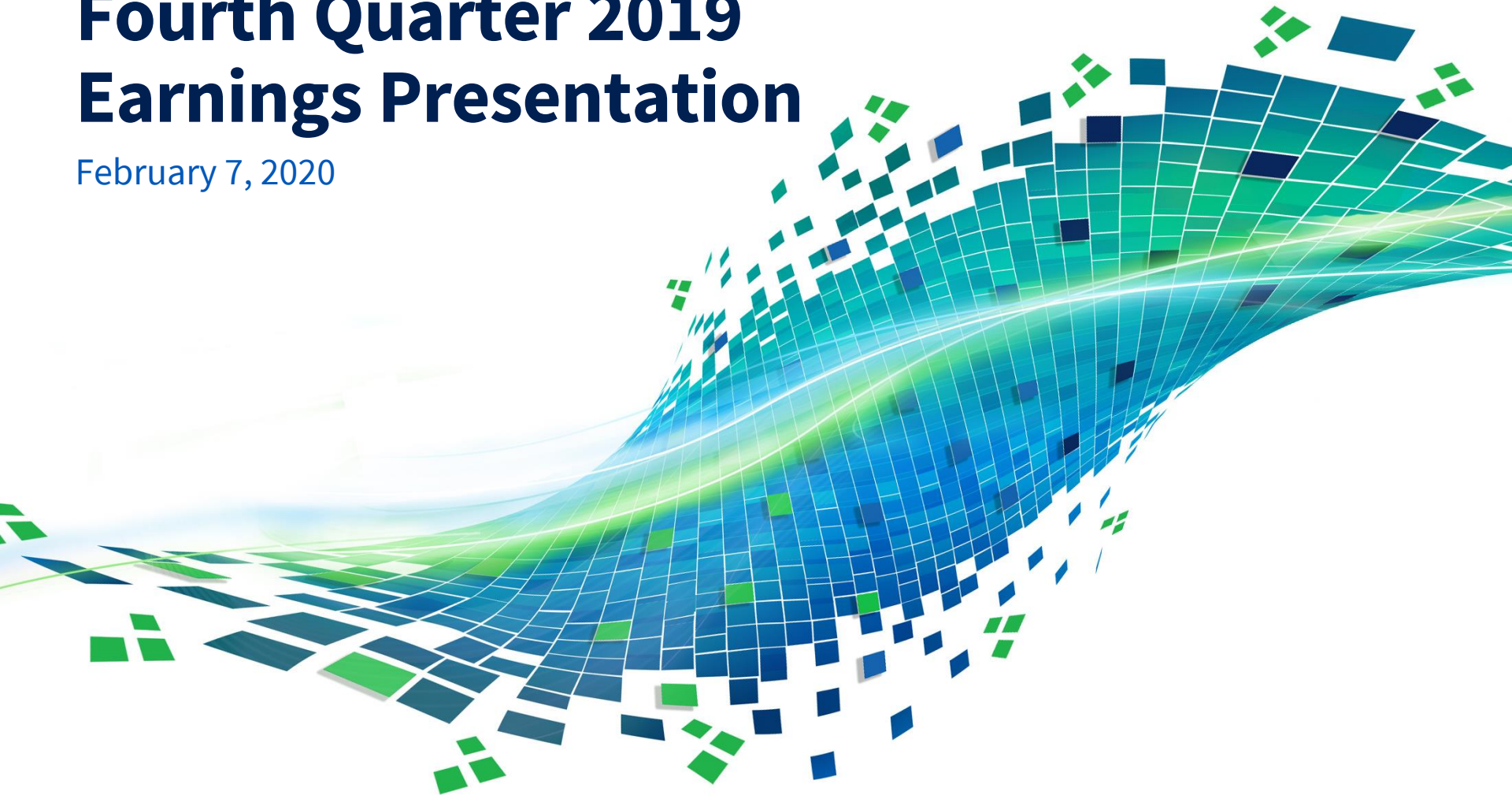


Fourth Quarter 2019 Earnings Presentation

February 7, 2020



Strategic Review

Edward Tilly

Chairman, President and Chief Executive Officer

Financial Review

Brian Schell

Executive Vice President, CFO and Treasurer

Questions and Answers

Edward Tilly

Brian Schell

Chris Isaacson

Executive Vice President and Chief Operating Officer

John Deters

Chief Strategy Officer

Cautionary Statements Regarding Forward-Looking Information



This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve a number of risks and uncertainties. You can identify these statements by forward-looking words such as “may,” “might,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential” or “continue,” and the negative of these terms and other comparable terminology. All statements that reflect our expectations, assumptions or projections about the future other than statements of historical fact are forward-looking statements. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from those expressed or implied by the forward-looking statements.

We operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Some factors that could cause actual results to differ include: the loss of our right to exclusively list and trade certain index options and futures products; economic, political and market conditions; compliance with legal and regulatory obligations; price competition and consolidation in our industry; decreases in trading volumes, market data fees or a shift in the mix of products traded on our exchanges; legislative or regulatory changes; our ability to protect our systems and communication networks from security risks, cybersecurity risks, insider threats and unauthorized disclosure of confidential information; increasing competition by foreign and domestic entities; our dependence on and exposure to risk from third parties; fluctuations to currency exchange rates; our index providers’ ability to maintain the quality and integrity of their indexes and to perform under our agreements; our ability to operate our business without violating the intellectual property rights of others and the costs associated with protecting our intellectual property rights; our ability to attract and retain skilled management and other personnel, including those experienced with post-acquisition integration; our ability to accommodate trading volume and transaction traffic, including significant increases, without failure or degradation of performance of our systems; misconduct by those who use our markets or our products; challenges to our use of open source software code; our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status; damage to our reputation; the ability of our compliance and risk management methods to effectively monitor and manage our risks; our ability to manage our growth and strategic acquisitions or alliances effectively; restrictions imposed by our debt obligations; our ability to maintain an investment grade credit rating; impairment of our goodwill, investments or intangible assets; and the accuracy of our estimates and expectations. More detailed information about factors that may affect our actual results to differ may be found in our filings with the SEC, including in our Annual Report on Form 10-K for the year ended December 31, 2018 and other filings made from time to time with the SEC.

We do not undertake, and we expressly disclaim, any duty to update any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

This presentation includes market share, financials and industry data that we obtained from industry publications and surveys, reports of governmental agencies, third-parties and internal company surveys. Industry publications and surveys generally state that the information they contain has been obtained from sources believed to be reliable, but we cannot assure you that this information is accurate or complete. We have not independently verified any of the data and financials from third-party sources nor have we ascertained the underlying economic assumptions relied upon therein. Statements as to our market position are based on the most currently available market data. While we are not aware of any misstatements regarding industry data and financials presented herein, our estimates involve risks and uncertainties and are subject to change based on various factors.

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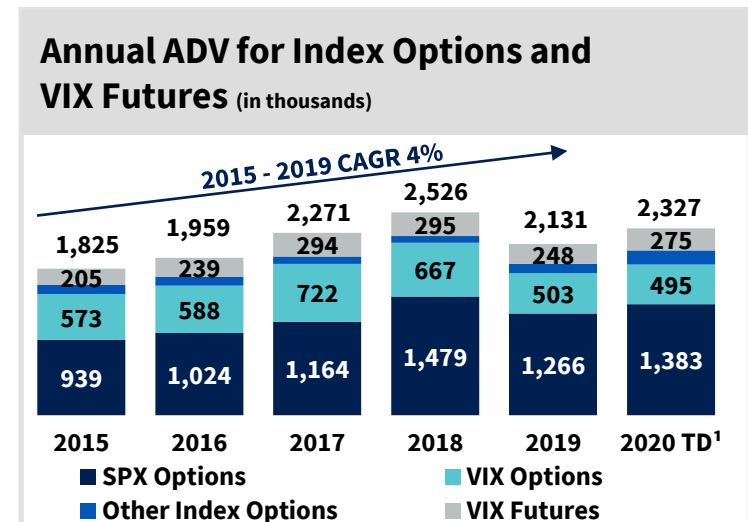
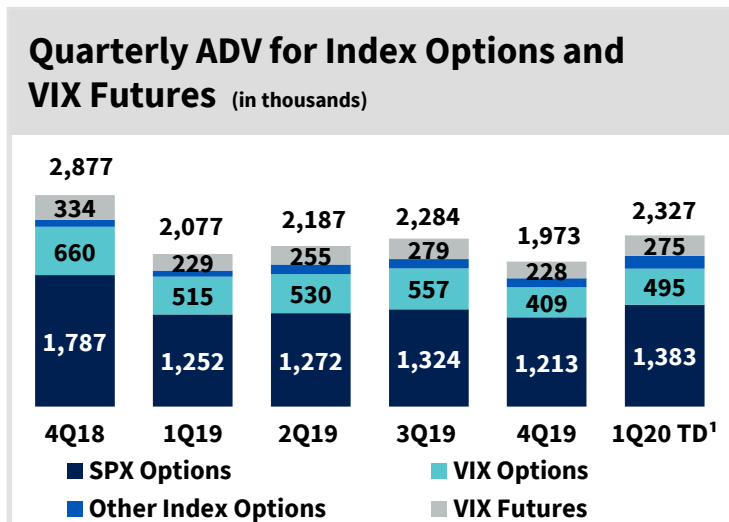
Strategic Review
Edward Tilly
Chairman, President and CEO

4Q19 Reflects Difficult Comparisons Against Record Results in 4Q18

Lower volatility dampened trading, particularly in our index products, which had exceptionally strong trading in 4Q18

