

## First Quarter 2021 Earnings Presentation

April 30, 2021

### Agenda



Strategic Review	Edward Tilly Chairman, President and Chief Executive Officer
Financial Review	Brian Schell Executive Vice President, CFO and Treasurer
Questions & Answers	Edward Tilly Brian Schell
	Chris Isaacson Executive Vice President and Chief Operating Officer
	John Deters

Executive Vice President and 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 impact of the novel coronavirus ("COVID-19") pandemic, including changes to trading behavior broadly in the market; 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 and clearing 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; our ability to minimize the risks, including our credit and default risks, associated with operating a European clearinghouse; our ability to accommodate trading and clearing 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 or for whom we clear transactions; 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; our ability to maintain BIDS Trading as an independently managed and operated trading venue, separate from and not integrated with our registered national securities exchanges; 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 and our ability to make payments on or refinance our debt obligations; our ability to maintain an investment grade credit rating; impairment of our goodwill, long-lived assets, 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, 2020, 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** and **Outlook**

Edward Tilly Chairman, President and CEO

# 1Q21: Achieved Strong Results While Continuing to Build the Foundation for Future Growth



#### Solid Results Against Difficult Prior-Year Comparisons

- Sequential growth across business segments
- Re-engagement of institutional clients trading index options and volatility products
- Continued growth in recurring non-transaction revenue
- Continuing to execute against our strategic growth initiatives:
  - Planned launch of European Derivatives, subject to regulatory approval
  - Growth of recurring non-transaction revenue
  - Expansion of BIDS Trading
  - Expand access to Cboe products and services



### Strategic Momentum – Investing in Long-Term Growth





#### **1Q21 Key Highlights**

- Strong growth in recurring non-transaction revenue; increasing 2021 growth target
- Created new Market Data and Access Solutions division
- Cboe Europe Derivatives\* go-live date planned for Sept. 6<sup>th</sup>
- Expansion of BIDS in Canada well underway; plan to bring to Asia Pacific
- Modified Early Trading Session in U.S. equities to 4:00 a.m. ET
- Launch of Periodic Auctions in U.S. Equities planned for 3Q21
- Plan to expand global trading hours for SPX and VIX options in 4Q21\*
- Engaging institutional and retail investors through derivatives education forums

### Choe Agrees to Acquire Chi-X Asia Pacific<sup>1</sup>



#### **Building One of the World's Largest Global Derivatives and Securities Networks**



- #1 U.S. Options Exchange
- Exclusive home to trade SPX and VIX options and VIX futures
- One of the largest equities exchange operators in the U.S. and a leading market globally for ETP trading
- One of the largest Pan-European equities markets
- Pan-European CCP
- First ECN for institutional spot FX trading
- Ability to extend BIDS network beyond North America and Europe

- Access to fast growing markets and strong mix of recurring revenue, with 67% non-transaction revenue in 2020 calendar year
- Facilitates Cboe's entrance into two of the world's largest securities markets
- Second largest regulated exchange in Australia
- One of the largest independent alternative trading platforms in Japan
- Ability to leverage established local leadership and talent

- Accelerates growth across products and geographies
- Increases access globally, particularly for proprietary products
- Enhances ability to serve global customer base
- Facilitates ability to further grow market data and analytics distribution and revenue globally

<sup>&</sup>lt;sup>1</sup>Acquisition is subject to regulatory review and other customary closing conditions.





# **Financial Overview** and **Guidance**

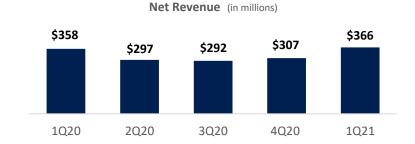
Brian Schell EVP, CFO and Treasurer

### **1Q21 Financial Summary**



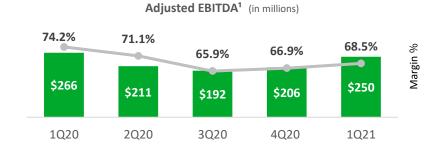
### \$366MM

Net Revenue +2% Y/Y; +19% Q/Q



### \$250MM

Adjusted EBITDA<sup>1</sup> (Adjusted EBITDA margin of 68.5%)



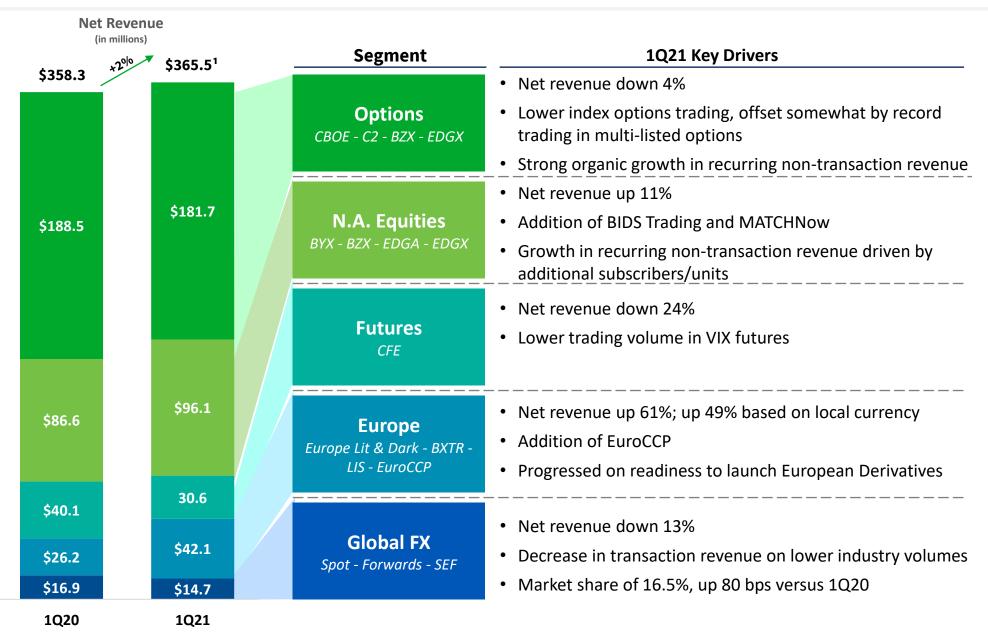
## \$1.53

Adjusted EPS<sup>1</sup>
-7% Y/Y; +26% Q/Q



### 1Q21 Net Revenue by Segment and Key Drivers





# 1Q21 Adjusted Operating Expenses Up 26%, Primarily Driven by Acquisitions



- 1Q21 expense increase primarily driven by addition of BIDS Trading, EuroCCP and MATCHNow, which were acquired in 2020:
  - \$19 million increase in compensation-related expenses
  - \$5 million increase in technology support services
- Excluding acquisitions, adjusted operating expenses were up \$8 million or 8%

Adjusted Operating Expenses <sup>1</sup> (in millions)	1Q20	1Q21	\$ Chg	% Chg
Compensation and benefits	\$53.3	\$72.3	\$19.0	36%
Depreciation and amortization <sup>1</sup>	8.0	9.1	1.1	14%
Technology support services	11.9	17.2	5.3	45%
Professional fees and outside services	14.9	15.6	0.7	5%
Travel and promotional	2.1	1.6	-0.5	-24%
Facilities costs	4.1	5.3	1.2	29%
Other expenses	4.3	3.5	-0.8	-19%
Total <sup>1</sup>	\$98.6	\$124.6	\$26.0	26%

