




# ***THIRD QUARTER 2023 EARNINGS PRESENTATION***

**November 3, 2023**

A stylized globe graphic on the right side of the slide, composed of white lines connecting various points across the continents, set against a dark blue background with bokeh light effects.

**THE  
EXCHANGE  
FOR THE  
WORLD  
STAGE<sup>SM</sup>**

# Agenda

---

## ◆ Strategic Review

**Fredric Tomczyk**

*Chief Executive Officer*

**Dave Howson**

*Executive Vice President, Global President*

---

## ◆ Financial Review

**Jill Griebenow**

*Executive Vice President, Chief Financial Officer and Chief Accounting Officer*

---

## ◆ Questions & Answers

**Fredric Tomczyk**

**Dave Howson**

**Jill Griebenow**

**Chris Isaacson**

*Executive Vice President, Chief Operating Officer*

**John Deters**

*Executive Vice President, Chief Strategy Officer*

# Cautionary Statements Regarding Forward-Looking Information

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

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

*Some factors that could cause actual results to differ include: the loss of our right to exclusively list and trade certain index options and futures products; economic, political and market conditions; compliance with legal and regulatory obligations; price competition and consolidation in our industry; decreases in trading or clearing volumes, market data fees or a shift in the mix of products traded on our exchanges; legislative or regulatory changes or changes in tax regimes; our ability to protect our systems and communication networks from security vulnerabilities and breaches; our ability to attract and retain skilled management and other personnel, including compensation inflation; increasing competition by foreign and domestic entities; our dependence on and exposure to risk from third parties; global expansion of operations; factors that impact the quality and integrity of our indices; our ability to manage our growth and strategic acquisitions or alliances effectively; 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 minimize the risks, including our credit, counterparty, investment 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; 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; the impacts of pandemics; the accuracy of our estimates and expectations; litigation risks and other liabilities; and operating a digital asset business and clearinghouse, including the expected benefits of our Cboe Digital acquisition, cybercrime, changes in digital asset regulation, losses due to digital asset custody, and fluctuations in digital asset prices. 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, 2022 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.*

*Trademarks: Cboe®, Cboe Global Markets®, Cboe Volatility Index®, Bats®, BIDS Trading®, BZX®, BYX®, Chi-X®, EDGX®, EDGA®, Cboe Digital®, MATCHNow®, and VIX® are registered trademarks of Cboe Global Markets, Inc. and its subsidiaries. All other trademarks and service marks are the property of their respective owners.*

# ***STRATEGIC REVIEW AND OUTLOOK***

- Fredric Tomczyk, CEO
- Dave Howson, Global President

# 3Q23: Record Net Revenue and Adjusted Earnings\*

**Net revenues grew 9% Y/Y, a product of continued strong transaction and non-transaction growth**

## 15% increase in Derivatives Markets organic net revenue<sup>1</sup>

- ADV up 28% in index options and 2% in multi-listed options

## 9% increase in Data and Access Solutions organic net revenue<sup>1</sup>

- Continued expansion in transaction capabilities drove increased access and capacity units
- Comprehensive suite of data solutions across geographies and asset classes translated to strong user and unit growth

## 6% decrease in Cash and Spot Markets organic net revenue<sup>1</sup>

- FX ADNV up 8% y/y and market share up 2.4% to a record 20.2%
- Lower industry volumes in equities weighed on transaction revenues



\*Unless otherwise noted, all comparisons are third quarter 3Q23 compared to the same period in 2022

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

# Cboe's Areas of Focus

## CEO's Three Key Priorities



Sharpen Cboe's Strategic Focus



Effectively Allocate Capital



Develop Talent and Enhance Succession Planning

# Top Strategic Growth Priorities

	Key Trends	Market Opportunity	Sizing the Growth Potential	Cboe Progress
<b>Derivatives</b>	<ul style="list-style-type: none"> <li>◆ Globalization</li> <li>◆ Access to multi-asset trading capabilities</li> <li>◆ Rise of retail</li> <li>◆ Demand for data</li> <li>◆ ESG</li> </ul>	<ul style="list-style-type: none"> <li>◆ Targeting &gt;150mn retail accounts with smaller &amp; more flexible products<sup>2</sup></li> <li>◆ Pan-European equity and index options market is ~1/8 the size of U.S. market</li> <li>◆ Expand expirations &amp; trading hours for prop products toolkit</li> <li>◆ Proprietary Benchmarks</li> </ul>	<ul style="list-style-type: none"> <li>◆ Derivatives initiatives expected to contribute 2-4% of total organic net revenue growth over the medium term<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>◆ Derivatives delivered 15% y/y organic net revenue growth<sup>5</sup> in 3Q23</li> <li>◆ Record SPX and overall index ADV in 3Q23</li> <li>◆ ODTE SPX trading made up 48% of 3Q23 SPX activity</li> <li>◆ Launched options on futures functionality on CFE</li> <li>◆ Launched Dispersion and Credit VIX indices</li> </ul>
<b>Data and Access Solutions</b>	<ul style="list-style-type: none"> <li>◆ Globalization</li> <li>◆ Access to multi-asset trading capabilities</li> <li>◆ Rise of retail</li> <li>◆ Demand for data</li> <li>◆ ESG</li> </ul>	<ul style="list-style-type: none"> <li>◆ \$36bn annual spend on financial market data<sup>1</sup></li> <li>◆ \$5bn annual spend in indices<sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>◆ Targeting organic net revenue growth of 7-10% annually over the medium term<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>◆ Delivered 9% organic net revenue growth<sup>5</sup> in 3Q23</li> <li>◆ DnA organic net revenue growth target for 2023<sup>3</sup> is 7-10%</li> </ul>
<b>Cboe Digital</b>	<ul style="list-style-type: none"> <li>◆ Globalization</li> <li>◆ Access to multi-asset trading capabilities</li> <li>◆ Rise of retail</li> <li>◆ Demand for data</li> </ul>	<ul style="list-style-type: none"> <li>◆ Demand for a trusted, transparent and regulated digital asset marketplace</li> <li>◆ Increasing adoption and investment from traditional finance</li> </ul>	<ul style="list-style-type: none"> <li>◆ Expecting strong market CAGR over next 3-5 years<sup>4</sup></li> </ul>	<ul style="list-style-type: none"> <li>◆ Continued onboarding of syndication partners and liquidity providers</li> <li>◆ Working towards launch of margin futures in 1Q24<sup>6</sup></li> </ul>

**Medium-Term Organic Total Net Revenue Growth Rate of 5-7%<sup>3</sup> Annually**  
**2023 Targeted Organic Total Net Revenue Growth Rate of 7-9%<sup>3</sup>**

<sup>1</sup>Based on Burton-Taylor research reports

<sup>2</sup>Estimate based on 2021 analysis of top 4 retail brokers' platforms

<sup>3</sup>See appendix for "Non-GAAP Information" for disclosures on growth targets; all medium-term guidance as of 2/4/22, all 2023 guidance as of 11/3/23

<sup>4</sup>Based on publicly available information and Cboe estimates

<sup>5</sup>See appendix for "Non-GAAP Information."

<sup>6</sup> Subject to regulatory approvals

# Expanding the Toolkit

*Solutions for every use case, from the smallest retail client to the most complicated financial institution*

## Any Day

**Daily expirations for maximum precision in risk management:**

- ODTE ADV grew 33% y/y in 3Q23, comprising 48% of SPX volume
- Oct 2023 ODTE ADV was up 33% y/y, making up 48% of overall SPX volume
- Nine of Cboe's Top 10 SPX volume days have occurred in 2023, Six in Oct. 2023

## Any Time

**Prop products available 24 hours a day, 5 days a week:**

- SPX GTH ADV up 95% y/y in 3Q23
- VIX GTH ADV up 10% y/y in 3Q23

## Every Customer

**Retail to institutional, the global leader in risk management:**

- A product for every customer, paired with a comprehensive suite of pre-trade, at-trade and post-trade services
- Complemented by a suite of proprietary data products





# Derivatives Product Innovation Builds on Strong Foundation



## Proprietary Benchmark Indices

- Cboe S&P 500 Dispersion Index (DSPX)
- Cboe/CDX NA High Yield 1-Month Volatility Index (ticker symbol: VIXHY)
- Cboe/CDX NA Investment Grade 1-Month Volatility Index (ticker symbol: VIXIG)
- Cboe/iTraxx Europe Main 1-Month Volatility Index (ticker symbol: VIXIE)
- Cboe/iTraxx Europe Crossover 1-Month Volatility Index (ticker symbol: VIXXO)

## Writing XSP vs. Long SPY ETF Position<sup>1</sup>

- XSP cash settlement means no disruption in long SPY position
- No early assignment with XSP • Potential 60/40 tax treatment with XSP

## 1-Day VIX

- Cboe 1-Day Volatility Index (VIX1D) seeks to measure the expected volatility of the S&P 500 Index over the current trading day
- The non-tradable 1-day volatility index is designed to provide real-time information about the expected volatility of the current trading day (today)

### What's Expected Over The Near Term<sup>2</sup>

- CEDX Single Stock Options Operational Readiness
- XSP Covered Calls

<sup>1</sup> Subject to regulatory approvals

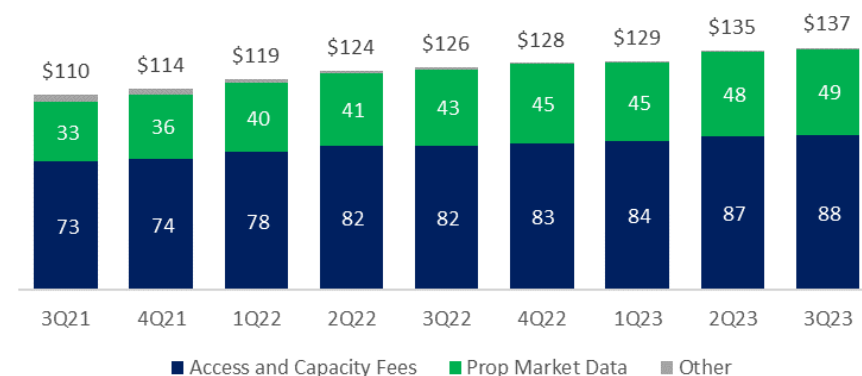
<sup>2</sup> Certain potential initiatives and timing are subject to regulatory approval and vendor/customer readiness

# Data and Access Solutions: Driving Durable Growth

## DnA growth trends have been strong:

- ◆ Averaged 14% year-over-year quarterly growth in total DnA gross revenues since 3Q21
- ◆ Anticipate new opportunities across the data and access solutions ecosystem will help drive future growth
  - ◆ Global indices
  - ◆ Prop data feeds
  - ◆ Demand for Australian data and access post integration

Data & Access Solutions Gross Revenue  
(in millions)



## Many Avenues of Potential Future Growth

### Distribution as a Service

#### *Distributing 3<sup>rd</sup> party data across the Cboe network*

- ❖ Strengthens Cboe's streaming data services, Cboe Global Indices Feed, of more than 400 real-time indices
- ❖ Leverages global footprint and extensive list of industry vendors and partners
- ❖ 24x7 distribution service with a quick to market contributor API, leading to the partnership with Morningstar

