



# ***FOURTH QUARTER 2023 EARNINGS PRESENTATION***

February 2, 2024

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

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## ◆ Strategic Review

**Fredric Tomczyk**

*Chief Executive Officer*

**Dave Howson**

*Executive Vice President, Global President*

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## ◆ Financial Review

**Jill Griebenow**

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

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## ◆ Questions & Answers

**Fredric Tomczyk**

**Dave Howson**

**Jill Griebenow**

**Chris Isaacson**

*Executive Vice President, Chief Operating 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.*

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# ***STRATEGIC REVIEW AND OUTLOOK***

- Fredric Tomczyk, CEO
- Dave Howson, Global President

# 4Q23: Strong Adjusted Earnings and Record Net Revenue in Fourth Quarter Cap a Record Year\*

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

## 18% increase in Derivatives Markets organic net revenue<sup>1</sup>

- Total options average daily volume (ADV) up 2%, driven by a 24% increase in index options
- Total options rate per contract (RPC) up 20%

## 7% 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

## 11% decrease in Cash and Spot Markets organic net revenue<sup>1</sup>

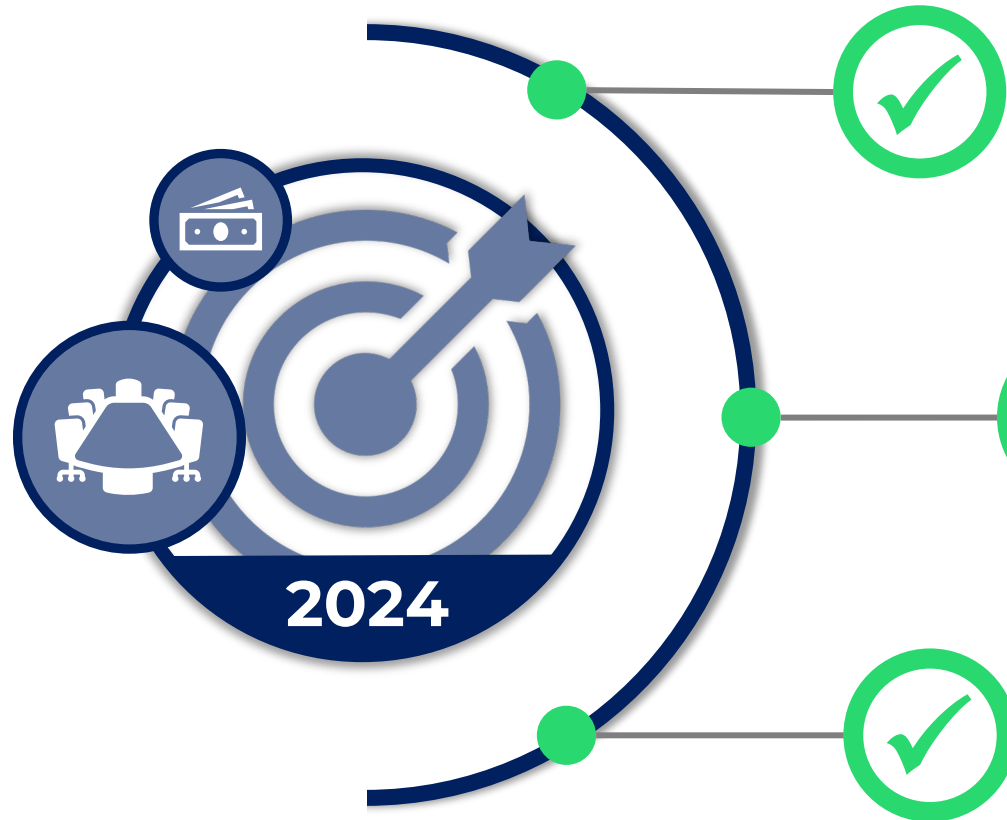
- FX ADV up 15% y/y and market share up 2.9% to a record 21.3%
- Lower on-exchange U.S. cash equity net transaction revenues



\*Unless otherwise noted, all comparisons are fourth quarter 2023 compared to the same period in 2022

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

# CEO'S Three Key Priorities



## Sharpen Cboe's Strategic Focus Around Structural Trends and Core Strengths

### Structural Trends

- Globalization of markets
- Rise of retail
- Demand for data

### Core Strengths

- Global footprint
- Technology
- Product innovation

## Effectively Allocate Capital

- Maintain a flexible balance sheet
- Invest in organic opportunities
- Opportunistically repurchase shares

## Develop Talent and Enhance Succession Planning

- Refine organizational structure to develop leadership
- Align management along global business lines

# Unlocking Growth Up the Value Ladder by Leveraging Cboe's Global Derivatives and Securities Network

## North America

- ◆ Canadian Equities market share improved to 15.3% in 4Q23 from 13.6% in 4Q22
- ◆ Cboe Digital successfully launched margined Bitcoin and Ether futures and completed its first margined Bitcoin futures trade on Jan 11, 2024

## Europe

- ◆ In 4Q23, Cboe BIDS Europe remained the largest European block trading platform<sup>1</sup>
- ◆ Cboe Clear Europe market share<sup>2</sup> grew to 35.3% in 4Q23 from 33.7% in 4Q22
- ◆ CEDX volumes grew 85% in 4Q23 vs. 4Q22, launched single-stock options in 4Q23

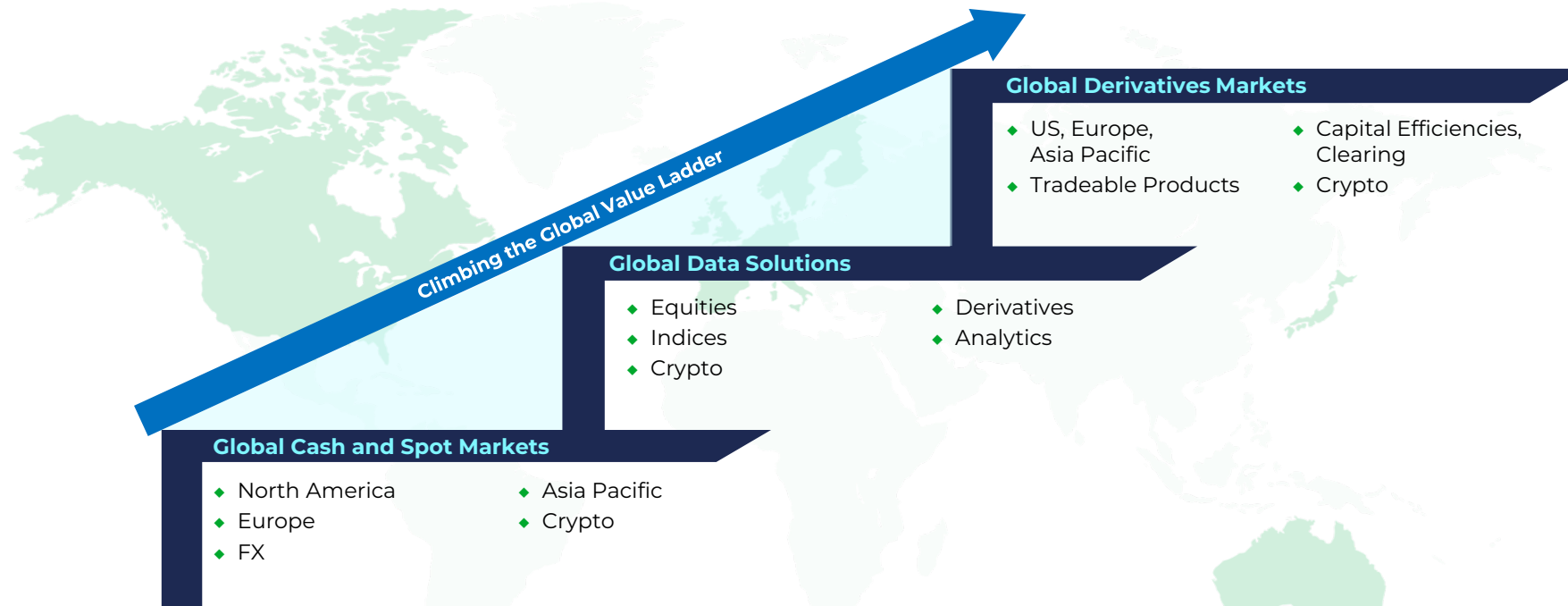
## Asia Pacific

- ◆ Completed Cboe Japan tech migration and BIDS launch in Nov 2023
- ◆ Grew Cboe Japan equities market share to 4.0% for 4Q23 from 2.9% in 4Q22. 4.8% in January 2024
- ◆ Grew Cboe Australia equities market share to 20.3% for 4Q23 from 17.2% in 4Q22. 21.2% in January 2024