❖ Strengthened our foundation for further growth

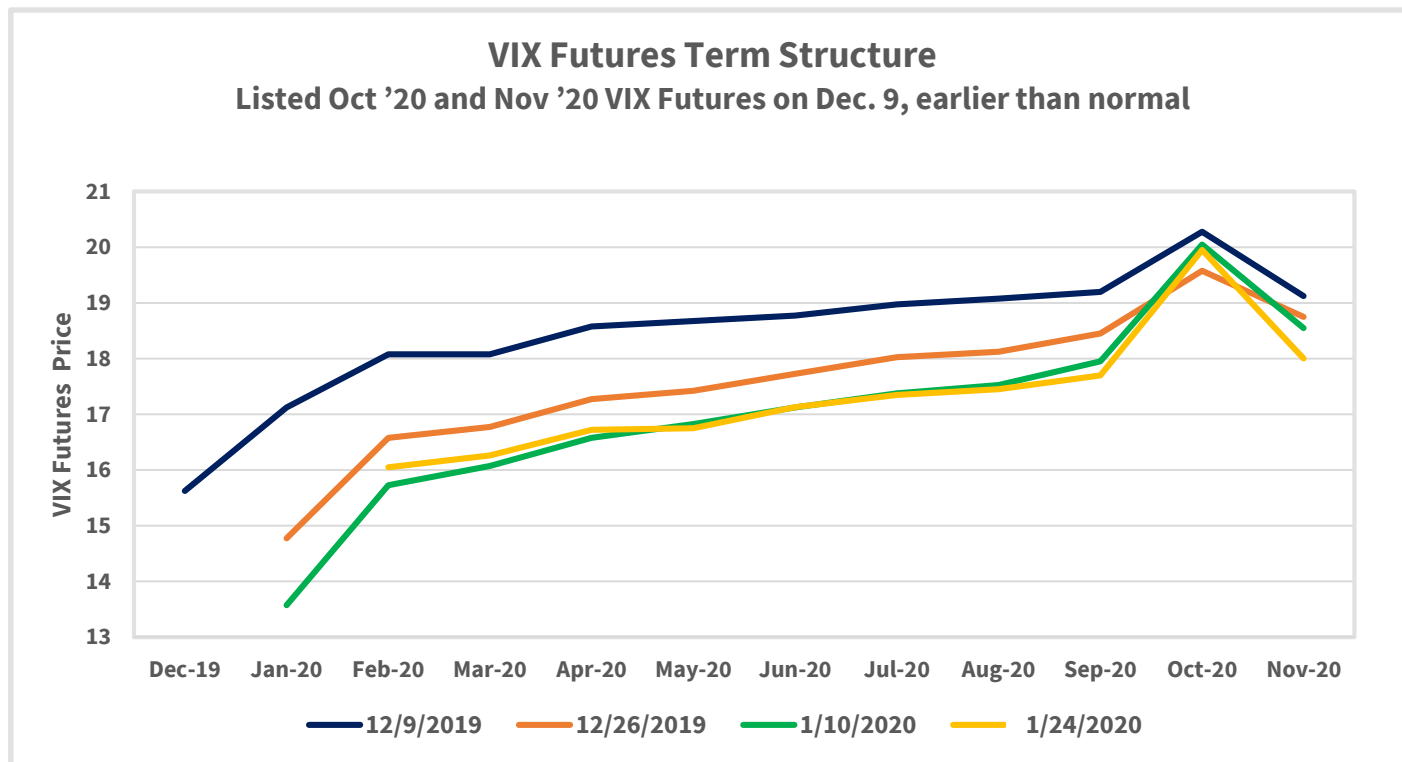
- Completed technology migration
- Expanded our offering of unique trading and educational resources
- Launched new initiatives



¹1Q20 TD and 2020 TD through January 31, 2020

4Q19 Capped Another Year of Strong Stock Market Growth but Lower Market Volatility

- ❖ As market unknowns increase, seeing greater focus on hedging and risk management, creating demand for our proprietary products
- ❖ Continued to provide investors more precision around positioning by accelerating listing of new terms in SPX options and VIX options and futures



Our goal is to define markets by being the global leader in innovative tradable products and services



Pending Acquisition of EuroCCP¹ Expected to Expand Cboe's Global Reach and Diversify Revenue Stream



See opportunity in European derivatives market to grow addressable market and win market share

- ❖ Look to provide an alternative market model, enhancing the overall trading ecosystem*:
 - Introduce efficiencies enjoyed by the U.S. market
 - Vibrant lit-book trading environment with deep, liquid market for price discovery
 - Harmonize product design specifications, risk models, tick sizes, etc. while offering capital efficiencies
- ❖ Expect to offer exposure that represents multiple European markets through:
 - European index futures and options
 - Single-name futures and options
 - Potential to explore other products, including ETP futures and options, volatility derivatives and OTC instruments

¹ Expected to close in first half of 2020 and is subject to satisfaction or waiver of conditions precedent

* Subject to regulatory approval



Addition of Hanweck and FT Options expands Cboe's Information Solutions offering

- ❖ Profitable, best-in-class companies in fastest growing component of financial market data sector
 - Hanweck, real-time risk analytics on global derivatives markets
 - FT Options, portfolio management platform provider
- ❖ Distinct from Cboe's research and data platform being built in-house and intended to be internally focused

Cboe Information Solutions – a broad suite of data solutions, analytics and indices

Offer Unique and Actionable Derived Data Solutions

Deliver Insightful Data & Analytics through Seamless Channels

Provide Friction-free Access to Our Global Markets

- Provide high-margin, value-added recurring revenue stream
- Support transaction growth in our suite of proprietary products

Cboe Information Solutions – Optimizing the Customer Experience Throughout the Trade Process

PRE-TRADE

- ❖ Index construction
- ❖ Option Strategy Benchmarks
- ❖ Pre-trade “what-if” risk modeling
- ❖ Event analysis
- ❖ Implied earnings moves
- ❖ Borrow intensity indicators
- ❖ Implied credit / default probability analytics
- ❖ Margin stress tests and forecasting



AT-TRADE

- ❖ Cboe Silexx order execution management system (OEMS)
- ❖ FLEX options executions
- ❖ Theoretical values, IVs, and Greeks
- ❖ Margin risk analytics
- ❖ Portfolio risk analytics
- ❖ Volatility surfaces
- ❖ Term structure
- ❖ Market activity alerts
- ❖ Index calculations and index values distribution
- ❖ Market quality metrics
- ❖ Market scanning

POST-TRADE

- ❖ Trade allocations
- ❖ Reference pricing / iNAVs
- ❖ EOD and interval historical data
- ❖ Market quality metrics
- ❖ Aggregated market statistics
- ❖ Execution quality / transaction cost analysis (TCA)



Cboe has been the leading advocate for market-defining policies and regulations that promote capital efficiency for traders

- ❖ In 2019, along with OCC, began work to advocate for the expansion of customer portfolio margining to include more of our proprietary products*
 - Permit inclusion of VIX futures contract in a securities account for the purpose of portfolio margining
 - Increase margin efficiencies for customers that use VIX and SPX options
 - Expected to be a long process, requiring coordination between OCC, Cboe, and numerous regulatory bodies
- ❖ We believe our proposal would increase capital efficiencies and thereby expand trading opportunities

** Subject to regulatory approval*

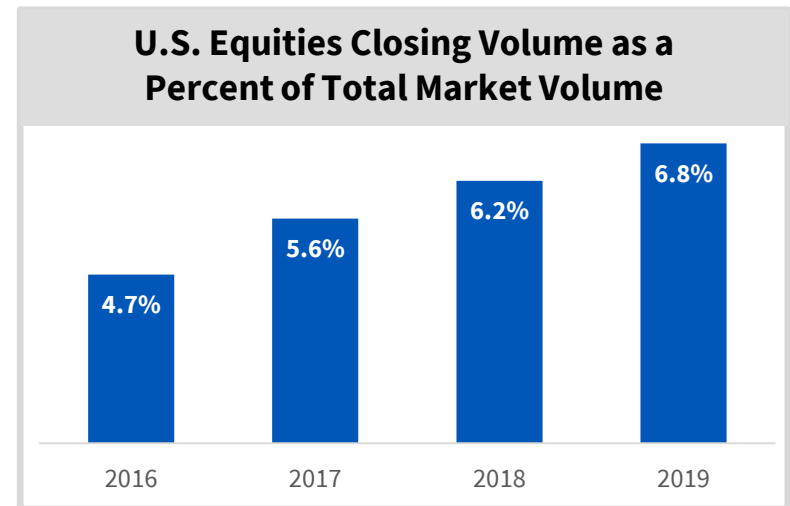
At the forefront of capital markets advocacy with initiatives to promote fair, efficient, and transparent equity markets

- ❖ Cboe's report focused on four key recommendations for equity market structure enhancements:
 - Implement SIPs in multiple locations in order to significantly reduce geographic latency
 - Reduce the standard round lot size from 100 shares to 10 shares or 1 share for high-priced securities, and broaden odd lot transparency by disseminating top-of-book odd lot quotation data through the Securities Information Processors (SIPs)
 - A targeted reduction in tick sizes for securities priced above \$1
 - Establish sub-penny pricing standards that we believe will permit fair and competitive price-improvement opportunities between exchanges and off-exchange venues

Introducing Cboe Market Close (CMC)

