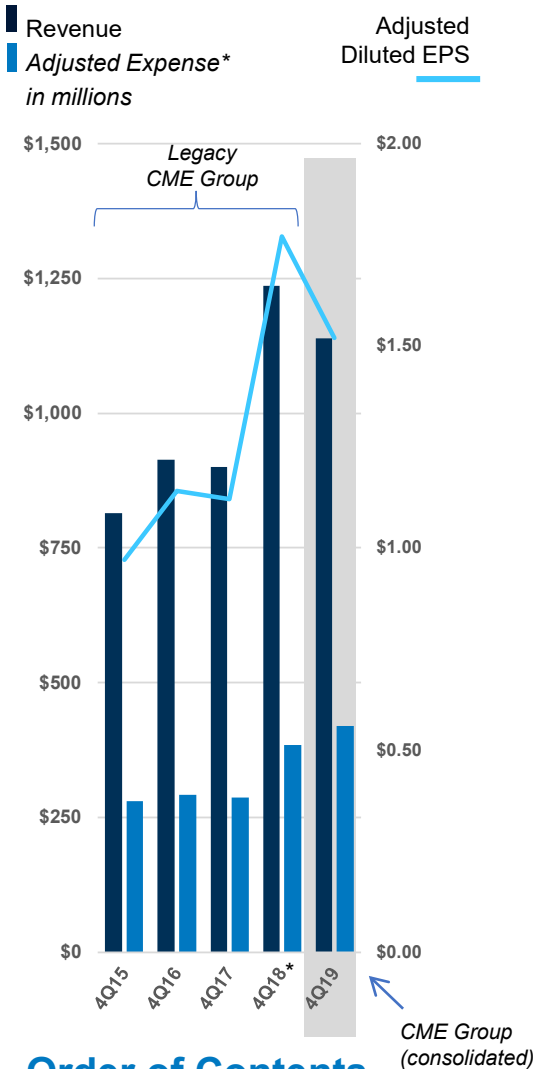


# 4Q 2019 Earnings Commentary

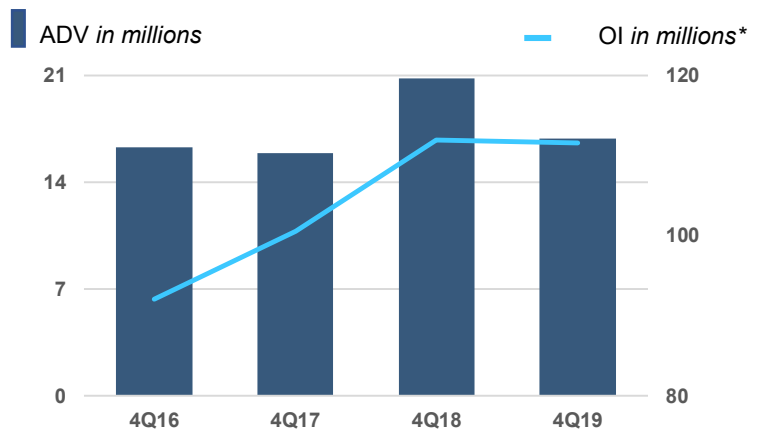


## 4Q and 2019 Summary

- Although 4Q19 average daily volume (ADV) of 16.9 million contracts was down from a very strong 4Q18, 2019 ADV finished in line with 2018's record volume year at 19.2 million contracts and included several annual ADV records:
  - Record 40 trading days with volume over 25 million contracts, up 14% from 35 days in 2018
  - Record Interest Rates ADV up 4% to 10.3 million contracts
  - Record Metals ADV up 5% to 668,000 contracts
  - Record Options ADV up 2% to 4 million contracts
- Open Interest (OI) at the end of 4Q19 was 113 million contracts, in line with the end of 4Q18 if including only benchmark products within Energy\* and has built to over 127 million contracts to date in 2020
- Despite 4Q 2019 non-U.S. ADV being down from a year-over-year perspective, 2019 non-U.S. ADV finished up 10% versus 2018, with double-digit growth across both Asia Pacific (APAC) and Latin America and record Options and Metals ADV, up 24% and 8% respectively
- 4Q19 Metals options ADV increased 11% and Agricultural options ADV rose 3% compared with 4Q18; overall full-year 2019 options ADV grew 2% to a record 4 million contracts, including record Interest Rate options ADV of 2.8 million contracts, up 15% compared with 2018
- Integration progress continued with the completion of New York office consolidation, continued back office migrations to support Finance and Human Resources systems, and CME Globex migrations on track
- Continued to strongly position CME Group, no matter the macroeconomic backdrop, through launching/advancing innovative new products, tools and services to support customer needs, and creating capital and operational efficiencies for market participants
- Strategic execution led to adjusted net income attributable to CME Group of \$544 million and adjusted diluted EPS of \$1.52