Market Structure Expertise

Superior Technology

Customer-Led Product Innovation



<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

Note: All commentary as of 4Q23

# Reflecting on 2023 Trends

## 2023 Highlights

### **Record activity in SPX and VIX options**

- SPX option volumes up 31% to a record 2.9mn contracts in 2023
- VIX option volumes up 40% to a record 743k contracts in 2023
- All Cboe's Top 10 SPX volume days occurred in 2023, seven of which in 4Q23\*

## 2023 Growth Drivers

### **Robust ODTE option volume through different market cycles and volatility regimes**

- ODTE ADV grew 60% in 2023, comprising 45% of SPX volume
- Record SPX activity occurred in 4Q23 with average VIX of 15

### **Global trading hour volume hit a new record**

- SPX GTH ADV up 85% in 2023
- VIX GTH ADV up 45% in 2023

\* As of Dec 2023

## Expanding the Toolkit



### **Expanding the Existing VIX Ecosystem**

- 1-Day VIX Index

### **Expanding the Fixed Income Ecosystem**

- New suite of credit volatility indices: VIXIG, VIXHY, VIXIE, and VIXXO
- iBoxx suite of corporate bond futures and options on futures

### **Expanding the Equity Volatility Ecosystem**

- DSPX alongside VIX and COR indices to help investors navigate volatility, correlation, and dispersion risk
- DSPX futures planned in 2024<sup>1</sup>

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



# 2024 Derivative Drivers

## Secular Drivers

### Wider Adoption

- Rise of retail options trading
- **2024 catalysts:** More platforms coming online for index options trading; potential XSP margin relief

### Expanded Access

- GTH volumes up 85% in 2023 for SPX
- **2024 catalysts:** CEDX creating single access point to trade pan-European products; further expansion of access in APAC/EMEA

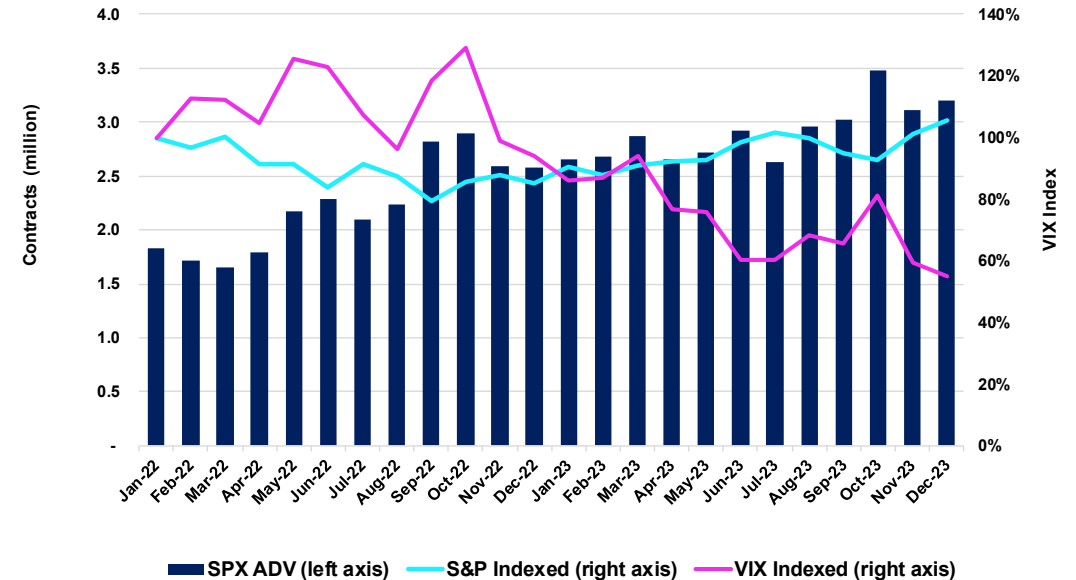
### Increased Utility

- ODTE options allow trading of more granular (i.e., intraday) risk
- **2024 catalysts:** Introduction of Tu/Th expiries for Russell 2000 index options

### Regulatory Trends

- Move toward listed, transparent, centrally cleared products
- **2024 catalysts:** Planned launch of variance and dispersion futures to bring more OTC trading to listed

SPX Options ADV vs. VIX & S&P500 Index



## Cyclical Tailwinds

- **Macro uncertainty:** the need to manage risk is the highest when the outlook is uncertain
- **Investor positioning:** options are used to manage both downside risk as well as opportunity (record volume in 4Q23 driven in large part by upside call buying)
- **2024 catalysts:** still uncertain inflation and growth outlook; rising geopolitical risks; US elections

<sup>1</sup>Certain potential initiatives and timing are subject to regulatory approval and vendor/customer readiness

# Derivatives Product Innovation Builds on Strong Foundation



## Tuesday / Thursday Russell 2000 Index Options

- On Jan 8, 2024, Cboe launched Tuesday and Thursday expiring Russell 2000 Index weekly options and Mini-Russell 2000 Index weekly options
- Provides daily expirations for investors to manage small-cap U.S. equity exposures

## 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
- 24x5 trading available for XSP

## MSCI Product Suite Expansion

- Cboe MSCI EAFE Volatility Index (VXMXEA)
- Cboe MSCI Emerging Markets Volatility Index (VXMXEF)
- MSCI ACWI (MXACW)
- MSCI USA (MXUSA)
- MSCI World (MXWLD)

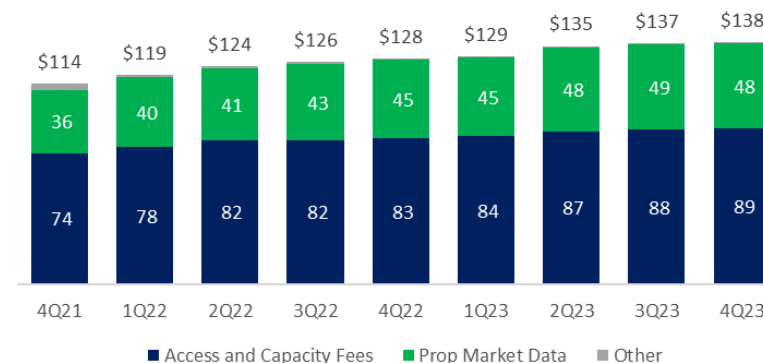
<sup>1</sup>Subject to regulatory approvals

# Data and Access Solutions: Driving Durable Growth

## DnA growth trends have been strong:

- ◆ Averaged 13% year-over-year quarterly growth in total DnA gross revenues since 4Q21
- ◆ Anticipate new opportunities across the data and access solutions ecosystem will help drive future growth
  - ◆ Continued demand for global access
  - ◆ Prop data feeds and options analytics
  - ◆ Global indices

Data & Access Solutions Gross Revenue  
(in millions)



## Many Avenues of Potential 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

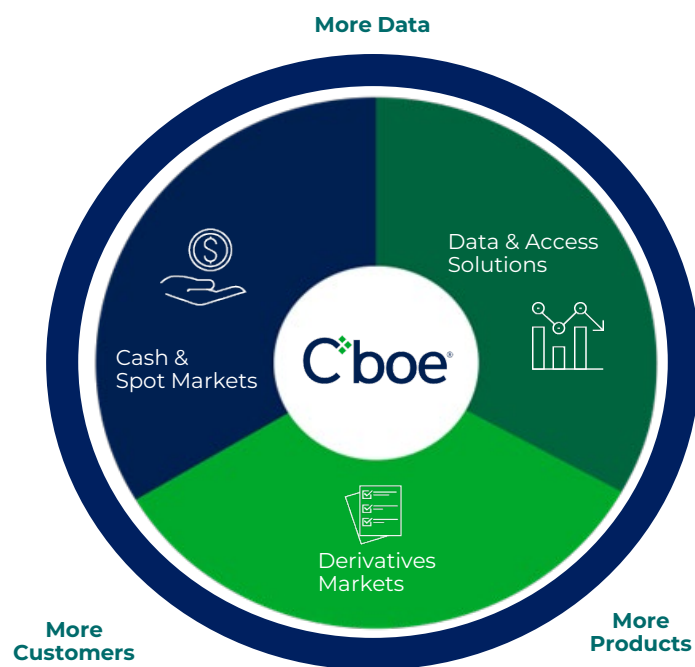
#### *Improving global access through technology*

- ❖ Cboe Global Cloud extends access to Europe and Asia Pacific
- ❖ 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

# Executing on Growth Priorities

## Drivers

- Rise of Retail
- Greater Global Access
- Multi-Asset Trading
- Demand for Data
- Shorter Duration, Tailored Products
- Macro Uncertainty