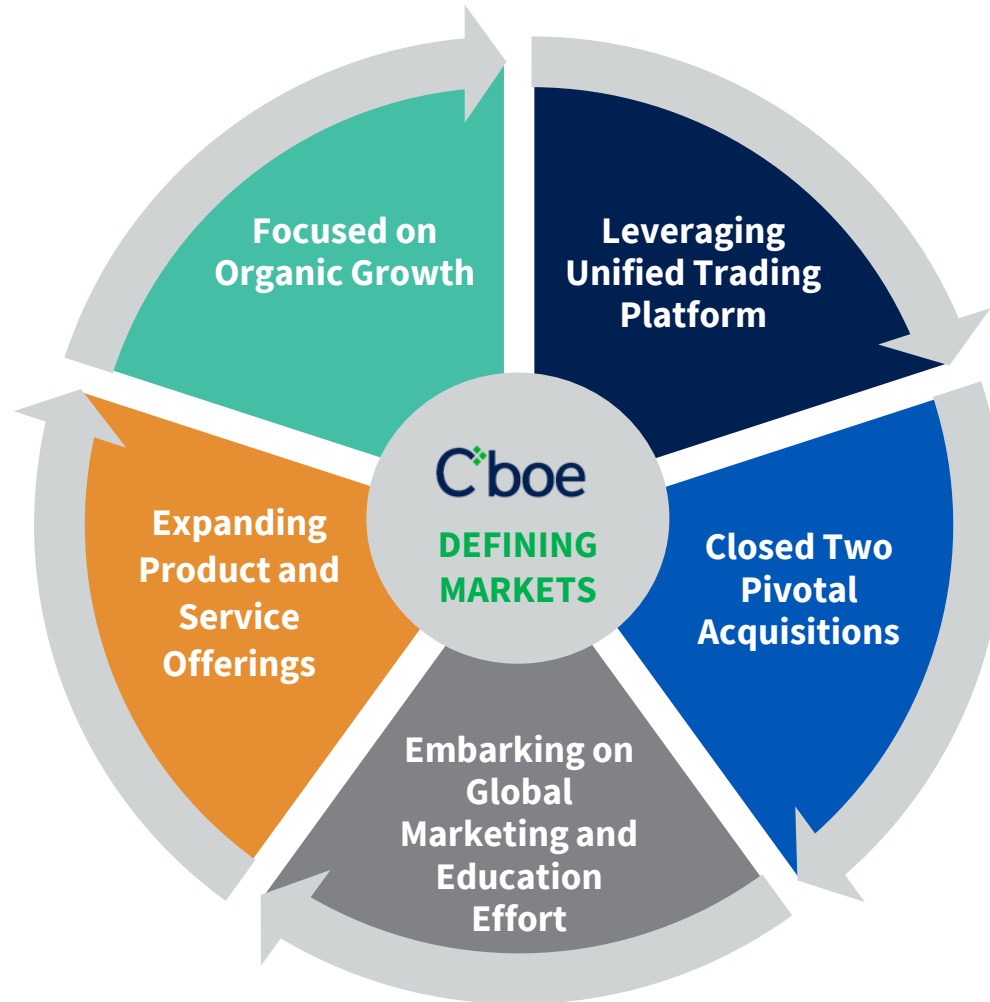
Plan to launch Cboe Market Close on Cboe BZX Exchange on March 6, 2020

- ❖ Pleased to receive final approval from the SEC for CMC
- ❖ We look to provide added opportunities for cost efficiencies at market close
- ❖ Working closely with customers to ensure their readiness



Source: Cboe

Laying the Foundation for Future Growth





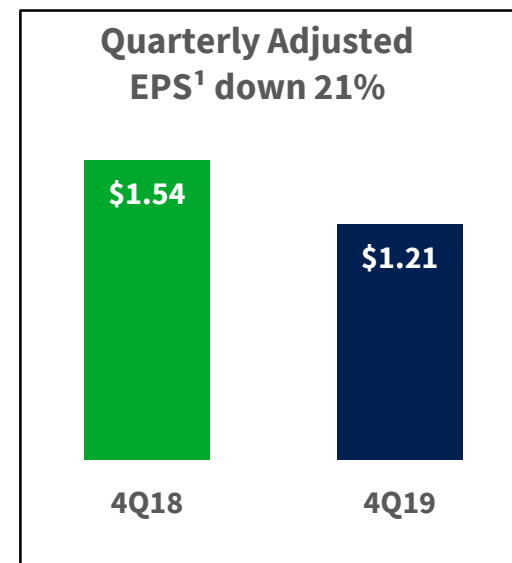
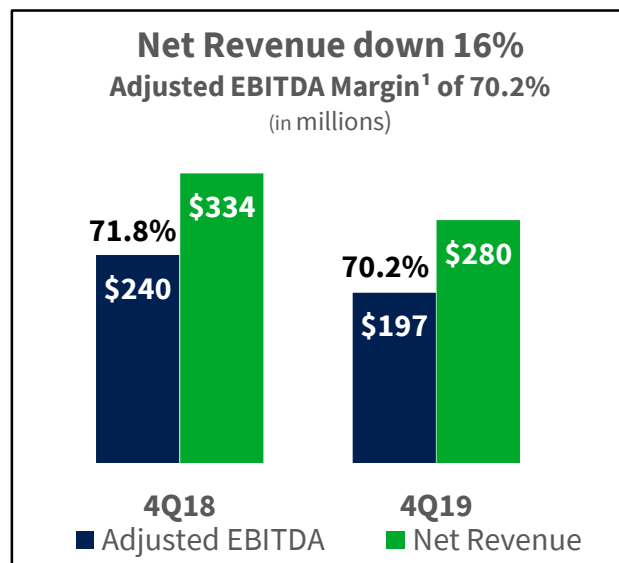
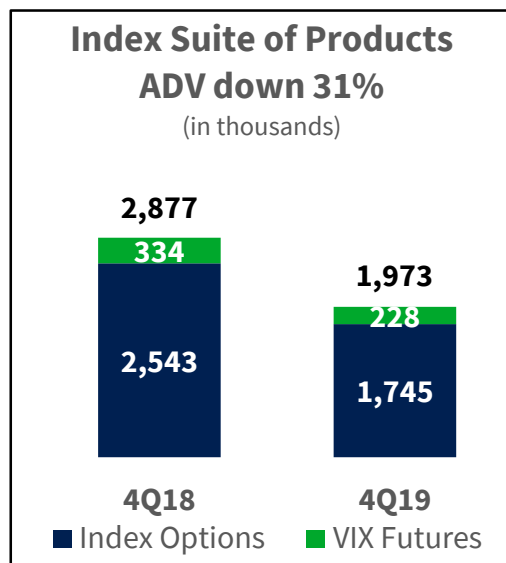
Financial Overview and Guidance

Brian Schell

EVP, CFO and Treasurer

Business Highlights – Key Performance Drivers

- ❖ Lower trading volumes in proprietary products and industrywide
- ❖ Net transaction fees¹ down 30%; non-transaction net revenue up 10%
- ❖ Adjusted operating expenses¹ down 14%
- ❖ Continued expense discipline with EBITDA¹ margin of over 70%

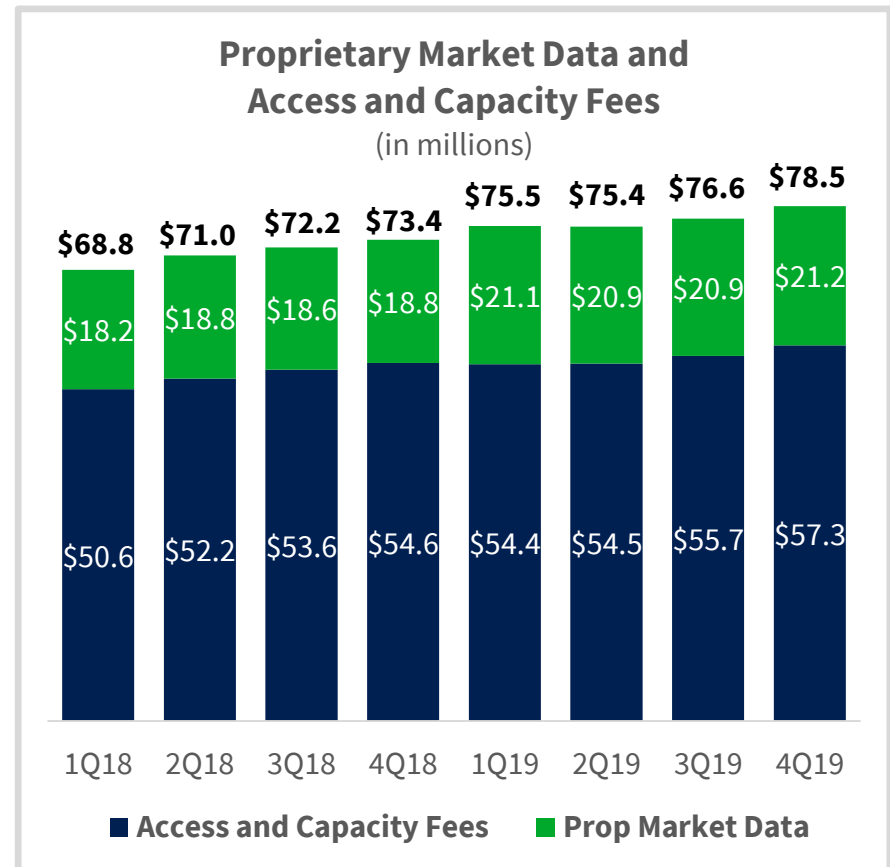


¹See appendix for “Non-GAAP Information.”

