

Cboe Global Markets Reports 2019 Fourth Quarter and Full Year Results

Fourth Quarter and Full Year Highlights*

- Diluted EPS for the Quarter of \$0.77 and the Year of \$3.34, Down 37 Percent and 12 Percent, Respectively
- Adjusted Diluted EPS¹ for the Quarter of \$1.21 and the Year of \$4.73, Down 21 Percent and 6 Percent, Respectively
- Net Revenue for the Quarter of \$280.3 Million, Down 16 Percent; Down 7 Percent for the Year
- Operating Expenses for the Quarter of \$161.1 Million, Up 2 Percent; Down 3 Percent for the Year
- Adjusted Operating Expenses¹ for the Quarter of \$95.6 Million, Down 14 Percent; Down 8 Percent for the Year
- EBITDA Margin¹ for the Quarter of 58.7 Percent and the Year of 63.0 Percent; Down 360 bps for the Year
- Adjusted EBITDA Margin¹ for the Quarter of 70.2 Percent and the Year of 69.0 Percent, Down 10 bps for the Year
- Returned \$110 Million and \$307 Million to Shareholders Through Dividends and Share Repurchases in the Fourth Quarter and Year, Respectively

CHICAGO, IL – February 7, 2020 - Cboe Global Markets, Inc. (Cboe: CBOE) today reported financial results for the 2019 fourth quarter and full year.

“Our fourth quarter results reflect lower year-over-year trading volumes industrywide as lower volatility dampened trading, particularly in our suite of proprietary products, which experienced exceptionally strong trading in 2018’s fourth quarter,” said Edward T. Tilly, Cboe Global Markets Chairman, President and Chief Executive Officer. “I am pleased to note, however, that in 2019 we significantly strengthened our foundation for further growth by investing in initiatives aimed at growing our proprietary products; completing our technology migration while delivering on our synergy targets; and launching new initiatives, such as our plan to acquire EuroCCP and launch pan-European derivatives trading and clearing. Additionally, we further enhanced our foundation for growth through this week’s acquisitions of Hanweck, a real-time risk analytics company, and FT Options, a portfolio management platform provider. Our forward momentum leaves us well positioned for ongoing growth and to continue to deliver increased value to our customers and our shareholders in 2020 and beyond,” Mr. Tilly added.

“We faced difficult comparisons this quarter versus last year’s record fourth quarter results; however, we continued to exercise prudent expense management, with adjusted operating expenses down 14 percent, in line with the fourth quarter revenue decline,” said Brian N. Schell, Cboe Global Markets Executive Vice President, Chief Financial Officer and Treasurer. “During the quarter, we also maintained our ongoing commitment to returning capital to shareholders in a disciplined and consistent manner with \$70 million of share repurchases and \$40 million of dividends. During the year, we returned nearly \$157 million to shareholders through share repurchases and over \$150 million through dividends, increasing our dividend by 15 percent with the third quarter dividend payment, used \$350 million to reduce debt and continued to fund investments in our business,” Mr. Schell added.

**All comparisons are the fourth quarter or the year ended December 31, 2019, compared to the same period in 2018.*

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

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Consolidated Fourth Quarter Results -Table 1

Table 1 below presents summary selected unaudited condensed consolidated financial information for the company as reported and on an adjusted basis for the three months ended December 31, 2019 and 2018.

Table 1						
Consolidated Fourth Quarter Results (\$ in millions except per share data)	4Q19	4Q18	Change	4Q19 Adjusted¹	4Q18 Adjusted¹	Change
Total Revenues Less Cost of Revenues	\$ 280.3	\$ 334.4	(16)%	\$ 280.3	\$ 334.4	(16)%
Total Operating Expenses	\$ 161.1	\$ 158.0	2 %	\$ 95.6	\$ 111.8	(14)%
Operating Income	\$ 119.2	\$ 176.4	(32)%	\$ 184.7	\$ 222.6	(17)%
Operating Margin %	42.5 %	52.8 %	NM	65.9 %	66.6 %	(70)bps
Net Income Allocated to Common Stockholders	\$ 86.1	\$ 137.3	(37)%	\$ 134.9	\$ 171.6	(21)%
Diluted EPS	\$ 0.77	\$ 1.23	(37)%	\$ 1.21	\$ 1.54	(21)%
EBITDA	\$ 164.6	\$ 233.4	(29)%	\$ 196.7	\$ 240.2	(18)%
EBITDA Margin %	58.7 %	69.8 %	NM	70.2 %	71.8 %	(160)bps