### Packaging our Global Content

#### *Providing a cohesive, low-cost global data offering*

- ❖ Develop proprietary benchmark products
- ❖ Leverages Cboe's market-leading position in multiple asset classes around the globe
- ❖ Reduces friction through a consistent and uniform data feed, across geographies
- ❖ Ability to price competitively against incumbents
- ❖ Expanded Cboe One functionality
- ❖ Disseminating real-time cryptocurrency values sourced from the Cboe Digital Exchange spot market over the Cboe Global Indices feed

### Expanding Global Data Distribution

#### *Improving global access through technology*

- ❖ Launched Cboe Global Cloud in Nov. 2021, added European data to Cboe Global Cloud
- ❖ Lower connectivity costs to obtain data in key locations globally
- ❖ Greater ability for regional data vendors to redistribute Cboe data
- ❖ Recent integration in Australia driving data sales

# Building an Unrivaled Global Derivatives and Securities Network

## North America

- ◆ Monthly high ADV of more than 3.9mn index options traded in Sept 2023
- ◆ Quarterly record for index and SPX options ADV in 3Q23 of 3.7mn and 2.9mn contracts, respectively.
- ◆ SPX and VIX 3Q23 global trading hours ADV up 95% and 10% vs. 3Q22, respectively

## Europe

- ◆ In 3Q23, Cboe BIDS Europe remained the largest European block trading platform<sup>1</sup>
- ◆ Cboe Clear Europe market share<sup>2</sup> grew to 34% in 3Q23 from 33% in 3Q22

## Asia Pacific

- ◆ Completed Cboe Australia tech migration and BIDS launch in March 2023
- ◆ On track for Cboe Japan tech migration completion and BIDS launch scheduled for Nov 2023<sup>3</sup>

## Global FX

- ◆ Grew net revenues 6% y/y in 3Q23
- ◆ Expanded market share to a record 20.2% in 3Q23 from 17.8% in 3Q22

Uniform Data, Access & Listings

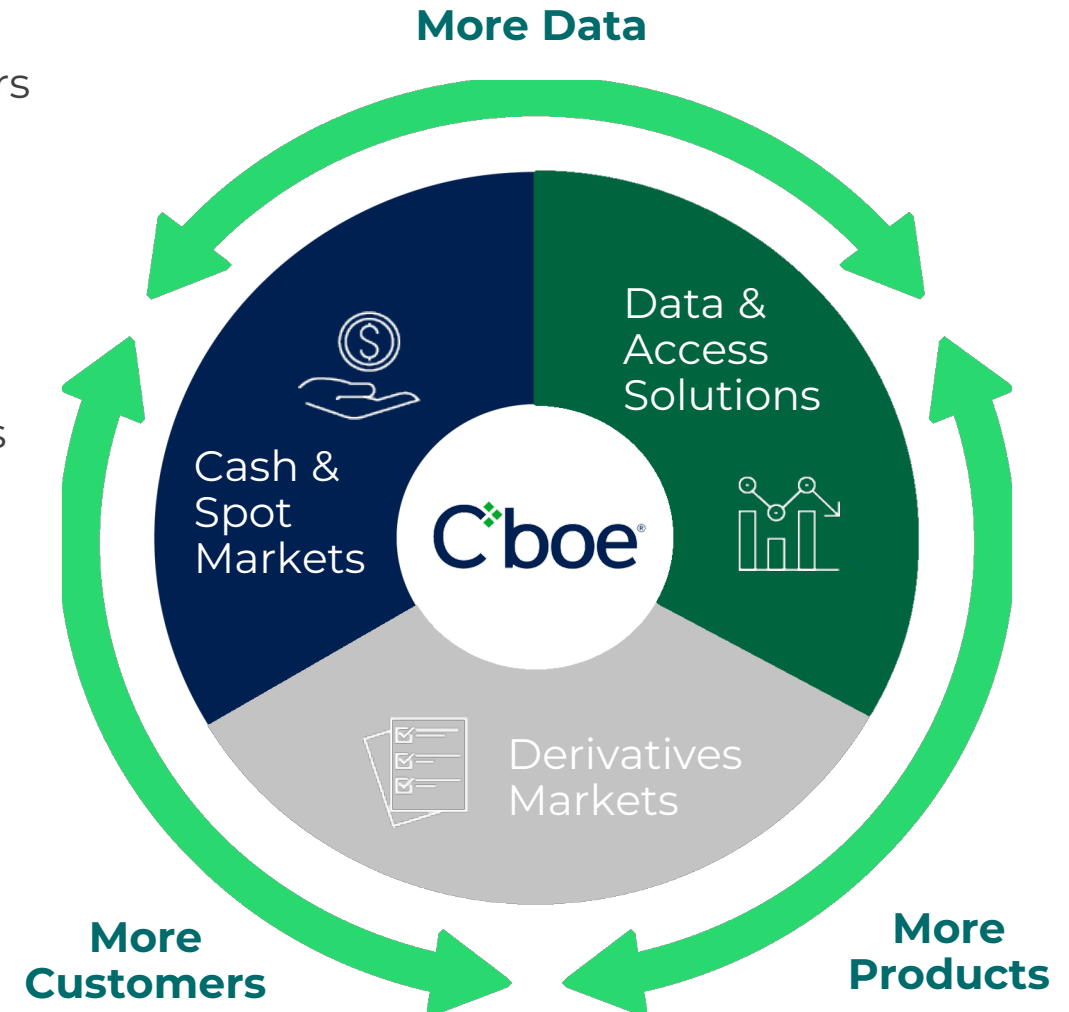
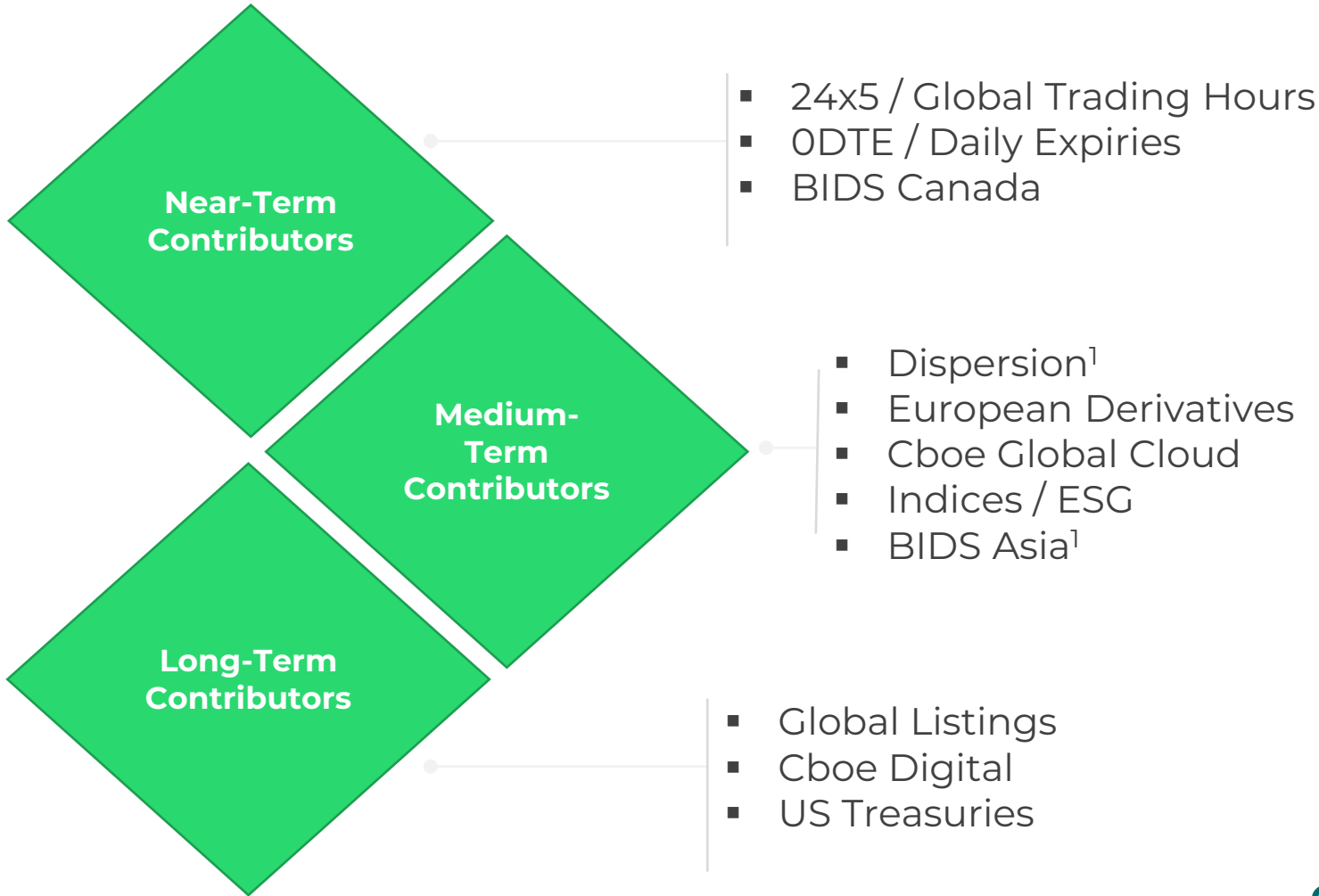
<sup>1</sup>Source: big xyt

<sup>2</sup>European market share - European market share represents Cboe Clear Europe's client volume cleared divided by the total volume of publicly reported European venues

<sup>3</sup>Subject to regulatory approval

Note: All commentary as of 3Q23

# Harvesting Investments Across Seasons to Drive Consistent Growth



<sup>1</sup>Subject to regulatory approvals.

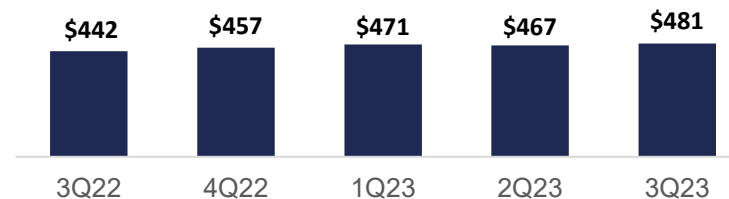
# ***FINANCIAL OVERVIEW AND GUIDANCE***

➤ Jill Griebenow, EVP, CFO and CAO

# 3Q23 Financial Summary

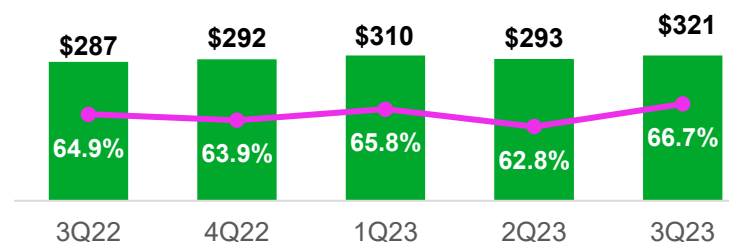
**\$481mn**  
Net Revenue  
**+9% Y/Y**

Net Revenue (in millions)