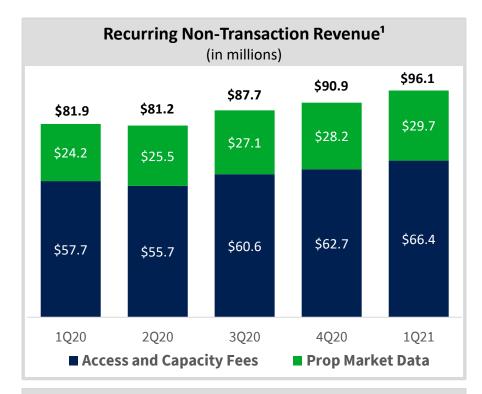
<sup>&</sup>lt;sup>1</sup>Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

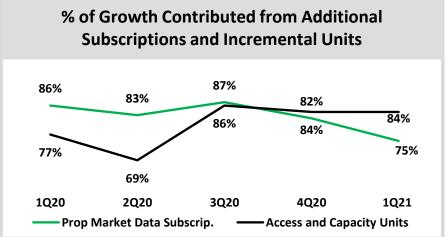
## Grew Recurring Non-Transaction Revenue; Raised Targeted Growth Rate Guidance



#### Raised organic annual growth rate target for recurring non-transaction revenue to 10-11%, up 4 ppts

- 1Q21 recurring non-transaction revenue of \$96.1 million<sup>1</sup> up 17%; organic growth of 14% YoY<sup>2</sup>
  - Excludes \$3.1MM of revenue contributed from acquisitions<sup>2</sup>
  - 14% organic growth in access and capacity fees
  - 13% organic growth in proprietary market data fees
- 1Q21 growth of recurring non-transaction revenue exceeded target
  - Updated target for 2021 organic annual growth to 10-11% from 6-7%; total annual growth now expected to be 11-12% versus 7-8%
  - Additional units or subscribers expected to be key driver of organic recurring non-transaction revenue
- About 75% of organic market data revenue growth in 1Q21 driven by additional subscriptions
- About 84% of organic access and capacity fees in 1Q21 were attributable to incremental units



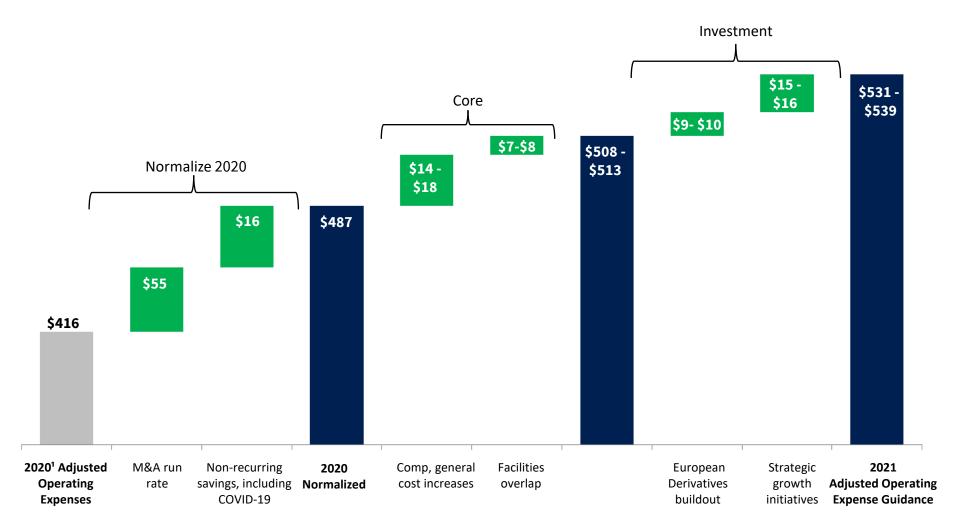


<sup>&</sup>lt;sup>1</sup>Recurring non-transaction revenue defined as proprietary market data plus access and capacity fees <sup>2</sup>See appendix for "Non-GAAP Information."

### Adjusted Operating Expense Bridge 2020 to 2021



(\$ in millions)



<sup>&</sup>lt;sup>1</sup>Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information"

# 2021 Full-Year Guidance Summary; Recurring Revenue Growth Target Updated



2021 Full-Year Guidance <sup>1, 2</sup> (\$ in millions)	2021 Guidance as of Apr. 30, 2021	2021 Guidance as of Feb. 5, 2021	2020 Actual <sup>3</sup>
Recurring non-transaction revenue <sup>4</sup> growth targets: Reported growth Organic growth	11 to 12% 10 to 11%	7 to 8% 6 to 7%	12% 9%
Adjusted operating expenses <sup>5</sup>	\$531 to \$539	\$531 to \$539	\$416
<b>Depreciation and amortization</b> (excluding amortization of acquired intangible assets)	\$38 to \$42	\$38 to \$42	\$34
Effective tax rate on adjusted earnings	27.5 to 29.5%	27.5 to 29.5%	28.1%
Capital expenditures	\$60 to \$65	\$60 to \$65	\$48

<sup>1</sup>Specific quantifications of the amounts that would be required to reconcile the company's organic growth guidance, 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 revenues and expenses that would be required to reconcile to GAAP revenues less costs of revenues, 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 organic growth, 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.

<sup>2</sup>Guidance includes acquisitions completed through December 31, 2020, and investment in launching pan-European trading and clearing. This guidance does not include the company's planned acquisition of Chi-X Asia Pacific, which is subject to regulatory review and other customary closing conditions.

<sup>&</sup>lt;sup>3</sup>See "Non-GAAP Information" in the appendix for reconciliations of 2020 actual.

<sup>&</sup>lt;sup>4</sup>Represents access and capacity fees and proprietary market data.

<sup>&</sup>lt;sup>5</sup>Adjusted operating expenses exclude acquisition-related expenses and amortization of acquired intangible assets. The amortization of acquired intangible assets was \$125 million for 2020 and is expected to be \$122 million for 2021. Adjustments included in the non-GAAP reconciliation.

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



#### Preserving balance sheet flexibility remains a priority

- Capital allocation priorities include:
  - Investing in the growth of our business
  - Consistent dividend payments and growth
  - Opportunistic share repurchases
  - Inorganic opportunities to facilitate growth strategy
- Returned \$93 million in capital in 1Q21

Debt Outstanding (\$ in millions)	Mar. 31, 2020	June 30, 2020	Sept. 30, 2020	Dec. 31, 2020	Mar. 31, 2021
3.650% Senior Notes (10Y; Due 2027)	\$650	\$650	\$650	\$650	\$650
1.625% Senior Notes (10Y; Due 2030)	-	-	-	500	500
Revolving Credit Agreement	-	-	70	-	-
Term Loan Facility	225	225	225	70	50
EuroCCP Credit Facility	-	-	-	-	-
Total Debt (Gross)	\$875	\$875	\$945	\$1,220	\$1,200
Debt to EBITDA TTM <sup>1</sup>	1.0x	1.0x	1.1x	1.4x	1.4x
Adjusted Cash & Financial Investments <sup>1</sup>	\$137	\$176	\$213	\$210	\$264
Share Repurchases	\$119.5	\$99.8	\$41.8	\$88.0	\$47.6
Dividends Paid	40.0	39.5	45.8	45.4	45.3
Total Capital Returned to Shareholders	\$159.5	\$139.3	\$87.6	\$133.4	\$92.9

<sup>1</sup>See Appendix for "Non-GAAP Information."