Grew Recurring Non-Transaction Revenue Streams

Recurring proprietary non-transaction net revenue up 7% YoY in 4Q19 and full-year 2019

- ❖ Expect growth in proprietary market data and access and capacity fees combined to be low-to-mid-single digits in 2020, excluding acquisitions
- ❖ About 70% of proprietary market data revenue growth in 4Q19 driven by additional subscriptions
- ❖ Nearly 85% of access and capacity fees in 4Q19 were attributable to incremental units



Options 4Q19 Net Revenue Down 20% Against Difficult Comparisons to 4Q18



- ❖ 4Q19 revenue decrease driven by lower trading volume, particularly in index options
- ❖ RPC increase in index options due to shift in volume mix; decrease in multi-listed options reflects shift in mix by order type and higher rebates as we captured more market share

Options Selected Revenue Data (\$ in millions)	4Q19	4Q18	Chg	2019	2018	Chg
Net Revenue	\$139.4	\$174.5	-20%	\$564.1	\$611.2	-8%
Net transaction fees¹	\$105.0	\$152.0	-31%	\$434.5	\$509.7	-15%
Index options	85.6	120.1	-29%	353.9	411.9	-14%
Multi-listed options	19.4	31.9	-39%	80.6	97.8	-18%
Access and capacity	\$26.5	\$26.3	1%	\$104.1	\$99.4	5%
Market data	\$14.2	\$10.9	30%	\$55.7	\$42.9	30%
Market data – proprietary	7.1	4.7	51%	27.9	18.1	54%
Market data – industry	7.1	6.2	15%	27.8	24.8	12%
Options Key Operating Stats (in thousands, except RPC)	4Q19	4Q18	Chg	2019	2018	Chg
Total market share	37.4%	38.4%	-1.0 pts	37.7%	38.5%	-0.8 pts
Index options	99.0%	99.3%	-0.3 pts	99.2%	99.2%	--
Multi-listed options	31.3%	30.5%	0.8 pts	31.1%	30.5%	0.6 pts
Total ADV	7,297	8,610	-15%	7,339	7,870	-7%
Index options	1,745	2,543	-31%	1,883	2,231	-16%
Multi-listed options	5,552	6,067	-8%	5,456	5,639	-3%
Total RPC	\$0.225	\$0.280	-20%	\$0.235	\$0.258	-9%
Index options	\$0.766	\$0.750	2%	\$0.746	\$0.736	1%
Multi-listed options	\$0.055	\$0.083	-34%	\$0.059	\$0.069	-14%

¹See appendix for “Non-GAAP Information.”

Futures 4Q19 Net Revenue Down 24%

- ❖ Revenue decrease primarily driven by lower trading volume
- ❖ RPC increase primarily reflects lower volume-based rebates

Futures Selected Revenue Data (in millions)	4Q19	4Q18	Chg	2019	2018	Chg
Net Revenue	\$30.9	\$40.4	-24%	\$131.3	\$144.1	-9%
Net transaction fees ¹	\$26.1	\$36.4	-28%	\$110.2	\$127.8	-14%
Access and capacity	\$4.1	\$3.8	8%	\$15.6	\$15.1	3%
Market data	\$1.6	\$1.7	-6%	\$6.5	\$6.6	-2%
Futures Key Operating Stats (in thousands, except RPC)	4Q19	4Q18	Chg	2019	2018	Chg
Total ADV	228	338	-33%	249	300	-17%
Total RPC	\$1.794	\$1.697	6%	\$1.756	\$1.694	4%

¹See appendix for “Non-GAAP Information.”

U.S. Equities 4Q19 Net Revenue Down 7%

- ❖ Revenue decrease primarily due to lower net transaction fees, offset somewhat by higher non-transaction revenue
- ❖ Trading dampened by lower volatility; higher percentage of volume traded off-exchange and in the auctions

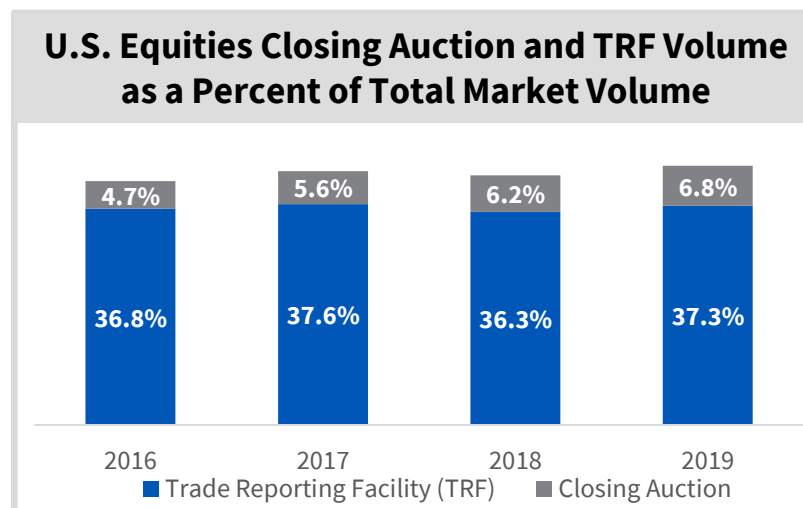
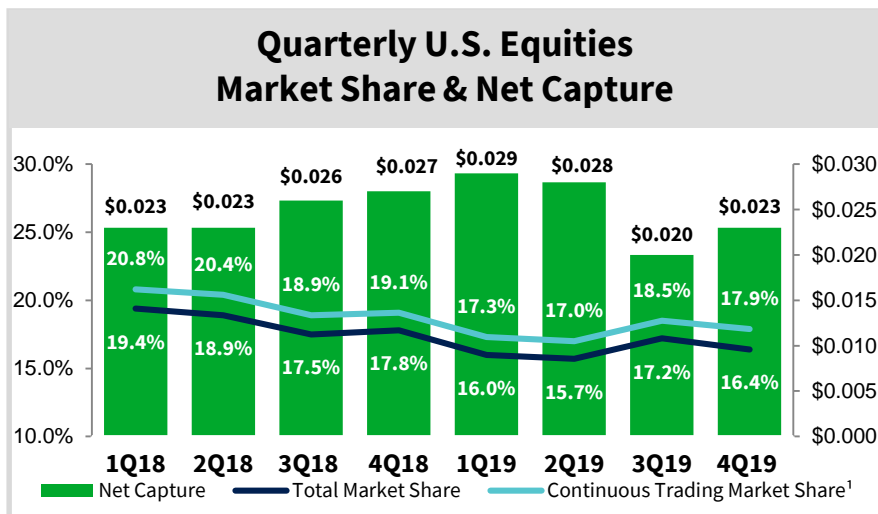
U.S. Equities Selected Revenue Data (\$ in millions)	4Q19	4Q18	Chg	2019	2018	Chg
Net Revenue	\$75.5	\$81.5	-7%	\$300.8	\$310.2	-3.0%
Net transaction fees ¹	\$17.2	\$27.0	-36%	\$75.8	\$87.3	-13.2%
Market data	\$34.7	\$33.8	3%	\$138.1	\$140.9	-2.0%
Market data - SIP ²	25.4	24.7	3%	101.6	104.9	-3.1%
Market data - proprietary	9.3	9.1	2%	36.5	36.0	1.4%
Access and capacity fees	\$20.2	\$19.3	5%	\$78.9	\$75.6	4.4%
U.S. Equities Key Operating Stats (shares in billions)	4Q19	4Q18	Chg	2019	2018	Chg
Total market share	16.4%	17.8%	-1.4 pts	16.3%	18.4%	-2.1 pts
Market ADV	6.8	8.5	-20%	7.0	7.3	-4%
ADV (matched shares)	1.1	1.5	-27%	1.1	1.3	-15%
Net capture (per 100 touched shares)	\$0.023	\$0.027	-15%	0.025	0.025	--

¹See appendix for "Non-GAAP Information."

²Includes \$1.5 million in SIP audit recoveries for 4Q19 and \$0.8 million for 4Q18; includes \$9.3 million for 2019 and \$5.8 million for 2018

U.S. Equities – Reinvesting in Gaining Market Share

- ❖ Reinvested a portion of higher net capture to attract market share
- ❖ Share of continuous trading higher, reflecting impact of pricing changes
- ❖ Market share decrease primarily reflects increasing portion of volumes trading during the closing auctions and off-exchange
- ❖ Launch of Cboe Market Close planned for March 6



¹Market share excluding opening and closing auctions

Source: Cboe

European Equities 4Q19 Net Revenue Down 11% on Local Currency Basis



- ❖ Net revenue decrease reflects lower net transaction fees and higher non-transaction revenue
- ❖ On both dollars and a local currency basis, net transaction fees decreased 28% and non-transaction revenue increased 20%
- ❖ Decline in net transaction fees driven by lower overall industry volume and market share, offset somewhat by higher net capture

European Equities Selected Revenue Data (\$ in millions)	4Q19	4Q18	Chg (\$)	Chg (£)	2019	2018	Chg (\$)	Chg (£)
Net Revenue	\$21.6	\$24.3	-11%	-11%	\$87.5	\$94.6	-7.5%	-3%
Net transaction fees ¹	\$11.3	\$15.7	-28%	-28%	\$49.8	\$60.4	-17.5%	-14%
Market data	\$3.2	\$3.2	--	--	\$12.6	\$13.1	-3.8%	17%
Access and capacity fees	\$4.7	\$3.7	27%	29%	\$16.5	\$14.7	12.2%	1%
Other ²	\$2.4	\$1.7	41%	38%	\$8.6	\$6.4	34.4%	40%
European Equities Key Operating Stats (shares in billions)	4Q19	4Q18	Chg		2019	2018	Chg	
Total market share	18.4%	22.7%	-4.3 pts		20.2%	22.3%	-2.1 pts	
Market ADNV	€ 35.1	€ 46.7	-25%		€ 37.9	€ 46.5	-18%	
Net capture (per matched notional value, in bps)	\$0.248	\$0.200	24%		0.227	0.192	18%	

¹See appendix for “Non-GAAP Information.”