## Progress

### Derivatives

- ◆ Derivatives delivered 18% y/y organic net revenue growth<sup>1</sup> in 4Q23; 21% y/y organic net revenue growth<sup>1</sup> for 2023
- ◆ Record SPX and overall index ADV in 2023
- ◆ ODTE SPX trading made up 45% of 2023 SPX activity

### Data and Access Solutions

- ◆ Delivered 7% organic net revenue growth<sup>1</sup> in 4Q23 and for the full year 2023
- ◆ DnA organic net revenue growth target for 2024<sup>3</sup> is 7-10%

### Digital

- ◆ Home to six of the eleven Bitcoin ETPs approved in January
- ◆ Launched margined Bitcoin and Ether futures and completed its first margined Bitcoin futures trade in January

## Opportunity

- ◆ Targeting >150mn retail accounts with smaller & more flexible products<sup>2</sup>
- ◆ U.S. market equity and index options market is ~17x larger than the Pan-European market
- ◆ Expand expirations & trading hours for prop products toolkit
- ◆ Proprietary Benchmarks
- ◆ Global trading requires 24x7 dependable access to markets and accurate data
- ◆ \$36bn annual spend on financial market data<sup>4</sup>
- ◆ \$5bn annual spend in indices<sup>4</sup>
- ◆ Demand for a trusted, transparent and regulated digital asset marketplace
- ◆ Increasing adoption and investment from traditional finance

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

<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 11/16/21, all 2024 guidance as of 2/2/24

<sup>4</sup>Based on Burton-Taylor research reports

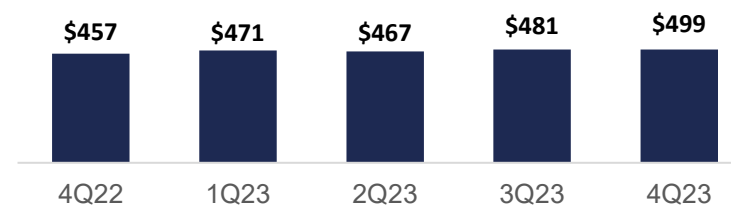
# ***FINANCIAL OVERVIEW AND GUIDANCE***

➤ Jill Griebenow, EVP, CFO and CAO

# 4Q23 Financial Summary

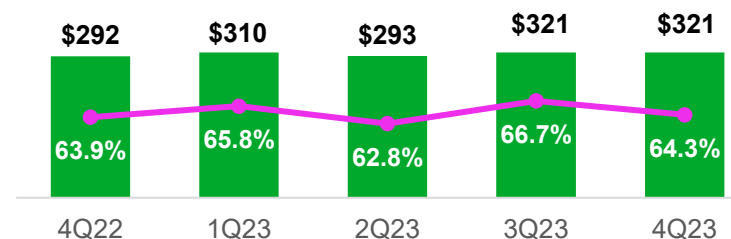
**\$499mn**  
Net Revenue  
**+9% Y/Y**

Net Revenue (in millions)



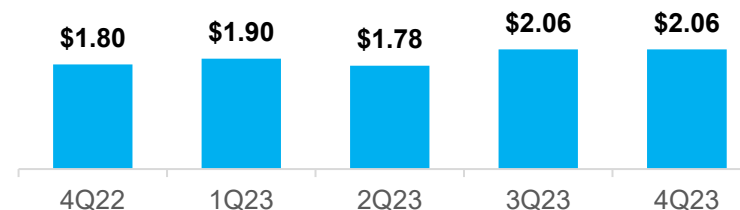
**\$321mn**  
Adjusted EBITDA<sup>1</sup>  
**+10% Y/Y**  
(Adjusted EBITDA margin<sup>1</sup> of 64.3%)

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



**\$2.06**  
Adjusted Diluted EPS<sup>1</sup>  
**+14% Y/Y**

Adjusted EPS<sup>1</sup>



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

# 4Q23 Net Revenue by Segment<sup>1</sup> and Key Drivers



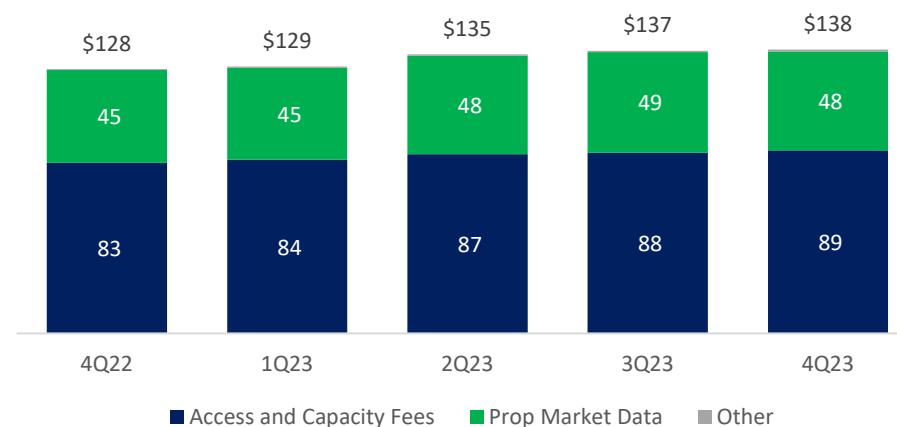
<sup>1</sup>The Digital segment is not shown as results were not material (negative \$1.1mn in 4Q23 and negative \$0.4mn in 4Q22).

# Grew 4Q23 Data and Access Solutions Net Revenue 7% YoY Organically<sup>1</sup>

**Introduced 2024 organic net revenue growth rate<sup>1</sup> target for Data and Access Solutions business of 7-10%, in line with our medium-term guidance<sup>2</sup>**

- ❖ 4Q23 Data and Access Solutions net revenue of \$135 million up 7% YoY organically<sup>1</sup>
- ❖ 2023 Data and Access Solutions net revenue of \$530 million up 7.5% YoY organically<sup>1</sup> vs. target of 7-10%;
- ❖ 2024 outlook for Data and Access Solutions organic net revenue<sup>1</sup> within medium-term guided range
- ❖ Anticipate new opportunities across the data and access solutions ecosystem will help drive future growth
  - ◆ Continued demand for global access
  - ◆ Prop data feeds and options analytics
  - ◆ Global indices
- ❖ An estimated 53% of organic access and capacity fee revenue growth and 84% of organic market data growth in 4Q23 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> 2024 Guidance is as of Feb 2, 2024, medium-term guidance as of Nov 16, 2021.



# 4Q23 Adjusted Operating Expenses<sup>1</sup> Up 9%, Driven by Compensation and Benefits and Technology

- ❖ 4Q23 expense increase driven by higher compensation and benefits and technology support services
  - ❖ \$19 million increase in compensation-related expenses
  - ❖ \$3 million increase in technology support services

Adjusted Operating Expenses <sup>1</sup> (in millions)	4Q23	4Q22	% Chg	2023	2022	% Chg
Compensation and benefits	\$112.8	\$93.6	21%	\$425.8	\$363.0	17%
Depreciation and amortization <sup>1</sup>	9.8	11.5	-15%	41.4	42.5	-3%
Technology support services	24.2	21.3	14%	99.7	77.7	28%
Professional fees and outside services	23.3	24.8	-6%	92.0	89.0	3%
Travel and promotional	9.0	9.2	-2%	37.6	23.7	59%
Facilities costs	5.7	5.8	-2%	25.7	25.1	2%
Other expenses	6.9	10.4	-34%	28.3	31.2	-9%
<b>Total<sup>1</sup></b>	<b>\$191.7</b>	<b>\$176.6</b>	<b>9%</b>	<b>\$750.5</b>	<b>\$652.2</b>	<b>15%</b>

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

# 2024 Guidance

2024 Full-Year Guidance <sup>1</sup> (\$ in millions)	2024 Guidance as of Feb. 2, 2024	2023 Actual <sup>2</sup>
<b>Data and Access Solutions<sup>3</sup> organic net revenue growth rate</b>	7 to 10%	7%
<b>Total organic net revenue growth rate</b>	5 to 7%	10%
<b>Adjusted operating expenses<sup>4</sup></b> <i>implied growth rate</i>	\$798 to 808 6 to 8%	\$750.5 15%
<b>Other income (expense) benefit from minority investments</b>	\$37 to 43	\$40
<b>Depreciation and amortization</b> (excluding amortization of acquired intangible assets)	\$43 to 47	\$41
<b>Effective tax rate on adjusted earnings</b>	28.5 to 30.5%	28.0%
<b>Capital expenditures</b>	\$51 to 57	\$45