### Well Positioned to Continue Growth in 2021 and Beyond



- Expect to grow revenue while continuing to execute against our strategic growth initiatives
- Investments we plan to make in 2021 should contribute to long-term sustainable growth in 2022 and beyond
- Will continue to deploy efficient allocation of capital to create longterm shareholder value



## **Questions and Answers**



## Appendix

# Options 1Q21 Net Revenue Down 4%, Reflecting Y/Y Decline in Index Options ADV



- Lower transaction fees from index options, offset somewhat by higher transaction fees from multi-listed options
- Growth in recurring non-transaction fees, access and capacity fees and proprietary market data, of \$5.6MM, with \$2.2MM of increase contributed from 2020 acquisitions

Options Selected Revenue Data (\$ in millions)	1Q20	1Q21	Chg
Net Revenue	\$188.5	\$181.7	-4%
Net transaction and clearing fees <sup>1</sup>	\$155.4	\$137.2	-12%
Index options	129.0	93.2	-28%
Multi-listed options	26.4	44.0	67%
Access and capacity	\$27.2	\$29.4	8%
Market data	\$17.2	\$20.5	19%
Market data – proprietary	9.9	13.3	34%
Market data – industry	7.3	7.2	-1%
Options Key Operating Stats	1Q20	1Q21	Chg
Options Key Operating Stats  Total market share	1Q20 38.3%	1Q21 30.2%	Chg -8.1 pts
Total market share	38.3%	30.2%	-8.1 pts
Total market share Index options	<b>38.3%</b> 99.2%	<b>30.2%</b> 99.0%	<b>-8.1 pts</b> -0.2 pts
Total market share Index options Multi-listed options	<b>38.3%</b> 99.2% 31.9%	<b>30.2%</b> 99.0% 26.9%	-8.1 pts -0.2 pts -5.0 pts
Total market share Index options Multi-listed options Total ADV (in thousdands)	38.3% 99.2% 31.9% 10,731	<b>30.2%</b> 99.0% 26.9% <b>12,681</b>	-8.1 pts -0.2 pts -5.0 pts 18%
Total market share Index options Multi-listed options Total ADV (in thousdands) Index options	38.3% 99.2% 31.9% 10,731 2,663	30.2% 99.0% 26.9% 12,681 1,902	-8.1 pts -0.2 pts -5.0 pts 18% -29%
Total market share Index options Multi-listed options Total ADV (in thousdands) Index options Multi-listed options	38.3% 99.2% 31.9% 10,731 2,663 8,069	30.2% 99.0% 26.9% 12,681 1,902 10,779	-8.1 pts -0.2 pts -5.0 pts 18% -29% 34%

<sup>&</sup>lt;sup>1</sup>See appendix for "Non-GAAP Information."

# North American (N.A.) Equities 1Q21 Net Revenue Up 11%, Driven by Acquisitions



- 1Q21 results include BIDS Trading and MATCHNow, which contributed \$12.4 million of net revenue
- U.S. equities net capture decline primarily reflects a mix shift in shares traded
- Growth in recurring non-transaction revenue of \$4.7 million, primarily due to increase in ports
- SIP market data increase driven by higher audit recoveries

N.A. Equities Selected Revenue Data (\$ in millions)	1Q20	1Q21	Chg
Net Revenue	\$86.6	\$96.1	11%
Net transaction and clearing fees <sup>1</sup>	\$31.1	\$34.0	9%
Market data	\$34.0	\$37.5	10%
Market data - SIP <sup>2</sup>	24.7	26.9	9%
Market data - proprietary	9.3	10.6	14%
Access and capacity fees	\$20.0	\$23.4	17%
N.A. Equities Key Operating Stats	1Q20	1Q21	Chg
U.S. Equities Exchange (shares in billions)			
Total Market Share	16.7%	15.0%	-1.7 pts
Market ADV	11.0	14.7	34%
ADV (matched shares)	1.8	2.2	22%
Net capture (per 100 touched shares)	\$0.026	\$0.015	-42%
U.S. Equities Off-Exchange (shares in millions)			
Off-Exchange ATS Block Market Share %3	-	23.4%	
ADV (matched shares)		99.5	
Net capture (per 100 touched shares)	-	\$0.121	
Canadian Equities (shares in millions)			
Market Share Percent - TSX Listed	-	4.6%	
ADV (matched shares, in millions)	-	71.4	
Net capture (per 10,000 touched shares, in CAD)	-	\$7.184	

<sup>&</sup>lt;sup>1</sup>See appendix for "Non-GAAP Information."

<sup>&</sup>lt;sup>2</sup>Includes SIP audit recoveries of \$0.7 million in 1Q20 and \$3.1 million in 1Q21.

<sup>&</sup>lt;sup>3</sup>Reprsents market share for January 2021.

## Futures 1Q21 Net Revenue Down 24%, Reflecting Y/Y Decline in VIX Futures ADV



- Revenue decrease driven by net transaction fees resulting from lower trading volume and RPC against difficult prior year comparisons
- RPC decrease primarily reflects the addition of Mini VIX futures in August 2020, one-tenth the size of standard VIX futures, and higher volume from corporate bond index futures and associated lead market maker incentives

Futures Selected Revenue Data (\$ in millions)	1Q20	1Q21	Chg
Net Revenue	\$40.1	\$30.6	-24%
Net transaction and clearing fees <sup>1</sup>	\$35.9	\$25.6	-29%
Access and capacity	\$4.0	\$4.4	10%
Market data	\$1.6	\$1.6	-
Futures Key Operating Stats (in thousands, except RPC)	1Q20	1Q21	Chg
Total ADV	331	256	-23%
Total RPC	\$1.750	\$1.639	-6%

<sup>&</sup>lt;sup>1</sup>See appendix for "Non-GAAP Information."

# Europe Net Revenue Up 49% for 1Q21, Local Currency Basis, Reflecting Addition of EuroCCP



- Net revenue increase reflects \$12.1 million contribution from EuroCCP and favorable exchange rate variance
- Decrease in net transaction fees, on a local currency basis, driven by lower trading volumes, offset somewhat by higher net capture
- Record ADNV in Cboe LIS, including record market share of 24.1%; Record ADNV for Cboe Europe Periodic Auctions

Europe Selected Revenue Data (\$ in millions)	1Q20		1Q21	Chg (\$)	Chg (£)
Net Revenue	\$	26.2	\$42.1	61%	49%
Net transaction and clearing fees <sup>1</sup>	\$	15.6	\$25.1	61%	48%
Net transaction fees		15.6	16.1	3%	-6%
Net clearing fees		-	9.0	NM	NM
Market data	\$	3.2	\$4.0	25%	12%
Access and capacity fees	\$	4.9	\$7.1	45%	37%
Other <sup>2</sup>	\$	2.5	\$5.9	136%	121%
Europe Key Operating Stats	1	Q20	1Q21	Chg	
European Equities:					
Total market share		17.7%	16.8%	-0.9 pts	
Market ADNV (in billions)	:	€ 51.5	€ 44.8	-13%	
Net capture (per matched notional value, in bps)		0.244	0.284	16%	
EuroCCP:					
Trades cleared (in millions)			298.2	NM	
Fee per trade cleared			€ 0.011	NM	
Net settlement volume (in millions)			2.4	NM	
Net fee per settlement			€ 0.865	NM	

<sup>&</sup>lt;sup>1</sup>See appendix for "Non-GAAP Information."