- Total revenues less cost of revenues (referred to as "net revenue") were \$280.3 million, compared to \$334.4 million in the prior-year period, reflecting lower trading volumes across business segments, particularly in options and futures in our proprietary index products, including SPX options and VIX options and futures, which had particularly strong trading volume in the fourth quarter of 2018.
- Total operating expenses were \$161.1 million versus \$158.0 million in the fourth quarter of 2018. Operating expenses for the fourth quarter of 2019 include a \$23.4 million provision for notes receivable, included in other expenses, associated with the funding for the development of the consolidated audit trail ("CAT"). Adjusted operating expenses¹ of \$95.6 million decreased 14 percent compared with \$111.8 million in the fourth quarter of 2018, primarily reflecting a decrease in compensation and benefits as a result of lower incentive-based compensation.
- Operating income declined 32 percent to \$119.2 million and adjusted operating income¹ decreased by 17 percent to \$184.7 million.
- The operating margin for the fourth quarter was 42.5 percent compared to 52.8 percent in the fourth quarter of 2018. The adjusted operating margin¹ for the fourth quarter was 65.9 percent, down 70 basis points from 2018's fourth quarter, reflecting lower net revenue.
- The effective tax rate for the fourth quarter of 2019 was 24.4 percent compared with 21.2 percent in the fourth quarter of 2018. The effective tax rate on adjusted earnings¹ in the fourth quarter of 2019 was 24.7 percent compared with 22.1 percent in last year's fourth quarter. The higher effective tax rate for the fourth quarter of 2019 was primarily due to tax benefits associated with re-measuring net deferred tax liabilities recognized in the fourth quarter of 2018.
- Diluted EPS for the fourth quarter of 2019 was \$0.77, down 37 percent. Adjusted diluted EPS¹ was \$1.21, down 21 percent compared to 2018's fourth-quarter results.

Business Segment Information:

Table 2			
Total Revenues Less Cost of Revenues by Business Segment (in millions)	4Q19	4Q18	Change
Options	\$ 139.4	\$ 174.5	(20)%
U.S. Equities	75.5	81.5	(7)%
Futures	30.9	40.4	(24)%
European Equities	21.6	24.3	(11)%
Global FX	12.9	13.7	(6)%
Total	\$ 280.3	\$ 334.4	(16)%

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

Discussion of Results by Business Segment:

Options:

- Options net revenue of \$139.4 million was down \$35.1 million or 20 percent from the fourth quarter of 2018, primarily due to lower revenue from net transaction fees¹, offset somewhat by lower royalty fees and higher market data revenue.
- Net transaction fees¹ decreased \$47.0 million, as total options average daily volume (ADV) decreased 15 percent and revenue per contract (RPC) decreased 20 percent compared to the fourth quarter 2018. The variance in the options RPC was mainly due to multi-listed options representing a higher percentage of options volume. The RPC for multi-listed options decreased 34 percent, primarily due to a shift in volume mix by order type and higher volume rebates versus the fourth quarter of 2018. The RPC for index options increased 2 percent, reflecting a shift in the volume mix by product.
- Cboe's Options business had market share of 37.4 percent for the fourth quarter of 2019 compared to 38.4 percent in the fourth quarter of 2018, reflecting the lower mix of volume contributed from index options.