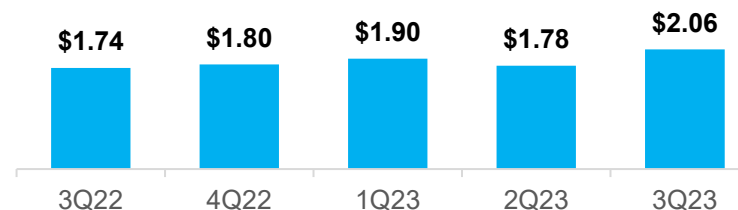
**\$321mn**  
Adjusted EBITDA<sup>1</sup>  
**+12% Y/Y**  
(Adjusted EBITDA margin<sup>1</sup> of 66.7%)

Adjusted EBITDA<sup>1</sup> (in millions)



**\$2.06**  
Adjusted Diluted EPS<sup>1</sup>  
**+18% Y/Y**

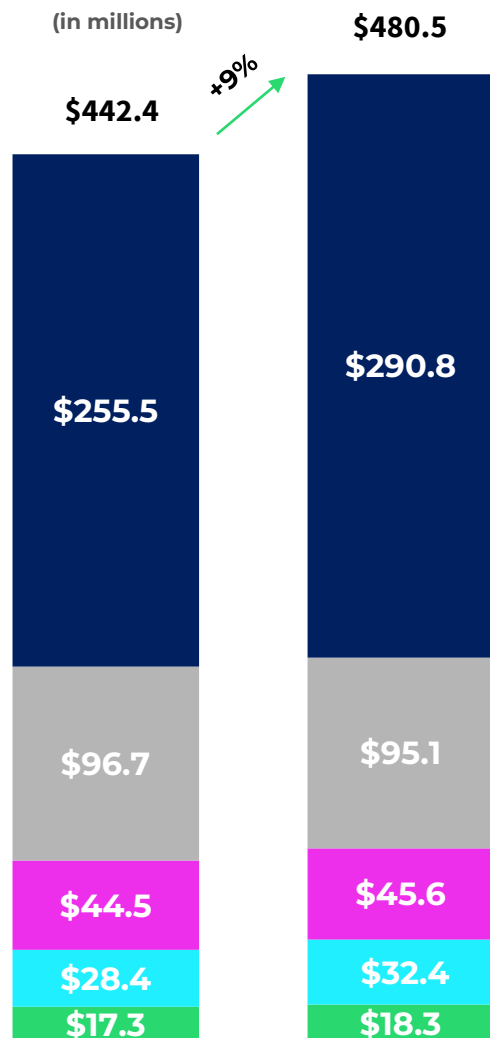
Adjusted EPS<sup>1</sup>



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

# 3Q23 Net Revenue by Segment<sup>1</sup> and Key Drivers

## Net Revenue (in millions)



+9%

Segment	3Q23 Key Drivers	
	Net Rev. Growth	Key Drivers
<b>Options</b> <i>CBOE - C2 - BZX - EDGX</i>	<b>+14%</b>	<ul style="list-style-type: none"> <li>Higher index options trading volume and RPC</li> <li>Strong growth in access and capacity and proprietary market data fees</li> </ul>
<b>N.A. Equities</b> <i>BYX - BZX - EDGA - EDGX - BIDS - MATCHNow - Cboe Canada</i>	<b>(2%)</b>	<ul style="list-style-type: none"> <li>Lower U.S. equity trading volumes</li> <li>Solid growth in proprietary market data and access and capacity fees</li> </ul>
<b>Europe and Asia Pacific</b> <i>Europe Lit &amp; Dark - BXTR - BIDS Europe - Cboe Clear Europe - EU Derivs - Cboe Asia Pacific</i>	<b>+2%</b>	<ul style="list-style-type: none"> <li>Strong non-transaction growth</li> <li>Lower industry volumes across regions</li> <li>Growth in Cboe Clear Europe market share</li> </ul>
<b>Futures</b> <i>CFE</i>	<b>+14%</b>	<ul style="list-style-type: none"> <li>Higher trading activity, access and capacity fees, and market data</li> </ul>
<b>Global FX</b> <i>Spot - Forwards - SEF</i>	<b>+6%</b>	<ul style="list-style-type: none"> <li>Strong volumes and record market share trends</li> </ul>

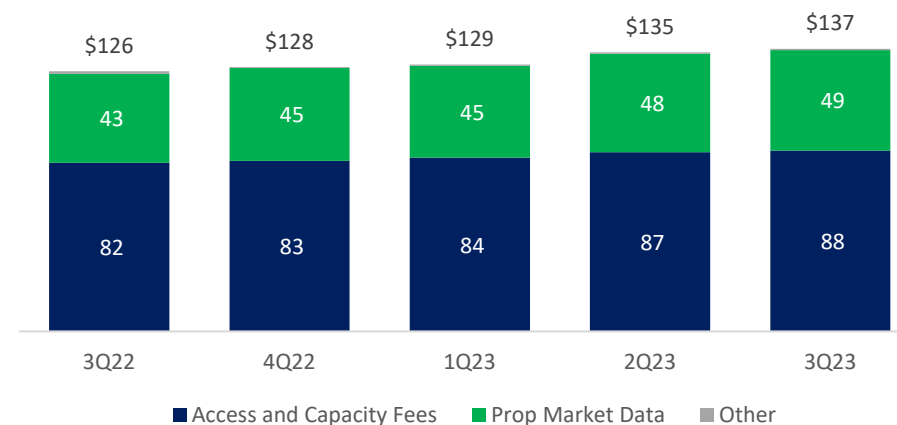
<sup>1</sup>The Digital segment is not shown as results were not material (negative \$1.7mn in 3Q23).

# Grew Data and Access Solutions Net Revenue 9% YoY Organically<sup>1</sup>

**Reaffirmed targeted 2023 organic net revenue growth rate<sup>1</sup> for Data and Access Solutions business of 7-10%, in line with our medium-term guidance<sup>2</sup>**

- ❖ 3Q23 Data and Access Solutions net revenue of \$135 million up 9% YoY<sup>1</sup> organically
- ❖ 2023 outlook for Data and Access Solutions organic net revenue<sup>1</sup> within medium-term guided range
  - ◆ Reaffirmed 2023 annual organic net revenue growth target of 7-10%
- ❖ Anticipate new opportunities across the data and access solutions ecosystem will help drive future growth
  - ◆ Prop data feeds
  - ◆ Cboe Global Indices
  - ◆ Demand for Australian data and access post integration
- ❖ An estimated 51% of organic access and capacity fee revenue growth and 67% of organic market data growth in 3Q23 was driven by additional subscriptions or incremental units

**Data & Access Solutions Gross Revenue**  
(in millions)



<sup>1</sup> See appendix for "Non-GAAP Information" including disclosure on growth targets.

<sup>2</sup> 2023 Guidance is as of Nov 3, 2023, medium-term guidance as of Feb 4, 2022.



# 3Q23 Adjusted Operating Expenses<sup>1</sup> Up 4%, Driven by Technology, Professional Services, and Travel and Promotional

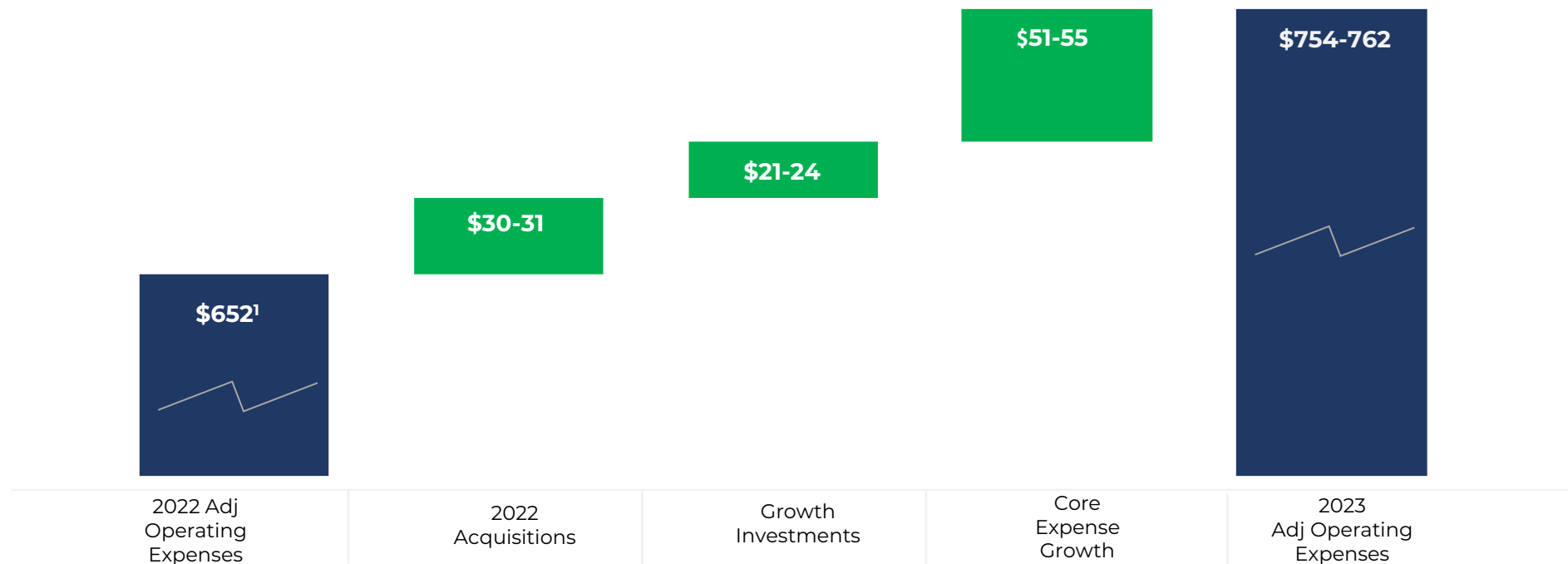
- ❖ 3Q23 expense increase driven by higher technology support services, professional fees and outside services, and travel and promotional
  - ❖ \$6 million increase in technology support services,
  - ❖ \$4 million increase in professional fees and outside services,
  - ❖ \$3 million increase in travel and promotional fees
- ❖ Compensation and benefits declined \$6 million, due to a \$10 million benefit from executive changes

Adjusted Operating Expenses <sup>1</sup> (in millions)	3Q23	3Q22	\$ Chg	% Chg
Compensation and benefits	\$96.1	\$102.0	(\$5.9)	-6%
Depreciation and amortization <sup>1</sup>	10.6	10.6	-	0%
Technology support services	25.0	19.1	5.9	31%
Professional fees and outside services	24.4	20.4	4.0	20%
Travel and promotional	8.9	6.1	2.8	46%
Facilities costs	6.2	6.2	-	0%
Other expenses	9.1	8.4	0.7	8%
<b>Total<sup>1</sup></b>	<b>\$180.3</b>	<b>\$172.8</b>	<b>\$7.5</b>	<b>4%</b>

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

# Adjusted Operating Expense Guidance for 2023<sup>1</sup>

(\$ in millions)



Growth Rate Composition	Growth Investments	Core Growth	Total Organic Growth	Inorganic Growth	Total Growth
2022	4.5%	8.9%	13.4%	9.4%	22.8%
2023	3.4%	8.1%	11.6%	4.7%	16.3%

<sup>1</sup>Specific quantifications of the amounts that would be required to reconcile the company's organic and inorganic 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.

