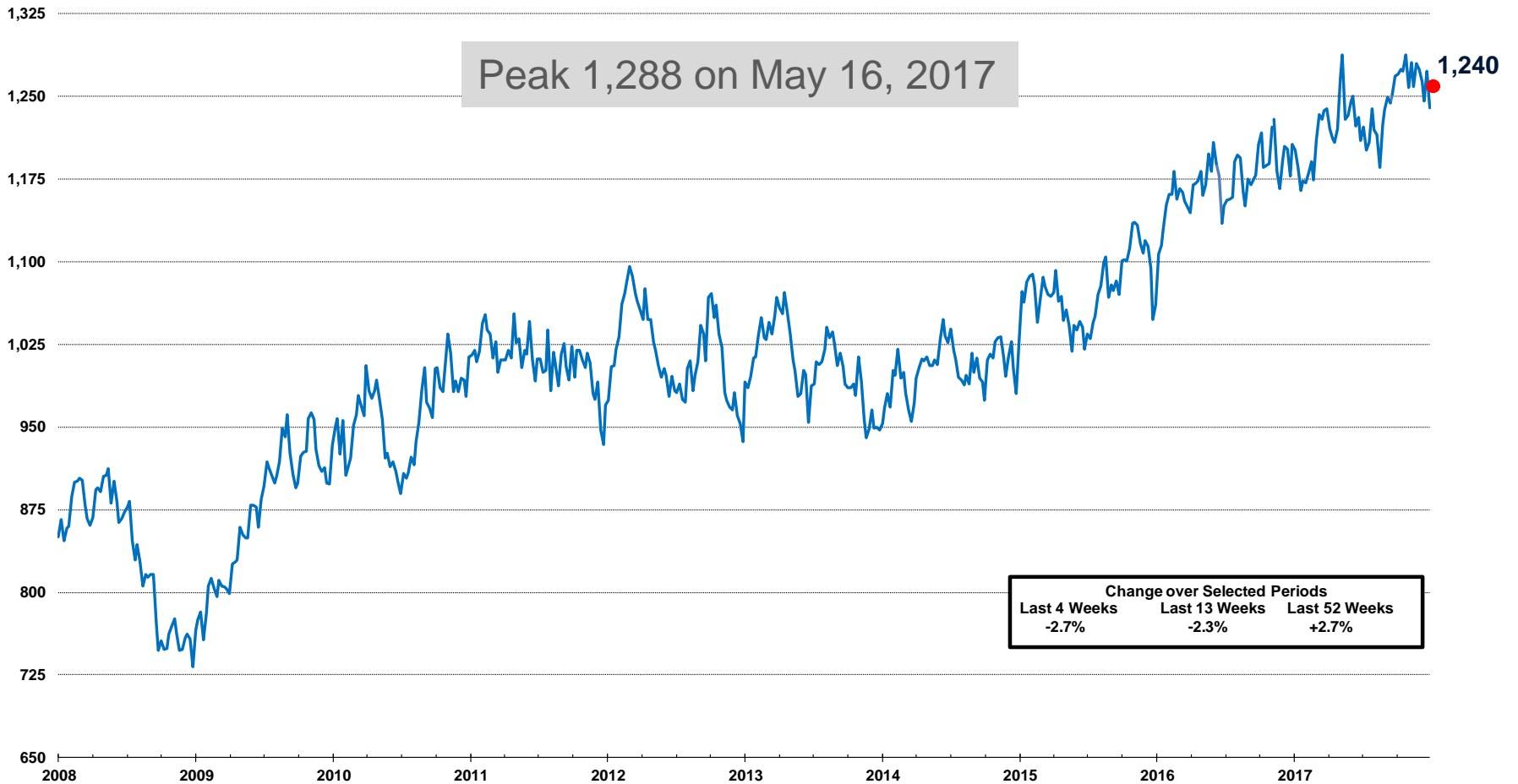
Source: CFTC



# Energy Futures – Large Open Interest Holders

CME Group Energy Futures  
Aggregate Number of Large Open Interest Holders\*

Source: CFTC



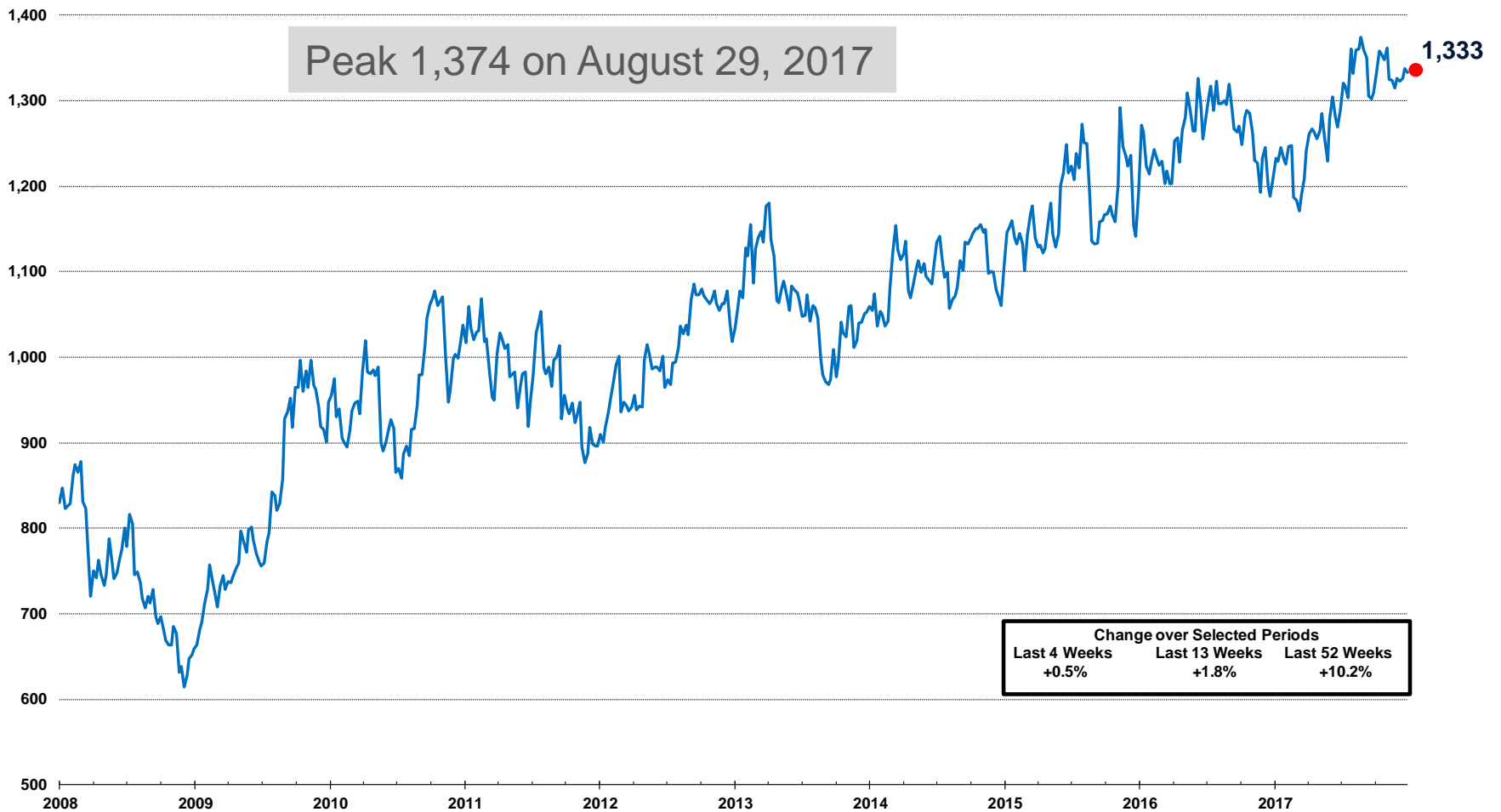
\*The Aggregate number of Large Open Interest Holders is the sum of the LOIH traders for the following products: WTI (Crude Oil, Light Sweet), NG (Natural Gas), RBOB (Gasoline Blendstock), and HO (#2 Heating Oil)

\*The Energy Product Line LOIH above is a sum of each product's LOIH and does not imply a unique number of Traders\*