U.S. Equities:

- U.S. Equities net revenue of \$75.5 million was down \$6.0 million or 7 percent, primarily due to lower revenue from net transaction fees¹, offset somewhat by higher revenue from non-transaction fees.
- Cboe U.S. Equities had market share of 16.4 percent for the fourth quarter of 2019 compared to 17.8 percent in the fourth quarter of 2018, due in part to higher volume traded off-exchange and a higher percentage of volume traded in the closing auctions, where Cboe did not compete.

Futures:

- Futures net revenue of \$30.9 million decreased \$9.5 million or 24 percent, primarily due to lower net transaction fees¹.
- Net transaction fees¹ decreased \$10.3 million or 28 percent, reflecting a 33 percent decrease in ADV, offset somewhat by a 6 percent increase in RPC.

European Equities:

- European Equities net revenue of \$21.6 million decreased by 11 percent, reflecting a decline in net transaction fees¹, offset by an increase in non-transaction revenue. In local currency, net revenue was down 10 percent. Average daily notional value (ADNV) for the overall market was down 25 percent during the quarter and ADNV traded for Cboe Europe was €6.5 billion, down 39 percent from last year's fourth quarter, with net capture up 23 percent.
- For the fourth quarter of 2019, Cboe European Equities had 18.4 percent market share, down from 22.7 percent in the fourth quarter of 2018, primarily a result of off-exchange trading and closing auctions accounting for a larger share of trading, largely driven by low market volume and low volatility.

Global FX:

- Global FX net revenue of \$12.9 million decreased \$0.8 million or 6 percent, primarily due to lower net transaction fees¹ compared with the fourth quarter of 2018. ADNV traded on the Cboe FX platform was \$30.1 billion for the quarter, down 14 percent from last year's fourth quarter, offset somewhat by a 6 percent increase in net capture per one million dollars traded of \$2.80 for fourth quarter 2019 compared to fourth quarter 2018.
- Cboe FX had record market share of 16.0 percent for the fourth quarter of 2019 compared to 15.3 percent in last year's fourth quarter, primarily reflecting customer adoption of Cboe's new full amount product offering.

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

2020 Fiscal Year Financial Guidance

The company provided guidance as noted below for the 2020 fiscal year. This 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 acquisition closes, which is expected in the first half of this year.

- Adjusted operating expenses are expected to be in the range of \$435 to \$443 million, up from the previous guidance of \$420 to \$428 million, reflecting the company's recent acquisitions of Hanweck and FT Options, announced February 4, 2020. The guidance excludes the expected amortization of acquired intangible assets of \$120 million, which the company plans to include in its non-GAAP reconciliation.¹
- Depreciation and amortization expense, which is included in adjusted operating expenses above, are expected to be in the range of \$34 to \$38 million, excluding the expected amortization of acquired intangible assets of \$120 million.
- The effective tax rate¹ on adjusted earnings for the full year is expected to be in the range of 26.5 to 28.5 percent. Significant changes in trading volume, expenses, federal, state and local tax laws or rates and other items could materially impact this expectation.
- Capital expenditures are expected to be in the range of \$65 to \$70 million, which includes expenditures associated with the company's Chicago headquarters relocation occurring later this year and its trading floor relocation planned for 2021.

⁽¹⁾Specific quantifications of the amounts that would be required to reconcile the company's adjusted operating expenses guidance and the effective tax rate on adjusted earnings guidance are not available. The company believes that there is uncertainty and unpredictability with respect to certain of its GAAP measures, primarily related to acquisition-related expenses that would be required to reconcile to GAAP operating expenses and GAAP effective tax rate, which preclude the company from providing accurate guidance on certain forward-looking GAAP to non-GAAP reconciliations. The company believes that providing estimates of the amounts that would be required to reconcile the range of the company's adjusted operating expenses and the effective tax rate on adjusted earnings would imply a degree of precision that would be confusing or misleading to investors for the reasons identified above.

