



# ***FOURTH QUARTER 2024 EARNINGS PRESENTATION***

**February 7, 2025**



# Agenda

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## ◆ Business 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*

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## ◆ Questions & Answers

**Fredric Tomczyk**

**Dave Howson**

**Jill Griebenow**

**Chris Isaacson**

*Executive Vice President, Chief Operating Officer*

# Disclosures

## Forward-Looking Statements

*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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*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; 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 and other applicable 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; risks relating to digital assets, including winding down the Cboe Digital spot crypto market and transitioning digital asset futures contracts to CFE, operating a digital assets futures clearinghouse, cybercrime, changes in digital asset regulation, 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, 2023 and other filings made from time to time with the SEC.*

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## Industry and Market Data

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

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## Non-GAAP Measures

*This presentation includes certain Non-GAAP measures as defined under SEC rules, including, among others, organic net revenue, adjusted EPS, adjusted EBITDA, adjusted operating expenses, and adjusted cash. Additional information, reconciliations, and definitions are included in the appendix to this presentation.*

## Key Performance Indicators

*Managements focuses on a variety of key indicators to plan, measure and evaluate our business and financial performance. These performance indicators include, among others, average daily volume (ADV), average daily notional value (ADNV), trades cleared, net settlement volume, as well as Non-GAAP measures of adjusted EPS and adjusted EBITDA. Please refer to Item 2. Management's Discussion and Analysis of Financial Condition for additional information on operational and financial metrics and measures.*

# ***QUARTERLY RECAP AND OUTLOOK***

- Fredric Tomczyk, CEO
- Dave Howson, Global President

# 4Q24: Solid Net Revenue in Fourth Quarter Capped a Record Year\*

*Net revenues grew 5% Y/Y, a product of continued transaction and non-transaction growth*

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

- Total options ADV up 5%, driven by an 8% increase in multi-listed options ADV

## 14% increase in Cash and Spot Markets organic net revenue<sup>1</sup>

- Europe and Asia Pacific net revenue increased 17% y/y
- North American Equities net revenue rose 10% y/y

## 8% increase in Cboe Data Vantage organic net revenue<sup>1</sup>

- Continued expansion in transaction capabilities drove solid access and capacity fees
- Comprehensive suite of data solutions across geographies and asset classes translated to solid revenue results



\*Unless otherwise noted, all comparisons are fourth quarter 2024 compared to the same period in 2023.

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

# Reflecting on 2024 Trends

## Record Setting Trends<sup>1</sup>...

- ◆ **3.8bn total options contracts** traded across Cboe's four exchanges, the fifth consecutive record-breaking year
- ◆ **SPX options** ADV up 7% to a **record 3.1mn contracts**
- ◆ **ODTE SPX options** ADV grew 15% to **1.5mn contracts**, comprising 49% of SPX options ADV
- ◆ **VIX options** ADV up 12% to a **record 830k contracts**
- ◆ **XSP options** ADV up 7% to a **record 70k contracts**
- ◆ **Cboe Australia** achieved record market share
- ◆ **Cboe Japan** achieved record market share

## ...Drove Broad-Based Growth

*Every segment and category at Cboe produced y/y net revenue growth in 2024*

**Options**  
+8%

**N.A. Equities**  
+5%

**Europe and Asia Pacific**  
+16%

**Futures**  
+7%

**Global FX**  
+6%

**Derivatives**  
+8%

**Data Vantage**  
+7%

**Cash and Spot**  
+10%

<sup>1</sup>All statistics represent full year 2024, and all comparisons are full year 2024 compared to full year 2023.

# Derivatives: Aligned with Cyclical and Secular Trends

## Cyclical Tailwinds



Macroeconomic and geopolitical environment



New U.S. administration and shifting policy

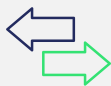


Investor positioning in dynamic markets

## Secular Trends



Globalization of markets, demand, and access



Wider retail adoption of options

## Leveraging the Cboe Volatility Toolkit

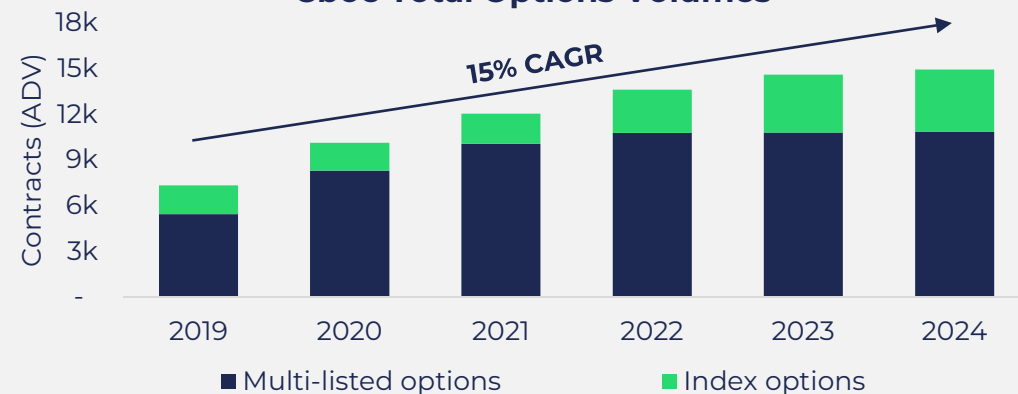
### *Tactically Manage Headline Risk*

- Hedge important macroeconomic events with ODTE options
- Manage headlines and uncertainties around potential policies such as fiscal spending and tariffs

### *Reposition Portfolios for Long-Term Trends*

- Quickly shift equity exposure as market outlook changes with monetary, fiscal, and trade policies
- Better manage portfolio risk through direct hedges amidst deteriorating equity/fixed income correlations

### Cboe Total Options Volumes



# Unlocking Global Growth Potential

## North America

- ◆ North American Equities net transaction and clearing fees<sup>1</sup> were up 28% as compared to 4Q23
- ◆ Canadian Equities ADV rose to 157.4mn in 4Q24 from 141.8mn in 4Q23

## Europe

- ◆ Cboe Europe remained Europe's leading market share during continuous trading hours
- ◆ Cboe Clear Europe market share<sup>2</sup> grew to 38.5% in 4Q24 from 36.1% in 4Q23

## Asia Pacific

- ◆ Grew Cboe Australia Equities market share to 20.8% in 4Q24 from 20.3% in 4Q23
- ◆ Grew Cboe Japan Equities market share to 4.9% in 4Q24 from 4.0% in 4Q23

## Market Data Expansion

### Related Revenue Opportunities

- ◆ ~40% of new data sales occurred outside of the U.S.
- ◆ Sustained growth in Data Vantage net revenues<sup>3</sup> in all major regions
- ◆ ~80% of Cboe Global Cloud incremental revenue from outside the Americas

## Securities Financing Transactions

- ◆ Nine committed participants expected for the SFT clearing service, including banks, clearing firms, asset managers and custodians
- ◆ Capital efficiency remains a key focus for financial institutions given evolving regulatory requirements
- ◆ SFT has potential to meaningfully reduce risk weighted assets for customers

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."

<sup>2</sup>European market share represents Cboe Clear Europe's client volume cleared divided by the total volume of publicly reported European venues. As of January 2025, excludes market volume not cleared within the Cboe Clear Europe pan-European equities market space. Prior periods have been restated in accordance with this methodology.

<sup>3</sup>Growth in USD.

Note: Except as specified otherwise, all commentary as of 4Q24.