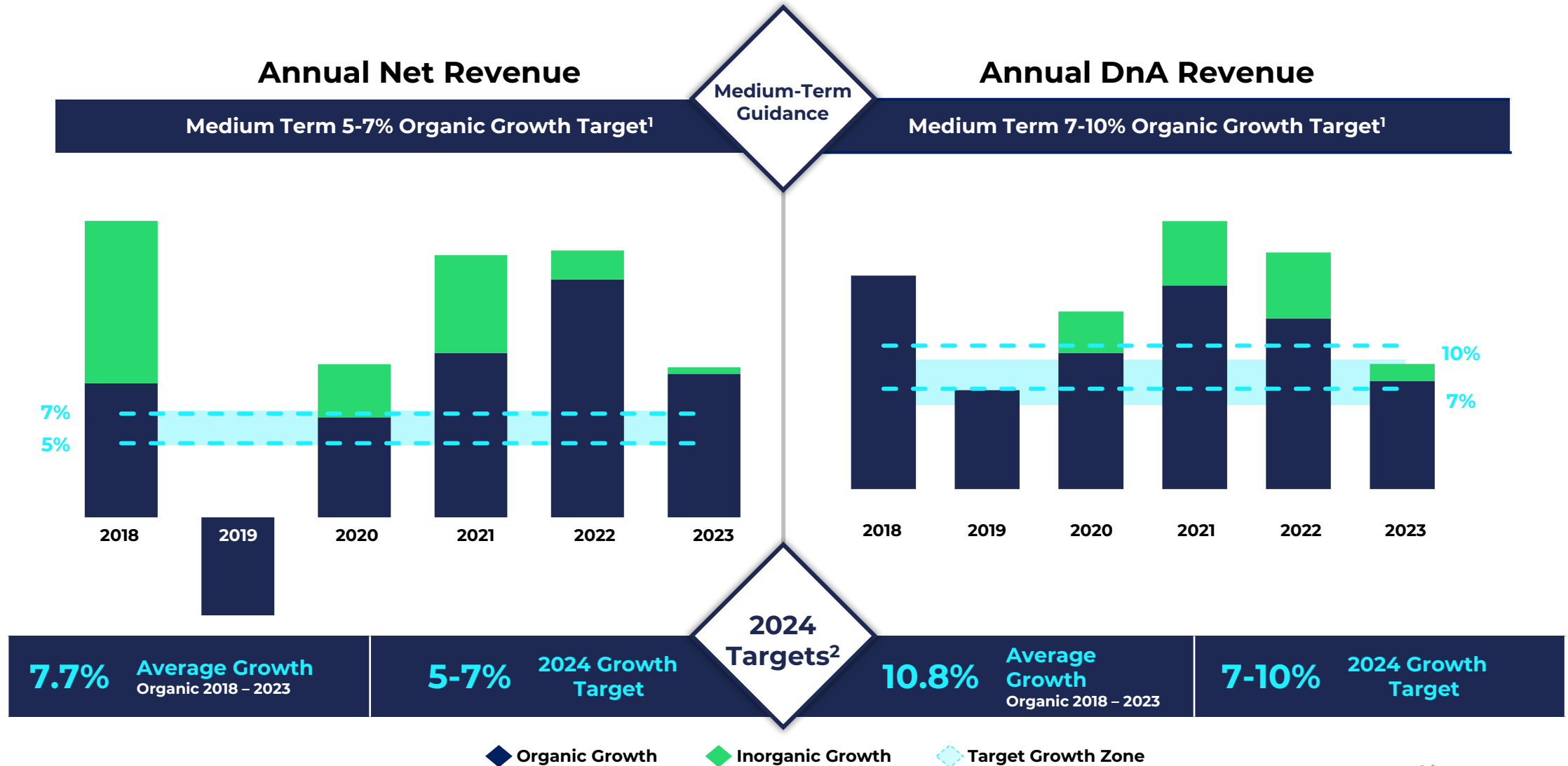
<sup>1</sup>Specific quantifications of the amounts that would be required to reconcile the company's organic and inorganic growth guidance, adjusted operating expenses guidance and the effective tax rate on adjusted earnings guidance are not available. The company believes that there is uncertainty 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>See "Non-GAAP Information" in the appendix for reconciliations of 2023 actual.

<sup>3</sup>Represents Access and Capacity Fees, Proprietary Market Data and revenue generated from licensing and indices related revenue reported in "Other Revenue."

<sup>4</sup>Adjusted operating expenses exclude acquisition-related expenses and amortization of acquired intangible assets. The amortization of acquired intangible assets was \$117 million for 2023 and is now expected to be \$93 million for 2024. Adjustments included in the non-GAAP reconciliation.

# Medium-Term Organic Revenue Guidance vs. Performance



<sup>1</sup>2024 Guidance is as of Feb 2, 2024, medium-term guidance as of Nov 16, 2021. <sup>2</sup>See appendix for "Non-GAAP Information" including disclosure on growth targets.

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

Debt Outstanding (\$ in millions)	Mar. 31, 2023	June 30, 2023	Sept. 30, 2023	Dec. 31, 2023
3.650% Senior Notes (10Y; Due 2027)	\$650	\$650	\$650	\$650
1.625% Senior Notes (10Y; Due 2030)	500	500	500	500
3.000% Senior Notes (10Y; Due 2032)	300	300	300	300
Revolving Credit Agreement	-	-	-	-
Term Loan Facility	305	165	75	-
EuroCCP Credit Facility	-	-	-	-
<b>Total Debt (Gross)</b>	<b>\$1,755</b>	<b>\$1,615</b>	<b>\$1,525</b>	<b>\$1,450</b>
Debt to Adjusted EBITDA TTM <sup>1</sup>	1.5x	1.4x	1.3x	1.2x
Adjusted Cash & Financial Investments <sup>1</sup>	\$435	\$403	\$404	\$534
Share Repurchases	\$70.0	\$8.1	-	\$5.8
Dividends Paid	53.3	53.2	58.5	58.5
<b>Total Capital Returned to Shareholders</b>	<b>\$123.3</b>	<b>\$61.3</b>	<b>\$58.5</b>	<b>\$64.3</b>
Dividends Per Share	\$0.50	\$0.50	\$0.55	\$0.55

## Preserving balance sheet flexibility remains a priority

- ❖ Capital allocation priorities include:
  - ◆ Consistent dividend payments and growth
  - ◆ Investing in the growth of our business
  - ◆ Opportunistic share repurchases
  - ◆ Inorganic opportunities to facilitate growth strategy
- ❖ Returned \$58.5 million in capital through dividends and \$5.8 million in share repurchases; \$384mn of availability remaining under share repurchase authorizations

<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 and 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 4Q23 Net Revenue Up 15%, Reflecting Y/Y Increase in ADV and Recurring Non-transaction Revenue

Options Selected Revenue Data (\$ in millions)	4Q23	4Q22	Chg	2023	2022	Chg
<b>Net Revenue</b>	<b>\$314.5</b>	<b>\$273.2</b>	<b>15%</b>	<b>\$1,169.2</b>	<b>\$983.2</b>	<b>19%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$279.4</b>	<b>\$227.7</b>	<b>23%</b>	<b>\$1,010.0</b>	<b>\$800.5</b>	<b>26%</b>
Index options	238.6	185.4	29%	848.0	628.1	35%
Multi-listed options	40.8	42.3	-4%	162.0	172.4	-6%
<b>Access and capacity</b>	<b>\$41.4</b>	<b>\$39.0</b>	<b>6%</b>	<b>\$161.0</b>	<b>\$151.7</b>	<b>6%</b>
<b>Market data</b>	<b>\$29.4</b>	<b>\$29.3</b>	<b>0%</b>	<b>\$118.8</b>	<b>\$108.7</b>	<b>9%</b>
Market data – proprietary	21.7	20.8	4%	85.2	75.5	13%
Market data – industry	7.7	8.5	-9%	33.6	33.2	1%
Options Key Operating Stats	4Q23	4Q22	Chg	2023	2022	Chg
<b>Total market share</b>	<b>33.5%</b>	<b>34.1%</b>	<b>-0.6pts</b>	<b>33.1%</b>	<b>33.2%</b>	<b>-0.1pts</b>
Multi-listed options	26.7%	28.5%	-1.8pts	26.8%	28.2%	-1.4pts
<b>Total ADV (in thousands)</b>	<b>14,896</b>	<b>14,545</b>	<b>2%</b>	<b>14,614</b>	<b>13,631</b>	<b>7%</b>
Index options	4,172	3,359	24%	3,800	2,847	33%
Multi-listed options	10,725	11,186	-4%	10,814	10,784	0%
<b>Total RPC</b>	<b>\$0.297</b>	<b>\$0.248</b>	<b>20%</b>	<b>\$0.276</b>	<b>\$0.234</b>	<b>18%</b>
Index options	\$0.908	\$0.876	4%	\$0.893	\$0.879	2%
Multi-listed options	\$0.060	\$0.060	0%	\$0.060	\$0.063	-5%