Capital Management

The company paid cash dividends of \$40.1 million, or \$0.36 per share, during the fourth quarter of 2019 and utilized \$69.5 million to repurchase 0.6 million shares of its common stock under its share repurchase program at an average price of \$115.76 per share. For the full-year 2019, the company paid cash dividends of \$150.0 million, or \$1.34 per share, and utilized \$156.9 million to repurchase 1.4 million shares of its common stock under its share repurchase program at an average price of \$110.42 per share. In addition, through January 31, 2020, the company used \$26.6 million to repurchase 0.2 million shares at an average price of \$117.20, resulting in approximately \$273 million of availability remaining under its share repurchase program as of January 31, 2020.

At December 31, 2019, the company had adjusted cash and financial investments² of \$207.9 million. Total debt as of December 31, 2019 was \$867.6 million.

Earnings Conference Call

Executives of Cboe Global Markets will host a conference call to review its fourth-quarter financial results today, February 7, 2020, at 8:30 a.m. ET/7:30 a.m. CT. The conference call and any accompanying slides will be publicly available via live webcast from the Investor Relations section of the company's website at www.cboe.com under Events & Presentations. Participants may also listen via telephone by dialing (877) 255-4313 from the United States, (866) 450-4696 from Canada or (412) 317-5466 for international callers. Telephone participants should place calls 10 minutes prior to the start of the call. The webcast will be archived on the company's website for replay. A telephone replay of the earnings call also will be available from approximately 11:00 a.m. CT, February 7, 2020, through 11:00 p.m. CT, February 14, 2020, by calling (877) 344-7529 from the U.S., (855) 669-9658 from Canada or (412) 317-0088 for international callers, using replay code 10137501.

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

About Cboe Global Markets

Cboe Global Markets (Cboe: CBOE) is one of the world's largest exchange holding companies, offering cutting-edge trading and investment solutions to investors around the world. The company is committed to defining markets to benefit its participants and drive the global marketplace forward through product innovation, leading edge technology and seamless trading solutions.

The company offers trading across a diverse range of products in multiple asset classes and geographies, including options, futures, U.S. and European equities, exchange-traded products (ETPs), global foreign exchange (FX) and volatility products based on the Cboe Volatility Index (VIX Index), recognized as the world's premier gauge of U.S. equity market volatility.

Cboe's subsidiaries include the largest options exchange and the third largest stock exchange operator in the U.S. In addition, the company operates one of the largest stock exchanges by value traded in Europe and is a leading market globally for ETP listings and trading.

The company is headquartered in Chicago with a network of domestic and global offices across the Americas, Europe and Asia, including main hubs in New York, London, Kansas City and Amsterdam. For more information, visit www.cboe.com.

Cautionary Statements Regarding Forward-Looking Information

This press release 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.

The condensed consolidated statements of income and balance sheets are unaudited and subject to reclassification.

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**Cboe Global Markets, Inc.
Key Performance Statistics by Business Segment**

	4Q 2019	3Q 2019	2Q 2019	1Q 2019	4Q 2018
Options (ADV in thousands)					
Total industry ADV	19,492	19,790	19,274	19,193	22,450
Total company Options ADV	7,297	7,720	7,261	7,063	8,610
Multi-listed options	5,552	5,715	5,329	5,215	6,067
Index options	1,745	2,005	1,932	1,848	2,543
Total Options Market Share	37.4 %	39.0 %	37.7 %	36.8 %	38.4 %
Total Options RPC:	\$ 0.225	\$ 0.236	\$ 0.238	\$ 0.240	\$ 0.280
Multi-listed options	\$ 0.055	\$ 0.056	\$ 0.058	\$ 0.067	\$ 0.083
Index options	\$ 0.766	\$ 0.751	\$ 0.736	\$ 0.730	\$ 0.750
U.S. Equities					
Total industry ADV (shares in billions)	6.8	6.9	6.9	7.5	8.5
Market share %	16.4 %	17.2 %	15.7 %	16.0 %	17.8 %
Net capture (per 100 touched shares)	\$ 0.023	\$ 0.020	\$ 0.028	\$ 0.029	\$ 0.027
Futures					
ADV (in thousands)	228	279	257	231	338
RPC	\$ 1.794	\$ 1.746	\$ 1.748	\$ 1.739	\$ 1.697
European Equities					
Total industry ADVN (Euros - in billions)	€ 35.1	€ 34.2	€ 40.8	€ 41.7	€ 46.7
Market share %	18.4 %	19.8 %	20.3 %	22.1 %	22.7 %
Net capture (bps)	0.248	0.233	0.224	0.210	0.200
Global FX					
Market share %	16.0 %	14.1 %	15.2 %	15.8 %	15.3 %
ADNV (\$ in billions)	\$ 30.1	\$ 30.3	\$ 32.5	\$ 36.5	\$ 35.1
Net revenue (per one million dollars traded)	\$ 2.80	\$ 2.80	\$ 2.65	\$ 2.61	\$ 2.63