# Cboe Data Vantage: Driving Durable Growth

## Many Avenues of Potential Growth

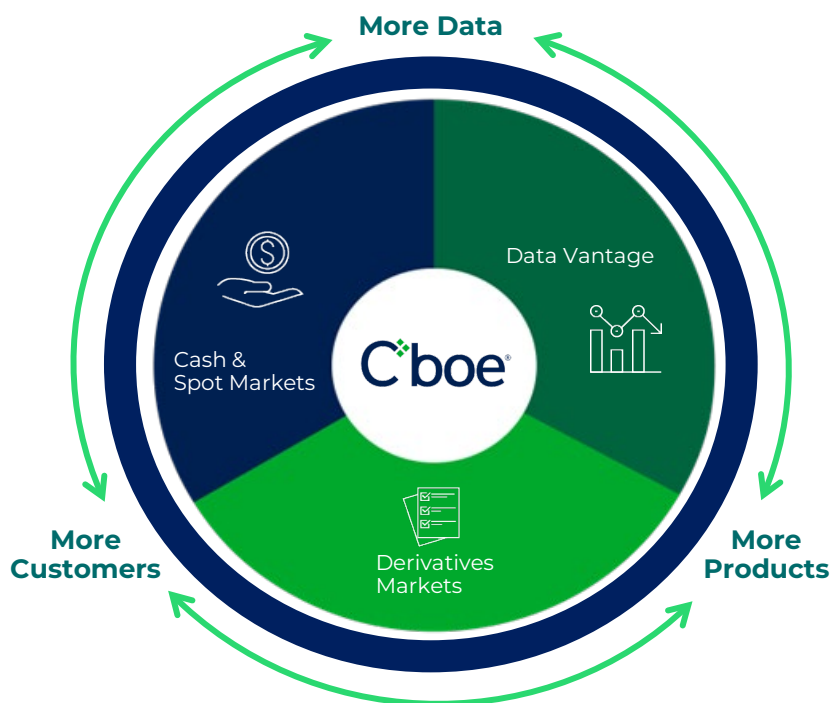
Data	Access	Analytics & Execution
<b><i>Comprehensive suite of real-time, historical, and reference data across asset classes</i></b> <ul style="list-style-type: none"><li>◆ Leverages Cboe's market-leading position in multiple asset classes around the globe</li><li>◆ Comprehensive streaming data services, including Cboe Global Indices Feed</li><li>◆ Cboe Global Cloud extends access to Europe and Asia Pacific</li><li>◆ Near-term focus: Enhanced feeds for options markets and global distribution</li></ul>	<b><i>Global access across asset classes through a robust technology platform</i></b> <ul style="list-style-type: none"><li>◆ Proven and reliable infrastructure</li><li>◆ Near-term focus: Expanding dedicated cores offering globally and enhancing options access architecture</li></ul>	<b><i>Proprietary analytics, platforms, and risk-management solutions</i></b> <ul style="list-style-type: none"><li>◆ Robust suite of risk and volatility analytics</li><li>◆ Cutting-edge order-flow analysis and execution management system</li><li>◆ Near-term focus: Risk and market analytics services, time stamping service, enhanced theoretical pricing service for flex options</li></ul>

## Shifting Technology Resources from Integration to Data Vantage Enhancements

### ***Customer focused priorities include:***

- ➡ Comprehensive market data and distribution solutions
- ➡ Greater analytical insights leveraging proprietary data
- ➡ Access layer architecture for our equities and options markets

# Executing on Growth Priorities



## Progress

### Global Derivatives

- ◆ Derivatives delivered 8% y/y organic net revenue growth<sup>1</sup> in 2024
- ◆ ODTE SPX trading made up 51% of 4Q24 SPX activity and ADV was up 6% y/y in 4Q24
- ◆ CEDX achieved a record quarter of lots traded in 4Q24, with an 117% increase vs. 4Q23
- ◆ Expanded volatility toolkit with launch of Variance Futures in September 2024 and Options on VIX Futures in October 2024

### Global Data Vantage

- ◆ Delivered organic net revenue growth<sup>1</sup> of 8% in 4Q24 and 7% in 2024
- ◆ Data Vantage organic net revenue growth target for 2025<sup>3</sup> is mid to high single digits

## 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
- ◆ \$42bn annual global spend on financial market data in 2023<sup>4</sup>
- ◆ \$6bn annual global spend in indices in 2023<sup>4</sup>

## Drivers

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

<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 slide "2025 Guidance" for disclosures on growth targets; all 2025 guidance as of February 7, 2025.

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

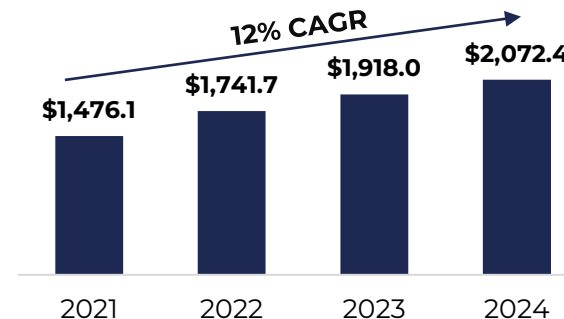
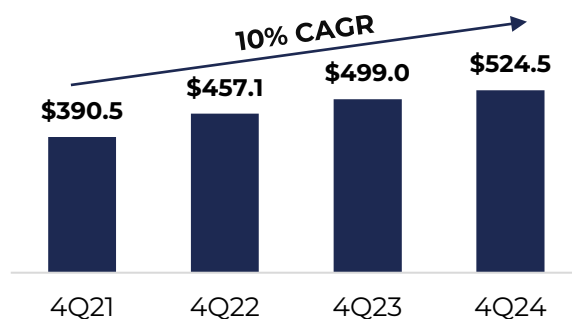
# ***FINANCIAL OVERVIEW AND GUIDANCE***

➤ Jill Griebenow, EVP, CFO

# 4Q24 Financial Summary

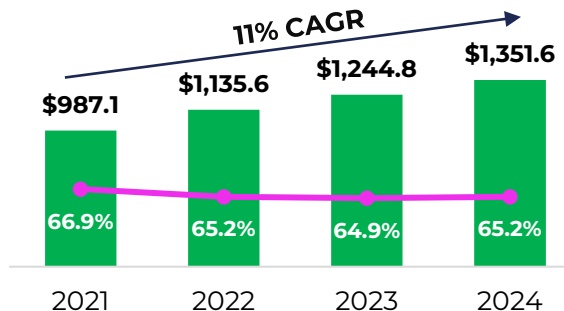
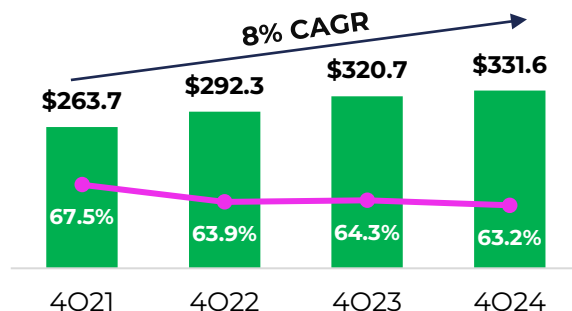
**\$524.5mn**

Net Revenue  
**+5% Y/Y**



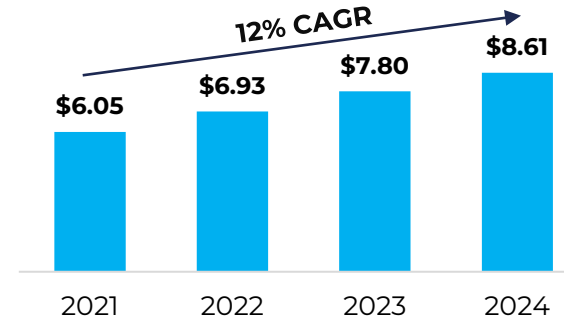
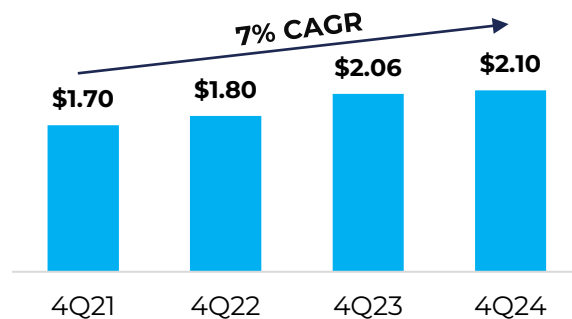
**\$331.6mn**