- ◆ Higher transaction fees from index options given stronger volumes and RPC
- ◆ Access and capacity fees were up 6%

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



# North American (N.A.) Equities 4Q23 Net Revenue Down 10% Driven by Lower N.A. Equities Net Capture

<b>N.A. Equities Selected Revenue Data</b> (\$ in millions)	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$86.3</b>	<b>\$96.4</b>	<b>-10%</b>	<b>\$365.3</b>	<b>\$378.9</b>	<b>-4%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$22.9</b>	<b>\$32.8</b>	<b>-30%</b>	<b>\$109.9</b>	<b>\$129.9</b>	<b>-15%</b>
<b>Market data</b>	<b>\$31.5</b>	<b>\$31.8</b>	<b>-1%</b>	<b>\$128.3</b>	<b>\$131.2</b>	<b>-2%</b>
Market data - proprietary	14.5	13.6	6%	57.0	51.0	12%
Market data - SIP <sup>2</sup>	17.0	18.2	-7%	71.3	80.2	-11%
<b>Access and capacity fees</b>	<b>\$30.1</b>	<b>\$28.2</b>	<b>7%</b>	<b>\$117.1</b>	<b>\$109.3</b>	<b>7%</b>
<b>N.A. Equities Key Operating Stats</b>	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>U.S. Equities Exchange</b> (shares in billions)						
Total Market Share	13.0%	13.1%	-0.1pts	12.8%	13.6%	-0.8pts
Market ADV	11.2	11.2	0%	11.0	11.9	-7%
ADV (matched shares)	1.5	1.5	-1%	1.4	1.6	-13%
Net capture (per 100 touched shares)	\$0.013	\$0.024	-47%	\$0.018	\$0.021	-11%
<b>U.S. Equities Off-Exchange</b> (shares in millions)						
Off-Exchange ATS Block Market Share % <sup>3</sup>	20.6%	21.0%	-0.4pts	20.2%	22.6%	-2.4pts
ADV (matched shares)	72.7	80.8	-10%	78.0	90.4	-14%
Net capture (per 100 touched shares)	\$0.143	\$0.113	27%	\$0.126	\$0.113	11%
<b>Canadian Equities</b> (shares in millions)						
Total Market Share Percent	15.3%	13.6%	1.7pts	14.8%	8.3%	6.5pts
ADV (matched shares, in millions)	141.8	139.0	2%	136.1	91.8	48%
Net capture (per 10,000 touched shares, in CAD)	CAD 3.905	CAD 3.901	0%	CAD 3.994	CAD 4.966	-20%

- ◆ U.S. equities transaction and clearing fees were impacted by lower net capture given client mix shift
- ◆ Access and capacity fees were up 7% as compared to 4Q22
- ◆ Proprietary market data grew 6% as compared to 4Q22

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

<sup>2</sup>Includes SIP audit recoveries of \$700k in 4Q23 and \$400k in 4Q22.

<sup>3</sup>Represents market share for 4Q23 through Nov 2023.

# Europe and APAC Net Revenue up 9% for 4Q23, Driven by Non-Transaction Growth

Europe and APAC Selected Revenue Data (\$ in millions)	4Q23	4Q22	Chg	2023	2022	Chg
<b>Net Revenue</b>	<b>\$48.0</b>	<b>\$44.2</b>	<b>9%</b>	<b>\$190.2</b>	<b>\$196.1</b>	<b>-3%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$23.0</b>	<b>\$22.3</b>	<b>3%</b>	<b>\$93.2</b>	<b>\$106.6</b>	<b>-13%</b>
Net transaction fees	16.1	15.8	2%	65.9	75.4	-13%
Net clearing fees	6.9	6.5	6%	27.3	31.2	-13%
<b>Market data</b>	<b>\$9.2</b>	<b>\$8.3</b>	<b>11%</b>	<b>\$36.7</b>	<b>\$33.1</b>	<b>11%</b>
<b>Access and capacity fees</b>	<b>\$8.9</b>	<b>\$7.9</b>	<b>13%</b>	<b>\$36.3</b>	<b>\$34.0</b>	<b>7%</b>
<b>Other<sup>3</sup></b>	<b>\$6.9</b>	<b>\$5.7</b>	<b>21%</b>	<b>\$24.0</b>	<b>\$22.4</b>	<b>7%</b>
<b>Europe Key Operating Stats</b>	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>European Equities:</b>						
Total market share	23.9%	24.9%	-1.0pts	24.0%	23.5%	0.5pts
Market ADNV (in billions)	€ 37.7	€ 40.1	-6%	€ 39.1	€ 46.2	-15%
Net capture (per matched notional value, in bps)	0.233	0.224	4%	0.226	0.231	-2%
<b>Cboe Clear Europe</b>						
Trades cleared (in millions)	281.9	342.5	-18%	1,172.0	1,499.9	-22%
Fee per trade cleared	€ 0.010	€ 0.007	33%	€ 0.009	€ 0.008	9%
Net settlement volume (in millions)	2.5	2.5	1%	10.0	10.3	-3%
Net fee per settlement	€ 0.899	€ 0.886	1%	€ 0.917	€ 0.881	4%
European equities market share cleared	35.3%	33.7%	1.5pts	34.3%	32.6%	1.7pts
<b>APAC Key Operating Stats</b>	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>Australian Equities:</b>						
Total market share	20.3%	17.2%	3.1pts	18.7%	16.6%	2.1pts
ADNV (AUD in billions)	\$0.7	\$0.7	1.0%	\$0.7	\$0.8	-10%
Net capture (per matched notional value)	0.157	0.142	11%	0.158	0.164	-4%
<b>Japanese Equities:</b>						
Total market share	4.0%	2.9%	1.1pts	4.0%	3.6%	0.4pts
ADNV (JYP in billions)	¥190.2	¥114.1	67%	¥176.6	¥142.9	24%
Net capture (per matched notional value)	0.252	0.265	-5%	0.252	0.252	0%

- ◆ Market data, access fees and other were up a combined 14% in 4Q23
- ◆ In 4Q23, Cboe BIDS Europe was the largest block trading platform<sup>2</sup>
- ◆ In 4Q23 Cboe Australia grew market share by 3.1% and Cboe Japan grew market share by 1.1%

<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 4Q23 Net Revenue up 21%, Higher Volumes, Access and Capacity Fees, and Market Data

<b>Futures Selected Revenue Data</b> (\$ in millions)	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$32.4</b>	<b>\$26.8</b>	<b>21%</b>	<b>\$125.1</b>	<b>\$116.0</b>	<b>8%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$25.4</b>	<b>\$20.5</b>	<b>24%</b>	<b>\$98.0</b>	<b>\$91.6</b>	<b>7%</b>
<b>Access and capacity</b>	<b>\$5.5</b>	<b>\$5.2</b>	<b>6%</b>	<b>\$22.0</b>	<b>\$19.9</b>	<b>11%</b>
<b>Market data</b>	<b>\$2.3</b>	<b>\$2.0</b>	<b>15%</b>	<b>\$8.5</b>	<b>\$8.0</b>	<b>6%</b>
<b>Futures Key Operating Stats</b> (in thousands, except RPC)	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
Total ADV	233.4	193.3	21%	223.3	218.2	2%
Total RPC	\$1.729	\$1.689	2%	\$1.755	\$1.674	5%

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

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

# Global FX Net 4Q23 Revenue Up 12%

<b>FX Selected Revenue Data</b> (\$ in millions)	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$18.9</b>	<b>\$16.9</b>	<b>12%</b>	<b>\$73.5</b>	<b>\$67.9</b>	<b>8%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>15.5</b>	<b>14.3</b>	<b>8%</b>	<b>61.0</b>	<b>57.2</b>	<b>7%</b>
<b>Non-transaction revenue</b>	<b>3.4</b>	<b>2.6</b>	<b>31%</b>	<b>12.5</b>	<b>10.7</b>	<b>17%</b>
<b>FX Key Operating Stats</b>	<b>4Q23</b>	<b>4Q22</b>	<b>Chg</b>	<b>2023</b>	<b>2022</b>	<b>Chg</b>
Market share <sup>2</sup>	21.3%	18.4%	2.9pts	20.0%	17.6%	2.4pts
Average Daily Notional Value (\$ in billions)	\$47.0	\$40.8	15%	\$44.7	\$40.9	9%
Net capture (per one million dollars traded)	\$2.60	\$2.69	-3%	\$2.64	\$2.69	-2%

- ◆ Revenue increase driven by higher volumes and continued market share gains
- ◆ Market share hit a record at 21.3% 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).