ADV = average daily volume; ADVN = average daily notional value.

RPC, average revenue per contract, for options and futures represents total net transaction fees recognized for the period divided by total contracts traded during the period.

U.S. Equities, "net capture per 100 touched shares" refers to transaction fees less liquidity payments and routing and clearing costs divided by the product of one-hundredth ADV of touched shares on BZX, BYX, EDGX and EDGA and the number of trading days.

European Equities, "net capture per matched notional value" refers to transaction fees less liquidity payments in British pounds divided by the product of matched ADVN in British pounds and the number of trading days.

Global FX, "net capture per one million dollars traded" refers to net transaction fees divided by the product of one-millionth of ADVN traded on the Cboe FX market, the number of trading days, and two, which represents the buyer and seller that are both charged on the transaction. Market Share represents Cboe FX volume divided by the total volume of publicly reporting spot FX venues (Cboe FX, EBS, Refinitiv, and FastMatch).

Average transaction fees per contract can be affected by various factors, including exchange fee rates, volume-based discounts and transaction mix by contract type and product type.

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Cboe Global Markets, Inc. and Subsidiaries
Condensed Consolidated Statements of Income (Unaudited)
Three Months and Full Year Ended December 31, 2019 and 2018

(in millions, except per share amounts)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Revenue:				
Transaction fees	\$ 394.2	\$ 563.2	\$ 1,716.2	\$ 1,986.9
Access and capacity fees	57.3	54.6	221.9	211.0
Market data fees	53.8	49.7	213.5	204.0
Regulatory fees	85.2	73.1	311.7	333.9
Other revenue	8.1	7.1	32.8	33.0
Total Revenues	598.6	747.7	2,496.1	2,768.8
Cost of Revenue				
Liquidity payments	215.5	309.8	964.7	1,113.0
Routing and clearing	8.1	10.3	35.8	39.1
Section 31 fees	73.5	65.7	271.4	302.4
Royalty fees	21.0	27.5	86.8	97.4
Other	0.2	—	0.5	—
Total Cost of Revenue	318.3	413.3	1,359.2	1,551.9
Revenues Less Cost of Revenues	280.3	334.4	1,136.9	1,216.9
Operating Expenses:				
Compensation and benefits	49.0	60.8	199.0	228.8
Depreciation and amortization	42.8	49.1	176.6	204.0
Technology support services	11.9	13.4	46.2	47.9
Professional fees and outside services	15.4	16.4	68.3	68.3
Travel and promotional expenses	3.6	3.2	11.9	13.0
Facilities costs	3.2	2.9	11.0	11.5
Acquisition-related costs	8.7	6.7	48.5	30.0
Change in contingent consideration	—	0.1	—	0.1
Other expenses	26.5	5.4	38.2	13.9
Total Operating Expenses	161.1	158.0	599.7	617.5
Operating Income	119.2	176.4	537.2	599.4
Non-operating (expenses) income:				
Interest expense, net	(7.8)	(9.7)	(35.9)	(38.2)
Other (expense)/ income	2.8	8.9	0.1	10.0
Total Other Income	(5.0)	(0.8)	(35.8)	(28.2)
Income Before Income Provision	114.2	175.6	501.4	571.2
Income tax provision	27.9	37.3	130.6	146.0
Net Income	86.3	138.3	370.8	425.2
Net income attributable to noncontrolling interest	—	0.4	4.1	1.3
Net Income Excluding Noncontrolling Interest	86.3	138.7	374.9	426.5
Change in redemption value of noncontrolling interest	—	(0.4)	(0.5)	(1.3)
Net income allocated to participating securities	(0.2)	(1.0)	(1.7)	(3.1)
Net Income Allocated to Common Stockholders	\$ 86.1	\$ 137.3	\$ 372.7	\$ 422.1
Net Income Per Share Allocated to Common Stockholders:				
Basic earnings per share	\$ 0.78	\$ 1.23	\$ 3.35	\$ 3.78
Diluted earnings per share	0.77	1.23	3.34	3.76
Weighted average shares used in computing income per share:				
Basic	110.9	111.3	111.4	111.8
Diluted	111.2	111.6	111.8	112.2