## Order of Contents

- 4Q 2019 Summary
- 4Q 2019 Highlights
- 4Q 2019 Product Detail – Financials
- 4Q 2019 Product Detail – Commodities
- Financial Results & Guidance
- Forward Looking Statements
- Q&A Conference Call Details



\* Represents quarterly adjusted operating expense excluding licensing and other fee agreements which is the basis for expense guidance

• 4Q18 period in financials chart above includes legacy NEX results for November-December 2018

• 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

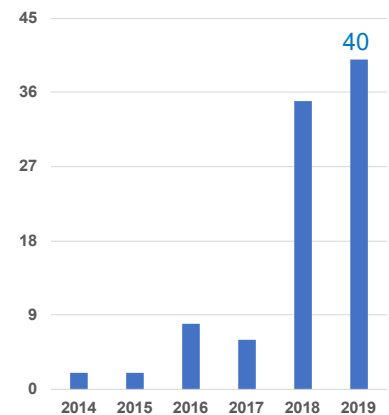
• All growth rates included in this document refer to 4Q19 versus 4Q18 unless otherwise noted, any information labeled as "to date in 2020 or 1Q20" is through February 7, 2020, and all global data/statistics exclude the open outcry venue activity

• OI within the chart, and throughout this document, includes only benchmark product within Energy (Crude Oil, Natural Gas and Refined Products)

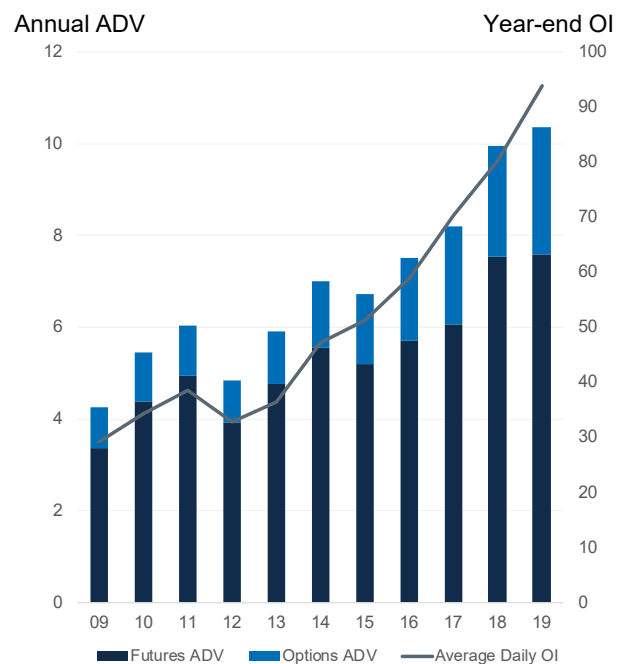
## 4Q / 2019 Highlights

- 4Q19 ADV of 16.9 million contracts**
  - Agricultural ADV up 2% to 1.3 million contracts
  - Metals ADV up 19% to 652,000 contracts
  - New York Heating Oil futures ADV up 9% to a record 200,000 contracts
- 2019 ADV of 19.2 million contracts**
  - Record 40 trading days with volume over 25 million contracts, up 14% from 35 days in 2018
  - Record Interest Rates ADV up 4% to 10.3 million contracts
  - Record Metals ADV up 5% to 668,000 contracts, including record Gold futures and options ADV of 433,393 contracts
  - Record Options ADV up 2% to 4 million contracts, including record Interest Rates options ADV of 2.8 million contracts, up 15%
  - Second highest annual Agricultural ADV, with record ADV in Livestock and Dairy
- All-time high daily volume reached during the quarter:**
  - FX futures volume of 2.7 million contracts (\$282 billion notional) on December 11
  - Ultra 10-Year Note futures volume of 1.2 million contracts on November 25
  - Mexican Peso futures volume of 230,897 contracts on December 10
  - Copper options volume of 16,029 contracts on November 7
- OI at the end of 4Q19 was 113 million contracts**, in line with the end of 4Q18 if including only benchmark products within Energy
- All-time high OI reached during the quarter:**
  - 5-Year Note options OI of 3.2 million contracts on November 21
  - FX futures OI of 2.3 million contracts on December 16
  - Precious Metals futures OI of 1.2 million contracts on December 31
  - Ultra 10-Year Note futures OI of 954,692 contracts on November 25
  - Gold futures OI of 786,166 contracts on December 31 and surpassed this again on January 15, 2020 reaching 799,541 contracts
  - Euro FX futures OI of 666,250, contracts on December 9
  - Hog options OI of 478,737 contracts on October 15
  - Mexican Peso futures OI of 392,535 contracts on December 17
  - S&P 500 Annual Dividend futures OI of 130,427 contracts on December 18
  - Platinum futures OI reached during 4Q, but surpassed to 108,483 contracts on January 15, 2020
  - Ultra Treasury Bond options OI of 85,138 contracts on November 21
- Record Large Open Interest Holders (LOIH) during the quarter:**
  - FX futures - 1,261 on December 3, and surpassed on January 28, 2020 with 1,265
  - Metals futures – 1,360 on January 14, 2020, just shy of all time high 1,374 on August 29, 2017