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 $<sup>^2\</sup>mbox{Primarily}$  includes trade reporting and EuroCCP net interest income  $\mbox{NM} = \mbox{not}$  meaningful

# Global FX Net 1Q21 Revenue Down 13%, Reflecting Lower Volumes



- Revenue decrease driven by lower transaction revenue, reflecting the year-over-year decline in trading volumes
- Market share up 80 basis point

FX Selected Revenue Data (\$ in millions)	1Q20	1Q21	Chg
Net Revenue	\$16.9	\$14.7	-13%
Net transaction and clearing fees	15.1	12.4	-18%
Non-transaction revenue	1.8	2.3	28%
FX Key Operating Stats	1Q20	1Q21	Chg
FX Key Operating Stats  Market share <sup>1</sup>	<b>1Q20</b> 15.7%	<b>1Q21</b> 16.5%	Chg 0.8 pts

<sup>&</sup>lt;sup>1</sup>Market share represents Cboe FX volume divided by the total volume of publicly reporting spot FX venues (Cboe FX, EBS, Refinitiv, and FastMatch).

### First Quarter Financial Overview



Adjusted Financial Results <sup>1</sup> (\$ in millions, except per share)	1Q20	1Q21	% Chg
Net Revenue <sup>2</sup>	\$358.3	365.5	2%
Adjusted Operating Expenses <sup>1</sup>	98.6	124.6	26%
Adjusted Operating Income <sup>1</sup>	259.7	240.9	-7%
Adjusted Operating Margin <sup>1</sup>	72.5%	65.9%	-660 bps
Adjusted Net Income Allocated to Common Stockholders <sup>1</sup>	\$182.3	\$164.8	-10%
Adjusted Diluted EPS <sup>1</sup>	\$ 1.65	\$1.53	-7%
Adjusted EBITDA <sup>1</sup>	\$265.7	\$250.2	-6%
Adjusted EBITDA Margin¹	74.2%	68.5%	-570 bps

<sup>&</sup>lt;sup>1</sup>Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

<sup>&</sup>lt;sup>2</sup>Net revenue referenced in this presentation represents revenue less cost of revenues.

#### Net Revenue Detail



- 1Q21 net transaction and clearing fees down 7%
- Recurring non-transaction revenue up 17%

Net Revenue (in millions)	1Q20	1Q21	% Chg
Net transaction and clearing fees <sup>1</sup>	\$253.1	234.3	-7%
Access and capacity fees	57.7	66.4	15%
Market data fees	56.2	63.8	14%
Regulatory fees	9.4	9.6	2%
Royalty fees	(27.4)	(20.3)	-26%
Other revenue	9.3	11.7	27%
Total	\$358.3	\$365.5	2%

<sup>&</sup>lt;sup>1</sup>See Appendix for "Non-GAAP Information."

### Supplemental Segment Information – 1Q21



1Q20 Supplemental Net Revenue by Segment (in millions)	Options	N.A. Equities	Futures	Europe	Global FX	Total <sup>1</sup>
Net transaction fees <sup>2</sup>	\$155.4	\$31.1	\$35.9	\$15.6	\$15.1	\$253.1
Proprietary net transaction fees included above	\$129.0		\$35.9			\$164.9
Access and capacity fees	\$27.2	\$20.0	\$4.0	\$4.9	\$1.6	\$57.7
Market data fees	\$17.2	\$34.0 <sup>3</sup>	\$1.6	\$3.2	\$0.2	\$56.2
Proprietary market data fees included above	\$9.9	\$9.3	\$1.6	\$3.2	\$0.2	\$24.2

1Q21 Supplemental Net Revenue by Segment (in millions)	Options	N.A. Equities	Futures	Europe	Global FX	Total <sup>1</sup>
Net transaction and clearing fees <sup>2</sup>	\$137.2	\$34.0	\$25.6	\$25.1	\$12.4	\$234.3
Proprietary net transaction fees included above	\$93.2		\$25.6			\$118.8
Access and capacity fees	\$29.4	\$23.4	\$4.4	\$7.1	\$2.1	\$66.4
Market data fees	\$20.5	\$37.5 <sup>3</sup>	\$1.6	\$4.0	\$0.2	\$63.8
Proprietary market data fees included above	\$13.3	\$10.6	\$1.6	\$4.0	\$0.2	\$29.7

<sup>&</sup>lt;sup>1</sup>Totals may not foot due to rounding.

<sup>&</sup>lt;sup>2</sup>A 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.

<sup>&</sup>lt;sup>3</sup>Includes SIP audit recoveries of \$0.7 million for 1Q20 and \$3.1 million for 1Q21.

### **Expense Bridge Summary**



Adjusted Operating Expenses Bridge for 2019 to 2	020	
(\$ in millions)		
2019 adjusted operating expenses <sup>1</sup>	\$	389
Realized expense synergies		(18)
Non-recurring savings		(16)
One-time benefit		6
Acquisitions		34
Core (5% increase)		21
2020 adjusted operating expenses <sup>1</sup>	\$	416

Adjusted Operating Expenses Bridge for 2020 to 2021

#### 2021 Guidance of \$531 to \$539 million1 (\$ in millions) \*Guidance 2020 adjusted operating expenses<sup>1</sup> \$ 416 Range Realized expense synergies \$ Acquisitions 55 55 Non-recurring savings 16 16 Core (3% to 4% increase) 18 14 Facilities overlap Investments 26 24 115 123

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2021 guidance as of April 30, 2021

<sup>&</sup>lt;sup>1</sup>Adjusted to reflect the impact of certain items. See Appendix for "Non-GAAP Information."

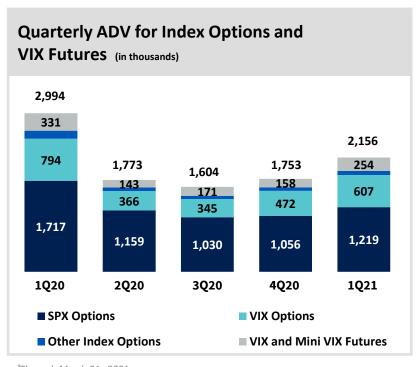
<sup>\*</sup>Totals may not foot due to rounding

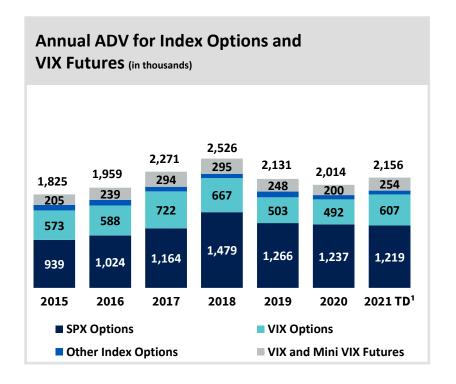
### Focused on Growing Highest-Margin Proprietary Index Suite



Index customers at Cboe typically use SPX and VIX options and futures interchangeably or in tandem, depending on market conditions

- Plan to further penetrate existing markets with an emphasis on education, targeting key market segments and geographies
- Product innovation and collaboration with strategic partners enhances growth prospects





<sup>&</sup>lt;sup>1</sup>Through March 31, 2021





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 and clearing fees, adjusted operating expenses, adjusted operating income, organic net revenue, adjusted operating margin, adjusted net income allocated to common stockholders and adjusted diluted earnings per share, adjusted income before income taxes, adjusted revenue less cost of revenue, effective tax rate on adjusted earnings, adjusted cash, 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, organic net revenue 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.