²Includes trade reporting

Global FX 4Q19 Net Revenue Down 6%

- ❖ Revenue decline reflects lower market volume offset somewhat by higher net capture
- ❖ Record market share in 4Q19 driven by positive response to our new Full Amount offering
- ❖ Higher net capture due to lower volumes, reducing the lower tiered transaction rates

	4Q19	4Q18	Chg	2019	2018	Chg
FX Net Revenue (in millions)	\$12.9	\$13.7	-6%	\$53.0	\$56.4	-6.0%
FX Key Operating Stats	4Q19	4Q18	Chg	2019	2018	Chg
Market share	16.0%	15.3%	0.7 pts	15.2%	15.1%	0.1pts
Average Daily Notional Value (\$ in billions)	\$30.1	\$35.1	-14%	\$32.3	\$37.4	-14%
Net capture (per one million dollars traded)	\$2.80	\$2.63	6%	\$2.71	\$2.56	6%

¹Market share represents Cboe FX volume divided by the total volume of publicly reporting spot FX venues (Cboe FX, EBS, Refinitiv, and FastMatch).

4Q19 Adjusted Operating Expenses Down 14%

4Q19 vs 4Q18:

- ❖ Decrease driven by 19% decline in compensation and benefits, reflecting decrease in incentive-based compensation
- ❖ 2020 guidance for adjusted operating expenses is a range of \$435 to \$443 million, excludes pending acquisition of EuroCCP and related derivatives buildout

Adjusted Operating Expenses ¹ (in millions)	4Q19	4Q18	% Chg	2019	2018	% Chg
Compensation and benefits	\$49.0	\$60.8	-19%	\$199.0	\$228.8	-13%
Depreciation and amortization ¹	9.4	9.7	-3%	38.1	43.4	-12%
Technology support services	11.9	13.4	-11%	46.2	47.9	-4%
Professional fees and outside services	15.4	16.4	-6%	68.3	68.3	--
Travel and promotional	3.6	3.2	13%	11.9	13.0	-8%
Facilities costs	3.2	2.9	10%	11.0	11.5	-4%
Other expenses	3.1	5.4	-43%	14.8	13.9	6%
Total¹	\$95.6	\$111.8	-14%	\$389.3	\$426.8	-9%

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

Factors Influencing 2020 Adjusted Operating Expenses

Adjusted Operating Expenses Bridge from 2019 to 2020		
2020 Guidance of \$435 to \$443 million¹		
<i>(\$ in millions)</i>		
2019 Adjusted Operating Expenses²	\$ 389	Guidance Range
Core expense growth 4-5%	\$ 16	\$ 20
Realized synergies projected	(18)	(18)
Expense growth net of synergies	(2)	2
Full year of Brexit readiness costs	3	3
2019 non-recurring items	6	6
Software development expense vs capitalized	7	8
Real estate overlap	7	8
Incentive compensation	10	12
Acquisition of Hanweck and FT Options	15	15
Total	\$ 46	\$ 54
2020 Guidance	\$ 435	\$ 443

¹Guidance expected to be updated after the close of the company's pending acquisition of EuroCCP.

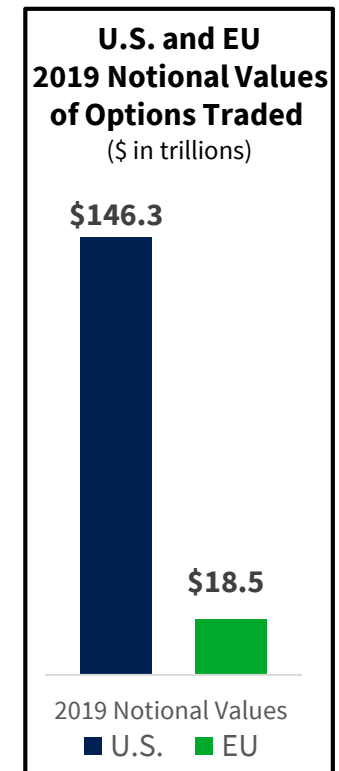
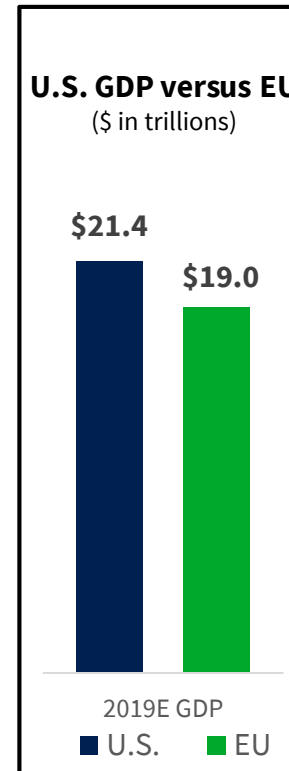
²Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

Pending Acquisition of EuroCCP and Buildout of Pan-European Derivatives Trading and Clearing

Investing in long-term growth

Projected EPS	2020 ¹	2021
EuroCCP	(\$0.04) to (\$0.05)	neutral to positive
Buildout of pan-European derivatives trading and clearing ²	(\$0.04 – (\$0.05)	(\$0.08) to (\$0.10)
Total	(\$0.08) to (\$0.10)	(\$0.08) to (\$0.10)

EuroCCP Data (€ in millions)			
EuroCCP Results	2019 ³ Unaudited	2018 ⁴ Actual	Chg
Revenue	€ 23.8	€ 21.2	12%
Expenses	€ 20.0	€ 19.5	3%
Pre-tax earnings	€ 3.8	€ 1.7	124%



¹Assumes deal closes in first half of 2020 and subject to satisfaction or waiver of conditions precedent

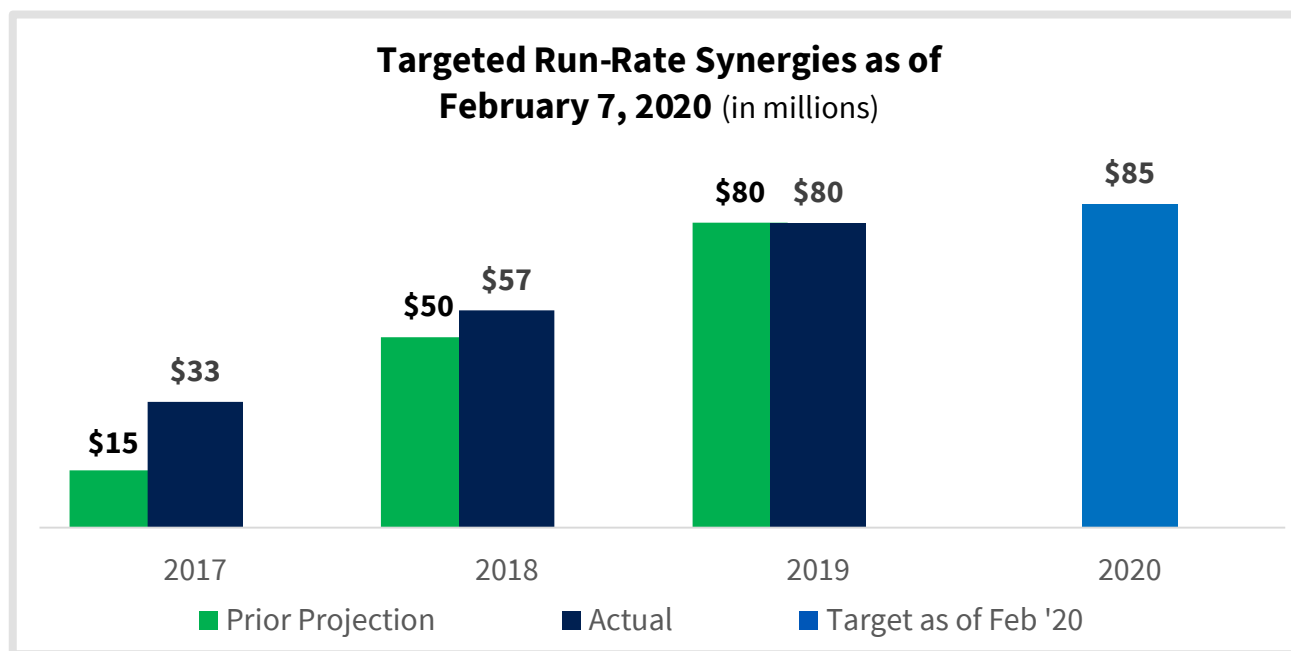
²Subject to regulatory approval

³Preliminary and subject to change

⁴EuroCCP 2018 Annual Report

Maintaining Synergy Targets

- ❖ Maintaining 2019 run-rate synergy target of \$80 million and 2020 target of \$85 million
- ❖ Remaining synergies of \$5 million in 2020 will be reflected in a reduction in cost of revenues versus expenses



2020 Full-Year Guidance

2020 Full-Year Guidance ^{1, 2} (\$ in millions)	2020 Guidance as of Feb. 7, 2020	2019 Actual
Adjusted operating expenses ³	\$435 to \$443	\$389.3
Depreciation and amortization (excluding amortization of acquired intangible assets)	\$34 to \$38	\$38.1
Effective tax rate on adjusted earnings	26.5% to 28.5%	25.5%
Capital expenditures	\$65 to \$70	\$37.6

¹See “Non-GAAP Information” in the appendix for reconciliations

²This guidance does not take into account the company’s planned acquisition of EuroCCP and its investment in launching pan-European trading and clearing. The company plans to update its guidance for 2020 after the deal closes, which is expected in later in the first half of 2020.