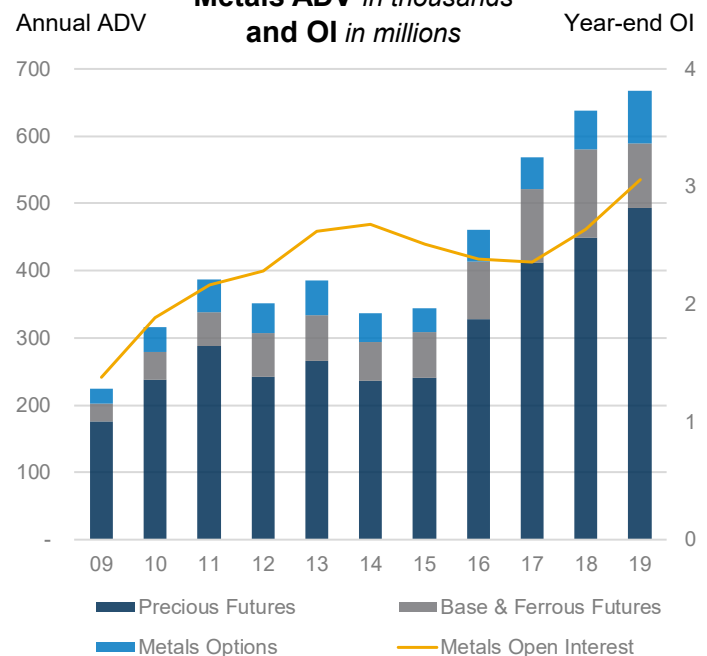
Number of 25M+ Trading Days



Interest Rates ADV and OI in millions



Metals ADV in thousands and OI in millions



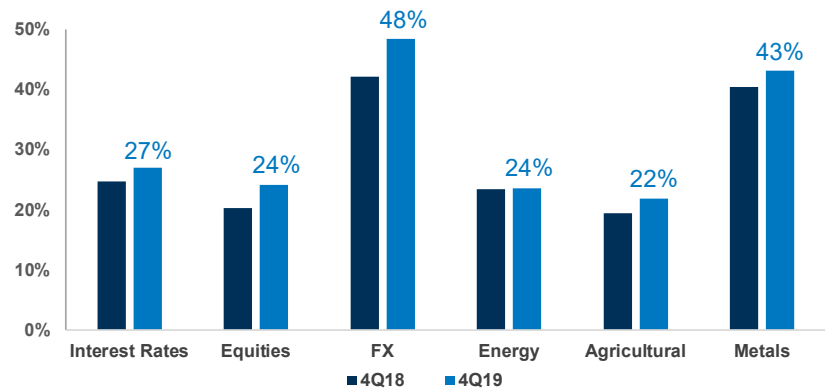
## 2019 non-U.S. ADV grew 10% to a record 4.9 million contracts; 4Q19 growth in Latin America

- Particular full-year strength in Financials, with 2019 non-U.S. Interest Rates ADV up 14% to 2.5 million contracts and Equity Index ADV up 17% to 806,000 contracts
- 2019 non-U.S. Options ADV rose 24% to just over 722,000 contracts
- 2019 non-U.S. Metals ADV grew 8% to a record 289,000 contracts, and represented a fourth consecutive annual ADV record
- 4Q19 non-U.S. ADV highlights:**
  - FX ADV up 2% to 406,000 contracts
  - Metals ADV up 27% to 282,000 contracts
  - Agricultural ADV up 16% to 273,000 contracts
  - Overall non-U.S. ADV grew from 24% of total ADV in 4Q18 to 27% of total ADV in 4Q19, and the proportion increased year-over-year across all 6 product lines
- 4Q19 Europe Middle East Africa (EMEA) highlights:**
  - FX ADV up 5% to 311,000 contracts, including record British Pound futures of 52,000 contracts, up 15%
  - Metals ADV up 31% to 189,000 contracts
- 4Q19 APAC highlights:**
  - Interest Rates ADV up 13% to 412,000 contracts
  - Metals ADV up 18% to 83,000 contracts
  - Quarterly ADV records for British Pound futures and SOFR futures
- 4Q19 Latin American ADV up 18% to 126,000 contracts**