Adjusted EBITDA<sup>1</sup>  
**+3% Y/Y**  
(Adjusted EBITDA margin<sup>1</sup> of 63.2%)



**\$2.10**

Adjusted Diluted EPS<sup>1</sup>  
**+2% Y/Y**



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



# 4Q24 Net Revenue by Segment<sup>1</sup> and Key Drivers

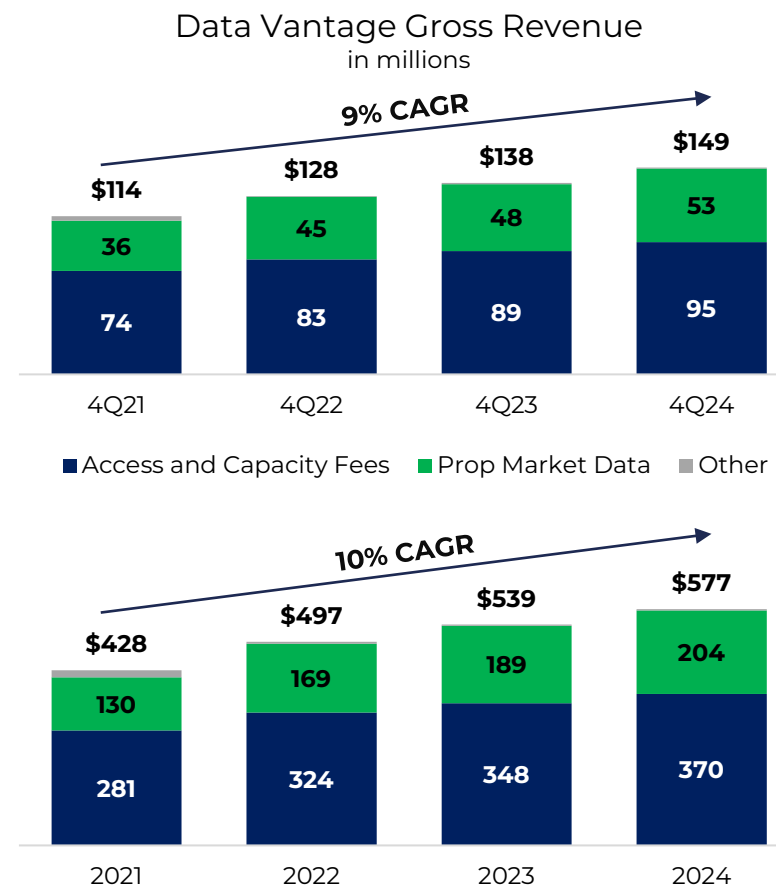


<sup>1</sup>The Digital segment is not further discussed as results were not material during the fourth quarter of 2024.

# Grew 4Q24 Data Vantage Net Revenue 8% YoY Organically<sup>1</sup>

**Introduced 2025 organic net revenue growth rate<sup>2</sup> target for Data Vantage business of mid to high single digits<sup>3</sup>**

- ◆ 4Q24 Data Vantage net revenue of \$145.9 million up 8% YoY organically<sup>1</sup>
- ◆ 2024 Data Vantage net revenue of \$565.7 million up 7% YoY organically<sup>1</sup>
- ◆ Anticipate new opportunities across the ecosystem will help drive future growth
  - ◆ Continued demand for global access, leveraging Cboe Global Cloud
  - ◆ Enhancing the exchange access layer with expansion of dedicated cores
  - ◆ Greater analytical insights leveraging proprietary data



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

<sup>2</sup>See slide "2025 Guidance" for disclosures on growth targets.

<sup>3</sup>2025 Guidance as of February 7, 2025.

# 4Q24 Adjusted Operating Expenses<sup>1</sup> Up 7%, Driven by Travel and Promotional and Technology Support Services

Adjusted Operating Expenses <sup>1</sup> (in millions)	4Q24	4Q23	% Chg	2024	2023	% Chg
Compensation and benefits	\$111.4	\$112.8	-1%	\$460.3	\$425.8	8%
Depreciation and amortization	11.5	9.8	17%	44.3	41.4	7%
Technology support services	28.5	24.2	18%	102.8	99.7	3%
Professional fees and outside services	25.6	23.3	10%	94.8	92.0	3%
Travel and promotional	16.4	9.0	82%	45.8	37.6	22%
Facilities costs	6.1	5.7	7%	24.6	25.7	-4%
Other expenses	5.3	6.9	-23%	26.2	28.3	-7%
<b>Total<sup>1</sup></b>	<b>\$204.8</b>	<b>\$191.7</b>	<b>7%</b>	<b>\$798.8</b>	<b>\$750.5</b>	<b>6%</b>

- ◆ 4Q24 increase driven by higher travel and promotional expenses and technology support services expenses
  - ◆ \$7 million increase in travel and promotional expenses
  - ◆ \$4 million increase in technology support services expenses

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

# 2025 Guidance

2025 Full-Year Guidance <sup>1</sup> (\$ in millions)	2025 Guidance as of February 7, 2025	2024 Actual
Data Vantage <sup>3</sup> organic net revenue growth rate	Mid to High Single Digit	7% <sup>2</sup>
Total organic net revenue growth rate	Mid Single Digit	8% <sup>2</sup>
Adjusted operating expenses <sup>4</sup> <i>implied growth rate</i>	\$837 to 852 4.8 to 6.7%	\$798.8 <sup>2</sup> 6.4%
Depreciation and amortization (excluding amortization of acquired intangible assets)	\$55 to 59	\$44
Effective tax rate on adjusted earnings	28.5 to 30.5%	29.1% <sup>2</sup>
Capital expenditures	\$75 to 85	\$61

<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 appendix for "Non-GAAP Information."

<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 \$89 million for 2024 and is expected to be \$70 million for 2025. See appendix for "Non-GAAP Information."



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

Debt Outstanding (\$ in millions)	Mar. 31, 2024	Jun. 30, 2024	Sep. 30, 2024	Dec. 31, 2024
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	-	-	-	-
Cboe Clear Europe Credit Facility	-	-	-	-
<b>Total Debt (Gross)</b>	<b>\$1,450</b>	<b>\$1,450</b>	<b>\$1,450</b>	<b>\$1,450</b>
Debt to Adjusted EBITDA TTM <sup>1</sup>	1.1x	1.1x	1.1x	1.1x
Adjusted Cash & Financial Investments <sup>1</sup>	\$537	\$595	\$764	\$880
Share Repurchases	\$89.3	\$90.4	\$24.6	\$-
Dividends Paid	58.5	58.2	66.3	66.4
<b>Total Capital Returned to Shareholders</b>	<b>\$147.8</b>	<b>\$148.6</b>	<b>\$90.9</b>	<b>\$66.4</b>
Dividends Per Share	\$0.55	\$0.55	\$0.63	\$0.63

## 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 \$66.4 million in capital through dividends in 4Q24
- ◆ As of December 31, 2024, the Company had \$679.8 million of availability remaining under its existing share repurchase authorizations

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

# ***CLOSING REMARKS***

➤ Fredric Tomczyk, CEO

# CEO's Three Key Priorities



<sup>1</sup>See appendix for "Non-GAAP Information."  
<sup>2</sup>3Q23 through 4Q24.