# Fourth Quarter 2023 Financial Overview

<b>Adjusted Financial Results<sup>1</sup></b> (\$ in millions, except per share)	<b>4Q23</b>	<b>4Q22</b>	<b>% Chg</b>	<b>2023</b>	<b>2022</b>	<b>% Chg</b>
Net Revenue <sup>2</sup>	\$499.0	\$457.1	9%	\$1,918.0	\$1,741.7	10%
Adjusted Operating Expenses <sup>1</sup>	\$191.7	\$176.6	9%	\$750.5	\$652.2	15%
Adjusted Operating Income <sup>1</sup>	\$307.3	\$280.5	10%	\$1,167.5	\$1,089.5	7%
<i>Adjusted Operating Margin<sup>1</sup></i>	61.6%	61.4%	0.2pts	60.9%	62.6%	-1.7pts
Adjusted Net Income Allocated to Common Stockholders <sup>1</sup>	\$218.8	\$192.2	14%	\$828.1	\$739.8	12%
Adjusted Diluted EPS <sup>1</sup>	\$2.06	\$1.80	14%	\$7.80	\$6.93	13%
Adjusted EBITDA <sup>1</sup>	\$320.7	\$292.3	10%	\$1,244.8	\$1,135.6	10%
<i>Adjusted EBITDA Margin<sup>1</sup></i>	64.3%	63.9%	0.3pts	64.9%	65.2%	-0.4pts

<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)	4Q23	4Q22	% Chg	2023	2022	% Chg
Cash and Spot Markets	\$86.9	\$97.1	-11%	\$366.5	\$406.7	-10%
Data and Access Solutions	135.2	125.8	7%	530.1	487.8	9%
Derivatives Markets	276.9	234.2	18%	1,021.4	847.2	21%
<b>Total</b>	<b>\$499.0</b>	<b>\$457.1</b>	<b>9%</b>	<b>\$1,918.0</b>	<b>\$1,741.7</b>	<b>10%</b>

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

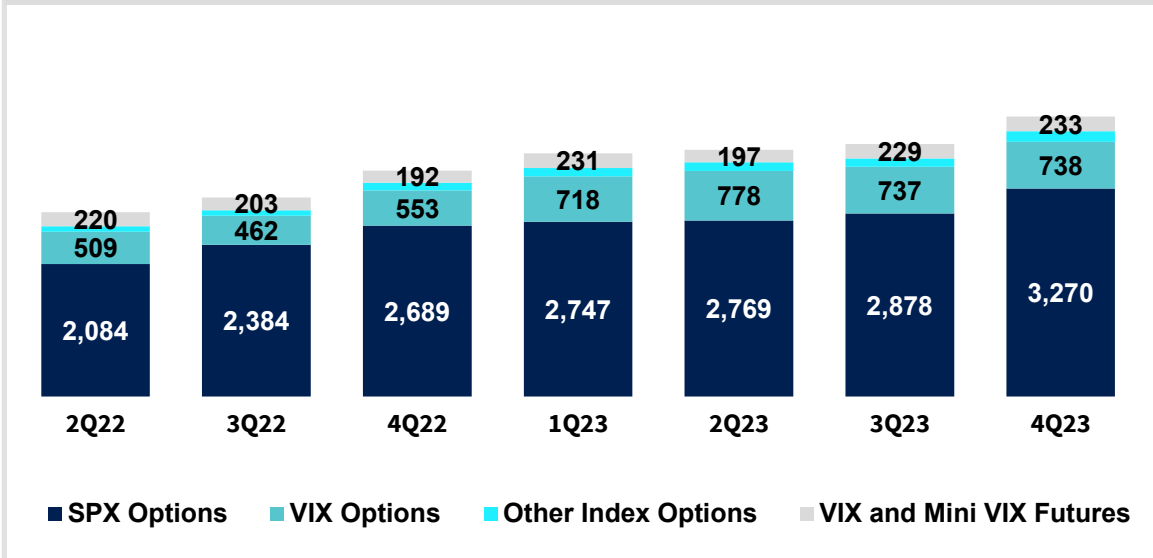
<sup>1</sup>Net revenue represents revenue less cost of revenues

# Focused on Growing the Proprietary Index Suite

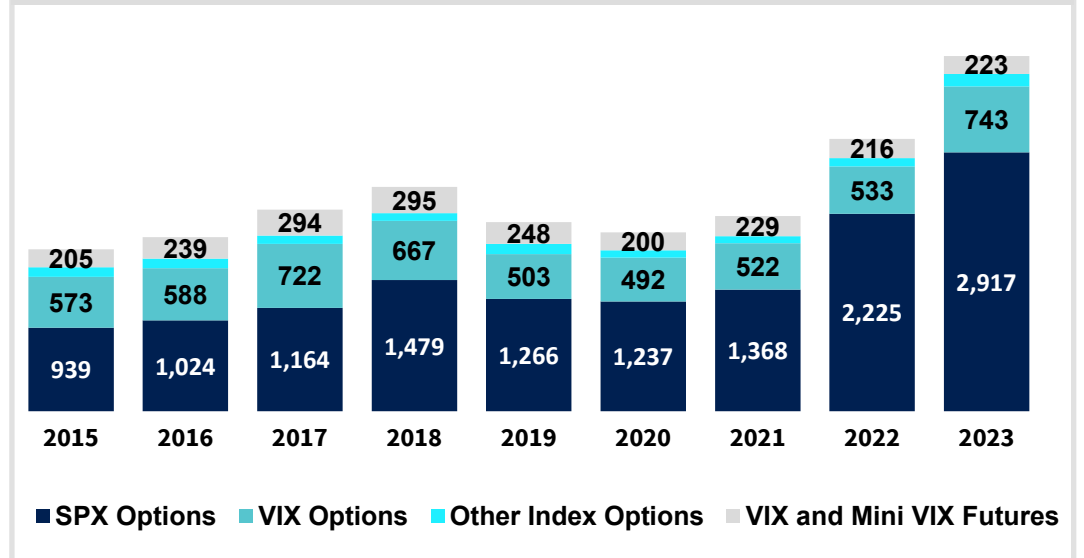
Index customers at Cboe typically use the toolkit of Cboe proprietary products interchangeably or in tandem, depending on market conditions

- ◆ 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 Tuesday / Thursday Russell 2000 Index Options in January of 2024
  - ◆ Launched options on IBHY and IBIG futures in July 2023