# Updated 2023 Guidance

2023 Full-Year Guidance <sup>1,2</sup> (\$ in millions)	2023 Guidance as of November 3, 2023	2023 Guidance as of August 4, 2023	2023 Guidance as of May 5, 2023	2023 Guidance as of Feb. 3, 2023	2022 Actual <sup>3</sup>
<b>Data and Access Solutions<sup>4</sup> organic net revenue growth rate</b>	7 to 10%	7 to 10%	7 to 10%	7 to 10%	12%
<b>Net revenue growth from acquisitions held &lt;12 months<sup>5</sup></b>	0.4%	0.4%	0.5%	0.5%	2%
<b>Total organic net revenue growth rate</b>	7 to 9%	7 to 9%	7 to 9%	7 to 9%	16%
<b>Adjusted operating expenses<sup>6</sup></b>	\$754 to 762	\$766 to 774	\$769 to 779	\$769 to 779	\$652
<b>Other income (expense) benefit from minority investments</b>	\$38 to 44	\$34 to 40	\$27 to 33	\$27 to 33	\$7
<b>Depreciation and amortization</b> (excluding amortization of acquired intangible assets)	\$40 to 44	\$40 to 44	\$48 to 52	\$48 to 52	\$43
<b>Effective tax rate on adjusted earnings</b>	27.5 to 29.5%	28.5 to 30.5%	28.5 to 30.5%	28.5 to 30.5%	28.4%
<b>Capital expenditures</b>	\$42 to 48	\$48 to 54	\$60 to 66	\$60 to 66	\$60

<sup>1</sup>Specific quantifications of the amounts that would be required to reconcile the company's organic and inorganic 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 November 3, 2023, and investment in launching pan-European trading and clearing.

<sup>3</sup>See "Non-GAAP Information" in the appendix for reconciliations of 2022 actual.

<sup>4</sup>Represents Access and Capacity Fees, Proprietary Market Data and revenue generated from licensing and indices related revenue reported in "Other Revenue."

<sup>5</sup>Based on Actuals through 3Q23.

<sup>6</sup>Adjusted operating expenses exclude acquisition-related expenses and amortization of acquired intangible assets. The amortization of acquired intangible assets was \$124 million for 2022 and is now expected to be \$116 million for 2023. Adjustments included in the non-GAAP reconciliation.

# 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
  - ◆ Inorganic opportunities to facilitate growth strategy
  - ◆ Consistent dividend payments and growth
  - ◆ Opportunistic share repurchases
- ❖ Returned \$58.5 million in capital through dividends; \$389.8mn of availability remaining under share repurchase authorizations following \$250 million increase in authorization announced on October 26, 2023

Debt Outstanding (\$ in millions)	Sept. 30, 2022	Dec. 31, 2022	Mar. 31, 2023	June 30, 2023	Sept. 30, 2023
3.650% Senior Notes (10Y; Due 2027)	\$650	\$650	\$650	\$650	\$650
1.625% Senior Notes (10Y; Due 2030)	500	500	500	500	500
3.000% Senior Notes (10Y; Due 2032)	300	300	300	300	300
Revolving Credit Agreement	-	-	-	-	-
Term Loan Facility	425	305	305	165	75
EuroCCP Credit Facility	-	-	-	-	-
<b>Total Debt (Gross)</b>	<b>\$1,875</b>	<b>\$1,755</b>	<b>\$1,755</b>	<b>\$1,615</b>	<b>\$1,525</b>
Debt to Adjusted EBITDA TTM <sup>1</sup>	1.7x	1.5x	1.5x	1.4x	1.3x
Adjusted Cash & Financial Investments <sup>1</sup>	\$355	\$403	\$435	\$403	\$404
Share Repurchases	\$0.0	\$15.3	\$70.0	\$8.1	\$0.0
Dividends Paid	53.4	53.4	53.3	53.2	58.5
<b>Total Capital Returned to Shareholders</b>	<b>\$53.4</b>	<b>\$68.7</b>	<b>\$123.3</b>	<b>\$61.3</b>	<b>\$58.5</b>

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

# Positioned to Innovate, Integrate and Grow to Create Value



**Innovate** to capture growing demand for trading products and data services, globally

- ◆ Increase access to data products and trading solutions
- ◆ Unrivaled transaction capabilities
- ◆ Global presence in highest value markets



**Integrate** across ecosystem to increase efficiency and better serve customers

- ◆ Industry-leading technology
- ◆ Non-siloed integrations expand ecosystem & fuels flywheel
- ◆ Strong cash flow generation and operating efficiency



**Grow** by accessing untapped addressable markets

- ◆ Proven organic investment and M&A track record
- ◆ Expands and diversifies revenue opportunity set

# Q&A

# Appendix

# Options 3Q23 Net Revenue Up 14%, Reflecting Y/Y Increase in ADV and Recurring Non-transaction Revenue

Options Selected Revenue Data (\$ in millions)	3Q23	3Q22	Chg
<b>Net Revenue</b>	<b>\$290.8</b>	<b>\$255.5</b>	<b>14%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$248.3</b>	<b>\$210.1</b>	<b>18%</b>
Index options	210.9	168.0	26%
Multi-listed options	37.4	42.1	-11%
<b>Access and capacity</b>	<b>\$40.4</b>	<b>\$38.6</b>	<b>5%</b>
<b>Market data</b>	<b>\$31.4</b>	<b>\$26.4</b>	<b>19%</b>
Market data – proprietary	22.1	18.4	20%
Market data – industry	9.3	8.0	16%
Options Key Operating Stats	3Q23	3Q22	Chg
<b>Total market share</b>	<b>33.6%</b>	<b>33.8%</b>	-0.2pts
Multi-listed options	27.4%	28.6%	-1.2pts
<b>Total ADV (in thousands)</b>	<b>14,592</b>	<b>13,521</b>	<b>8%</b>
Index options	3,743	2,929	28%
Multi-listed options	10,848	10,592	2%
<b>Total RPC</b>	<b>\$0.270</b>	<b>\$0.242</b>	<b>12%</b>
Index options	\$0.894	\$0.896	0%
Multi-listed options	\$0.055	\$0.061	-11%

- ◆ Higher transaction fees from index options given stronger volumes and RPC
- ◆ Access and capacity fees plus proprietary market data were up a combined 10%

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



# North American (N.A.) Equities 3Q23 Net Revenue down 2% Given N.A. Equities Industry Volumes and Market Share

<b>N.A. Equities Selected Revenue Data</b> (\$ in millions)	<b>3Q23</b>	<b>3Q22</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$95.1</b>	<b>\$96.7</b>	<b>-2%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$29.0</b>	<b>\$32.5</b>	<b>-11%</b>
<b>Market data</b>	<b>\$33.4</b>	<b>\$34.0</b>	<b>-2%</b>
Market data - proprietary	14.7	14.1	4%
Market data - SIP <sup>2</sup>	18.7	19.9	-6%
<b>Access and capacity fees</b>	<b>\$29.6</b>	<b>\$27.8</b>	<b>6%</b>
<b>N.A. Equities Key Operating Stats</b>	<b>3Q23</b>	<b>3Q22</b>	<b>Chg</b>
<b>U.S. Equities Exchange</b> (shares in billions)			
Total Market Share	12.7%	13.3%	-0.6pts
Market ADV	10.4	10.9	-4%
ADV (matched shares)	1.3	1.5	-9%
Net capture (per 100 touched shares)	\$0.022	\$0.023	-5%
<b>U.S. Equities Off-Exchange</b> (shares in millions)			
Off-Exchange ATS Block Market Share % <sup>3</sup>	20.1%	21.7%	-1.6pts
ADV (matched shares)	71.4	80.1	-11%
Net capture (per 100 touched shares)	\$0.129	\$0.114	13%
<b>Canadian Equities</b> (shares in millions)			
Total Market Share Percent	15.2%	12.2%	3.0pts
ADV (matched shares, in millions)	127.5	113.2	13%
Net capture (per 10,000 touched shares, in CAD)	CAD 3.976	CAD 4.316	-8%

- ◆ U.S. equities transaction and clearing fees were impacted by lower industry volumes and market share
- ◆ Access and capacity fees were up 6% as compared to 3Q22
- ◆ Proprietary market data grew 4% as compared to 3Q22

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

<sup>2</sup>Includes SIP audit recoveries of \$2.0 million in 3Q23 and \$1.0 million in 3Q22.

<sup>3</sup>Represents market share for 3Q22 through Sept 2023.

# Europe and APAC Net Revenue up 2% for 3Q23, Driven by Non-Transaction Growth

Europe and APAC Selected Revenue Data (\$ in millions)	3Q23	3Q22	Chg
<b>Net Revenue</b>	<b>\$45.6</b>	<b>\$44.5</b>	<b>2%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$20.9</b>	<b>\$23.5</b>	<b>-11%</b>
Net transaction fees	14.4	16.6	-13%
Net clearing fees	6.5	6.9	-6%
<b>Market data</b>	<b>\$9.2</b>	<b>\$8.4</b>	<b>10%</b>
<b>Access and capacity fees</b>	<b>\$9.3</b>	<b>\$8.1</b>	<b>15%</b>
<b>Other<sup>3</sup></b>	<b>\$6.2</b>	<b>\$4.5</b>	<b>38%</b>
Europe Key Operating Stats	3Q23	3Q22	Chg
<b>European Equities:</b>			
Total market share	23.2%	24.6%	-1.4pts
Market ADNV (in billions)	€ 34.3	€ 39.2	-13%
Net capture (per matched notional value, in bps)	0.232	0.229	1%
<b>Cboe Clear Europe</b>			
Trades cleared (in millions)	255.2	343.1	-26%
Fee per trade cleared	€ 0.010	€ 0.008	26%
Net settlement volume (in millions)	2.5	2.5	0%
Net fee per settlement	€ 0.927	€ 0.902	3%
European equities market share cleared	33.8%	33.2%	0.6pts
APAC Key Operating Stats	3Q23	3Q22	Chg
<b>Australian Equities:</b>			
Total market share	17.9%	16.7%	1.2pts
ADNV (AUD in billions)	\$0.7	\$0.7	0%
Net capture (per matched notional value)	0.155	0.168	-8%
<b>Japanese Equities:</b>			
Total market share	3.3%	4.4%	-1.1pts
ADNV (JYP in billions)	¥148.7	¥160.6	-7%
Net capture (per matched notional value)	0.257	0.259	-1%

- ◆ Market data, access fees and other were up a combined 18% in 3Q23
- ◆ In 3Q23, Cboe BIDS Europe was the largest block trading platform<sup>2</sup>

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

<sup>2</sup>Source: big xyt

<sup>3</sup>Primarily includes trade reporting and Cboe Clear Europe net interest income

# Futures 3Q23 Net Revenue up 14%, Higher Volumes, Access and Capacity Fees, and Market Data

<b>Futures Selected Revenue Data</b> (\$ in millions)	<b>3Q23</b>	<b>3Q22</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$32.4</b>	<b>\$28.4</b>	<b>14%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$25.4</b>	<b>\$22.3</b>	<b>14%</b>
<b>Access and capacity</b>	<b>\$5.7</b>	<b>\$5.0</b>	<b>14%</b>
<b>Market data</b>	<b>\$2.2</b>	<b>\$1.9</b>	<b>16%</b>
<b>Futures Key Operating Stats</b> (in thousands, except RPC)	<b>3Q23</b>	<b>3Q22</b>	<b>Chg</b>
Total ADV	230.0	205.0	12%
Total RPC	\$1.753	\$1.700	3%

- ◆ Higher volumes drove an increase in net transaction and clearing fees
- ◆ Access and capacity and market data saw strong year-over-year improvement during the quarter

<sup>1</sup>See appendix for “Non-GAAP Information.”