# Appendix



# Options 4Q24 Net Revenue Up 3%, Reflecting Higher Net Transaction and Clearing Fees<sup>1</sup>

Options Selected Revenue Data (\$ in millions)	4Q24	4Q23	Chg	2024	2023	Chg
<b>Net Revenue</b>	<b>\$324.3</b>	<b>\$314.5</b>	<b>3%</b>	<b>\$1,259.3</b>	<b>\$1,169.2</b>	<b>8%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$282.0</b>	<b>\$279.4</b>	<b>1%</b>	<b>\$1,104.2</b>	<b>\$1,010.0</b>	<b>9%</b>
Index options	234.2	238.6	-2%	930.8	848.0	10%
Multi-listed options	47.8	40.8	17%	173.4	162.0	7%
<b>Access and capacity fees</b>	<b>\$42.8</b>	<b>\$41.4</b>	<b>3%</b>	<b>\$168.4</b>	<b>\$161.0</b>	<b>5%</b>
<b>Market data fees</b>	<b>\$33.2</b>	<b>\$29.4</b>	<b>13%</b>	<b>\$123.8</b>	<b>\$118.8</b>	<b>4%</b>
Market data – proprietary	24.9	21.7	15%	93.3	85.2	10%
Market data – industry	8.3	7.7	8%	30.5	33.6	-9%
Options Key Operating Stats	4Q24	4Q23	Chg	2024	2023	Chg
<b>Total market share</b>	<b>30.4%</b>	<b>33.5%</b>	<b>-3.1pts</b>	<b>30.8%</b>	<b>33.1%</b>	<b>-2.3pts</b>
Index options	98.6%	98.9%	-0.3pts	98.7%	99.0%	-0.3pts
Multi-listed options	24.5%	26.7%	-2.2pts	24.5%	26.8%	-2.3pts
<b>Total ADV (in thousands)</b>	<b>15,673</b>	<b>14,896</b>	<b>5%</b>	<b>14,946</b>	<b>14,614</b>	<b>2%</b>
Index options	4,040	4,172	-3%	4,094	3,800	8%
Multi-listed options	11,633	10,725	8%	10,853	10,814	0%
<b>Total RPC</b>	<b>\$0.281</b>	<b>\$0.297</b>	<b>-5%</b>	<b>\$0.293</b>	<b>\$0.276</b>	<b>6%</b>
Index options	\$0.905	\$0.908	0%	\$0.902	\$0.893	1%
Multi-listed options	\$0.064	\$0.060	8%	\$0.063	\$0.060	6%

- ◆ Higher net transaction and clearing fees<sup>1</sup> from increase in multi-listed options volumes
- ◆ Market data fees were up 13%

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."

Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

# North American (N.A.) Equities 4Q24 Net Revenue Up 10%, Driven by Higher Net Transaction and Clearing Fees<sup>1</sup>

N.A. Equities Selected Revenue Data (\$ in millions)	4Q24	4Q23	Chg	2024	2023	Chg
<b>Net Revenue</b>	<b>\$94.9</b>	<b>\$86.3</b>	<b>10%</b>	<b>\$383.8</b>	<b>\$365.3</b>	<b>5%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$29.3</b>	<b>\$22.9</b>	<b>28%</b>	<b>\$125.9</b>	<b>\$109.9</b>	<b>15%</b>
<b>Market data fees</b>	<b>\$29.6</b>	<b>\$31.5</b>	<b>-6%</b>	<b>\$120.8</b>	<b>\$128.3</b>	<b>-6%</b>
Market data - proprietary	15.3	14.5	6%	60.3	57.0	6%
Market data - SIP <sup>2</sup>	14.3	17.0	-16%	60.5	71.3	-15%
<b>Access and capacity fees</b>	<b>\$34.2</b>	<b>\$30.1</b>	<b>14%</b>	<b>\$127.7</b>	<b>\$117.1</b>	<b>9%</b>
N.A. Equities Key Operating Stats	4Q24	4Q23	Chg	2024	2023	Chg
<b>U.S. Equities Exchange</b> (shares in billions)						
Total Market Share	10.8%	13.0%	-2.2pts	11.4%	12.8%	-1.4pts
Market ADV	13.6	11.2	22%	12.2	11.0	10%
ADV (matched shares)	1.5	1.5	0%	1.4	1.4	-1%
Net capture (per 100 touched shares)	\$0.018	\$0.013	42%	\$0.022	\$0.018	17%
<b>U.S. Equities Off-Exchange</b> (shares in millions)						
Off-Exchange ATS Block Market Share <sup>3</sup>	17.3%	18.4%	-1.1pts	17.9%	19.6%	-1.7pts
ADV (touched shares)	80.0	76.1	5%	79.0	79.5	-1%
Net capture (per 100 touched shares)	\$0.126	\$0.137	-8%	\$0.132	\$0.124	7%
<b>Canadian Equities</b> (shares in millions)						
Total Market Share	14.3%	15.3%	-1.0pts	14.8%	14.8%	0.0pts
ADV (matched shares, in millions)	157.4	141.8	11%	147.6	136.1	8%
Net capture (per 10,000 touched shares, in CAD)	CAD 4.008	CAD 3.905	3%	CAD 4.069	CAD 3.994	2%

- ◆ Net transaction and clearing fees<sup>1</sup> were up 28%
- ◆ Access and capacity fees were up 14%

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."

<sup>2</sup>Includes SIP audit recoveries of \$1.1mn in 4Q24 and \$0.7 in 4Q23.

<sup>3</sup>Represents market share for 4Q24 through November 2024.

Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

# Europe and APAC 4Q24 Net Revenue Up 17%, Reflecting Transaction and Non-Transaction Revenue Growth

Europe and APAC Selected Revenue Data (\$ in millions)	4Q24	4Q23	Chg	2024	2023	Chg
<b>Net Revenue</b>	<b>\$56.2</b>	<b>\$48.0</b>	<b>17%</b>	<b>\$220.2</b>	<b>\$190.2</b>	<b>16%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$28.4</b>	<b>\$23.0</b>	<b>23%</b>	<b>\$108.6</b>	<b>\$93.2</b>	<b>17%</b>
Net transaction fees	20.8	16.1	29%	79.3	65.9	20%
Net clearing fees	7.6	6.9	10%	29.3	27.3	7%
<b>Market data fees</b>	<b>\$9.9</b>	<b>\$9.2</b>	<b>8%</b>	<b>\$39.4</b>	<b>\$36.7</b>	<b>7%</b>
<b>Access and capacity fees</b>	<b>\$9.9</b>	<b>\$8.9</b>	<b>11%</b>	<b>\$40.3</b>	<b>\$36.3</b>	<b>11%</b>
<b>Other<sup>2</sup></b>	<b>\$8.0</b>	<b>\$6.9</b>	<b>16%</b>	<b>\$31.9</b>	<b>\$24.0</b>	<b>33%</b>
<b>Europe Key Operating Stats</b>	<b>4Q24</b>	<b>4Q23</b>	<b>Chg</b>	<b>2024</b>	<b>2023</b>	<b>Chg</b>
<b>European Equities:</b>						
Total market share	24.6%	23.9%	0.7pts	23.6%	24.0%	-0.4pts
Market ADNV (in billions)	€ 42.3	€ 37.7	12%	€ 41.4	€ 39.1	6%
Net capture (per matched notional value, in bps)	0.261	0.233	12%	0.255	0.226	12%
<b>Cboe Clear Europe</b>						
Trades cleared (in millions)	329.0	281.9	17%	1,229.2	1,172.0	5%
Fee per trade cleared	€ 0.008	€ 0.010	-14%	€ 0.008	€ 0.009	-9%
Net settlement volume (in millions)	3.0	2.5	18%	11.2	10.0	11%
Net fee per settlement	€ 1.002	€ 0.899	12%	€ 1.033	€ 0.917	13%
European equities market share cleared <sup>3</sup>	38.5%	36.1%	2.4pts	37.4%	34.9%	2.5pts
<b>APAC Key Operating Stats</b>	<b>4Q24</b>	<b>4Q23</b>	<b>Chg</b>	<b>2024</b>	<b>2023</b>	<b>Chg</b>
<b>Australian Equities:</b>						
Total market share	20.8%	20.3%	0.5pts	20.7%	18.7%	2.0pts
ADNV (AUD in billions)	\$0.8	\$0.7	9%	\$0.8	\$0.7	12%
Net capture (per matched notional value)	0.154	0.157	-2%	0.155	0.158	-2%
<b>Japanese Equities:</b>						
Total market share	4.9%	4.0%	0.9pts	5.2%	4.0%	1.2pts
ADNV (JPY in billions)	¥263.8	¥190.2	39%	¥304.2	¥176.6	72%
Net capture (per matched notional value)	0.233	0.252	-8%	0.227	0.252	-10%

- ◆ Market data, access fees and other were up a combined 11%
- ◆ Cboe Australia grew market share by 0.5% and Cboe Japan grew market share by 0.9%

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."