³Adjusted operating expenses exclude acquisition-related expenses and amortization of acquired intangible assets. The amortization of acquired intangible assets was \$139 million for 2019 and is expected to be \$120 million for 2020. Adjustments included in the non-GAAP reconciliation.

Focused on Efficient Allocation of Capital to Create Long-Term Shareholder Value



Preserving balance sheet flexibility is a priority

- ❖ Returned capital through dividends and opportunistic share repurchases - nearly \$110MM in 4Q19; \$307MM Year 2019
- ❖ Raised quarterly dividend payment in 3Q19; consistent annual increases
- ❖ Utilized \$350MM in cash to reduce debt in 2019

Debt Outstanding (\$ in millions)	Dec. 30, 2019	Sept. 30, 2019	June 30, 2019	Mar. 31, 2019	Dec. 31, 2018
3.650% Senior Notes (10Y; Due 2027)	\$650	\$650	\$650	\$650	\$650
1.950% Senior Notes (2Y; Due 2019)	-	-	-	300	300
Term Loan Facility	225	225	275	275	275
Total Debt (Gross)	\$ 875	\$ 875	\$ 925	\$ 1,225	\$ 1,225
Debt to EBITDA TTM¹	1.2x	1.1x	1.2x	1.5x	1.5x
Adjusted Cash & Financial Investments¹	\$208	\$151	\$136	\$348	\$258
Dividends Paid	\$40.1	\$40.4	\$34.8	\$34.8	\$34.7
Share Repurchases	\$69.5	\$52.4	--	\$35.0	--

¹See Appendix for "Non-GAAP Information."

Delivering on Sources of Operating Leverage and Key Strategic Initiatives While Defining Markets Globally



Growth of Core Proprietary Products

- Focused on growing proprietary index products

Strengthen Recurring Revenue Stream

- Growth in recurring revenue

Scale of Business Model

- Disciplined expense management

Synergies Realization

- Completed integration plan and achieved synergy targets

Capital Allocation

- Returned capital through dividends
- Focused on maintaining balance sheet flexibility
- Leverage ratio at 1.2x at Dec. 31, 2019

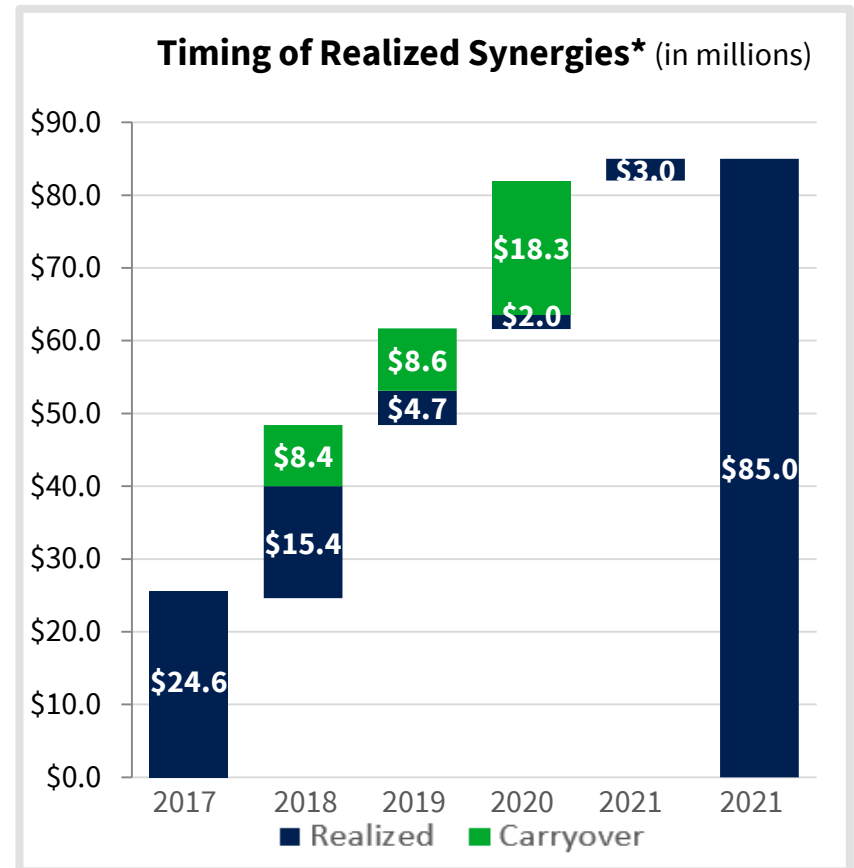
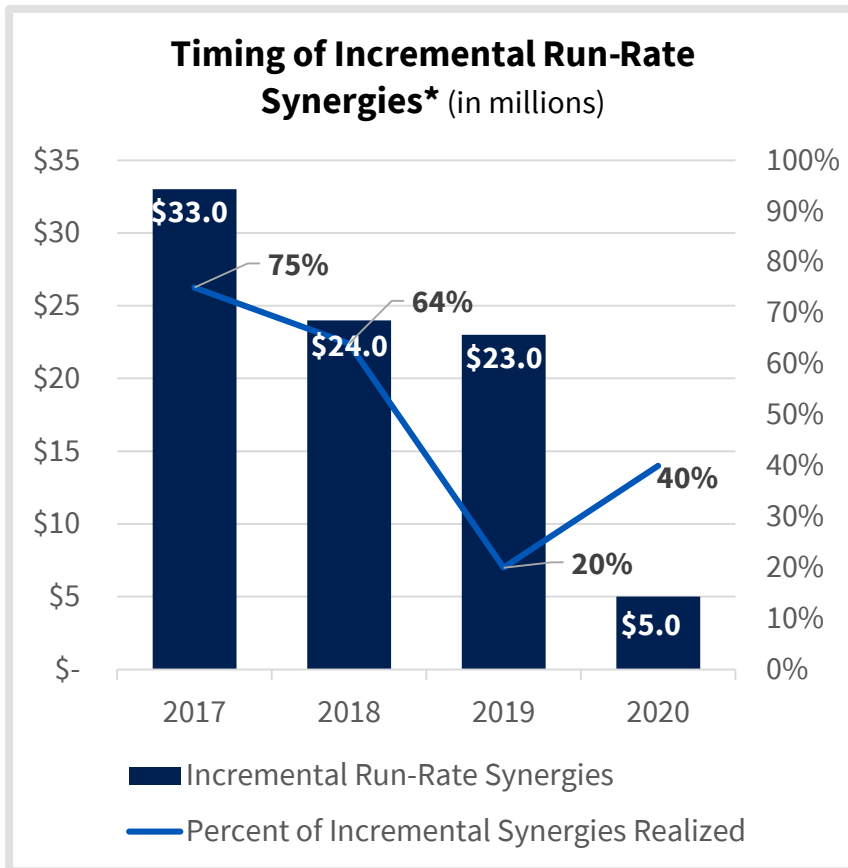
Questions & Answers

Appendix Materials



Realized Versus Run-Rate Synergies

2019 realized synergies lower due to timing of C1 migration in October 2019



*Actual through 2019; reflects target as of February 7, 2020, for 2020.

Targeted Run-Rate Synergies Realization

(in millions)	Targeted Run-Rate Synergies	Increase in Run-Rate Each Year	% of Incremental Run-Rate Synergies Realized/Targeted	Actual/Targeted Realized Synergies	Carryover from Prior Year Run-Rate	Total Synergies Realized/Targeted by Year	Cumulative Synergies Realized/Targeted
2017 Actual	\$33.0	\$33.0	75%	\$24.6	\$0.0	\$24.6	\$24.6
2018 Actual	\$57.0	24.0	64%	15.4	8.4	23.8	\$48.4
2019 Actual	\$80.0	23.0	20%	4.7	8.6	13.3	\$61.7
2020 Target*	\$85.0	5.0	40%	2.0	18.3	20.3	\$82.0
2021 Target*					3.0	3.0	\$85.0
Total		\$85.0		\$46.7	\$38.3	\$85.0	

*Reflects target as of February 7, 2020

Fourth Quarter and Year Financial Overview



Adjusted Financial Results¹ (\$ in millions, except per share)	4Q19	4Q18	% Chg	2019	2018	% Chg
Net Revenue ²	\$280.3	\$334.4	-16%	\$1,136.9	\$1,216.9	-7%
Adjusted Operating Expenses ¹	95.6	111.8	-14%	389.3	426.8	-9%
Adjusted Operating Income ¹	184.7	\$222.6	-17%	\$747.6	\$790.1	-5%
<i>Adjusted Operating Margin¹</i>	65.9%	66.6%	-70 bps	65.8%	64.9%	-90 bps
Adjusted Net Income Allocated to Common Stockholders ¹	\$134.9	\$171.6	-21%	\$528.6	\$563.4	-6%
Adjusted Diluted EPS ¹	\$ 1.21	\$ 1.54	-21%	\$4.73	\$5.02	-6%
Adjusted EBITDA ¹	\$196.7	\$240.2	-18%	\$784.1	\$840.4	-7%
<i>Adjusted EBITDA Margin¹</i>	70.2%	71.8%	-160 bps	69.0%	69.1%	-10 bps

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

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

Net Revenue for 2019 Impacted by Decline in Trading Volumes; Non-Transaction Revenue