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

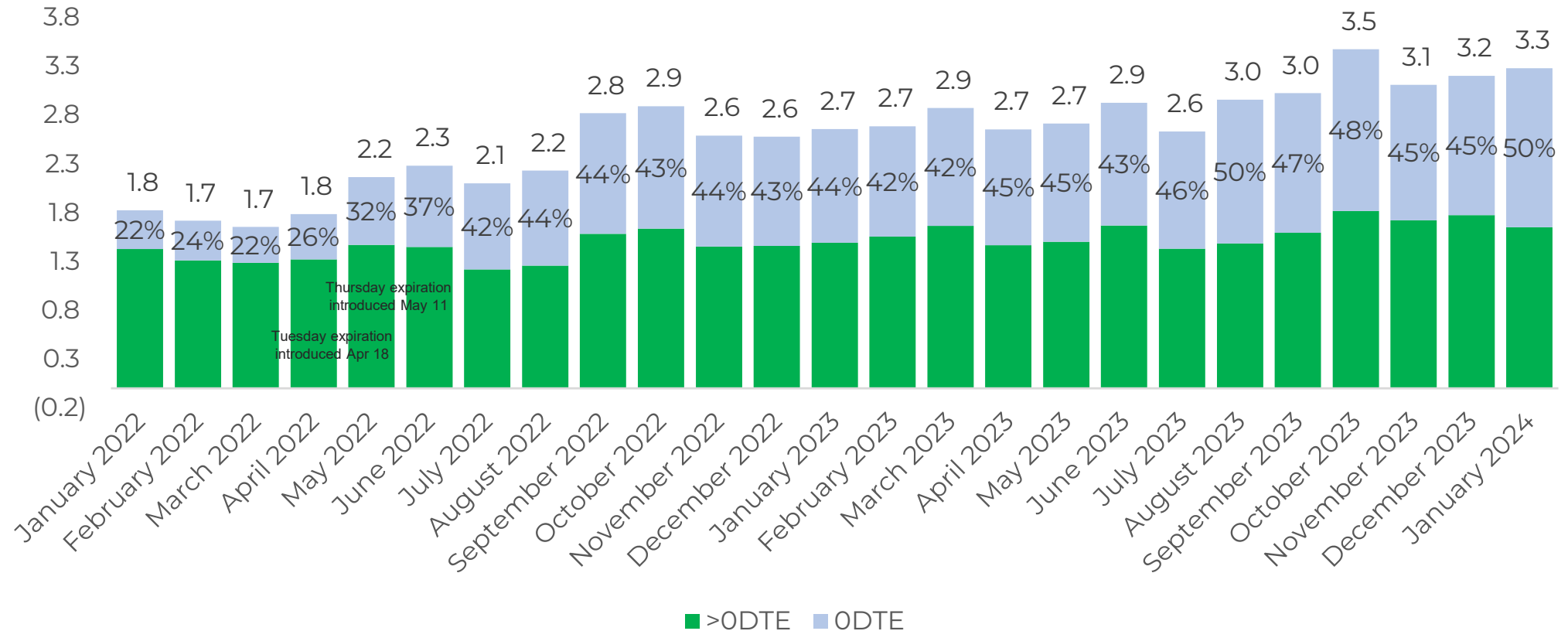


**Annual ADV for Index Options and VIX Futures**  
(in thousands)



# 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>- Harmonize client front-ends into cohesive offering</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>- Expand tradable products (Volatility, Index, ETFs, retail)</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>- Add new order types</li> <li>- Integrate NEO and migrate to Cboe platform</li> <li>- Expand global listings</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>- Expand into Japan</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>- Migrate to Cboe tech and launch BIDS in Japan</li> <li>- Cross-sell data and FX</li> <li>- Enhance AUS/Global Listings</li> <li>- Increase distribution and access of proprietary products</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>- Margined futures</li> <li>- Enhance flow through syndication</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:** Cboe has offset air travel as well as our facilities' Scope 1 and 2 emissions since 2020. In 2022 and 2023, we additionally addressed our carbon footprint by purchasing renewable energy certificates, and in 2023, we supported additional carbon reduction projects to further address our material 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 New York City in 2024, providing scholarships for ten new scholars (5 in Chicago, 3 in Kansas City, and 2 in New York 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, net revenues in constant currency, 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 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>

For the Three Months Ended Dec 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	\$ 419.0	\$ 392.7	\$ 240.0	\$ 255.4	\$ 35.3	\$ 35.3	\$ 25.4	\$ 20.5	\$ 15.8	\$ 14.4	\$ (1.0)	\$ 0.1	\$ 734.5	\$ 718.4
Liquidity payments	(135.3)	(157.7)	(209.5)	(214.4)	(8.0)	(8.8)	-	-	-	-	(0.1)	(0.5)	(352.9)	(381.4)
Routing and clearing	(4.3)	(7.3)	(7.6)	(8.2)	(4.3)	(4.2)	-	-	(0.3)	(0.1)	-	-	(16.5)	(19.8)
<b>Net transaction and clearing fees</b>	<b>\$ 279.4</b>	<b>\$ 227.7</b>	<b>\$ 22.9</b>	<b>\$ 32.8</b>	<b>\$ 23.0</b>	<b>\$ 22.3</b>	<b>\$ 25.4</b>	<b>\$ 20.5</b>	<b>\$ 15.5</b>	<b>\$ 14.3</b>	<b>\$ (1.1)</b>	<b>\$ (0.4)</b>	<b>\$ 365.1</b>	<b>\$ 317.2</b>

For the Twelve Months Ended Dec 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	\$ 1,583.7	\$ 1,471.7	\$ 946.3	\$ 1,155.3	\$ 145.6	\$ 161.9	\$ 98.0	\$ 91.6	\$ 62.2	\$ 58.0	\$ (4.5)	\$ 0.3	\$ 2,831.3	\$ 2,938.8
Liquidity payments	(545.8)	(644.0)	(804.1)	(987.6)	(34.7)	(37.9)	-	-	-	-	(1.2)	(0.7)	(1,385.8)	(1,670.2)
Routing and clearing	(27.9)	(27.2)	(32.3)	(37.8)	(17.7)	(17.4)	-	-	(1.2)	(0.8)	-	-	(79.1)	(83.2)
<b>Net transaction and clearing fees</b>	<b>\$ 1,010.0</b>	<b>\$ 800.5</b>	<b>\$ 109.9</b>	<b>\$ 129.9</b>	<b>\$ 93.2</b>	<b>\$ 106.6</b>	<b>\$ 98.0</b>	<b>\$ 91.6</b>	<b>\$ 61.0</b>	<b>\$ 57.2</b>	<b>\$ (5.7)</b>	<b>\$ (0.4)</b>	<b>\$ 1,366.4</b>	<b>\$ 1,185.4</b>

# Non-GAAP Information

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

Net Revenue (in millions)	Three Months Ended, Dec 31, 2023	Twelve Months Ended, Dec. 31, 2023
Europe and Asia Pacific net revenues	\$48.0	\$190.2
Constant currency adjustment	(1.9)	(0.4)
<b>Europe and Asia Pacific net revenues in constant currency<sup>1</sup></b>	<b>\$46.1</b>	<b>\$189.8</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 Dec. 31 (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	\$ 290.2	\$ 305.3	\$ -	\$ -	\$ 444.3	\$ 413.1	\$ 734.5
Access and capacity fees	-	-	88.7	82.7	-	-	88.7	82.7
Market data fees	17.0	18.2	47.9	45.0	7.8	8.5	72.7	71.7
Regulatory fees	32.2	89.2	-	-	15.6	31.2	47.8	120.4
Other revenue	22.3	10.3	0.9	0.4	1.8	0.8	25.0	11.5
<b>Total revenues</b>	<b>361.7</b>	<b>423.0</b>	<b>137.5</b>	<b>128.1</b>	<b>469.5</b>	<b>453.6</b>	<b>968.7</b>	<b>1,004.7</b>
Liquidity payments	217.0	223.1	-	-	135.9	158.3	352.9	381.4
Routing and clearing fees	12.2	12.5	-	-	4.3	7.3	16.5	19.8
Section 31 fees	32.0	86.9	-	-	8.2	22.2	40.2	109.1
Royalty fees and other cost of revenues	13.6	3.4	2.3	2.3	44.2	31.6	60.1	37.3
<b>Total cost of revenues</b>	<b>274.8</b>	<b>325.9</b>	<b>2.3</b>	<b>2.3</b>	<b>192.6</b>	<b>219.4</b>	<b>469.7</b>	<b>547.6</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>86.9</b>	<b>97.1</b>	<b>135.2</b>	<b>125.8</b>	<b>276.9</b>	<b>234.2</b>	<b>499.0</b>	<b>457.1</b>
Acquisition revenue less cost of revenues (inorganic net revenue)	-	-	-	-	-	-	-	-
<b>Organic net revenue</b>	<b>86.9</b>	<b>97.1</b>	<b>135.2</b>	<b>125.8</b>	<b>276.9</b>	<b>234.2</b>	<b>499.0</b>	<b>457.1</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	
	2023	2022	2023	2022	2023	2022	2023	2022
	Transaction and clearing fees	\$1,149.7	\$1,375.5	\$ -	\$ -	\$1,681.6	\$1,563.3	\$ 2,831.3
Access and capacity fees	-	-	347.5	324.2	-	-	347.5	324.2
Market data fees	71.3	80.3	188.7	168.7	33.7	33.2	293.7	282.2
Regulatory fees	153.8	280.2	-	-	69.9	84.5	223.7	364.7
Other revenue	70.3	41.6	3.0	4.1	4.0	2.9	77.3	48.6
<b>Total revenues</b>	<b>1,445.1</b>	<b>1,777.6</b>	<b>539.2</b>	<b>497.0</b>	<b>1,789.2</b>	<b>1,683.9</b>	<b>3,773.5</b>	<b>3,958.5</b>
Liquidity payments	837.3	1,024.0	-	-	548.5	646.2	1,385.8	1,670.2
Routing and clearing fees	51.2	56.0	-	-	27.9	27.2	79.1	83.2
Section 31 fees	151.2	276.8	-	-	34.5	53.0	185.7	329.8
Royalty fees and other cost of revenues	38.9	14.1	9.1	9.2	156.9	110.3	204.9	133.6
<b>Total cost of revenues</b>	<b>1,078.6</b>	<b>1,370.9</b>	<b>9.1</b>	<b>9.2</b>	<b>767.8</b>	<b>836.7</b>	<b>1,855.5</b>	<b>2,216.8</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>366.5</b>	<b>406.7</b>	<b>530.1</b>	<b>487.8</b>	<b>1,021.4</b>	<b>847.2</b>	<b>1,918.0</b>	<b>1,741.7</b>
Acquisition revenue less cost of revenues (inorganic net revenue)	(1.7)	-	(5.9)	-	-	-	(7.6)	-
<b>Organic net revenue</b>	<b>364.8</b>	<b>406.7</b>	<b>524.2</b>	<b>487.8</b>	<b>1,021.4</b>	<b>847.2</b>	<b>1,910.4</b>	<b>1,741.7</b>