# Global FX Net 3Q23 Revenue Up 6%

FX Selected Revenue Data (\$ in millions)	3Q23	3Q22	Chg
<b>Net Revenue</b>	<b>\$18.3</b>	<b>\$17.3</b>	<b>6%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>15.3</b>	<b>14.6</b>	<b>5%</b>
<b>Non-transaction revenue</b>	<b>3.0</b>	<b>2.7</b>	<b>11%</b>
FX Key Operating Stats	3Q23	3Q22	Chg
Market share <sup>2</sup>	20.2%	17.8%	2.4pts
Average Daily Notional Value (\$ in billions)	\$44.4	\$41.3	8%
Net capture (per one million dollars traded)	\$2.64	\$2.69	-2%

- ◆ Revenue increase driven by higher volumes and continued market share gains
- ◆ Market share hit a record at 20.2% for the quarter

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

<sup>2</sup>Market share represents Cboe FX volume divided by the total volume of publicly reporting spot FX venues (Cboe FX, EBS, Refinitiv, and FastMatch).

# Third Quarter 2023 Financial Overview

<b>Adjusted Financial Results<sup>1</sup></b> (\$ in millions, except per share)	<b>3Q23</b>	<b>3Q22</b>	<b>% Chg</b>
Net Revenue <sup>2</sup>	\$480.5	\$442.4	9%
Adjusted Operating Expenses <sup>1</sup>	\$180.3	\$172.8	4%
Adjusted Operating Income <sup>1</sup>	\$300.2	\$269.6	11%
<i>Adjusted Operating Margin<sup>1</sup></i>	62.5%	60.9%	1.6pts
Adjusted Net Income Allocated to Common Stockholders <sup>1</sup>	\$218.9	\$185.2	18%
Adjusted Diluted EPS <sup>1</sup>	\$2.06	\$1.74	18%
Adjusted EBITDA <sup>1</sup>	\$320.5	\$287.1	12%
<i>Adjusted EBITDA Margin<sup>1</sup></i>	66.7%	64.9%	1.8pts

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

<sup>2</sup>Net revenue represents revenue less cost of revenues.

# Net Revenue Detail

Net Revenue <sup>1</sup> (in millions)	3Q23	3Q22	% Chg
Cash and Spot Markets	\$92.1	\$98.1	-6%
Data and Access Solutions	134.7	123.9	9%
Derivatives Markets	253.7	220.4	15%
<b>Total</b>	<b>\$480.5</b>	<b>\$442.4</b>	<b>9%</b>

- ◆ Derivatives Markets driven by strong transaction and clearing fees
- ◆ Data and Access Solutions benefited from strong new subscription / unit growth

<sup>1</sup>Net revenue represents revenue less cost of revenues

# Expense Bridge Summary

## Prioritizing investments to:

- ◆ Broaden geographic footprint (Cboe APAC, Euro Derivs)
- ◆ Leverage core capabilities (Derivatives toolkit) and
- ◆ Expand access (Derivatives, Cloud)

Adjusted Operating Expenses Bridge for 2021 to 2022				
(\$ in millions)				
2021 Adjusted Operating Expenses <sup>1</sup>	\$	531	Actual	Contribution to y/y growth
2021 Acquisitions			26	4.9%
Core			37	7.0%
Revenue Investments			24	4.5%
Infrastructure Investments			10	1.9%
ErisX and Neo			24	4.5%
			<b>121</b>	<b>22.8%</b>
<b>Total</b>			<b>652</b>	<b>--</b>

Adjusted Operating Expenses Bridge for 2022 to 2023				
(\$ in millions)				
2022 Adjusted Operating Expenses <sup>1</sup>	\$	652	*Guidance Range	Contribution to y/y growth
2022 Acquisitions			30   31	4.7%
Core <sup>2</sup>			51   55	8.1%
Growth Investments			21   24	3.4%
			<b>102   110</b>	<b>16.3%</b>
<b>2023 Guidance as of November 3, 2023</b>			<b>754   762</b>	

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

<sup>2</sup> Core includes CAT charges and Infrastructure Investments

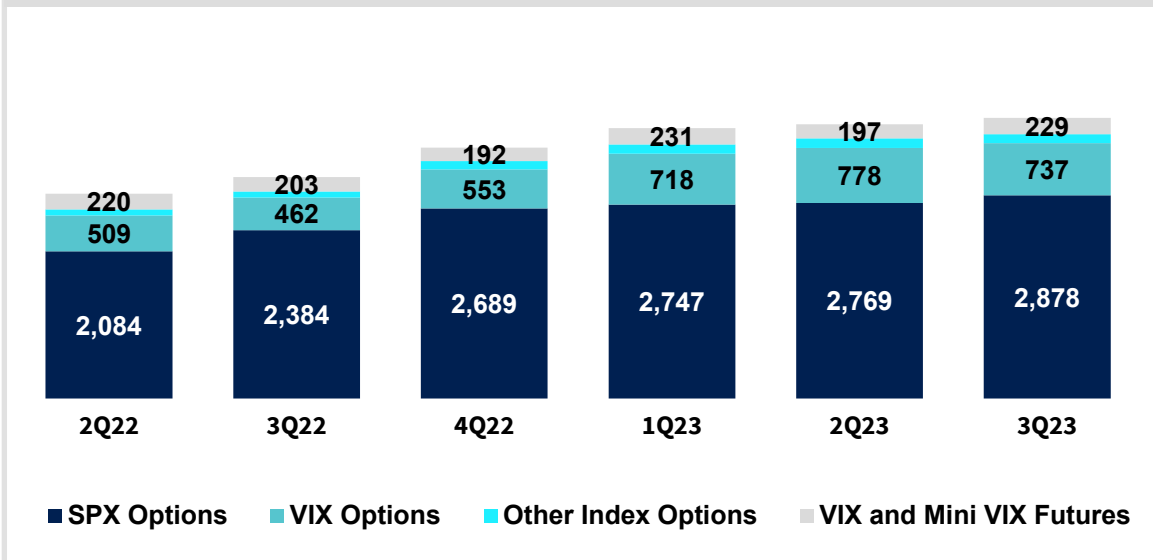
\*Totals may not foot due to rounding; % PT Contribution to y/y growth assumes midpoint for 2023

# Focused on Growing the Proprietary Index Suite

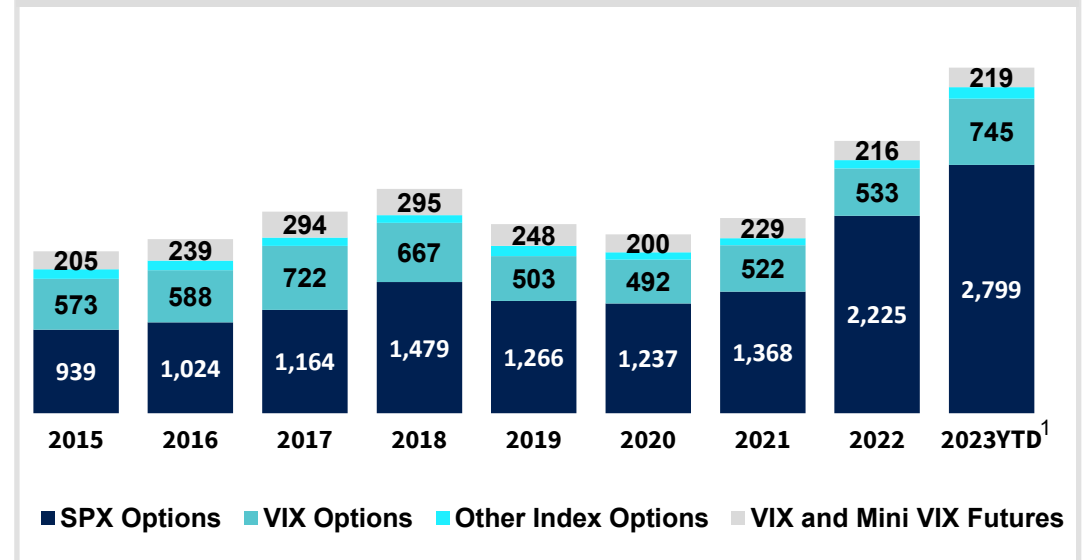
Index customers at Cboe typically use the toolkit of Cboe proprietary products interchangeably or in tandem, depending on market conditions

- ◆ Plan to further penetrate existing markets with an emphasis on education, targeting key market segments and geographies
  - ◆ Expanded global trading hours for SPX and VIX options in November 2021, XSP options in December 2022
  - ◆ Launched Nanos by Cboe in March 2022
  - ◆ Launched Tuesday-expiring SPX Weeklys April 2022, Thursday expirations on May 2022
  - ◆ Launched options on IBHY and IBIG futures in July 2023