<sup>2</sup>Primarily includes trade reporting and Cboe Clear Europe net interest income.

<sup>3</sup>As of January 2025, excludes market volume not cleared within the Cboe Clear Europe pan-European equities market space. Prior periods have been restated in accordance with this methodology.

Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

# Futures 4Q24 Net Revenue Down 7%, Driven by Lower Net Transaction and Clearing Fees<sup>1</sup>

<b>Futures Selected Revenue Data</b> (\$ in millions)	<b>4Q24</b>	<b>4Q23</b>	<b>Chg</b>	<b>2024</b>	<b>2023</b>	<b>Chg</b>
<b>Net Revenue</b>	<b>\$30.2</b>	<b>\$32.4</b>	<b>-7%</b>	<b>\$133.5</b>	<b>\$125.1</b>	<b>7%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$23.2</b>	<b>\$25.4</b>	<b>-9%</b>	<b>\$105.8</b>	<b>\$98.0</b>	<b>8%</b>
<b>Access and capacity fees</b>	<b>\$5.5</b>	<b>\$5.5</b>	<b>0%</b>	<b>\$22.4</b>	<b>\$22.0</b>	<b>2%</b>
<b>Market data fees</b>	<b>\$2.5</b>	<b>\$2.3</b>	<b>9%</b>	<b>\$9.3</b>	<b>\$8.5</b>	<b>9%</b>
<b>Futures Key Operating Stats</b> (in thousands, except RPC)	<b>4Q24</b>	<b>4Q23</b>	<b>Chg</b>	<b>2024</b>	<b>2023</b>	<b>Chg</b>
Total ADV	206.4	233.4	-12%	238.6	223.3	7%
Total RPC	\$1.765	\$1.729	2%	\$1.760	\$1.755	0%

- ◆ Net transaction and clearing fees<sup>1</sup> declined 9%, reflecting lower ADV

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."  
Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

# Global FX 4Q24 Net Revenue Up 3%, Reflecting Higher Net Transaction and Clearing Fees<sup>1</sup>

FX Selected Revenue Data (\$ in millions)	4Q24	4Q23	Chg	2024	2023	Chg
<b>Net Revenue</b>	<b>\$19.4</b>	<b>\$18.9</b>	<b>3%</b>	<b>\$77.6</b>	<b>\$73.5</b>	<b>6%</b>
<b>Net transaction and clearing fees<sup>1</sup></b>	<b>\$16.2</b>	<b>\$15.5</b>	<b>5%</b>	<b>64.9</b>	<b>61.0</b>	<b>6%</b>
<b>Non-transaction revenue</b>	<b>\$3.2</b>	<b>\$3.4</b>	<b>-6%</b>	<b>12.7</b>	<b>12.5</b>	<b>2%</b>
FX Key Operating Stats	4Q24	4Q23	Chg	2024	2023	Chg
Market share <sup>2</sup>	19.0%	21.3%	-2.3pts	19.6%	20.0%	-0.4pts
Average Daily Notional Value (\$ in billions)	\$45.6	\$47.0	-3%	\$46.7	\$44.7	5%
Net capture (per one million dollars traded)	\$2.72	\$2.60	5%	\$2.68	\$2.64	1%

- ◆ Net transaction and clearing fees<sup>1</sup> were up 5%
- ◆ Net capture was up 5%

<sup>1</sup>See appendix for "Net Transaction and Clearing Fees by Segment."

<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).

Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

# 4Q24 and Full Year 2024 Financial Overview

Adjusted Financial Results <sup>1</sup> (\$ in millions, except per share)	4Q24	4Q23	Chg	2024	2023	% Chg
Adjusted Net Revenue <sup>2</sup>	\$524.5	\$499.0	5%	\$2,071.4	\$1,918.0	8%
Adjusted Operating Expenses	\$204.8	\$191.7	7%	\$798.8	\$750.5	6%
Adjusted Operating Income	\$319.7	\$307.3	4%	\$1,272.6	\$1,167.5	9%
<i>Adjusted Operating Margin</i>	61.0%	61.6%	-0.6pts	61.4%	60.9%	0.6pts
Adjusted Net Income Allocated to Common Stockholders	\$221.2	\$218.8	1%	\$908.0	\$828.1	10%
Adjusted Diluted EPS	\$2.10	\$2.06	2%	\$ 8.61	\$ 7.80	10%
Adjusted EBITDA	\$331.6	\$320.7	3%	\$1,351.6	\$1,244.8	9%
<i>Adjusted EBITDA Margin</i>	63.2%	64.3%	-1.1pts	65.2%	64.9%	0.2pts

<sup>1</sup>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)	4Q24	4Q23	% Chg	2024	2023	% Chg
Cash and Spot Markets	\$98.9	\$86.9	14%	\$403.2	\$366.5	10%
Data Vantage	\$145.9	\$135.2	8%	\$565.7	\$530.1	7%
Derivatives Markets	\$279.7	\$276.9	1%	\$1,103.5	\$1,021.4	8%
<b>Total</b>	<b>\$524.5</b>	<b>\$499.0</b>	<b>5%</b>	<b>\$2,072.4</b>	<b>\$1,918.0</b>	<b>8%</b>

- ◆ Cash and Spot Markets driven by strong transaction and clearing fees
- ◆ Data Vantage benefited from continued international growth
- ◆ Derivatives Markets driven by solid transaction and clearing fees

<sup>1</sup>Net revenue represents revenue less cost of revenues. See appendix for "4Q24 Net Revenue by Revenue Caption" and "Full Year 2024 Net Revenue by Revenue Caption."  
Note: Except as specified otherwise, all commentary reflective of 4Q24 compared to the same period in 2023.

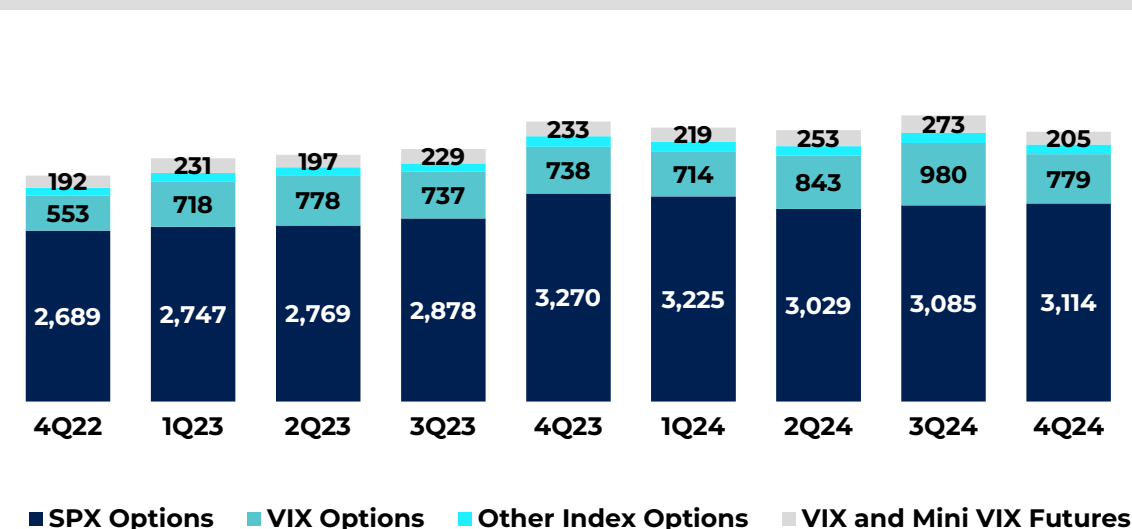
# Focused on Growing the Proprietary Index Suite