# Non-GAAP Information

## Non-GAAP Information

(in millions, except per share amounts)

	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<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	\$ 234.1	\$ 172.6	\$ 167.0	\$ 207.1	\$ 210.8	\$ 757.5
Acquisition-related expenses (1)	2.0	14.3	1.6	2.0	19.9	6.4	0.7	0.8	(0.5)	7.4
Investment establishment costs (2)	3.0	-	-	-	3.0	-	-	-	-	-
Gain on investment (3)	-	(7.5)	-	-	(7.5)	-	-	-	-	-
Loan forgiveness (4)	-	(1.3)	-	-	(1.3)	-	-	-	-	-
Amortization of acquired intangible assets (5)	30.6	30.1	30.4	33.2	124.3	30.9	29.3	28.2	28.2	116.6
Goodwill impairment (6)	-	460.1	0.8	-	460.9	-	-	-	-	-
Income from investment (7)	-	-	-	-	-	-	(2.1)	-	-	(2.1)
Impairment of Investment (8)	-	10.6	-	-	10.6	-	-	-	1.8	1.8
Change in contingent consideration (9)	-	-	-	(5.2)	(5.2)	-	-	-	(14.4)	(14.4)
<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>	<b>15.1</b>	<b>109.3</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)	(7.4)	(30.7)
Tax reserves (10)	48.5	-	-	-	48.5	1.5	0.7	(10.2)	1.9	(6.0)
Deferred tax re-measurements	-	-	-	(2.0)	(2.0)	-	-	-	1.1	1.1
Valuation allowances	-	-	-	-	-	-	-	-	(2.7)	(2.7)
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)	-	(0.4)
<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>\$ 218.8</b>	<b>\$ 828.1</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	\$ 1.98	\$ 7.13
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	0.08	0.67
<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>\$ 2.06</b>	<b>\$ 7.80</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	\$ 499.0	\$ 1,918.0
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>\$ 499.0</b>	<b>\$ 1,918.0</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>	<b>\$ 205.0</b>	<b>\$ 860.1</b>
Non-GAAP expense adjustments noted above	32.6	504.5	32.8	30.0	599.9	37.3	30.0	29.0	13.3	109.6
<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>	<b>\$ 191.7</b>	<b>\$ 750.5</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)	\$ -	\$ -	\$ (17.3)
<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>	<b>\$ 191.7</b>	<b>\$ 733.2</b>
Operating income	\$ 239.7	\$ (237.4)	\$ 236.8	\$ 250.5	\$ 489.6	\$ 247.9	\$ 244.8	\$ 271.2	\$ 294.0	\$ 1,057.9
Non-GAAP expense adjustments noted above	32.6	504.5	32.8	30.0	599.9	37.3	30.0	29.0	13.3	109.6
<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>\$ 307.3</b>	<b>\$ 1,167.5</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>61.6%</b>	<b>60.9%</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	\$ 287.5	\$ 1,047.6
Non-GAAP adjustments noted above	35.6	506.3	32.8	30.0	604.7	37.3	27.9	29.0	15.1	109.3
<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>	<b>\$ 302.6</b>	<b>\$ 1,156.9</b>
Income tax expense	\$ 115.3	\$ (72.3)	\$ 78.8	\$ 76.1	\$ 197.9	\$ 74.8	\$ 74.0	\$ 61.9	\$ 75.5	\$ 286.2
Non-GAAP adjustments noted above	(39.8)	143.2	(2.9)	(3.3)	97.2	8.0	6.1	17.1	7.1	38.3
<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>\$ 82.6</b>	<b>\$ 324.5</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>	<b>27.3%</b>	<b>28.0%</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 (ErisX) in connection with the full acquisition of Cboe Digital.

(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, Cboe Japan, and Cboe Canada 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" (\$3.2 million and \$2.0 million in expense for the three months ended December 31, 2023 and 2022, respectively, and \$9.2 million and \$0.5 million in expense for the twelve months ended December 31, 2023 and 2022, respectively), and are directly offset by deferred compensation income, expenses and dividends included within "Other income (expense), net" (\$3.2 million and \$2.0 million in income, expense and dividends in the three months ended December 31, 2023 and 2022, respectively, and \$9.2 million and \$0.5 million in income, expense and dividends in the twelve months ended December 31, 2023 and 2022, respectively), on the condensed 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, impairment of goodwill, 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)	1Q22	2Q22	3Q22	4Q22	2022	1Q23	2Q23	3Q23	4Q23	2023
<b>Net income allocated to common stockholders</b>	\$ 109.2	\$ (184.5)	\$ 149.6	\$ 159.0	\$ 234.1	\$ 172.6	\$ 167.0	\$ 207.1	\$ 210.8	\$ 757.5
Interest expense, net	10.8	14.6	15.3	15.7	56.4	15.1	13.9	11.9	9.5	50.4
Income tax provision	115.3	(72.3)	78.8	76.1	197.9	74.8	74.0	61.9	75.5	286.2
Depreciation and amortization	40.9	40.2	41.0	44.7	166.8	41.4	39.8	38.8	38.0	158.0
<b>EBITDA</b>	<b>\$ 276.2</b>	<b>\$ (202.0)</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>\$ 333.8</b>	<b>\$ 1,252.1</b>
<b>EBITDA Margin</b>	<b>66.1%</b>	<b>-47.6%</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>66.9%</b>	<b>65.3%</b>
<b>Non-GAAP adjustments not included in above</b>										
Acquisition-related expenses	2.0	14.3	1.6	2.0	19.9	6.4	0.7	0.8	(0.5)	7.4
Change in contingent consideration	-	-	-	(5.2)	(5.2)	-	-	-	(14.4)	(14.4)
Gain on investment	-	(7.5)	-	-	(7.5)	-	-	-	-	-
Loan forgiveness	-	(1.3)	-	-	(1.3)	-	-	-	-	-
Goodwill impairment	-	460.1	0.8	-	460.9	-	-	-	-	-
Investment establishment costs	3.0	-	-	-	3.0	-	-	-	-	-
Income from investment	-	-	-	-	-	-	(2.1)	-	-	(2.1)
Impairment of investment	-	10.6	-	-	10.6	-	-	-	1.8	1.8
<b>Adjusted EBITDA</b>	<b>\$ 281.2</b>	<b>\$ 274.2</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>\$ 320.7</b>	<b>\$ 1,244.8</b>
<b>Adjusted EBITDA Margin</b>	<b>67.3%</b>	<b>64.7%</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>	<b>64.3%</b>	<b>64.9%</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)	1Q23	2Q23	3Q23	4Q23	LTM
Net income allocated to common stockholders	\$ 172.6	\$ 167.0	\$ 207.1	\$ 210.8	\$ 757.5
Interest expense, net	15.1	13.9	11.9	9.5	50.4
Income tax provision	74.8	74.0	61.9	75.5	286.2
Depreciation and amortization	41.4	39.8	38.8	38.0	158.0
<b>EBITDA</b>	<b>\$ 303.9</b>	<b>\$ 294.7</b>	<b>\$ 319.7</b>	<b>\$ 333.8</b>	<b>\$ 1,252.1</b>
Non-GAAP adjustments not included in above line items:					
Acquisition-related expenses	6.4	0.7	0.8	(0.5)	7.4
Change in contingent consideration	-	-	-	(14.4)	(14.4)
Income from investment	-	(2.1)	-	-	(2.1)
Impairment from investment	-	-	-	1.8	1.8
<b>Adjusted EBITDA</b>	<b>\$ 310.3</b>	<b>\$ 293.3</b>	<b>\$ 320.5</b>	<b>\$ 320.7</b>	<b>\$ 1,244.8</b>
Debt at end of period					\$ 1,450.0
<b>Debt to EBITDA</b>					<b>1.2x</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 12/31/22	As of 3/31/23	As of 6/30/23	As of 9/30/23	As of 12/31/23
Cash and cash equivalents	\$ 432.7	\$ 435.6	\$ 413.6	\$ 403.1	\$ 543.2
Financial investments	91.7	80.2	103.7	34.0	57.5
Less deferred compensation plan	(27.5)	(30.7)	(32.7)	(33.5)	(36.7)
Less cash collected for Section 31 fees	(93.7)	(50.0)	(81.6)	-	(30.5)
<b>Adjusted Cash</b>	<b>\$ 403.2</b>	<b>\$ 435.1</b>	<b>\$ 403.0</b>	<b>\$ 403.6</b>	<b>\$ 533.5</b>

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