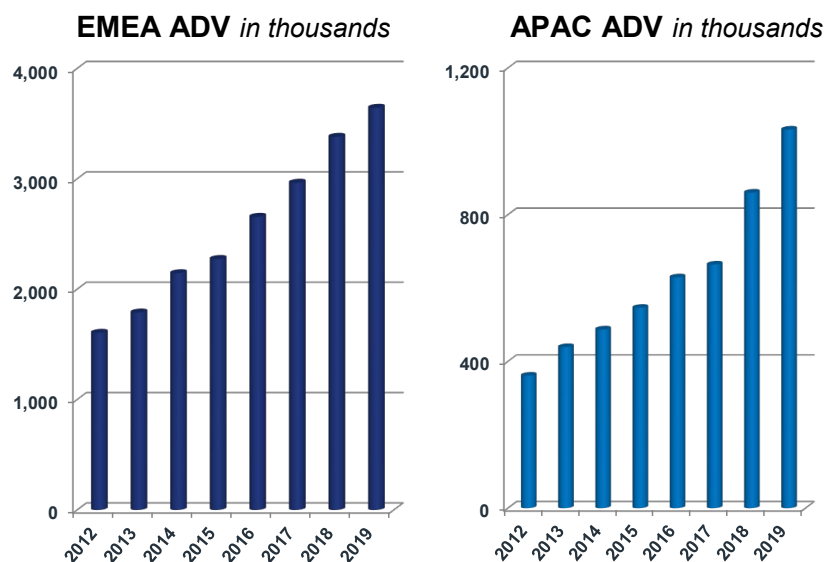
## 2019 options ADV grew 2% to a record 4 million contracts versus 2018; 4Q growth across Agricultural and Metals options

- Record 2019 options ADV of 4 million contracts, up 2% versus 2018, with double-digit growth across Interest Rates and Metals**
  - 2019 Interest Rate options ADV grew 15% to 2.8 million contracts
  - 2019 Metals options ADV increased 36% to 79,000 contracts
  - 2019 options revenue also increased 2%
- 4Q19 highlights:**
  - Agricultural options ADV up 3% to 195,000 contracts
  - Metals options ADV up 11% to 65,000 contracts
  - Strong December year-over-year growth for Weekly options:
    - Gold surged 214% / Crude Oil increased 67%
- 2019 options ADV regional highlights:**
  - EMEA options ADV up 16% to 576,000 contracts
  - APAC options ADV up 39% to 80,000 contracts
  - Latin America options ADV up 282% to 54,000 contracts
  - Non-U.S. Interest Rates ADV up 38% to 722,547 contracts, and non-U.S. Metals ADV up 51% to 19,732 contracts

## Non-U.S. ADV % of Total ADV by Product Line



## Annual Volume Trend



## 4Q19 OTC activity mirrored 4Q19 futures activity directionally, yet achieved record OTC clearing revenue for the full year 2019

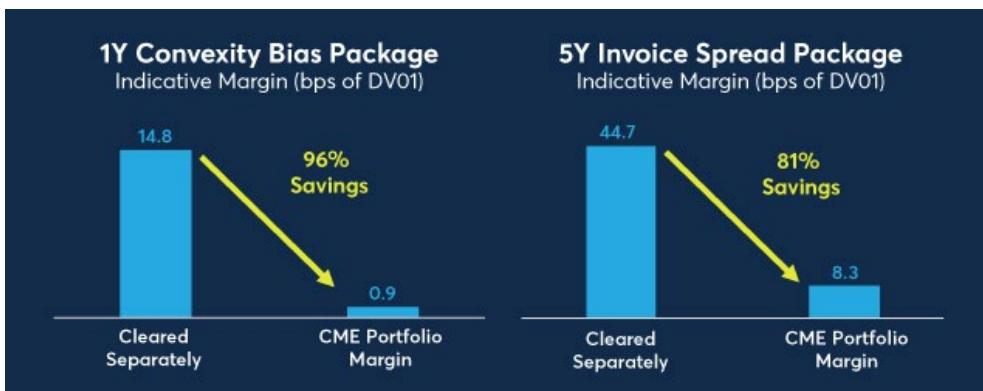
- Annual highlights included:**
  - Second highest annual Interest Rate Swaps cleared of \$125 billion in 2019 (highest in 2014)
  - Record 2019 Interest Rates Swaps clearing revenue of \$65.5 million
  - Success throughout the year driven by resurgence in U.S. Dollar volume, adoption of SOFR Swaps clearing, industry-leading Latin American Interest Rate Swaps offering, building liquidity in OTC FX, and the increasing use of compression