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 Tuesday-expiring SPX Weeklys April 2022, Thursday expirations in May 2022; launched Tuesday / Thursday Russell 2000 Index Options in January 2024
  - ◆ Launched options on IBHY and IBIG futures in July 2023
  - ◆ Launched Variance Futures in September 2024 and Options on VIX Futures in October 2024

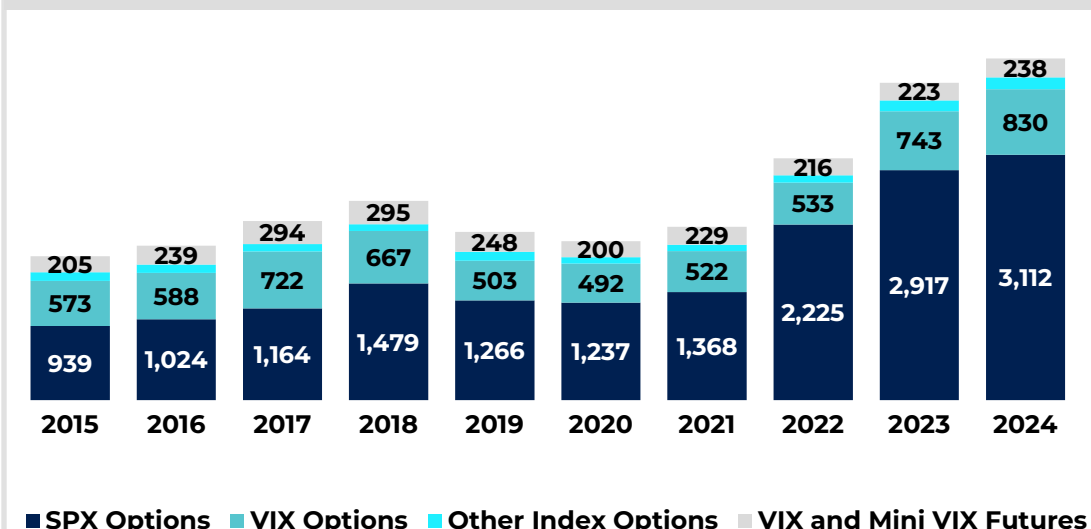
## Quarterly ADV for Index Options and VIX Futures

(in thousands)



## Annual ADV for Index Options and VIX Futures

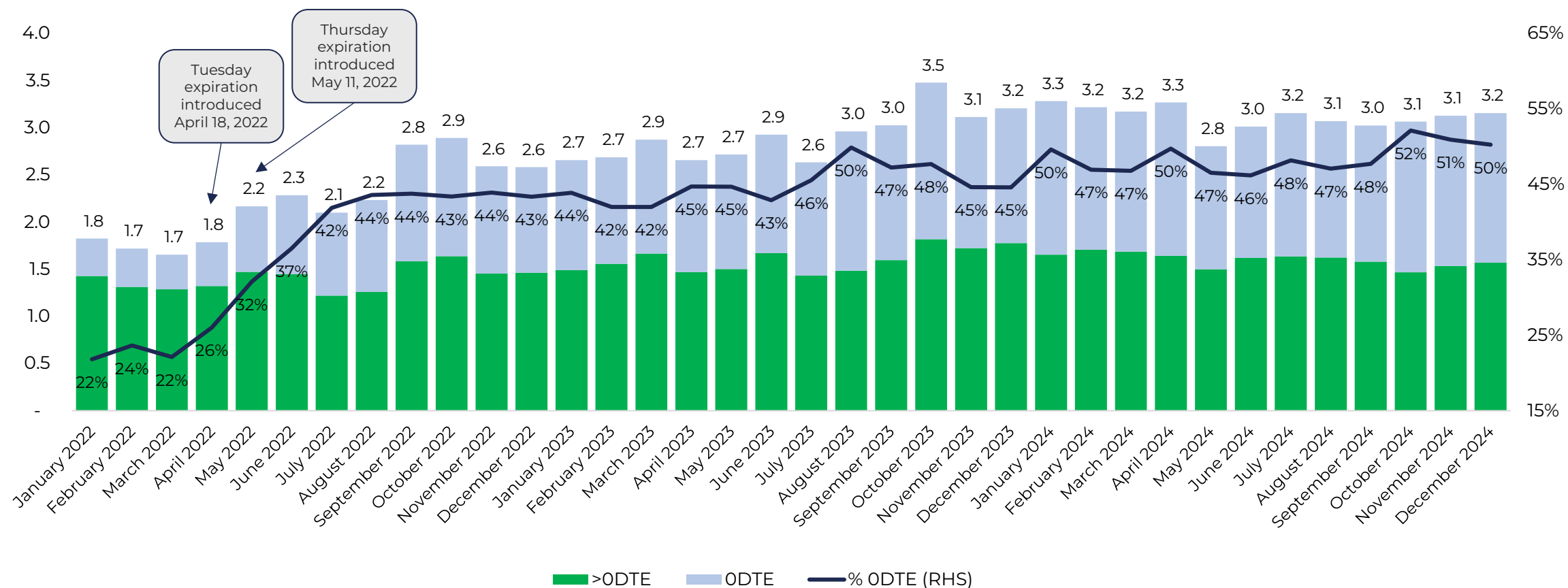
(in thousands)



# ODTE Adding Stability to SPX Volumes

## SPX ADV by Expiration

in millions of contracts



# 4Q24 Net Revenue by Revenue Caption

For the Three Months Ended December 31 (in millions)	Cash and Spot Markets		Data Vantage		Derivatives Markets		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 318.6	\$ 290.2	\$ -	\$ -	\$ 444.0	\$ 444.3	\$ 762.6	\$ 734.5
Access and capacity fees	-	-	95.0	88.7	-	-	95.0	88.7
Market data fees	14.3	17.0	53.0	47.9	8.3	7.8	75.6	72.7
Regulatory fees	114.2	32.2	-	-	37.0	15.6	151.2	47.8
Other revenue	21.5	22.3	0.7	0.9	1.0	1.8	23.2	25.0
<b>Total revenues</b>	<b>468.6</b>	<b>361.7</b>	<b>148.7</b>	<b>137.5</b>	<b>490.3</b>	<b>469.5</b>	<b>1,107.6</b>	<b>968.7</b>
Liquidity payments	229.7	217.0	-	-	136.0	135.9	365.7	352.9
Routing and clearing fees	14.1	12.2	-	-	4.2	4.3	18.3	16.5
Section 31 fees	114.1	32.0	-	-	28.0	8.2	142.1	40.2
Royalty fees and other cost of revenues	11.8	13.6	2.8	2.3	42.4	44.2	57.0	60.1
<b>Total cost of revenues</b>	<b>369.7</b>	<b>274.8</b>	<b>2.8</b>	<b>2.3</b>	<b>210.6</b>	<b>192.6</b>	<b>583.1</b>	<b>469.7</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>98.9</b>	<b>86.9</b>	<b>145.9</b>	<b>135.2</b>	<b>279.7</b>	<b>276.9</b>	<b>524.5</b>	<b>499.0</b>