4Q19 net transaction fees down 30%; non-transaction revenue up 10%

Adjusted Combined Net Revenue¹ (in millions)	4Q19	4Q18	% Chg	2019	2018	% Chg
Net transaction fees	\$170.6	\$243.1	-30%	\$715.7	\$834.8	-14%
Access and capacity fees	57.3	54.6	5%	221.9	211.0	5%
Market data fees	53.8	49.7	8%	213.5	204.0	5%
Regulatory fees	11.7	7.4	58%	40.3	31.5	28%
Royalty fees	(21.0)	(27.5)	-24%	(86.8)	(97.4)	-11%
Other revenue	7.9	7.1	11%	32.3	33.0	-2%
Total¹	\$280.3	\$334.4	-16%	\$1,136.9	\$1,216.9	-7%

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

Supplemental Segment Information

4Q19 Supplemental Net Revenue by Segment (in millions)	Options	U.S. Equities	Futures	European Equities	Global FX	Total¹
Net transaction fees ²	\$105.0	\$17.2	\$26.1	\$11.3	\$11.0	\$170.6
Proprietary net transaction fees included above	\$85.6		\$26.1			\$111.7
Access and capacity fees	\$26.5	\$20.2	\$4.1	\$4.7	\$1.8	\$57.3
Market data fees	\$14.2	\$34.7 ³	\$1.6	\$3.2	\$0.1	\$53.8
Proprietary market data fees included above	\$7.1	\$9.2	\$1.6	\$3.2	\$0.1	\$21.2

4Q18 Supplemental Net Revenue by Segment (in millions)	Options	U.S. Equities	Futures	European Equities	Global FX	Total¹
Net transaction fees ²	\$152.0	\$27.0	\$36.4	\$15.7	\$12.0	\$243.1
Proprietary net transaction fees included above	120.1		\$36.4			\$156.5
Access and capacity fees	\$26.3	\$19.3	\$3.8	\$3.7	\$1.5	\$54.6
Market data fees	\$10.9	\$33.8	\$1.7	\$3.2	\$0.1	\$49.7
Proprietary market data fees included above	\$4.7	\$9.1	\$1.7	\$3.2	\$0.1	\$18.8

¹Totals may not foot due to rounding.

²A full reconciliation of our non-GAAP results to our GAAP results is included in the following tables. See "Non-GAAP Information" in the accompanying financial tables.

³Includes SIP audit recoveries of \$1.5 million for 4Q19 and \$0.8 million for 4Q18.

Supplemental Segment Information

2019 Supplemental Net Revenue by Segment (in millions)	Options	U.S. Equities	Futures	European Equities	Global FX	Total ¹
Net transaction fees ²	\$434.5	\$75.8	\$110.2	\$49.8	\$45.4	\$715.7
Proprietary net transaction fees included above	\$353.9		\$110.2			\$464.1
Access and capacity fees	\$104.1	\$78.9	\$15.6	\$16.5	\$6.8	\$221.9
Market data fees	\$55.7	\$138.1 ³	\$6.5	\$12.6	\$0.6	\$213.5
Proprietary market data fees included above	\$27.9	\$36.5	\$6.5	\$12.6	\$0.6	\$84.2

2018 Supplemental Net Revenue by Segment (in millions)	Options	U.S. Equities	Futures	European Equities	Global FX	Total ¹
Net transaction fees ²	\$509.7	\$87.3	\$127.8	\$60.4	\$49.6	\$834.8
Proprietary net transaction fees included above	\$411.9		\$127.8			\$539.7
Access and capacity fees	\$99.4	\$75.6	\$15.1	\$14.7	\$6.2	\$211.0
Market data fees	\$42.9	\$140.9 ³	\$6.6	\$13.1	\$0.5	\$204.0
Proprietary market data fees included above	\$18.1	\$36.0	\$6.6	\$13.1	\$0.5	\$74.3

¹Totals may not foot due to rounding.

²A full reconciliation of our non-GAAP results to our GAAP results is included in the following tables. See "Non-GAAP Information" in the accompanying financial tables.

³Includes SIP audit recoveries of \$9.3 million for 2019 and \$5.8 million for 2018.

Non-GAAP Information



Non-GAAP Information

In addition to disclosing results determined in accordance with GAAP, Cboe Global Markets 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 net transaction fees, adjusted operating expenses, adjusted operating income, adjusted operating margin, adjusted net income allocated to common stockholders and adjusted diluted earnings per share, adjusted tax rate, adjusted cash and financial investments, EBITDA, EBITDA margin, adjusted EBITDA and adjusted EBITDA margin.

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

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

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

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

Non-GAAP Information

Reconciliation of Net Transaction Fees by Segment

For the Three Months Ended March 31 (in millions)	Options		U.S. Equities		Futures		European Equities		Global FX		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Transaction fees	\$ 173.8	\$ 235.8	\$ 198.9	\$ 233.8	\$ 24.6	\$ 38.8	\$ 21.1	\$ 25.7	\$ 12.0	\$ 13.0	\$ 430.4	\$ 547.1
Liquidity payments	(65.5)	(87.6)	(170.7)	(205.5)	-	-	(7.5)	(9.8)	-	-	(243.7)	(302.9)
Routing and clearing	(3.5)	(3.5)	(5.7)	(6.8)	-	-	-	-	-	-	(9.2)	(10.3)
Net transaction fees	\$ 104.8	\$ 144.7	\$ 22.5	\$ 21.5	\$ 24.6	\$ 38.8	\$ 13.6	\$ 15.9	\$ 12.0	\$ 13.0	\$ 177.5	\$ 233.9

For the Three Months Ended June 30 (in millions)	Options		U.S. Equities		Futures		European Equities		Global FX		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Transaction fees	\$ 185.9	\$ 189.0	\$ 182.0	\$ 211.9	\$ 28.3	\$ 26.9	\$ 19.5	\$ 24.2	\$ 11.2	\$ 12.8	\$ 426.9	\$ 464.8
Liquidity payments	(73.3)	(75.7)	(156.2)	(185.9)	-	-	(6.3)	(9.5)	-	-	(235.8)	(271.1)
Routing and clearing	(3.5)	(3.8)	(5.7)	(6.0)	-	-	-	-	-	-	(9.2)	(9.8)
Net transaction fees	\$ 109.1	\$ 109.5	\$ 20.1	\$ 20.0	\$ 28.3	\$ 26.9	\$ 13.2	\$ 14.7	\$ 11.2	\$ 12.8	\$ 181.9	\$ 183.9

For the Three Months Ended September 30 (in millions)	Options		U.S. Equities		Futures		European Equities		Global FX		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Transaction fees	\$ 207.1	\$ 175.2	\$ 199.4	\$ 176.7	\$ 31.2	\$ 25.7	\$ 16.9	\$ 22.4	\$ 11.2	\$ 11.8	\$ 465.8	\$ 411.8
Liquidity payments	(86.9)	(68.2)	(177.6)	(152.7)	-	-	(5.2)	(8.3)	-	-	(269.7)	(229.2)
Routing and clearing	(3.5)	(3.5)	(5.8)	(5.2)	-	-	-	-	-	-	(9.3)	(8.7)
Net transaction fees	\$ 116.7	\$ 103.5	\$ 16.0	\$ 18.8	\$ 31.2	\$ 25.7	\$ 11.7	\$ 14.1	\$ 11.2	\$ 11.8	\$ 186.8	\$ 173.9

For the Three Months Ended December 31 (in millions)	Options		U.S. Equities		Futures		European Equities		Global FX		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Transaction fees	\$ 177.2	\$ 235.5	\$ 164.3	\$ 254.0	\$ 26.1	\$ 36.6	\$ 15.6	\$ 25.1	\$ 11.0	\$ 12.0	\$ 394.2	\$ 563.2
Liquidity payments	(69.8)	(80.7)	(141.4)	(219.5)	-	(0.2)	(4.3)	(9.4)	-	-	(215.5)	(309.8)
Routing and clearing	(2.4)	(2.8)	(5.7)	(7.5)	-	-	-	-	-	-	(8.1)	(10.3)
Net transaction fees	\$ 105.0	\$ 152.0	\$ 17.2	\$ 27.0	\$ 26.1	\$ 36.4	\$ 11.3	\$ 15.7	\$ 11.0	\$ 12.0	\$ 170.6	\$ 243.1