**Jan 2020 overall ADV grew 6% from Jan 2019 to 18.9 million contracts, led by 20% growth in higher priced Commodity products**

- Metals ADV increased 49% year-over-year to 839,000 contracts, the 2nd-highest monthly ADV on record; and Metals have illustrated 8 consecutive months of double-digit year-over-year growth
- Energy ADV rose 14% to 2.8 million contracts, the 3rd-highest monthly ADV on record

## Recently launched products progressed, new product offerings were announced, and capital and operational efficiencies continue to be created for market participants

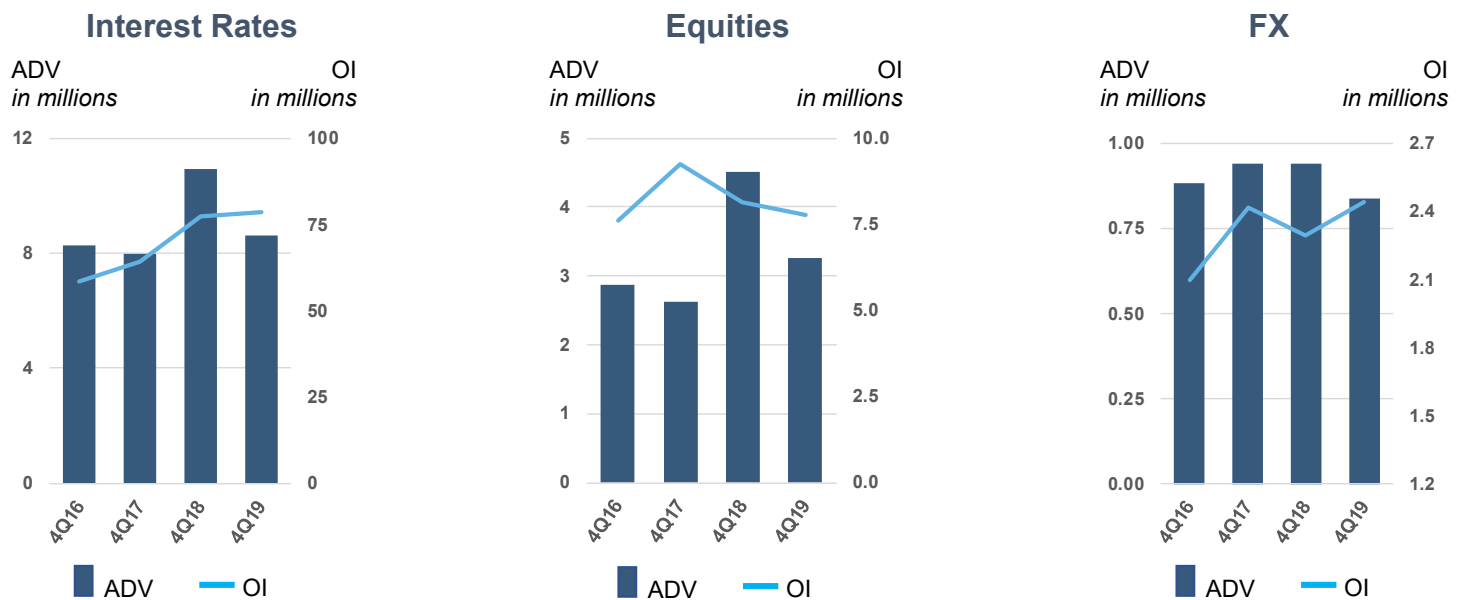
- New financial products launched since 2010 generated over \$310 million in revenue in 2019 (equivalent to 2.1 million contracts ADV); in addition to listed products, 1.25 million Treasury futures risk-equivalent ADV came from OTC clearing in 2019
- **SOFR futures** have traded over 11.3 million contracts since their launch in May 2018. Participation deepened to 350+ global participants by the end of the quarter, and has increased beyond 375 in January. 4Q19 ADV was 42,000 contracts, and OI reached 578,000 contracts. After extensive consultation with market participants and the ARRC Paced Transition Working Group, CME published its SOFR discounting and price alignment transition plan for cleared USD Interest Rate Swaps
- **SOFR options** have been live since January 6, 2020. Three-Month SOFR options offer greater flexibility for managing SOFR price risk and exciting new spreading opportunities versus Eurodollar options
- In recent weeks, Bank of England (BoE) policy uncertainty drove record trading in **SONIA futures** and record traffic to **CME's BoEWatch tool**
- **SOFR swaps** reached a record \$21 billion cleared in December 2019; 14 banks and 13 clients have cleared \$44.5 billion at CME
- Offering unmatched efficiencies to relative value traders, CME's newly enhanced portfolio margining solution is driving more clients to clear their US dollar swaps at CME. Bolstered by record activity in Treasury Invoice Spread and Eurodollar Convexity packages in 2019, over 890 accounts leveraged portfolio margining to save a record \$6 billion in daily initial margin, more than double the savings seen in 2018.
- **Micro E-mini futures** have traded approximately 106 million contracts since launch in May, with diverse participation, both from a customer segment perspective and a regional perspective; 2019 ADV of 525,000 contracts
- **S&P 500 Total Return Index futures**, which give market participants a way to mimic the economics of a total return swap in futures form, reached record ADV in 2019 of 2,072 contracts, up 17% compared with 2018. Over \$160 billion notional value has traded since launch. OI averaged a record 234,000 contracts, up 75%
- **S&P 500 Annual Dividend futures** reached record OI of 130,427 contracts (\$1.95 billion notional) on December 18, and hit a record 50 LOIH as of January 31, 2020
- **Bitcoin options**, based on actively traded Bitcoin futures, have been live as of January 13, 2020 and offer a cost-efficient tool to hedge uncertain markets
- Launched **E-mini S&P 500 ESG futures** on November 18; since launch, over \$1 billion notional value has traded from a diverse set of participants
- **FX Link** reached a new daily volume record of 42,068 contracts (\$4.1 billion notional) on January 2, 2020