# Full Year 2024 Net Revenue by Revenue Caption

For the Twelve Months Ended December 31 (in millions)	Cash and Spot Markets		Data Vantage		Derivatives Markets		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 1,196.3	\$ 1,149.7	\$ -	\$ -	\$ 1,708.3	\$ 1,681.6	\$ 2,904.6	\$ 2,831.3
Access and capacity fees	-	-	369.8	347.5	-	-	369.8	347.5
Market data fees	60.4	71.3	203.9	188.7	30.5	33.7	294.8	293.7
Regulatory fees	320.2	153.8	-	-	106.1	69.9	426.3	223.7
Other revenue	93.1	70.3	2.9	3.0	3.0	4.0	99.0	77.3
<b>Total revenues</b>	<b>1,670.0</b>	<b>1,445.1</b>	<b>576.6</b>	<b>539.2</b>	<b>1,847.9</b>	<b>1,789.2</b>	<b>4,094.5</b>	<b>3,773.5</b>
Liquidity payments	843.5	837.3	-	-	485.6	548.5	1,329.1	1,385.8
Routing and clearing fees	51.2	51.2	-	-	17.1	27.9	68.3	79.1
Section 31 fees	318.3	151.2	-	-	73.1	34.5	391.4	185.7
Royalty fees and other cost of revenues	53.8	38.9	10.9	9.1	168.6	156.9	233.3	204.9
<b>Total cost of revenues</b>	<b>1,266.8</b>	<b>1,078.6</b>	<b>10.9</b>	<b>9.1</b>	<b>744.4</b>	<b>767.8</b>	<b>2,022.1</b>	<b>1,855.5</b>
<b>Revenues less cost of revenues (net revenue)</b>	<b>403.2</b>	<b>366.5</b>	<b>565.7</b>	<b>530.1</b>	<b>1,103.5</b>	<b>1,021.4</b>	<b>2,072.4</b>	<b>1,918.0</b>

# 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	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 389.8	\$ 395.8	\$ 251.7	\$ 255.0	\$ 38.8	\$ 42.1	\$ 23.5	\$ 24.8	\$ 15.5	\$ 15.8	\$ (0.8)	\$ (1.0)	\$ 718.5	\$ 732.5
Liquidity payments	(115.3)	(144.2)	(215.2)	(215.9)	(8.1)	(11.3)	-	-	-	-	(0.2)	(0.4)	(338.8)	(371.8)
Routing and clearing	(4.2)	(9.7)	(7.1)	(9.4)	(4.4)	(4.6)	-	-	(0.3)	(0.3)	-	-	(16.0)	(24.0)
<b>Net transaction and clearing fees</b>	<b>\$ 270.3</b>	<b>\$ 241.9</b>	<b>\$ 29.4</b>	<b>\$ 29.7</b>	<b>\$ 26.3</b>	<b>\$ 26.2</b>	<b>\$ 23.5</b>	<b>\$ 24.8</b>	<b>\$ 15.2</b>	<b>\$ 15.5</b>	<b>\$ (1.0)</b>	<b>\$ (1.4)</b>	<b>\$ 363.7</b>	<b>\$ 336.7</b>

For the Three Months Ended June 30 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 385.9	\$ 384.3	\$ 227.2	\$ 229.4	\$ 38.9	\$ 35.6	\$ 28.1	\$ 22.4	\$ 17.1	\$ 15.0	\$ 0.4	\$ (1.0)	\$ 697.6	\$ 685.7
Liquidity payments	(114.2)	(135.8)	(184.4)	(193.1)	(7.9)	(8.1)	-	-	-	-	(0.5)	(0.4)	(307.0)	(337.4)
Routing and clearing	(4.0)	(8.1)	(7.5)	(8.0)	(4.6)	(4.4)	-	-	(0.5)	(0.3)	-	-	(16.6)	(20.8)
<b>Net transaction and clearing fees</b>	<b>\$ 267.7</b>	<b>\$ 240.4</b>	<b>\$ 35.3</b>	<b>\$ 28.3</b>	<b>\$ 26.4</b>	<b>\$ 23.1</b>	<b>\$ 28.1</b>	<b>\$ 22.4</b>	<b>\$ 16.6</b>	<b>\$ 14.7</b>	<b>\$ (0.1)</b>	<b>\$ (1.4)</b>	<b>\$ 374.0</b>	<b>\$ 327.5</b>

For the Three Months Ended September 30 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 405.3	\$ 384.6	\$ 231.0	\$ 221.9	\$ 40.5	\$ 32.6	\$ 31.7	\$ 25.4	\$ 17.4	\$ 15.6	\$ -	\$ (1.5)	\$ 725.9	\$ 678.6
Liquidity payments	(116.4)	(130.5)	(191.9)	(185.6)	(8.0)	(7.3)	(0.7)	-	-	-	(0.6)	(0.3)	(317.6)	(323.7)
Routing and clearing	(4.7)	(5.8)	(7.2)	(7.3)	(5.0)	(4.4)	-	-	(0.5)	(0.3)	-	-	(17.4)	(17.8)
<b>Net transaction and clearing fees</b>	<b>\$ 284.2</b>	<b>\$ 248.3</b>	<b>\$ 31.9</b>	<b>\$ 29.0</b>	<b>\$ 27.5</b>	<b>\$ 20.9</b>	<b>\$ 31.0</b>	<b>\$ 25.4</b>	<b>\$ 16.9</b>	<b>\$ 15.3</b>	<b>\$ (0.6)</b>	<b>\$ (1.8)</b>	<b>\$ 390.9</b>	<b>\$ 337.1</b>

For the Three Months Ended December 31 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 418.0	\$ 419.0	\$ 260.6	\$ 240.0	\$ 41.4	\$ 35.3	\$ 25.9	\$ 25.4	\$ 16.6	\$ 15.8	\$ 0.1	\$ (1.0)	\$ 762.6	\$ 734.5
Liquidity payments	(131.7)	(135.3)	(222.2)	(209.5)	(8.5)	(8.0)	(2.7)	-	-	-	(0.6)	(0.1)	(365.7)	(352.9)
Routing and clearing	(4.3)	(4.3)	(9.1)	(7.6)	(4.5)	(4.3)	-	-	(0.4)	(0.3)	-	-	(18.3)	(16.5)
<b>Net transaction and clearing fees</b>	<b>\$ 282.0</b>	<b>\$ 279.4</b>	<b>\$ 29.3</b>	<b>\$ 22.9</b>	<b>\$ 28.4</b>	<b>\$ 23.0</b>	<b>\$ 23.2</b>	<b>\$ 25.4</b>	<b>\$ 16.2</b>	<b>\$ 15.5</b>	<b>\$ (0.5)</b>	<b>\$ (1.1)</b>	<b>\$ 378.6</b>	<b>\$ 365.1</b>

For the Twelve Months Ended December 31 (in millions)	Options		N.A. Equities		Europe and Asia Pacific		Futures		Global FX		Digital		Total	
	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023	2024	2023
Transaction and clearing fees	\$ 1,599.0	\$ 1,583.7	\$ 970.5	\$ 946.3	\$ 159.6	\$ 145.6	\$ 109.2	\$ 98.0	\$ 66.6	\$ 62.2	\$ (0.3)	\$ (4.5)	\$ 2,904.6	\$ 2,831.3
Liquidity payments	(477.6)	(545.8)	(813.7)	(804.1)	(32.5)	(34.7)	(3.4)	-	-	-	(1.9)	(1.2)	(1,329.1)	(1,385.8)
Routing and clearing	(17.2)	(27.9)	(30.9)	(32.3)	(18.5)	(17.7)	-	-	(1.7)	(1.2)	-	-	(68.3)	(79.1)
<b>Net transaction and clearing fees</b>	<b>\$1,104.2</b>	<b>\$1,010.0</b>	<b>\$ 125.9</b>	<b>\$ 109.9</b>	<b>\$ 108.6</b>	<b>\$ 93.2</b>	<b>\$ 105.8</b>	<b>\$ 98.0</b>	<b>\$ 64.9</b>	<b>\$ 61.0</b>	<b>\$ (2.2)</b>	<b>\$ (5.7)</b>	<b>\$1,507.2</b>	<b>\$1,366.4</b>



# 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 press release include adjusted revenue less cost of revenue, adjusted operating expenses, adjusted operating income, adjusted operating margin, adjusted earnings, 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.