Non-GAAP Information

(in millions, except per share amounts)	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP										
Net income allocated to common stockholders	\$ 117.3	\$ 82.4	\$ 85.0	\$ 137.3	\$ 422.1	\$ 94.6	\$ 87.6	\$ 105.5	\$ 86.1	\$ 372.7
Acquisition-related expenses (1)	8.8	8.6	5.9	6.7	30.0	2.3	20.8	16.7	8.7	48.5
Amortization of acquired intangible assets (2)	42.1	39.7	39.4	39.4	160.6	37.6	34.1	33.4	33.4	138.5
Provision for notes receivable (3)	-	-	-	-	-	-	-	-	23.4	23.4
Change in contingent consideration	-	-	-	0.1	0.1	-	-	-	-	-
Total Non-GAAP operating expense adjustments	50.9	48.3	45.3	46.2	190.7	39.9	54.9	50.1	65.5	210.4
Change in redemption value of noncontrolling interest	0.3	0.3	0.3	0.4	1.3	0.2	0.2	0.1	-	0.5
Total Non-GAAP adjustments - pretax	51.2	48.6	45.6	46.6	192.0	40.1	55.1	50.2	65.5	210.9
Income tax expense related to the items above	(13.0)	(12.6)	(12.1)	(11.7)	(49.4)	(10.0)	(13.2)	(11.0)	(16.5)	(50.7)
Tax provision re-measurement	-	-	-	(0.4)	(0.4)	-	-	-	-	-
Impairment charges attributed to noncontrolling interest	-	-	-	-	-	-	(3.6)	-	-	(3.6)
Net income allocated to participating securities - effect on reconciling items	(0.3)	(0.2)	(0.2)	(0.2)	(0.9)	(0.2)	(0.2)	(0.1)	(0.2)	(0.7)
Adjusted net income allocated to common stockholders	\$ 155.2	\$ 118.2	\$ 118.3	\$ 171.6	\$ 563.4	\$ 124.5	\$ 125.7	\$ 144.6	\$ 134.9	\$ 528.6
Reconciliation of Diluted EPS to Non-GAAP										
Diluted earnings per common share	\$ 1.04	\$ 0.73	\$ 0.76	\$ 1.23	\$ 3.76	\$ 0.85	\$ 0.78	\$ 0.94	\$ 0.77	\$ 3.34
Per share impact of non-GAAP adjustments noted above	0.34	0.32	0.30	0.31	1.26	0.26	0.35	0.35	0.44	1.39
Adjusted diluted earnings per common share	\$ 1.38	\$ 1.05	\$ 1.06	\$ 1.54	\$ 5.02	\$ 1.11	\$ 1.13	\$ 1.29	\$ 1.21	\$ 4.73
Reconciliation of Operating Margin to Non-GAAP										
Revenue less cost of revenue	\$ 328.5	\$ 283.5	\$ 270.5	\$ 334.4	\$ 1,216.9	\$ 280.5	\$ 283.2	\$ 294.0	\$ 280.3	\$ 1,136.9
Non-GAAP adjustments noted above	-	-	-	-	-	-	-	-	-	-
Adjusted revenue less cost of revenue	\$ 328.5	\$ 283.5	\$ 270.5	\$ 334.4	\$ 1,216.9	\$ 280.5	\$ 283.2	\$ 294.0	\$ 280.3	\$ 1,136.9
Operating expenses (4)	\$ 160.8	\$ 154.4	\$ 144.4	\$ 158.0	\$ 617.5	\$ 134.0	\$ 158.0	\$ 146.6	\$ 161.1	\$ 599.7
Non-GAAP expense adjustments noted above	(50.9)	(48.3)	(45.3)	(46.2)	(190.7)	(39.9)	(54.9)	(50.1)	(65.5)	(210.4)
Adjusted operating expenses	\$ 109.9	\$ 106.1	\$ 99.1	\$ 111.8	\$ 426.8	\$ 94.1	\$ 103.1	\$ 96.5	\$ 95.6	\$ 389.3
Operating income	\$ 167.7	\$ 129.1	\$ 126.1	\$ 176.4	\$ 599.4	\$ 146.5	\$ 125.2	\$ 147.4	\$ 119.2	\$ 537.2
Non-GAAP expense adjustments noted above	50.9	48.3	45.3	46.2	190.7	39.9	54.9	50.1	65.5	210.4
Adjusted operating income	\$ 218.6	\$ 177.4	\$ 171.4	\$ 222.6	\$ 790.1	\$ 186.4	\$ 180.1	\$ 197.5	\$ 184.7	\$ 747.6
Adjusted operating margin (5)	66.5%	62.6%	63.4%	66.6%	64.9%	66.5%	63.6%	67.2%	65.9%	65.8%
Reconciliation of Income Tax Rate to Non-GAAP										
Income before income taxes	\$ 159.4	\$ 119.8	\$ 116.3	\$ 175.6	\$ 571.2	\$ 127.8	\$ 119.6	\$ 140.9	\$ 114.2	\$ 501.4
Non-GAAP adjustments noted above	51.2	48.6	45.6	46.6	192.0	40.1	55.1	50.2	65.5	210.9
Adjusted income before income taxes	\$ 210.6	\$ 168.4	\$ 161.9	\$ 222.2	\$ 763.2	\$ 167.9	\$ 174.7	\$ 191.1	\$ 179.7	\$ 712.3
Income tax (benefit) expense	\$ 41.3	\$ 36.8	\$ 30.6	\$ 37.3	\$ 146.0	\$ 32.6	\$ 35.1	\$ 35.0	\$ 27.9	\$ 130.6
Non-GAAP adjustments noted above	13.0	12.6	12.1	11.7	49.4	10.0	13.2	11.0	16.5	50.7
Adjusted income tax (benefit) expense	\$ 54.3	\$ 49.4	\$ 42.7	\$ 49.0	\$ 195.4	\$ 42.6	\$ 48.3	\$ 46.0	\$ 44.4	\$ 181.3
Adjusted income tax rate	25.8%	29.4%	26.4%	22.1%	25.6%	25.4%	27.7%	24.1%	24.7%	25.5%

(1) This amount includes professional fees and outside services, severance, facilities expenses, impairment charges and other costs related to the company's acquisitions.

(2) This amount represents the amortization of acquired intangible assets related to the company's acquisitions.

(3) This amount represents the provision for notes receivable, recorded in other expenses on the consolidated statements of income, associated with the funding for the development of the consolidated audit trail ("CAT").

(4) The company sponsors deferred compensation plans held in a rabbi trust. The expenses related to the deferred compensation plans are included in "Compensation and benefits" (\$1.2 million and \$5.0 million in expense in the three months and year ended December 31, 2019, respectively), and are directly offset by deferred compensation income, expenses and dividends included within "Other income (expense)" (\$1.2 million and \$5.0 million in income, expense and dividends in the three months and year ended December 31, 2019, respectively), on the consolidated statements of income. The deferred compensation plans' expenses are not adjusted out of "adjusted operating expenses" and do not have an impact on "Income before income taxes."

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

Non-GAAP Information

EBITDA Reconciliations

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

Reconciliation of Net Income Allocated to Common Stockholders to EBITDA and Adjusted EBITDA										
(in millions, except per share amounts)	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19	4Q19	2019
Net income allocated to common stockholders	\$ 117.3	\$ 82.4	\$ 85.0	\$ 137.3	\$ 422.1	\$ 94.6	\$ 87.6	\$ 105.5	\$ 86.1	\$ 372.7
Interest expense	9.6	9.3	9.6	9.7	38.2	9.9	10.0	8.2	7.8	35.9
Income tax provision	41.3	36.8	30.6	37.3	146.0	32.6	35.1	35.0	27.9	130.6
Depreciation and amortization	54.2	50.4	50.3	49.1	204.0	47.2	43.7	42.9	42.8	176.6
EBITDA	\$ 222.4	\$ 178.9	\$ 175.5	\$ 233.4	\$ 810.3	\$ 184.3	\$ 176.4	\$ 191.6	\$ 164.6	\$ 715.8
EBITDA Margin	67.7%	63.1%	64.9%	69.8%	66.6%	65.7%	62.3%	65.2%	58.7%	63.0%
Non-GAAP adjustments not included in above line items										
Acquisition-related expenses	8.8	8.6	5.9	6.7	30.0	2.3	20.8	16.7	8.7	\$ 48.5
Impairment charges attributed to noncontrolling interest	-	-	-	-	-	-	(3.6)	-	-	(3.6)
Provision for notes receivable	-	-	-	-	-	-	-	-	23.4	23.4
Other	-	-	-	0.1	0.1	-	-	-	-	-
Adjusted EBITDA	\$ 231.2	\$ 187.5	\$ 181.4	\$ 240.2	\$ 840.4	\$ 186.6	\$ 193.6	\$ 208.3	\$ 196.7	\$ 784.1
Adjusted EBITDA Margin	70.4%	66.1%	67.1%	71.8%	69.1%	66.5%	68.4%	70.9%	70.2%	69.0%

Non-GAAP Information

Adjusted Debt to EBITDA - Trailing Twelve Months¹					
(in millions)	1Q19	2Q19	3Q19	4Q19	LTM
Net income allocated to common stockholders	\$ 94.6	\$ 87.6	\$ 105.5	\$ 86.1	\$ 372.7
Interest expense, net	9.9	10.0	8.2	7.8	35.9
Income tax provision	32.6	35.1	35.0	27.9	130.6
Depreciation and amortization	47.2	43.7	42.9	42.8	176.6
EBITDA	\$ 184.3	\$ 176.4	\$ 191.6	\$ 164.6	\$ 715.8
Non-GAAP adjustments not included in above line items:					
Acquisition-related expenses	2.3	20.8	16.7	8.7	48.5
Impairment charges attributed to noncontrolling interest	-	(3.6)			(3.6)
Provision for notes receivable				23.4	23.4
Adjusted EBITDA	\$ 186.6	\$ 193.6	\$ 208.3	\$ 196.7	\$ 784.1
Debt at end of period					\$ 875.0
Debt to EBITDA					1.2x

¹A full reconciliation of our non-GAAP to our GAAP results are available in this section.

Adjusted Cash

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

Adjusted Cash (in millions)	As of 3/31/18	As of 6/30/18	As of 9/30/18	As of 12/31/18	As of 3/31/19	As of 6/30/19	As of 9/30/19	As of 12/31/19
Cash and cash equivalents	\$ 166.3	\$ 140.0	\$ 88.5	\$ 275.1	\$ 346.2	\$ 161.3	\$ 150.0	\$ 229.3
Financial investments	64.0	131.8	49.2	35.7	30.2	82.9	21.4	71.0
Less deferred compensation plan assets	-	-	-	-	-	(20.3)	(20.9)	(23.4)
Less cash collected for Section 31 fees	(64.0)	(155.8)	-	(53.1)	(28.6)	(88.0)	-	(69.0)
Adjusted Cash	\$ 166.3	\$ 116.0	\$ 137.7	\$ 257.7	\$ 347.8	\$ 135.9	\$ 150.5	\$ 207.9



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