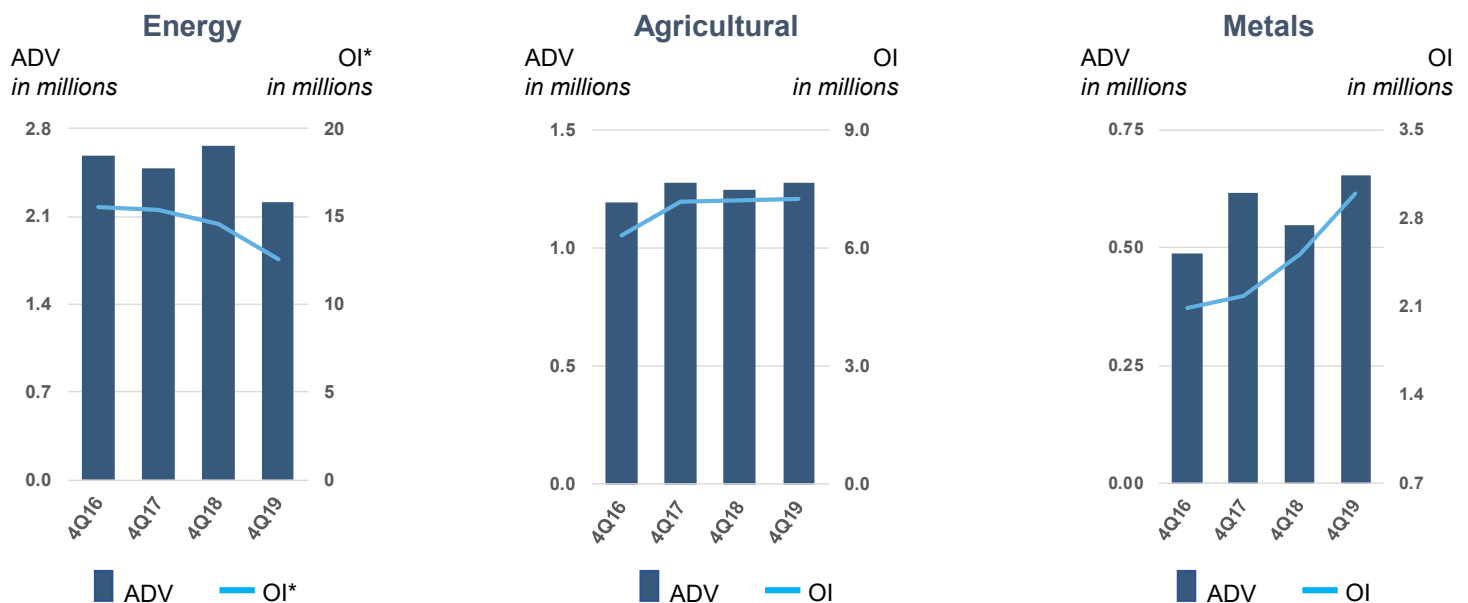
- Following the successful minimum price increment (MPI) reductions across GBP/USD, EUR/USD and JPY/USD, CME followed suit with two more currencies at the end of January – **AUD/USD and CAD/USD MPI reductions** in non-consecutive monthly calendar spreads from 0.5 to 0.2 on January 27, 2020
- Complementing existing Wednesday and Friday expiries, **Monday expiries in FX options** across five currencies will launch in February 2020
- Launched the first-ever **physically delivered U.S. Liquefied Natural Gas (LNG) contract** in October, aligning with the complex logistics of the LNG markets, and expanding CME Group's already robust suite of global natural gas futures and options
- Announced enhanced product specifications and two additional delivery points for **WTI Houston Crude Oil futures** contracts, beginning with the March 2020 contract expiry, pending regulatory review. These enhancements will provide an even better way for customers to hedge physical price risk, further contributing to the transparency of the U.S. crude oil prices on the water in the growing Houston region. We have successfully held three WTI cargo auctions and engaged with the physical trading community as the infrastructure and liquidity growth in this vital region continues and 44 unique firms have traded the contract to date
- Successfully launched the **Shanghai Gold (USD) futures and Shanghai Gold (CNH) futures** on October 14, 2019, enhancing the global liquidity of CME Group's COMEX Gold futures by aligning the world's largest physical gold market in China through Shanghai Gold Exchange (SGE)
- Announced the January launch of **Block Cheese futures and options**, which in addition to CME's existing suite of cash-settled dairy products provides clients with another solution for managing and hedging their risk