# Metals Futures – Large Open Interest Holders

CME Group Metals Futures  
Aggregate Number of Large Open Interest Holders\*

Source: CFTC

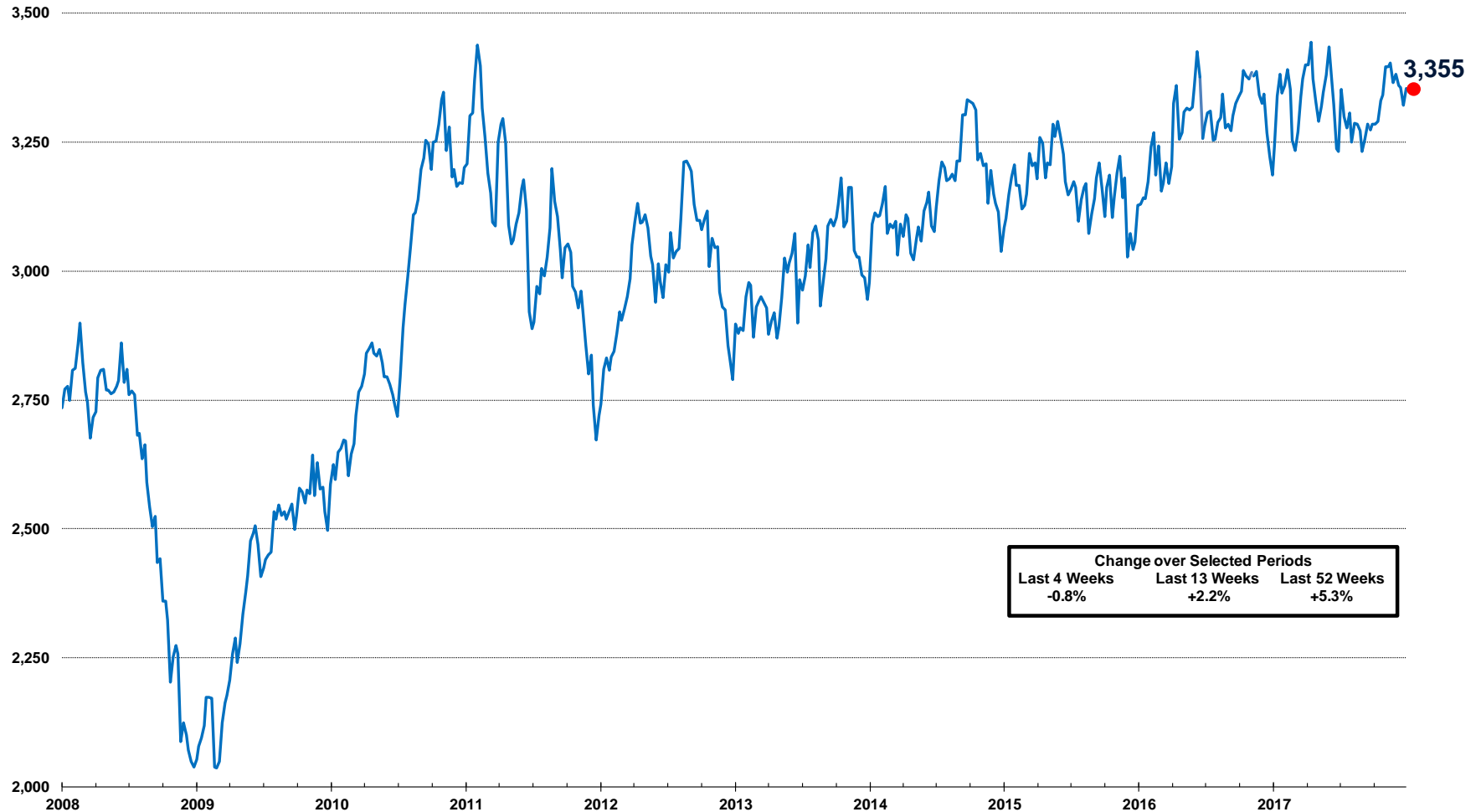


\*The Aggregate number of Large Open Interest Holders is the sum of the LOIH traders for the following products: Gold, Silver, Copper, Platinum, and Palladium.  
\*The Metals Product Line LOIH above is a sum of each product's LOIH and does not imply a unique number of Traders\*

# Ag Commodities Futures – Large Open Interest Holders

CME Group Agricultural Futures  
Aggregate Number of Large Open Interest Holders\*

Source: CFTC



\*The Aggregate number of Large Open Interest Holders is the sum of the LOIH traders for the following products: Corn, Wheat (HRW and SRW), Soybeans, Soybeans Meal, Soybeans Oil, Live Cattle, and Lean Hogs.

\*The Agricultural Product Line LOIH above is a sum of each product's LOIH and does not imply a unique number of Traders\*

# CME Group – Compelling Investment

## Only Pure Play Derivatives Exchange

- Unmatched product diversity and 24 hour liquidity
- Leader in innovation
- Capital efficiency provides customer value
- Network effect similar to large technology companies
- Confidence in our markets, especially in times of stress
- Important partnership with S&P Financial, with “active to passive” trend underway

## Positioned for Growth

- Focused on customer challenges / working collaboratively
- Oriented to attract order flow from adjacent markets
- Products have global appeal - have invested in global sales efforts
- Largest options on futures offering amongst exchanges
- Recurring customer relationships
- Valuable proprietary data

## Several Potential Tailwinds

- Fed Balance Sheet reduction
- FASB Hedge Accounting Rules
- Uncleared Margin Rule (especially within FX)
- Increasing global relevance of U.S. Energy products (WTI Crude Oil and Henry Hub Nat Gas benchmarks – increase in exporting)
- Russell 2000 transition
- Regulatory environment improving (more certainty in U.S. vs. Europe)

- Improved internal focus on execution and efficiency
- Do not take on trading risk like other financials

- Significant operating leverage / incremental margin over 90 percent
- Strong free cash flow generation / unique dividend structure