**Quarterly ADV for Index Options and VIX Futures**  
(in thousands)



**Annual ADV for Index Options and VIX Futures**  
(in thousands)

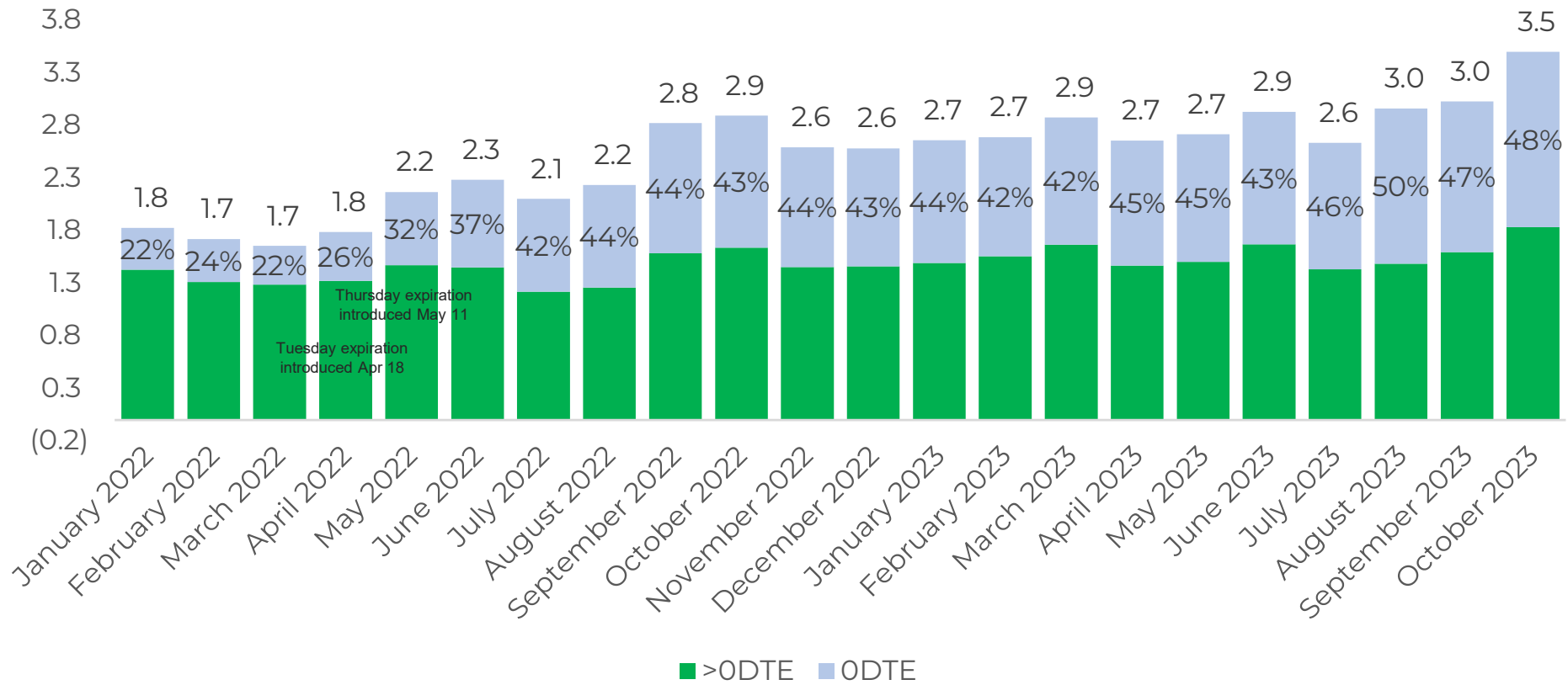


<sup>1</sup> 2023 YTD through Sept 2023









# ODTE Adding Stability to SPX Volumes

## SPX Volume by Expiration



In millions of contracts

# M&A Integration Translating to Long-Term Growth Opportunities

Transaction	Strategic Rationale	Integration Progress	Integration & Planned Organic Growth Focus <sup>1</sup>
<b>FT Options Hanweck Trade Alert</b>	<ul style="list-style-type: none"> <li>- Enhanced Proprietary Products</li> <li>- Foundation for risk management and analytic services</li> </ul>	 <p><b>Touches:</b> <input type="checkbox"/> Cash <input checked="" type="checkbox"/> DnA <input checked="" type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- Hanweck enhanced ticker plant infrastructure supporting distribution of data to our products</li> <li>- Created Cboe Theoretical Options pricing service</li> <li>- <b>Harmonize client front-ends into cohesive offering</b></li> </ul>
<b>EuroCCP</b>	<ul style="list-style-type: none"> <li>- Asset Class Diversity</li> <li>- Clearing Capability</li> </ul>	 <p><b>Touches:</b> <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> DnA <input checked="" type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- Reinforced clearinghouse</li> <li>- Added derivatives clearing</li> <li>- Launched Euro derivatives</li> <li>- Extended clearing network</li> <li>- <b>Expand tradable products (Volatility, Index, ETFs, retail)</b></li> </ul>
<b>MATCHNow NEO</b>	<ul style="list-style-type: none"> <li>- Geographic Diversity</li> <li>- Market data content and network</li> </ul>	 <p><b>Touches:</b> <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> DnA <input type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- Migrated MATCHNow to Cboe technology</li> <li>- Launched Cboe BIDS Canada</li> <li>- <b>Add new order types</b></li> <li>- <b>Integrate NEO and migrate to Cboe platform</b></li> <li>- <b>Expand global listings</b></li> </ul>
<b>BIDS</b>	<ul style="list-style-type: none"> <li>- Geographic Diversity</li> <li>- Asset Class Diversity</li> <li>- Leverage Existing Network</li> </ul>	 <p><b>Touches:</b> <input checked="" type="checkbox"/> Cash <input type="checkbox"/> DnA <input type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- Consistently integrated across the U.S., Europe and Canada</li> <li>- Expanded into Australia</li> <li>- <b>Expand into Japan</b></li> </ul>
<b>Chi-X Asia Pacific</b>	<ul style="list-style-type: none"> <li>- Geographic Diversity</li> <li>- Market data content and network</li> </ul>	 <p><b>Touches:</b> <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> DnA <input type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- Migrated to Cboe tech and launched BIDS in Australia</li> <li>- <b>Migrate to Cboe tech and launch BIDS in Japan</b></li> <li>- <b>Cross-sell data and FX</b></li> <li>- <b>Enhance AUS/Global Listings</b></li> <li>- <b>Increase distribution and access of proprietary products</b></li> </ul>
<b>ErisX</b>	<ul style="list-style-type: none"> <li>- Asset Class Diversity</li> <li>- Clearing Capability</li> </ul>	 <p><b>Touches:</b> <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> DnA <input checked="" type="checkbox"/> Derivs</p>	<ul style="list-style-type: none"> <li>- <b>Enhance flow through syndication</b></li> <li>- <b>Margined futures</b></li> </ul>

<sup>1</sup> Certain potential initiatives are subject to regulatory approval.

# Cboe's Commitment to ESG Initiatives



## Environmental

- ◆ **Scope 3 Emissions:** Calculated and disclosed Scope 3 emissions in several categories for 2022, including purchased goods and services, capital goods and business travel. Continued to expand data coverage of other environmental metrics, including energy, water and waste
- ◆ **Carbon Reduction:** In 2022, addressed our carbon footprint by purchasing renewable energy certificates, and in 2023, supported carbon reduction projects to further address Scope 3 emissions
- ◆ **ESG Exchange Traded Products:** Trade ESG-themed ETPs on the BZX Equities Exchange and list options on the S&P 500 ESG Index
- ◆ **Net Zero Financial Services Provider Alliance (NZFSPA):** Joined NZFSPA to engage with peers and develop best practices for our industry as we work toward achieving net zero



## Social

- ◆ **Cboe Empowers:** Community engagement program that provides mentorship, scholarships and guidance to under-resourced students throughout their educational journey. In April 2022, provided five full-ride scholarships to Black and Latinx high school students from Chicago to attend the school of their choice. Program expanded to Kansas City area in 2023 providing scholarships for seven new scholars across Chicago and Kansas City
- ◆ **Expanded DEI Strategy :** Continued to expand our diversity, equity and inclusion (DEI) strategy which includes integrating DEI objectives into individual goal planning, expanding our university recruiting portfolio and aspiring to seek a diverse pool of interview candidates for all open roles
- ◆ **Charity:** Cboe made \$6.5mn in charitable contributions through a variety of programs in 2022. In 2023, announced Cboe's 50th Anniversary Charitable Giving Program, donating a total of \$500,000 to five different non-profit organizations that best represent Cboe's five guiding principles



## Governance

- ◆ **Independent Board:** 10 of the 11 Directors are independent
- ◆ **Accountability:** Pay for performance philosophy, with a strong emphasis on strategy and risk oversight
- ◆ **Fresh Perspectives:** 9 years average tenure of Board
- ◆ **Diverse Board:** 55% of Directors represent gender and ethnic diversity: 27% of Directors women and 27% African American/Asian-American

# Non-GAAP Information

# Non-GAAP Information

In addition to disclosing results determined in accordance with GAAP, Cboe Global Markets has disclosed certain non-GAAP measures of operating performance. These measures are not in accordance with, or a substitute for, GAAP, and may be different from or inconsistent with non-GAAP financial measures used by other companies. The non-GAAP measures provided in this presentation include net transaction and clearing fees, adjusted operating expenses, adjusted operating income, organic net revenue, inorganic net revenue, adjusted operating margin, adjusted net income allocated to common stockholders, adjusted diluted earnings per share, 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 presentation 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, inorganic net revenue, organic 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 acquisitions, 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, impairment charges, 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.

# Non-GAAP Information

## Reconciliation of Net Transaction and Clearing Fees by Segment

For the Three Months Ended Dec 31 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Transaction and clearing fees	\$ 392.7	\$ 330.9	\$ 255.4	\$ 270.1	\$ 35.3	\$ 41.1	\$ 20.5	\$ 24.2	\$ 14.4	\$ 12.5	\$ 0.1	\$ -	\$ 718.4	\$ 678.8
Liquidity payments	(157.7)	(162.2)	(214.4)	(226.3)	(8.8)	(7.2)	-	-	-	-	(0.5)	-	(381.4)	(395.7)
Routing and clearing	(7.3)	(6.9)	(8.2)	(9.8)	(4.2)	(4.9)	-	-	(0.1)	(0.2)	-	-	(19.8)	(21.8)
<b>Net transaction and clearing fees</b>	<b>\$ 227.7</b>	<b>\$ 161.8</b>	<b>\$ 32.8</b>	<b>\$ 34.0</b>	<b>\$ 22.3</b>	<b>\$ 29.0</b>	<b>\$ 20.5</b>	<b>\$ 24.2</b>	<b>\$ 14.3</b>	<b>\$ 12.3</b>	<b>\$ (0.4)</b>	<b>\$ -</b>	<b>\$ 317.2</b>	<b>\$ 261.3</b>

For the Three Months Ended March 31 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Transaction and clearing fees	\$ 395.8	\$ 348.3	\$ 255.0	\$ 330.8	\$ 42.1	\$ 50.1	\$ 24.8	\$ 25.8	\$ 15.8	\$ 14.6	\$ (1.0)	\$ -	\$ 732.5	\$ 769.6
Liquidity payments	(144.2)	(167.6)	(215.9)	(288.3)	(11.3)	(11.6)	-	-	-	-	(0.4)	-	(371.8)	(467.5)
Routing and clearing	(9.7)	(6.7)	(9.4)	(10.5)	(4.6)	(4.9)	-	-	(0.3)	(0.2)	-	-	(24.0)	(22.3)
<b>Net transaction and clearing fees</b>	<b>\$ 241.9</b>	<b>\$ 174.0</b>	<b>\$ 29.7</b>	<b>\$ 32.0</b>	<b>\$ 26.2</b>	<b>\$ 33.6</b>	<b>\$ 24.8</b>	<b>\$ 25.8</b>	<b>\$ 15.5</b>	<b>\$ 14.4</b>	<b>\$ (1.4)</b>	<b>\$ -</b>	<b>\$ 336.7</b>	<b>\$ 279.8</b>

For the Three Months Ended June 30 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Transaction and clearing fees	\$ 384.3	\$ 353.0	\$ 229.4	\$ 304.5	\$ 35.6	\$ 40.6	\$ 22.4	\$ 23.0	\$ 15.0	\$ 14.1	\$ (1.0)	\$ 0.1	\$ 685.7	\$ 735.3
Liquidity payments	(135.8)	(158.4)	(193.1)	(261.4)	(8.1)	(9.1)	-	-	-	-	(0.4)	(0.1)	(337.4)	(429.0)
Routing and clearing	(8.1)	(5.9)	(8.0)	(10.5)	(4.4)	(4.3)	-	-	(0.3)	(0.2)	-	-	(20.8)	(20.9)
<b>Net transaction and clearing fees</b>	<b>\$240.4</b>	<b>\$ 188.7</b>	<b>\$ 28.3</b>	<b>\$ 32.6</b>	<b>\$ 23.1</b>	<b>\$ 27.2</b>	<b>\$ 22.4</b>	<b>\$ 23.0</b>	<b>\$ 14.7</b>	<b>\$ 13.9</b>	<b>\$ (1.4)</b>	<b>\$ -</b>	<b>\$ 327.5</b>	<b>\$ 285.4</b>