- On October 23, 2019, EBS conducted the first ever African Non-Deliverable Forward (NDF) trade conducted on a Central Limit Order Book (CLOB) trading platform. The USD/KES (Kenyan Shilling) 1-month NDF trade was executed between Bank of America and Citi. Following growing client interest to trade African currencies electronically, EBS has also added the following 1-month NDF currency pairs to its established NDF business – USD/NGN (Nigerian Naira), USD/ZMW (Zambian Kwacha), USD/GHS (Ghanaian Cedi)
- TriOptima set a new record for FX forwards compression. Counterparties using the triReduce CLS FX compression service eliminated a record \$9.1 trillion of gross notional value from their FX forward portfolios in 2019, an annual increase of 71%. In 4Q19 alone, the service compressed \$4.9 trillion of gross notional value, 153% above the previous quarterly high achieved in 3Q18. As FX forwards volumes continue to grow, and in response to capital rule changes and increased regulatory interest in FX compression, clients have a greater need for flexible risk mitigation services to achieve capital and operational efficiencies

## 4Q 2019 Product Detail - Financials



## 4Q 2019 Product Detail - Commodities



\*OI includes benchmark product areas only – Crude Oil, Natural Gas and Refined

## Financial Results

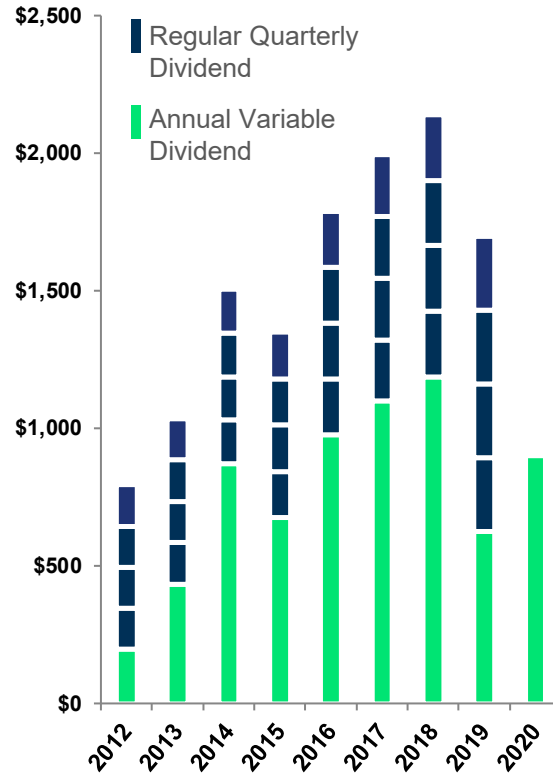
- 4Q19 revenue was \$1.14B, including \$179 million generated by legacy NEX businesses
- 4Q19 clearing and transaction fees revenue totaled \$901 million, including approximately \$114.5 million from NEX. EBS generated \$43 million of transaction revenue during the quarter and BrokerTec generated \$44 million
- Overall 4Q19 RPC was 71.7 cents, up 3% from 3Q19
- Market Data revenue in 4Q19 was \$130 million, in line with 3Q19, and included \$17.1 million from NEX
- 4Q19 Other revenue was \$107 million, in line with 3Q19. Total Other revenue from legacy NEX businesses was \$47 million
- 4Q19 adjusted expense excluding license fees was \$419 million. At the beginning of 2019, our initial annual expense guidance was between \$1.65 billion and \$1.66 billion. For the full year, adjusted operating expense excluding license fees came in \$13 million below the low end of that range at \$1.637 billion
- 4Q19 adjusted non-operating income was \$29.4 million
- The adjusted 4Q19 effective tax rate was 23.1%
- Adjusted net income attributable to CME Group was \$544 million and adjusted diluted earnings per share (EPS) were \$1.52
- Capital expenditures for 4Q19 totaled \$67 million bringing the year-to-date total to \$248 million and includes \$35 million of leasehold improvements, the majority of which will be reimbursed over time, and \$53 million in one-time capital expenditures associated with the integration
- As of December 31, the company had approximately \$1.7 billion in cash (including \$100 million deposited with Fixed Income Clearing Corporation (FICC) and included in other current assets) and \$3.7 billion of debt. The company declared dividends during 2019 of \$2 billion, including the annual variable dividend for 2019 of \$894 million. The company has returned approximately \$13.2 billion to shareholders in the form of dividends since implementing the variable dividend policy in early 2012