Organic net revenue, organic recurring non-transaction revenue and organic net revenue guidance: These are non-GAAP financial measures that exclude or have otherwise been adjusted for the impact of our acquisitions for the period or guidance, as applicable. Management believes the organic net revenue growth and guidance measures provide users with supplemental information regarding the company's ongoing and future potential revenue performances and trends by presenting revenue growth and guidance excluding the impact of the acquisitions. Revenues from acquisitions that have been owned for at least one year are considered organic and are no longer excluded from organic net revenue from either period for comparative purposes.

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 Net Transaction and Clearing Fees by Segment**

For the Three Months Ended	Opt	ions	N.A. E	quities	Futi	ıres	Europear	pean Equities Global FX		al FX	Total	
March 31 (in millions)	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Transaction fees	\$ 284.2	\$ 308.7	\$ 304.0	\$ 381.8	\$ 35.9	\$ 25.6	\$ 22.3	\$ 34.7	\$ 15.1	\$ 12.4	\$ 661.5	\$ 763.2
Liquidity payments	(124.3)	(166.0)	(261.4)	(330.5)	-	-	(6.7)	(5.3)	-	-	(392.4)	(501.8)
Routing and clearing	(4.5)	(5.5)	(11.5)	(17.3)	-	-	-	(4.3)	-	-	(16.0)	(27.1)
Net transaction and clearing												
fees	\$ 155.4	\$ 137.2	\$ 31.1	\$ 34.0	\$ 35.9	\$ 25.6	\$ 15.6	\$ 25.1	\$ 15.1	\$ 12.4	\$ 253.1	\$ 234.3

For the Three Months Ended	Opt	ions	N.A. E	quities	Futi	ures	Europear	n Equities	Glob	al FX	То	tal
June 30 (in millions)	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Transaction fees	\$ 250.8		\$ 325.1		\$ 15.8		\$ 15.2		\$ 11.4		\$ 618.3	\$ -
Liquidity payments	(132.0)		(279.4)		-	-	(4.2)		-	-	(415.6)	-
Routing and clearing	(5.0)		(12.7)		-	-	-	-	-	-	(17.7)	-
Net transaction and clearing												
fees	\$ 113.8	\$ -	\$ 33.0	\$ -	\$ 15.8	\$ -	\$ 11.0	\$ -	\$ 11.4	\$ -	\$ 185.0	\$ -

For the Three Months Ended	Opt	ions	N.A. E	quities	Futi	ıres	Europear	Equities	Glob	al FX	То	tal
September 30 (in millions)	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Transaction fees	\$ 241.4		\$ 253.0		\$ 16.8		\$ 23.4		\$ 10.9		\$ 545.5	\$ -
Liquidity payments	(130.1)		(225.1)		-	-	(4.2)		-	-	(359.4)	-
Routing and clearing	(5.2)		(9.7)		-	-	-	-	-	-	(14.9)	-
Net transaction and clearing												
fees	\$ 106.1	\$ -	\$ 18.2	\$ -	\$ 16.8	\$ -	\$ 19.2	\$ -	\$ 10.9	\$ -	\$ 171.2	\$ -

For the Three Months Ended	Opt	ions	N.A. Ed	quities	Futi	ıres	Europear	Equities	Glob	al FX	То	tal
December 31 (in millions)	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Transaction fees	\$ 269.9		\$ 265.1		\$ 16.0		\$ 30.0		\$ 11.7		\$ 592.7	\$ -
Liquidity payments	(145.0)		(237.0)		-	-	(4.7)		-	-	(386.7)	-
Routing and clearing	(4.6)		(10.4)		-	-	(6.8)		-	-	(21.8)	-
Net transaction and clearing												
fees	\$ 120.3	\$ -	\$ 17.7	\$ -	\$ 16.0	\$ -	\$ 18.5	\$ -	\$ 11.7	\$ -	\$ 184.2	\$ -

For the Twelve Months Ended	Opt	ions	N.A. E	quities	Futi	ıres	Europear	n Equities	Global FX		quities Glob		Total	
December 31 (in millions)	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021		
Transaction fees	\$ 1,046.3	\$ 308.7	\$ 1,147.2	\$ 381.8	\$ 84.5	\$ 25.6	\$ 90.9	\$ 34.7	\$ 49.1	\$ 12.4	\$ 2,418.0	\$ 763.2		
Liquidity payments	(531.4)	(166.0)	(1,002.9)	(330.5)	-	-	(19.8)	(5.3)	-	-	(1,554.1)	(501.8)		
Routing and clearing	(19.3)	(5.5)	(44.3)	(17.3)	-	-	(6.8)	(4.3)	-	-	(70.4)	(27.1)		
Net transaction and clearing														
fees	\$ 495.6	\$ 137.2	\$ 100.0	\$ 34.0	\$ 84.5	\$ 25.6	\$ 64.3	\$ 25.1	\$ 49.1	\$ 12.4	\$ 793.5	\$ 234.3		