For the Three Months Ended Sept 30 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Transaction and clearing fees	\$ 384.6	\$ 377.7	\$ 221.9	\$ 264.6	\$ 32.6	\$ 35.9	\$ 25.4	\$ 22.3	\$ 15.6	\$ 14.9	\$ (1.5)	\$ 0.1	\$ 678.6	\$ 715.5
Liquidity payments	(130.5)	(160.3)	(185.6)	(223.5)	(7.3)	(8.4)	-	-	-	-	(0.3)	(0.1)	(323.7)	(392.3)
Routing and clearing	(5.8)	(7.3)	(7.3)	(8.6)	(4.4)	(4.0)	-	-	(0.3)	(0.3)	-	-	(17.8)	(20.2)
<b>Net transaction and clearing fees</b>	<b>\$ 248.3</b>	<b>\$ 210.1</b>	<b>\$ 29.0</b>	<b>\$ 32.5</b>	<b>\$ 20.9</b>	<b>\$ 23.5</b>	<b>\$ 25.4</b>	<b>\$ 22.3</b>	<b>\$ 15.3</b>	<b>\$ 14.6</b>	<b>\$ (1.8)</b>	<b>\$ -</b>	<b>\$ 337.1</b>	<b>\$ 303.0</b>

# Non-GAAP Information

## Reconciliation of GAAP Net Revenues to Net Revenues in Constant Currency

Net Revenue (in millions)	Three Months Ended, Sept 30, 2023	Nine Months Ended, Sept 30, 2023
Europe and Asia Pacific net revenues	\$45.6	\$142.2
Constant currency adjustment	(2.4)	1.5
<b>Europe and Asia Pacific net revenues in constant currency<sup>1</sup></b>	<b>\$43.2</b>	<b>\$143.7</b>

<sup>1</sup> Net revenues in constant currency is calculated by converting the current period GAAP net revenues in local currency using the foreign currency exchange rates that were in effect during the previous comparable period.

# Non-GAAP Information

Reconciliation of Net Revenue by Revenue Caption

For the Three Months Ended Sept. 30 (in millions)	Cash and Spot Markets		Data and Access Solutions		Derivatives Markets		Total	
	2023	2022	2023	2022	2023	2022	2023	2022
Transaction and clearing fees	\$ 268.6	\$ 315.5	\$ -	\$ -	\$ 410.0	\$ 400.0	\$ 678.6	\$ 715.5
Access and capacity fees	-	-	87.7	81.8	-	-	87.7	81.8
Market data fees	18.7	19.9	48.6	43.1	9.3	8.0	76.6	71.0
Regulatory fees	30.3	90.4	-	-	16.7	24.5	47.0	114.9
Other revenue	17.5	8.4	0.7	1.2	0.7	0.7	18.9	10.3
<b>Total revenues</b>	<b>335.1</b>	<b>434.2</b>	<b>137.0</b>	<b>126.1</b>	<b>436.7</b>	<b>433.2</b>	<b>908.8</b>	<b>993.5</b>
Liquidity payments	192.3	231.3	-	-	131.4	161.0	323.7	392.3
Routing and clearing fees	12.0	12.9	-	-	5.8	7.3	17.8	20.2
Section 31 fees	29.1	89.9	-	-	7.0	15.5	36.1	105.4
Royalty fees and other cost of revenues	9.6	2.0	2.3	2.2	38.8	29.0	50.7	33.2
<b>Total cost of revenues</b>	<b>243.0</b>	<b>336.1</b>	<b>2.3</b>	<b>2.2</b>	<b>183.0</b>	<b>212.8</b>	<b>428.3</b>	<b>551.1</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>92.1</b>	<b>98.1</b>	<b>134.7</b>	<b>123.9</b>	<b>253.7</b>	<b>220.4</b>	<b>480.5</b>	<b>442.4</b>
Acquisition revenue less cost of revenues (inorganic net revenue)	-	-	-	-	-	-	-	-
<b>Organic net revenue</b>	<b>92.1</b>	<b>98.1</b>	<b>134.7</b>	<b>123.9</b>	<b>253.7</b>	<b>220.4</b>	<b>480.5</b>	<b>442.4</b>

Reconciliation of Net Revenue by Revenue Caption –

For the Twelve Months Ended Dec. 31 (in millions)	Cash and Spot Markets		Data and Access Solutions		Derivatives Markets		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Transaction and clearing fees	\$ 1,375.5	\$ 1,366.5	\$ -	\$ -	\$ 1,563.3	\$ 1,326.6	\$ 2,938.8	\$ 2,693.1
Access and capacity fees	-	-	324.2	280.7	-	-	324.2	280.7
Market data fees	80.3	91.6	168.7	130.0	33.2	30.5	282.2	252.1
Regulatory fees	280.2	161.6	-	-	84.5	46.7	364.7	208.3
Other revenue	41.6	40.8	4.1	17.0	2.9	2.8	48.6	60.6
<b>Total revenues</b>	<b>1,777.6</b>	<b>1,660.5</b>	<b>497.0</b>	<b>427.7</b>	<b>1,683.9</b>	<b>1,406.6</b>	<b>3,958.5</b>	<b>3,494.8</b>
Liquidity payments	1,024.0	1,025.4	-	-	646.2	625.3	1,670.2	1,650.7
Routing and clearing fees	56.0	65.2	-	-	27.2	22.6	83.2	87.8
Section 31 fees	276.8	159.7	-	-	53.0	19.9	329.8	179.6
Royalty fees and other cost of revenues	14.1	14.3	9.2	8.4	110.3	77.9	133.6	100.6
<b>Total cost of revenues</b>	<b>1,370.9</b>	<b>1,264.6</b>	<b>9.2</b>	<b>8.4</b>	<b>836.7</b>	<b>745.7</b>	<b>2,216.8</b>	<b>2,018.7</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>406.7</b>	<b>395.9</b>	<b>487.8</b>	<b>419.3</b>	<b>847.2</b>	<b>660.9</b>	<b>1,741.7</b>	<b>1,476.1</b>
Acquisition revenue less cost of revenues (inorganic net revenue)	(9.5)	-	(19.2)	-	-	-	(28.7)	-
<b>Organic net revenue</b>	<b>397.2</b>	<b>395.9</b>	<b>468.6</b>	<b>419.3</b>	<b>847.2</b>	<b>660.9</b>	<b>1,713.0</b>	<b>1,476.1</b>



# Non-GAAP Information

## Non-GAAP Information

(in millions, except per share amounts)	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23
<b>Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP</b>								
Net income allocated to common stockholders	\$ 109.2	\$ (184.5)	\$ 149.6	\$ 159.0	\$ 234.2	\$ 172.6	\$ 167.0	\$ 207.1
Acquisition-related expenses (1)	2.0	14.3	1.6	2.0	19.9	6.4	0.7	0.8
Investment establishment costs (2)	3.0	-	-	-	3.0	-	-	-
Gain on investments (3)	-	(7.5)	-	-	(7.5)	-	-	-
Loan forgiveness (4)	-	(1.3)	-	-	(1.3)	-	-	-
Amortization of acquisition-related intangibles (5)	30.6	30.1	30.4	33.2	124.3	30.9	29.3	28.3
Goodwill impairment (6)	-	460.1	0.8	-	460.9	-	-	-
Income from investment (7)	-	-	-	-	-	-	(2.1)	-
<b>Total Non-GAAP adjustments</b>	<b>35.6</b>	<b>495.7</b>	<b>32.8</b>	<b>35.2</b>	<b>599.3</b>	<b>37.3</b>	<b>27.9</b>	<b>-</b>
Impairment of Investment (8)	-	10.6	-	-	10.6	-	-	-
Change in contingent consideration (9)	-	-	-	(5.2)	(5.2)	-	-	-
<b>Total Non-GAAP adjustments - pretax</b>	<b>35.6</b>	<b>506.3</b>	<b>32.8</b>	<b>30.0</b>	<b>604.7</b>	<b>37.3</b>	<b>27.9</b>	<b>29.0</b>
Income tax expense related to the items above	(8.7)	(143.2)	2.9	5.3	(143.7)	(9.5)	(6.8)	(6.9)
Deferred tax remeasurement	-	-	-	(2.0)	(2.0)	-	-	-
Tax reserves (10)	48.5	-	-	-	48.5	1.5	0.7	(10.2)
Net income allocated to participating securities - effect on reconciling items	(0.3)	(1.3)	(0.1)	(0.1)	(1.8)	(0.1)	(0.1)	(0.1)
<b>Adjusted net income allocated to common stockholders</b>	<b>\$ 184.3</b>	<b>\$ 177.3</b>	<b>\$ 185.2</b>	<b>\$ 192.2</b>	<b>\$ 739.8</b>	<b>\$ 201.8</b>	<b>\$ 188.7</b>	<b>\$ 218.9</b>
<b>Reconciliation of Diluted EPS to Non-GAAP</b>								
Diluted earnings per common share	\$ 1.02	\$ (1.74)	\$ 1.41	\$ 1.49	\$ 2.19	\$ 1.63	\$ 1.57	\$ 1.95
Per share impact of non-GAAP adjustments noted above	0.71	3.41	0.33	0.31	4.74	0.27	0.21	0.11
<b>Adjusted diluted earnings per common share</b>	<b>\$ 1.73</b>	<b>\$ 1.67</b>	<b>\$ 1.74</b>	<b>\$ 1.80</b>	<b>\$ 6.93</b>	<b>\$ 1.90</b>	<b>\$ 1.78</b>	<b>\$ 2.06</b>
<b>Reconciliation of Operating Margin to Non-GAAP</b>								
Revenue less cost of revenue	\$ 418.1	\$ 424.1	\$ 442.4	\$ 457.1	\$ 1,741.7	\$ 471.4	\$ 467.1	\$ 480.5
Non-GAAP adjustments noted above	-	-	-	-	-	-	-	-
<b>Adjusted revenue less cost of revenue</b>	<b>\$ 418.1</b>	<b>\$ 424.1</b>	<b>\$ 442.4</b>	<b>\$ 457.1</b>	<b>\$ 1,741.7</b>	<b>\$ 471.4</b>	<b>\$ 467.1</b>	<b>\$ 480.5</b>
<b>Operating expenses (11)</b>	<b>\$ 178.4</b>	<b>\$ 661.5</b>	<b>\$ 205.6</b>	<b>\$ 206.6</b>	<b>\$ 1,252.1</b>	<b>\$ 223.5</b>	<b>\$ 222.3</b>	<b>\$ 209.3</b>
Non-GAAP expense adjustments noted above	32.6	504.5	32.8	30.0	599.9	37.3	30.0	29.0
<b>Adjusted operating expenses</b>	<b>\$ 145.8</b>	<b>\$ 157.0</b>	<b>\$ 172.8</b>	<b>\$ 176.6</b>	<b>\$ 652.2</b>	<b>\$ 186.2</b>	<b>\$ 192.3</b>	<b>\$ 180.3</b>
Non-GAAP expense adjustments to arrive at organic adjusted operating expenses	\$ (6.4)	\$ (13.7)	\$ (7.6)	\$ (10.8)	\$ (38.5)	\$ (12.2)	\$ (5.1)	\$ -
<b>Organic adjusted operating expenses</b>	<b>\$ 139.4</b>	<b>\$ 143.3</b>	<b>\$ 165.2</b>	<b>\$ 165.8</b>	<b>\$ 613.7</b>	<b>\$ 174.0</b>	<b>\$ 187.1</b>	<b>\$ 180.3</b>
Operating income	\$ 239.7	\$ (237.4)	\$ 236.8	\$ 250.5	\$ 489.6	\$ 247.9	\$ 244.8	\$ 271.2
Non-GAAP expense adjustments noted above	32.6	504.5	32.8	30.0	599.9	37.3	30.0	29.0
<b>Adjusted operating income</b>	<b>\$ 272.3</b>	<b>\$ 267.1</b>	<b>\$ 269.6</b>	<b>\$ 280.5</b>	<b>\$ 1,089.5</b>	<b>\$ 285.2</b>	<b>\$ 274.8</b>	<b>\$ 300.2</b>
<b>Adjusted operating margin (12)</b>	<b>65.1%</b>	<b>63.0%</b>	<b>60.9%</b>	<b>61.4%</b>	<b>62.6%</b>	<b>60.5%</b>	<b>58.8%</b>	<b>62.5%</b>
<b>Reconciliation of Income Tax Rate to Non-GAAP</b>								
Income before income taxes	\$ 224.9	\$ (256.8)	\$ 229.0	\$ 235.8	\$ 432.9	\$ 248.2	\$ 241.8	\$ 270.1
Non-GAAP adjustments noted above	35.6	506.3	32.8	30.0	604.7	37.3	27.9	29.0
<b>Adjusted income before income taxes</b>	<b>\$ 260.5</b>	<b>\$ 249.5</b>	<b>\$ 261.8</b>	<b>\$ 265.8</b>	<b>\$ 1,037.6</b>	<b>\$ 285.5</b>	<b>\$ 269.7</b>	<b>\$ 299.1</b>
Income tax expense	\$ 115.3	\$ (72.3)	\$ 78.8	\$ 76.1	\$ 197.9	\$ 74.8	\$ 74.0	\$ 61.9
Non-GAAP adjustments noted above	(39.8)	143.2	(2.9)	(3.3)	97.2	8.0	6.1	17.1
<b>Adjusted income tax expense</b>	<b>\$ 75.5</b>	<b>\$ 70.9</b>	<b>\$ 75.9</b>	<b>\$ 72.8</b>	<b>\$ 295.1</b>	<b>\$ 82.8</b>	<b>\$ 80.1</b>	<b>\$ 79.0</b>
<b>Adjusted income tax rate</b>	<b>29.0%</b>	<b>28.4%</b>	<b>29.0%</b>	<b>27.4%</b>	<b>28.4%</b>	<b>29.0%</b>	<b>29.7%</b>	<b>26.4%</b>