## Notes & Guidance

### Full Year 2020

- Adjusted operating expense excluding license fees expected to be between \$1.64 billion and \$1.65 billion
- Capital expenditures, net of leasehold improvement allowances and any one-time costs associated with the integration, expected to be between \$180 million and \$200 million
- Adjusted effective tax rate expected to be between 23% and 24%
- At the end of 2019, the company reached \$58 million in run rate expense synergies and \$6 million in subleasing revenue synergies for a total of \$64 million. At the end of 2020, we expect cumulative run rate synergies to be at \$110 million and expect to realize approximately \$15 million in P&L impact during the year

### Dividends Paid\* \$ in millions



\*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

### Integration Progress

- BrokerTec and EBS hosted client forums in Chicago, New York, London, and Singapore to educate the clients and marketplace on the upcoming dates and migration plans
- Key functionality on BrokerTec is available for clients to test connectivity and system requirements ahead of the cutover planned for 4Q 2020
- Continued planning of EBS Globex migration, which will follow in 4Q 2021
- Consolidated offices in New York, Hong Kong and Tokyo with London and Singapore planned for this year
- Continued the integration efforts to migrate all employees onto our administrative systems
- Closed on the divestitures of ENSO and NEX Treasury in 4Q

## Use of Non-GAAP Measures

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 earnings presentation materials posted in the same area of the Investor Relations page on CME Group's Web site at [www.cmegroup.com](http://www.cmegroup.com).

## Forward-Looking Statements

Statements in this document 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 at substantially similar trading levels, develop strategic relationships and attract new customers; our ability to expand and globally offer our products and services; changes in regulations, including the impact of any changes in laws or government policy with respect to our products or services or 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 or changes to regulations in various jurisdictions; 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 credit and liquidity risk management practices to adequately protect us from the credit risks of clearing members and other counterparties, and to satisfy the margin and liquidity requirements associated with the BrokerTec matched principal business; 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; our dependence on third-party providers and exposure to risk through third-parties, including risks related to the performance, reliability and security of technology used by our third-party providers; volatility in commodity, equity and fixed income prices, and price volatility of financial benchmarks and instruments such as interest rates, credit spreads, equity indices, fixed income instruments and foreign exchange rates; economic, social, 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, control the costs and achieve the synergies associated with our strategy for acquisitions, investments and alliances, including those associated with the acquisition of NEX; 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; our ability to maintain our reputation; 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.

### Q&A Conference Call Details:

CME Group will hold a live Q&A teleconference to take questions related to fourth-quarter 2019 results at 8:30 a.m. Eastern Time today. A live audio Webcast of the Q&A teleconference will be available on the Investor Relations section of CME Group's Web site at [www.cmegroup.com](http://www.cmegroup.com). Following the conference call, an archived recording will be available at the same site. Those wishing to listen to the live Q&A teleconference via telephone should dial 1-800-458-4121 if calling from within the United States or +1-323-794-2093 if calling from outside the United States, at least 10 minutes before the call begins.

Analysts and investors are encouraged to review the Company's recent filings with the U.S. Securities and Exchange Commission, as well as the quarterly earnings reference documents posted to the Investor Relations page of CME Group's Web site.