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Cboe Global Markets, Inc. and Subsidiaries
Condensed Consolidated Balance Sheets (Unaudited)
December 31, 2019 and 2018

(in millions)	December 31, 2019	December 31, 2018
Assets		
Current Assets:		
Cash and cash equivalents	\$ 229.3	\$ 275.1
Financial investments	71.0	35.7
Accounts receivable, net	234.7	287.3
Income taxes receivable	56.8	70.4
Other current assets	15.8	15.2
Total Current Assets	607.6	683.7
Investments	61.2	86.2
Land	—	4.9
Property and equipment, net	47.0	71.7
Property held for sale	21.1	—
Operating lease right of use assets	53.4	—
Goodwill	2,682.1	2,691.4
Intangible assets, net	1,589.9	1,720.2
Other assets, net	51.6	62.9
Total Assets	\$ 5,113.9	\$ 5,321.0
Liabilities, Redeemable Noncontrolling Interest and Stockholders' Equity		
Current Liabilities:		
Accounts payable and accrued liabilities	\$ 171.9	\$ 198.5
Section 31 fees payable	99.0	81.1
Current portion of long-term debt	—	299.8
Deferred revenue	4.5	8.5
Income taxes payable	4.0	4.1
Contingent consideration liability	2.2	3.9
Total Current Liabilities	281.6	595.9
Long-term debt	867.6	915.6
Income tax liability	135.9	114.9
Deferred income taxes	399.7	436.8
Non-current operating lease liabilities	46.7	—
Other non-current liabilities	26.8	7.4
Total Liabilities	1,758.3	2,070.6
Redeemable Noncontrolling Interest	—	9.4
Stockholders' Equity:		
Preferred stock	—	—
Common stock	1.2	1.2
Treasury stock at cost	(887.1)	(720.1)
Additional paid-in-capital	2,691.3	2,660.2
Retained earnings	1,512.6	1,288.2
Accumulated other comprehensive income, net	37.6	11.5
Total Stockholders' Equity	3,355.6	3,241.0
Total Liabilities, Redeemable Noncontrolling Interest and Stockholders' Equity	\$ 5,113.9	\$ 5,321.0

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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 press release 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, effective tax rate on adjusted earnings, 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 press release, 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.