(1) This amount includes ongoing acquisition related costs primarily from the Company's Cboe Digital and Cboe Canada acquisitions.

(2) This amount represents the investment establishment costs related to the company's investment in 7RIDGE Investments 3 LP, which acquired Trading Technologies, Inc.

(3) This amount represents the gain on the Company's investment in Eris Innovations Holdings, LLC in connection with the full acquisition of Cboe Digital (formerly ErisX).

(4) This amount represents the forgiveness of a PPP ("Paycheck Protection Program") loan previously held by Cboe Digital.

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

(6) This amount represents the impairment of goodwill recognized in the Digital reporting unit.

(7) This amount represents the dividend from the Company's minority ownership of Vest Group Inc.

(8) This amount represents the impairment of investment related to the Company's minority investment in American Financial Exchange, LLC.

(9) This amount represents the change in contingent consideration related to the adjustment recorded to MATCHNow's contingent consideration.

(10) This amount represents the tax reserves related to Section 199 matters.

(11) 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" (\$0.8 million and \$0.1 million in expense for the three months ended September 30, 2023 and 2022, respectively, and \$6.0 million and \$2.6 million in expense for the nine months ended September 30, 2023 and 2022, respectively), and are directly offset by deferred compensation income, expenses and dividends included within "Other income, net" (\$0.8 million and \$0.1 million in income, expense and dividends in the three months ended September 30, 2023 and 2022, respectively, and \$6.0 million and \$2.6 million in income, expense and dividends in the nine months ended September 30, 2023 and 2022, respectively), on the condensed 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."

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

Note: 2022 Net Income allocated to common shareholders and non-GAAP EPS may not sum due to ASC 260 treatment of 2Q22 loss.

# Non-GAAP Information

## EBITDA Reconciliations

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

### Reconciliation of Net Income Allocated to Common Stockholders to EBITDA and Adjusted EBITDA

(in millions, except per share amounts)	3Q22	4Q22	2022	1Q23	2Q23	3Q23
<b>Net income allocated to common stockholders</b>	\$ 149.6	\$ 159.0	\$ 234.1	\$ 172.6	\$ 167.0	\$ 207.1
Interest expense, net	15.3	15.7	56.4	15.1	13.9	11.9
Income tax provision	78.8	76.1	197.9	74.8	74.0	61.9
Depreciation and amortization	41.0	44.7	166.8	41.4	39.8	38.8
<b>EBITDA</b>	<b>\$ 284.7</b>	<b>\$ 295.5</b>	<b>\$ 655.2</b>	<b>\$ 303.9</b>	<b>\$ 294.7</b>	<b>\$ 319.7</b>
<b>EBITDA Margin</b>	<b>64.4%</b>	<b>64.6%</b>	<b>37.6%</b>	<b>64.5%</b>	<b>63.1%</b>	<b>66.5%</b>
<b>Non-GAAP adjustments not included in above</b>						
Acquisition-related expenses	1.6	2.0	19.9	6.4	0.7	0.8
Change in contingent consideration	-	(5.2)	(5.2)	-	-	-
Gain on investment	-	-	(7.5)	-	-	-
Loan forgiveness	-	-	(1.3)	-	-	-
Goodwill impairment	0.8	-	460.9	-	-	-
Investment establishment costs	-	-	3.0	-	-	-
Impairment of investment	-	-	10.6	-	-	-
Income from investment	-	-	-	-	(2.1)	-
<b>Adjusted EBITDA</b>	<b>\$ 287.1</b>	<b>\$ 292.3</b>	<b>\$ 1,135.6</b>	<b>\$ 310.3</b>	<b>\$ 293.3</b>	<b>\$ 320.5</b>
<b>Adjusted EBITDA Margin</b>	<b>64.9%</b>	<b>63.9%</b>	<b>65.2%</b>	<b>65.8%</b>	<b>62.8%</b>	<b>66.7%</b>

Note: 2022 Net Income allocated to common stockholders and non-GAAP EPS may not sum due to ASC 260 treatment of 2Q22 loss.

# Non-GAAP Information

## Adjusted Debt to EBITDA - Trailing Twelve Months<sup>1</sup>

(in millions)	4Q22	1Q23	2Q23	3Q23	LTM
Net income allocated to common stockholders	\$ 159.0	\$ 172.6	\$ 167.0	\$ 207.1	\$ 705.7
Interest expense, net	15.7	15.1	13.9	11.9	56.6
Income tax provision	76.1	74.8	74.0	61.9	286.8
Depreciation and amortization	44.7	41.4	39.8	38.8	164.7
<b>EBITDA</b>	<b>\$ 295.5</b>	<b>\$ 303.9</b>	<b>\$ 294.7</b>	<b>\$ 319.7</b>	<b>\$ 1,213.8</b>
Non-GAAP adjustments not included in above line items:					
Acquisition-related expenses	2.0	6.4	0.7	0.8	9.9
Change in contingent consideration	(5.2)	-	-	-	(5.2)
Income from investment	-	-	(2.1)	-	(2.1)
<b>Adjusted EBITDA</b>	<b>\$ 292.3</b>	<b>\$ 310.3</b>	<b>\$ 293.3</b>	<b>\$ 320.5</b>	<b>\$ 1,216.4</b>
Debt at end of period					\$ 1,525.0
<b>Debt to EBITDA</b>					<b>1.3x</b>

<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 9/30/22	As of 12/31/22	As of 3/31/23	As of 6/30/23	As of 9/30/23
Cash and cash equivalents	\$ 353.3	\$ 432.7	\$ 435.6	\$ 413.6	\$ 403.1
Financial investments	27.4	91.7	80.2	103.7	34.0
Less deferred compensation plan	(25.4)	(27.5)	(30.7)	(32.7)	(33.5)
Less cash collected for Section 31 fees	-	(93.7)	(50.0)	(81.6)	-
<b>Adjusted Cash</b>	<b>\$ 355.3</b>	<b>\$ 403.2</b>	<b>\$ 435.1</b>	<b>\$ 403.0</b>	<b>\$ 403.6</b>

# Disclaimer

The iBoxx iShares \$ High Yield Corporate Bond Index and the iBoxx iShares \$ Investment Grade Corporate Bond Index (“iBoxx iShares \$ Corporate Bond Indices”) are products of S&P Dow Jones Indices LLC or its affiliates or licensors (“S&P DJI”) and have been licensed for use by Cboe Exchange, Inc. iBoxx®, S&P®, “S&P 500® and “Dividend Aristocrats® are registered trademarks of Standard & Poor’s Financial Services LLC (“S&P”); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC (“Dow Jones”) and has been licensed for use by S&P Dow Jones Indices; and these trademarks have been licensed for use by S&P DJI and sublicensed for certain purposes by Cboe Exchange, Inc. Cboe® iBoxx® iShares® \$ High Yield Corporate Bond Index futures (IBHY) and options on futures and Cboe® iBoxx® iShares® \$ Investment Grade Corporate Bond Index futures (IBIG) and options on futures are not sponsored, endorsed, sold or promoted by S&P DJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of the iBoxx iShares \$ Corporate Bond Indices.

The iBoxx® iShares® \$ High Yield Corporate Bond Index and the iBoxx® iShares® \$ Investment Grade Corporate Bond Index (the “Indexes”), futures contracts on the Indexes and options on futures contracts on the Indexes (“Contracts”) are not sponsored by, or sold by BlackRock, Inc. or any of its affiliates (collectively, “BlackRock”). BlackRock makes no representation or warranty, express or implied to any person regarding the advisability of investing in securities, generally, or in the Contracts in particular. Nor does BlackRock make any representation or warranty as to the ability of the Index to track the performance of the fixed income securities market, generally, or the performance of HYG, LQD or any subset of fixed income securities.

BlackRock has not calculated, composed or determined the constituents or weightings of the fixed income securities that comprise the Indexes (“Underlying Data”). BlackRock is not responsible for and has not participated in the determination of the prices and amounts of the Contracts, or the timing of the issuance or sale of such Contracts or in the determination or calculation of the equation by which the Contracts are to be converted into cash (if applicable). BlackRock has no obligation or liability in connection with the administration or trading of the Contracts. BlackRock does not guarantee the accuracy or the completeness of the Underlying Data and any data included therein and BlackRock shall have no liability for any errors, omissions or interruptions related thereto.

BlackRock makes no warranty, express or implied, as to results to be obtained by S&P DJI, the parties to the Contracts or any other person with respect to the use of the Underlying Data or any data included therein. BlackRock makes no express or implied warranties and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the Underlying Data or any data included therein. Without limiting any of the foregoing, in no event shall BlackRock have any liability for any special, punitive, direct, indirect or consequential damages (including lost profits) resulting from the use of the Underlying Data or any data included therein, even if notified of the possibility of such damages.

iShares® is a registered trademark of BlackRock Fund Advisors and its affiliates.

**THANK YOU**