Net income allocated to common stockholders or Nor-GAAP   S	(in millions, except per share amounts)		1Q20	2Q20	3Q20	4Q20	2020	1Q21
Acquisition-related expenses (1)	Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP							
Amortization of acquired intangible assets (2) Provision for notes receivable (3) Total Non-GAAP operating expense adjustments  33.3 33.4 33.4 33.5 33.4 33.5 33.4 33.5 33.5	Net income allocated to common stockholders	Ş	157.0	\$ 113.3	\$ 109.6	\$ 87.1	\$ 467.0	\$ 136.8
Provision for notes receivable (3)	Acquisition-related expenses (1)		0.8	9.4	6.2	28.8	45.2	3.4
Total Non-GAAP operating expense adjustments	Amortization of acquired intangible assets (2)		32.5	30.0	30.9	31.3	124.7	32.9
Bargain purchase gain (4)	Provision for notes receivable (3)		-	-	6.7	-	6.7	-
Change in redemption value of noncontrolling interest   33.3   39.4   11.2   60.1   144.0   63.6   16.0	Total Non-GAAP operating expense adjustments		33.3	39.4	43.8	-	116.5	36.3
Non-GAAP adjustments - pretax   13.3   3.9   1.1   6.0   1.14.0   3.6.3   1.0   1.	Bargain purchase gain (4)				(32.6)	-	(32.6)	
Income tax expense related to the items above   (7.5)   (9.3)   (8.0)   (13.1)   (38.0)   (8.2)     Deferred tax remeasurement   (	Change in redemption value of noncontrolling interest		-	-	-	-	-	
Deferred tax remeasurement	Total Non-GAAP adjustments - pretax		33.3	39.4	11.2	60.1	144.0	36.3
Net income allocated to participating securities - effect on reconciling items (0.4) (0.1) (0.1) (0.6) (0.1) (0.1) (0.6) (0.1) (0.1) (0.6) (0.1)	Income tax expense related to the items above		(7.6)	(9.3)	, ,	(13.1)	(38.0)	(8.2)
Reconciliation of Diluted EPS to Non-GAAP   Second Post			-		7.7	(3.6)		-
Reconciliation of Diluted EPS to Non-GAAP   Diluted earnings per common share	Net income allocated to participating securities - effect on reconciling items		(- /	. ,		. ,	` '	` '
Diluted earnings per common share	Adjusted net income allocated to common stockholders	Ş	182.3	\$ 143.3	\$ 120.5	\$ 130.4	\$ 576.5	\$ 164.8
Diluted earnings per common share	Reconciliation of Diluted EDS to Non-GAAD							
Per share impact of non-GAAP adjustments noted above			1 4 2	\$ 1.03	\$ 1.01	\$ 0.81	\$ 427	\$ 127
Reconciliation of Operating Margin to Non-GAAP		٦			•	•	•	
Reconciliation of Operating Margin to Non-GAAP         Revenue less cost of revenue         \$ 358.3         \$ 296.9         \$ 292.0         \$ 307.1         \$ 1,254.3         \$ 365.5           Non-GAAP adjustments noted above         \$ 358.3         \$ 296.9         \$ 292.0         \$ 307.1         \$ 1,254.3         \$ 365.5           Operating evenue less cost of revenue         \$ 358.3         \$ 296.9         \$ 292.0         \$ 307.1         \$ 1,254.3         \$ 365.5           Operating expenses (5)         \$ 131.9         \$ 135.2         \$ 152.7         \$ 17.23         \$ 292.1         \$ 100.9           Non-GAAP expense adjustments noted above         (33.3)         (39.4)         (43.8)         (60.1)         (176.6)         (36.3)           Non-GAAP expense adjustments to arrive at organic adjusted operating expenses         \$ 98.6         \$ 98.6         \$ 108.9         \$ 112.2         \$ 415.5         \$ 124.6           Operating income         \$ 226.4         \$ 161.7         \$ 139.3         \$ 134.8         \$ 662.2         \$ 204.6           Non-GAAP expense adjustments noted above         33.3         39.4         43.8         60.1         176.6         36.3           Adjusted operating income         \$ 259.7         \$ 201.1         \$ 131.1         \$ 202.2         \$ 204.6           No	· · · · · · · · · · · · · · · · · · ·							
Revenue less cost of revenue   \$ 358.3   \$ 296.9   \$ 292.0   \$ 307.1   \$ 1,254.3   \$ 365.5     Non-GAAP adjustments noted above   \$ 358.3   \$ 296.9   \$ 292.0   \$ 307.1   \$ 1,254.3   \$ 365.5     Adjusted revenue less cost of revenue   \$ 358.3   \$ 296.9   \$ 292.0   \$ 307.1   \$ 1,254.3   \$ 365.5     Operating expenses (5)   \$ 358.3   \$ 398.3   \$ 394.0   \$ 32.0   \$ 307.1   \$ 1,254.3   \$ 365.5     Operating expenses adjustments noted above   \$ 313.9   \$ 33.3   \$ 39.4   \$ 43.8   \$ 60.1   \$ 176.6   \$ 136.3     Adjusted operating expenses   \$ 98.6   \$ 95.8   \$ 108.9   \$ 112.2   \$ 415.5   \$ 124.6     Non-GAAP expense adjustments to arrive at organic adjusted operating expenses   \$ 98.6   \$ 95.8   \$ 108.9   \$ 112.2   \$ 415.5   \$ 124.6     Operating income   \$ 226.4   \$ 161.7   \$ 139.3   \$ 134.8   \$ 662.2   \$ 204.6     Non-GAAP expense adjustments noted above   \$ 33.3   \$ 39.4   \$ 43.8   \$ 60.1   \$ 176.6   \$ 36.3     Adjusted operating income   \$ 259.7   \$ 201.1   \$ 183.1   \$ 194.9   \$ 838.8   \$ 240.9     Adjusted operating margin (6)   \$ 72.5   \$ 67.7   \$ 62.7   \$ 63.5   \$ 66.9   \$ 65.9     Reconciliation of Income Tax Rate to Non-GAAP   Adjusted above   \$ 33.3   \$ 39.4   \$ 11.2   \$ 60.1   \$ 144.0   \$ 36.3     Adjusted income taxes   \$ 217.5   \$ 156.6   \$ 163.4   \$ 122.9   \$ 660.4   \$ 192.9     Income before income taxes   \$ 217.5   \$ 156.0   \$ 163.4   \$ 122.9   \$ 660.4   \$ 192.9     Income tax (benefit) expense   \$ 250.8   \$ 196.0   \$ 174.6   \$ 183.0   \$ 804.4   \$ 229.2     Income tax (benefit) expense   \$ 60.1   \$ 43.0   \$ 53.5   \$ 35.6   \$ 192.2   \$ 55.7     Non-GAAP adjustments noted above   \$ 67.6   9.3   0.3   313.1   30.3   8.2     Adjusted income tax (benefit) expense   \$ 67.7   \$ 52.3   \$ 53.8   \$ 48.7   \$ 222.5     Adjusted income tax (benefit) expense   \$ 67.7   \$ 52.3   \$ 53.8   \$ 48.7   \$ 222.5     Adjusted income tax (benefit) expense   \$ 67.7   \$ 52.3   \$ 53.8   \$ 48.7   \$ 222.5     Adjusted income tax (benefit) expense   \$ 67.7   \$ 52.3   \$ 53.8   \$ 48.7   \$ 222.5     Adjusted income tax (benefit) expen	Adjusted diluted earnings per common share	,		7	·	7	7	,
Non-GAAP adjustments noted above   S   358.3   \$   296.9   \$   292.0   \$   307.1   \$   1,254.3   \$   365.5   365.5   \$   365.5   \$   365.5   \$   365.5   \$   365.5   \$   365	Reconciliation of Operating Margin to Non-GAAP							
Adjusted revenue less cost of revenue         \$ 358.3         \$ 296.9         \$ 292.0         \$ 307.1         \$ 1,254.3         \$ 365.5           Operating expenses (5)         \$ 131.9         \$ 135.2         \$ 152.7         \$ 172.3         \$ 592.1         \$ 160.9           Non-GAAP expense adjustments noted above         (33.3)         (39.4)         (43.8)         (60.1)         (176.6)         (36.3)           Adjusted operating expenses         \$ 98.6         \$ 98.8         \$ 108.9         \$ 112.2         \$ 415.5         \$ 124.6           Non-GAAP expense adjustments to arrive at organic adjusted operating expenses         \$ 28.8         \$ 108.9         \$ 112.2         \$ 415.5         \$ 124.6           Operating income         \$ 226.4         \$ 161.7         \$ 139.3         \$ 134.8         \$ 662.2         \$ 204.6           Non-GAAP expense adjustments noted above         33.3         39.4         43.8         60.1         176.6         36.3           Adjusted operating income         \$ 259.7         \$ 201.1         \$ 183.1         \$ 194.9         \$ 838.8         \$ 240.9           Recordiliation of Income Tax Rate to Non-GAAP         \$ 217.5         \$ 156.6         \$ 163.4         \$ 122.9         \$ 660.4         \$ 192.9           Non-GAAP adjustments noted above         33.3	Revenue less cost of revenue	Ş	358.3	\$ 296.9	\$ 292.0	\$ 307.1	\$ 1,254.3	\$ 365.5
Operating expenses (5)         \$ 131.9         \$ 135.2         \$ 152.7         \$ 172.3         \$ 592.1         \$ 160.9           Non-GAAP expense adjustments noted above         (33.3)         (39.4)         (43.8)         (60.1)         (176.6)         (36.3)           Adjusted operating expenses         \$ 98.6         \$ 95.8         \$ 108.9         \$ 112.2         \$ 415.5         \$ 124.6           Non-GAAP expense adjustments to arrive at organic adjusted operating expenses         \$ 226.4         \$ 161.7         \$ 139.3         \$ 134.8         \$ 662.2         \$ 204.6           Operating income         \$ 226.4         \$ 161.7         \$ 139.3         \$ 134.8         \$ 662.2         \$ 204.6           Non-GAAP expense adjustments noted above         33.3         39.4         43.8         60.1         176.6         36.3           Adjusted operating income         \$ 259.7         \$ 201.1         \$ 183.1         \$ 194.9         \$ 838.8         \$ 240.9           Reconciliation of Income Tax Rate to Non-GAAP         8 259.7         \$ 201.1         \$ 183.1         \$ 194.9         \$ 838.8         \$ 240.9           Non-GAAP adjustments noted above         \$ 217.5         \$ 156.6         \$ 163.4         \$ 122.9         \$ 660.4         \$ 192.9           Income tax (benefit) expense	·	_	-	-	-	-	-	-
Non-GAAP expense adjustments noted above   (33.3)   (39.4)   (43.8)   (60.1)   (176.6)   (36.3)   (34)   (43.8)   (43.	Adjusted revenue less cost of revenue	Ş	358.3	\$ 296.9	\$ 292.0	\$ 307.1	\$ 1,254.3	\$ 365.5
Non-GAAP expense adjustments noted above   (33.3)   (39.4)   (43.8)   (60.1)   (176.6)   (36.3)   (34)   (43.8)   (43.	Operating expenses (5)	Ş	131.9	\$ 135.2	\$ 152.7	\$ 172.3	\$ 592.1	\$ 160.9