Reconciliation of GAAP and non-GAAP Information

Table 4 (in millions, except per share amounts)	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP (As shown on Table 1)				
Net income allocated to common stockholders	\$ 86.1	\$ 137.3	\$ 372.7	\$ 422.1
Non-GAAP adjustments				
Acquisition-related expenses (1)	8.7	6.7	48.5	30.0
Provision for notes receivable (2)	23.4	—	23.4	—
Amortization of acquired intangible assets (3)	33.4	39.4	138.5	160.6
Change in contingent consideration	—	0.1	—	0.1
Change in redemption value of noncontrolling interest	—	0.4	0.5	1.3
Total Non-GAAP adjustments	65.5	46.6	210.9	192.0
Income tax expense related to the items above	(16.5)	(11.7)	(50.7)	(49.4)
Tax provision re-measurements	—	(0.4)	—	(0.4)
Impairment charges attributed to noncontrolling interest	—	—	(3.6)	—
Net income allocated to participating securities - effect on reconciling items	(0.2)	(0.2)	(0.7)	(0.9)
Adjusted net income allocated to common stockholders	\$ 134.9	\$ 171.6	\$ 528.6	\$ 563.4
Reconciliation of Diluted EPS to Non-GAAP				
Diluted earnings per common share	\$ 0.77	\$ 1.23	\$ 3.34	\$ 3.76
Per share impact of non-GAAP adjustments noted above	0.44	0.31	1.39	1.26
Adjusted diluted earnings per common share	\$ 1.21	\$ 1.54	\$ 4.73	\$ 5.02
Reconciliation of Operating Margin to Non-GAAP				
Revenue less cost of revenue	\$ 280.3	\$ 334.4	\$ 1,136.9	\$ 1,216.9
Non-GAAP adjustments noted above	—	—	—	—
Adjusted revenue less cost of revenue	\$ 280.3	\$ 334.4	\$ 1,136.9	\$ 1,216.9
Operating expenses (4)	\$ 161.1	\$ 158.0	\$ 599.7	\$ 617.5
Non-GAAP adjustments noted above	65.5	46.2	210.4	190.7
Adjusted operating expenses	\$ 95.6	\$ 111.8	\$ 389.3	\$ 426.8
Operating income	\$ 119.2	\$ 176.4	\$ 537.2	\$ 599.4
Non-GAAP adjustments noted above	65.5	46.2	210.4	190.7
Adjusted operating income	\$ 184.7	\$ 222.6	\$ 747.6	\$ 790.1
Adjusted operating margin (5)	65.9 %	66.6 %	65.8 %	64.9 %
Reconciliation of Income Tax Rate to Non-GAAP				
Income before income taxes	114.2	175.6	501.4	571.2
Non-GAAP adjustments noted above	65.5	46.6	210.9	192.0
Adjusted income before income taxes	\$ 179.7	\$ 222.2	\$ 712.3	\$ 763.2
Income tax expense	27.9	37.3	130.6	146.0
Non-GAAP adjustments noted above	16.5	11.7	50.7	49.4
Adjusted income tax expense	\$ 44.4	\$ 49.0	\$ 181.3	\$ 195.4
Adjusted income tax rate	24.7 %	22.1 %	25.5 %	25.6 %

(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 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").

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

(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.

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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.

Table 5

(in millions)

Reconciliation of Net Income Allocated to Common Stockholders to EBITDA and Adjusted EBITDA
(Per Table 1)

Net income allocated to common stockholders

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2019	2018	2019	2018
Net income allocated to common stockholders	\$ 86.1	\$ 137.3	\$ 372.7	\$ 422.1
Interest, net	7.8	9.7	35.9	38.2
Income tax provision	27.9	37.3	130.6	146.0
Depreciation and amortization	42.8	49.1	176.6	204.0
EBITDA	\$ 164.6	\$ 233.4	\$ 715.8	\$ 810.3
EBITDA Margin	58.7 %	69.8 %	63.0 %	66.6 %

Non-GAAP adjustments not included in above line items

Acquisition-related expenses	8.7	6.7	48.5	30.0
Provision for notes receivable	23.4	—	23.4	—
Other	—	0.1	(3.6)	0.1
Adjusted EBITDA	\$ 196.7	\$ 240.2	\$ 784.1	\$ 840.4
Adjusted EBITDA Margin	70.2 %	71.8 %	69.0 %	69.1 %

Table 6

(in millions)

Reconciliation of Cash and cash equivalents to Adjusted Cash

	December 31,	December 31,
	2019	2018
Cash and cash equivalents	\$ 229.3	\$ 275.1
Financial investments	71.0	35.7
Less deferred compensation plan assets	(23.4)	—
Less cash collected for Section 31 Fees	(69.0)	(53.1)
Adjusted Cash	\$ 207.9	\$ 257.7

Table 7

(in millions)

Reconciliation of Net Transaction Fees - Three Months Ended December 31, 2019 and 2018

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