Adjusted operating expenses       \$ 98.6       \$ 95.8       \$ 108.9       \$ 112.2       \$ 415.5       \$ 124.6         Non-GAAP expense adjustments to arrive at organic adjusted operating expenses       (18.4)         Organic adjusted operating expenses       \$ 106.2         Operating income       \$ 226.4       \$ 161.7       \$ 139.3       \$ 134.8       \$ 662.2       \$ 204.6         Non-GAAP expense adjustments noted above       33.3       39.4       43.8       60.1       176.6       36.3         Adjusted operating income       \$ 259.7       \$ 201.1       \$ 183.1       \$ 194.9       \$ 838.8       \$ 240.9         Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP         Income before income taxes       \$ 217.5       \$ 156.6       \$ 163.4       \$ 122.9       \$ 660.4       \$ 192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 80.4       \$ 229.2         Income tax (benefit) ex	Non-GAAP expense adjustments noted above		(33.3)	(39.4)	(43.8)	(60.1)		(36.3)
Organic adjusted operating expenses       \$ 106.2         Operating income       \$ 226.4       \$ 161.7       \$ 139.3       \$ 134.8       \$ 662.2       \$ 204.6         Non-GAAP expense adjustments noted above       33.3       39.4       43.8       60.1       176.6       36.3         Adjusted operating income       \$ 259.7       \$ 201.1       \$ 183.1       \$ 194.9       \$ 838.8       \$ 240.9         Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP         Income before income taxes       \$ 217.5       \$ 156.6       \$ 163.4       \$ 122.9       \$ 660.4       \$ 192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3 </td <td>Adjusted operating expenses</td> <td>Ş</td> <td>98.6</td> <td>\$ 95.8</td> <td>\$ 108.9</td> <td>\$ 112.2</td> <td>\$ 415.5</td> <td>\$ 124.6</td>	Adjusted operating expenses	Ş	98.6	\$ 95.8	\$ 108.9	\$ 112.2	\$ 415.5	\$ 124.6
Organic adjusted operating expenses       \$ 106.2         Operating income       \$ 226.4       \$ 161.7       \$ 139.3       \$ 134.8       \$ 662.2       \$ 204.6         Non-GAAP expense adjustments noted above       33.3       39.4       43.8       60.1       176.6       36.3         Adjusted operating income       \$ 259.7       \$ 201.1       \$ 183.1       \$ 194.9       \$ 838.8       \$ 240.9         Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP         Income before income taxes       \$ 217.5       \$ 156.6       \$ 163.4       \$ 122.9       \$ 660.4       \$ 192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3 </td <td>Non-GAAP expense adjustments to arrive at organic adjusted operating expenses</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(18.4)</td>	Non-GAAP expense adjustments to arrive at organic adjusted operating expenses							(18.4)
Operating income       \$ 226.4       \$ 161.7       \$ 139.3       \$ 134.8       \$ 662.2       \$ 204.6         Non-GAAP expense adjustments noted above       33.3       39.4       43.8       60.1       176.6       36.3         Adjusted operating income Adjusted operating margin (6)       \$ 259.7       \$ 201.1       \$ 183.1       \$ 194.9       \$ 838.8       \$ 240.9         Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP         Income before income taxes       \$ 217.5       \$ 156.6       \$ 163.4       \$ 122.9       \$ 660.4       \$ 192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222	Organic adjusted operating expenses							
Non-GAAP expense adjustments noted above       33.3       39.4       43.8       60.1       176.6       36.3         Adjusted operating income Adjusted operating margin (6)       \$259.7       \$201.1       \$183.1       \$194.9       \$838.8       \$240.9         Reconciliation of Income Tax Rate to Non-GAAP       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP       \$217.5       \$156.6       \$163.4       \$122.9       \$660.4       \$192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$250.8       \$196.0       \$174.6       \$183.0       \$804.4       \$229.2         Income tax (benefit) expense       \$60.1       \$43.0       \$53.5       \$35.6       \$192.2       \$55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$67.7       \$52.3       \$53.8       \$48.7       \$222.5       \$63.9	organic aujustea operating expenses							φ 100.2
Adjusted operating income       \$ 259.7       \$ 201.1       \$ 183.1       \$ 194.9       \$ 838.8       \$ 240.9         Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP       Income before income taxes         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222.5       \$ 63.9	Operating income	Ş	226.4	\$ 161.7	\$ 139.3	\$ 134.8	\$ 662.2	\$ 204.6
Adjusted operating margin (6)       72.5%       67.7%       62.7%       63.5%       66.9%       65.9%         Reconciliation of Income Tax Rate to Non-GAAP       Income before income taxes         Income before income taxes       \$ 217.5       \$ 156.6       \$ 163.4       \$ 122.9       \$ 660.4       \$ 192.9         Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222.5       \$ 63.9	Non-GAAP expense adjustments noted above		33.3	39.4	43.8	60.1	176.6	36.3
Reconciliation of Income Tax Rate to Non-GAAP           Income before income taxes         \$ 217.5         \$ 156.6         \$ 163.4         \$ 122.9         \$ 660.4         \$ 192.9           Non-GAAP adjustments noted above         33.3         39.4         11.2         60.1         144.0         36.3           Adjusted income before income taxes         \$ 250.8         \$ 196.0         \$ 174.6         \$ 183.0         \$ 804.4         \$ 229.2           Income tax (benefit) expense         \$ 60.1         \$ 43.0         \$ 53.5         \$ 35.6         \$ 192.2         \$ 55.7           Non-GAAP adjustments noted above         7.6         9.3         0.3         13.1         30.3         8.2           Adjusted income tax (benefit) expense         \$ 67.7         \$ 52.3         \$ 53.8         \$ 48.7         \$ 222.5         \$ 63.9	Adjusted operating income	Ş	259.7	\$ 201.1	\$ 183.1	\$ 194.9	\$ 838.8	\$ 240.9
Income before income taxes         \$ 217.5         \$ 156.6         \$ 163.4         \$ 122.9         \$ 660.4         \$ 192.9           Non-GAAP adjustments noted above         33.3         39.4         11.2         60.1         144.0         36.3           Adjusted income before income taxes         \$ 250.8         \$ 196.0         \$ 174.6         \$ 183.0         \$ 804.4         \$ 229.2           Income tax (benefit) expense         \$ 60.1         \$ 43.0         \$ 53.5         \$ 35.6         \$ 192.2         \$ 55.7           Non-GAAP adjustments noted above         7.6         9.3         0.3         13.1         30.3         8.2           Adjusted income tax (benefit) expense         \$ 67.7         \$ 52.3         \$ 53.8         \$ 48.7         \$ 222.5         \$ 63.9	Adjusted operating margin (6)		72.5%	67.7%	62.7%	63.5%	66.9%	65.9%
Income before income taxes         \$ 217.5         \$ 156.6         \$ 163.4         \$ 122.9         \$ 660.4         \$ 192.9           Non-GAAP adjustments noted above         33.3         39.4         11.2         60.1         144.0         36.3           Adjusted income before income taxes         \$ 250.8         \$ 196.0         \$ 174.6         \$ 183.0         \$ 804.4         \$ 229.2           Income tax (benefit) expense         \$ 60.1         \$ 43.0         \$ 53.5         \$ 35.6         \$ 192.2         \$ 55.7           Non-GAAP adjustments noted above         7.6         9.3         0.3         13.1         30.3         8.2           Adjusted income tax (benefit) expense         \$ 67.7         \$ 52.3         \$ 53.8         \$ 48.7         \$ 222.5         \$ 63.9	Reconciliation of Income Tay Rate to Non-GAAR							
Non-GAAP adjustments noted above       33.3       39.4       11.2       60.1       144.0       36.3         Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222.5       \$ 63.9		d	2175	\$ 156.6	\$ 163.4	\$ 122.9	\$ 660.4	\$ 1929
Adjusted income before income taxes       \$ 250.8       \$ 196.0       \$ 174.6       \$ 183.0       \$ 804.4       \$ 229.2         Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222.5       \$ 63.9		7						
Income tax (benefit) expense       \$ 60.1       \$ 43.0       \$ 53.5       \$ 35.6       \$ 192.2       \$ 55.7         Non-GAAP adjustments noted above       7.6       9.3       0.3       13.1       30.3       8.2         Adjusted income tax (benefit) expense       \$ 67.7       \$ 52.3       \$ 53.8       \$ 48.7       \$ 222.5       \$ 63.9		ć						
Non-GAAP adjustments noted above         7.6         9.3         0.3         13.1         30.3         8.2           Adjusted income tax (benefit) expense         \$ 67.7         \$ 52.3         \$ 53.8         \$ 48.7         \$ 222.5         \$ 63.9					·			
Adjusted income tax (benefit) expense \$ 67.7 \$ 52.3 \$ 53.8 \$ 48.7 \$ 222.5 \$ 63.9	, , ,	Ş						
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Adjusted income tax rate 27.0% 26.7% 30.8% 26.6% 27.7% 27.9%		Ş					,	
	Adjusted income tax rate		27.0%	26.7%	30.8%	26.6%	27.7%	27.9%

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

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

<sup>(3)</sup> 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").

<sup>(4)</sup> This amount represents the bargain purchase gain related to the acquisition of EuroCCP on July 1, 2020.

<sup>(5)</sup> The company sponsors deferred compensation plans held in a trust. The expenses or income related to the deferred compensation plans are included in "Compensation and benefits" (\$0.4 million and \$2.1 million in expense for the three months ended March 31, 2021 and 2020, respectively), and are directly offset by deferred compensation income, expenses and dividends included within "Other expense, net" (\$0.4 million and \$2.1 million in income, expense and dividends in the three months ended March 31, 2021 and 2020, respectively), on the consolidated statements of income. The deferred compensation plans' expenses are not excluded from "adjusted operating expenses" and do not have an impact on "Income before income taxes."

<sup>(6)</sup> Adjusted operating margin represents adjusted operating income divided by adjusted revenue less cost of revenue.

#### **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, provision for notes receivable, bargain purchase gain 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 Comm	on Stock	holders	to EBITI	DA and	Ajd	lusted E	BIT	DA
(in millions, except per share amounts)	1Q20	2Q20	3Q20	4Q20		2020		1Q21
Net income allocated to common stockholders	\$ 157.0	\$113.3	\$109.6	\$ 87.1	\$	467.0	\$	136.8
Interest expense	7.3	7.3	9.5	13.5		37.6		12.3
Income tax provision	60.1	43.0	53.5	35.6		192.2		55.7
Depreciation and amortization	40.5	38.0	39.5	40.5		158.5		42.0
EBITDA	\$ 264.9	\$201.6	\$212.1	\$176.7	\$	855.3	\$	246.8
EBITDA Margin	73.9%	67.9%	72.6%	57.5%		68.2%		67.5%
Non-GAAP adjustments not included in above line items								
Acquisition-related expenses	0.8	9.4	6.2	28.8		45.2		3.4
Provision for notes receivable	-	-	6.7	-		6.7		-
Bargain purchase gain	-	-	(32.6)	-		(32.6)		-
Adjusted EBITDA	\$ 265.7	\$211.0	\$192.4	\$205.5	\$	874.6	\$	250.2
Adjusted EBITDA Margin	74.2%	71.1%	65.9%	66.9%		69.7%		68.5%

Adjusted Debt to EBITDA - Trailing Twelve Month	ns¹					
(in millions)	2Q20	3Q20	4Q20	1Q21		LTM
Net income allocated to common stockholders	\$ 113.3	\$ 109.6	\$ 87.1	\$ 136.8	\$	446.8
Interest expense, net	7.3	9.5	13.5	12.3		42.6
Income tax provision	43.0	53.5	35.6	55.7		187.8
Depreciation and amortization	38.0	39.5	40.5	42.0		160.0
EBITDA	\$ 201.6	\$ 212.1	\$ 176.7	\$ 246.8	\$	837.2
Non-GAAP adjustments not included in above line in	tems:					
Acquisition-related expenses	9.4	6.2	28.8	3.4		47.8
Provision for notes receivable	-	6.7	-	-		6.7
Bargain purchase gain		(32.6)	-	-		(32.6)
Adjusted EBITDA	\$ 211.0	\$ 192.4	\$ 205.5	\$ 250.2	\$	859.1
Debt at end of period		_		_	\$1	L,200.0
Debt to EBITDA						1.4x

<sup>&</sup>lt;sup>1</sup>A 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 /31/20	As of /30/20	As of /30/20	As of /31/20	As of 31/21
Cash and cash equivalents	\$ 165.2	\$ 210.1	\$ 212.7	\$ 245.4	\$ 263.3
Financial investments	43.6	176.5	22.8	92.4	95.5
Less deferred compensation plan assets	(18.4)	(20.9)	(22.3)	(24.5)	(24.0)
Less cash collected for Section 31 fees	 (53.1)	(189.4)	-	(103.0)	(70.9)
Adjusted Cash	\$ 137.3	\$ 176.3	\$ 213.2	\$ 210.3	\$ 263.9

Reconciliation of Revenue Less Cost of Revenue to Organic Net Revenue											
Net Revenue (in millions)	1Q20	1Q21	% Chg								
Revenue less cost of revenue (net revenue)	\$358.3	\$365.5	2%								
Acquisition revenue less cost of revenue	_	(26.8)									
Organic net revenue	\$358.3	\$338.7	-5%								

Reconciliation of Organic Growth for Recurring Non-transaction Net			
Revenue			
(in millions)	1Q20	1Q21	% Chg
Access and capacity fees	\$57.7	\$66.4	15%
Proprietary market data	24.2	29.7	23%
Total reported	\$81.9	\$96.1	17%
Less: acquisitions - access and capacity fees	-	(0.7)	
Less: acquisitions - market data	_	(2.4)	
Organic growth	\$81.9	\$93.0	14%



## **Cboe Global Markets**

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