*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 costs:* 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 GAAP Net Revenues to Net Revenues in Constant Currency

Net Revenue (in millions)	Three Months Ended, December 31, 2024	Three Months Ended, December 31, 2023	Twelve Months Ended, December 31, 2024	Twelve Months Ended, December 31, 2023
Europe and Asia Pacific net revenues	\$56.2	\$48.0	\$220.2	\$190.2
Constant currency adjustment	(0.2)	(1.9)	(0.7)	(0.4)
<b>Europe and Asia Pacific net revenues in constant currency<sup>1</sup></b>	<b>\$56.0</b>	<b>\$46.1</b>	<b>\$219.5</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.

## Reconciliation of GAAP Net Revenues to Organic Net Revenues by Revenue Caption

For the Three Months Ended December 31 (in millions)	Cash and Spot Markets		Data Vantage		Derivatives Markets		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Revenues less cost of revenues (net revenue)	\$ 98.9	\$ 86.9	\$ 145.9	\$ 135.2	\$ 279.7	\$ 276.9	\$ 524.5	\$ 499.0
Acquisition revenue less cost of revenues (inorganic net revenue)	-	-	-	-	-	-	-	-
<b>Organic net revenue</b>	<b>\$ 98.9</b>	<b>\$ 86.9</b>	<b>\$ 145.9</b>	<b>\$ 135.2</b>	<b>\$ 279.7</b>	<b>\$ 276.9</b>	<b>\$ 524.5</b>	<b>\$ 499.0</b>

For the Twelve Months Ended December 31 (in millions)	Cash and Spot Markets		Data Vantage		Derivatives Markets		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Revenues less cost of revenues (net revenue)	\$ 403.2	\$ 366.5	\$ 565.7	\$ 530.1	\$ 1,103.5	\$ 1,021.4	\$ 2,072.4	\$ 1,918.0
Acquisition revenue less cost of revenues (inorganic net revenue)	-	-	-	-	-	-	-	-
<b>Organic net revenue</b>	<b>\$ 403.2</b>	<b>\$ 366.5</b>	<b>\$ 565.7</b>	<b>\$ 530.1</b>	<b>\$ 1,103.5</b>	<b>\$ 1,021.4</b>	<b>\$ 2,072.4</b>	<b>\$ 1,918.0</b>

# Non-GAAP Information

## Non-GAAP Information

(In millions, except per share amounts)

### Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP

	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
Net income allocated to common stockholders	\$ 172.6	\$ 167.0	\$ 207.1	\$ 210.8	\$ 757.5	\$ 208.3	\$ 139.7	\$ 217.4	\$ 195.6	\$ 761.0
Acquisition-related costs (1)	6.4	0.7	0.8	(0.5)	7.4	0.6	0.6	-	0.1	1.3
Amortization of acquired intangible assets (2)	30.9	29.3	28.2	28.2	116.6	26.2	21.2	20.7	20.6	88.7
Income from investment (3)	-	(2.1)	-	-	(2.1)	-	-	-	-	-
Gain on Cboe Digital non-recourse notes and warrants wind down (4)	-	-	-	-	-	(0.4)	(1.0)	-	-	(1.4)
Cboe Digital syndication wind down (5)	-	-	-	-	-	-	(1.0)	-	-	(1.0)
Change in contingent consideration (6)	-	-	-	(14.4)	(14.4)	-	3.0	(0.9)	-	2.1
Impairment of intangible assets (7)	-	-	-	-	-	-	81.0	-	-	81.0
Loss on investments (8)	-	-	-	1.8	1.8	-	16.0	1.0	14.4	31.4
Costs related to Cboe Digital wind down (9)	-	-	-	-	-	-	0.8	0.8	0.5	2.1
Gain on sale of property held for sale (10)	-	-	-	-	-	-	(1.0)	-	-	(1.0)
<b>Total Non-GAAP adjustments - pretax</b>	<b>37.3</b>	<b>27.9</b>	<b>29.0</b>	<b>15.1</b>	<b>109.3</b>	<b>26.4</b>	<b>119.6</b>	<b>21.6</b>	<b>35.6</b>	<b>203.2</b>
Income tax expense related to the items above	(9.5)	(6.8)	(6.9)	(7.4)	(30.7)	(6.9)	(32.7)	(4.7)	(7.9)	(52.2)
Tax reserves (11)	1.5	0.7	(10.2)	1.9	(6.0)	-	(4.0)	(1.6)	(2.5)	(8.1)
Deferred tax re-measurements (12)	-	-	-	1.1	1.1	-	-	-	-	-
Valuation allowances (13)	-	-	-	(2.7)	(2.7)	-	4.1	0.3	0.6	5.0
Net income allocated to participating securities - effect on reconciling items	(0.1)	(0.1)	(0.1)	-	(0.4)	(0.1)	(0.5)	(0.1)	(0.2)	(0.9)
<b>Adjusted earnings</b>	<b>\$ 201.8</b>	<b>\$ 188.7</b>	<b>\$ 218.9</b>	<b>\$ 218.8</b>	<b>\$ 828.1</b>	<b>\$ 227.7</b>	<b>\$ 226.2</b>	<b>\$ 232.9</b>	<b>\$ 221.2</b>	<b>\$ 908.0</b>

### Reconciliation of Diluted EPS to Non-GAAP

Diluted earnings per common share	\$ 1.63	\$ 1.57	\$ 1.95	\$ 1.98	\$ 7.13	\$ 1.96	\$ 1.33	\$ 2.07	\$ 1.86	\$ 7.21
Per share impact of non-GAAP adjustments noted above	0.27	0.21	0.11	0.08	0.67	0.19	0.82	0.15	0.24	1.40
<b>Adjusted diluted earnings per common share</b>	<b>\$ 1.90</b>	<b>\$ 1.78</b>	<b>\$ 2.06</b>	<b>\$ 2.06</b>	<b>\$ 7.80</b>	<b>\$ 2.15</b>	<b>\$ 2.15</b>	<b>\$ 2.22</b>	<b>\$ 2.10</b>	<b>\$ 8.61</b>

### Reconciliation of Operating Margin to Non-GAAP

Revenue less cost of revenue	\$ 471.4	\$ 467.1	\$ 480.5	\$ 499.0	\$ 1,918.0	\$ 502.1	\$ 513.8	\$ 532.0	\$ 524.5	\$ 2,072.4
Non-GAAP adjustments noted above	-	-	-	-	-	-	(1.0)	-	-	(1.0)
<b>Adjusted revenue less cost of revenue</b>	<b>\$ 471.4</b>	<b>\$ 467.1</b>	<b>\$ 480.5</b>	<b>\$ 499.0</b>	<b>\$ 1,918.0</b>	<b>\$ 502.1</b>	<b>\$ 512.8</b>	<b>\$ 532.0</b>	<b>\$ 524.5</b>	<b>\$ 2,071.4</b>
<b>Operating expenses (14)</b>	<b>\$ 223.5</b>	<b>\$ 222.3</b>	<b>\$ 209.3</b>	<b>\$ 205.0</b>	<b>\$ 860.1</b>	<b>\$ 219.7</b>	<b>\$ 303.7</b>	<b>\$ 224.6</b>	<b>\$ 226.0</b>	<b>\$ 974.0</b>
Non-GAAP expense adjustments noted above	37.3	30.0	29.0	13.3	109.6	26.8	106.6	20.6	21.2	175.2
<b>Adjusted operating expenses</b>	<b>\$ 186.2</b>	<b>\$ 192.3</b>	<b>\$ 180.3</b>	<b>\$ 191.7</b>	<b>\$ 750.5</b>	<b>\$ 192.9</b>	<b>\$ 197.1</b>	<b>\$ 204.0</b>	<b>\$ 204.8</b>	<b>\$ 798.8</b>
Non-GAAP expense adjustments to arrive at organic adjusted operating expenses	\$ (12.2)	\$ (5.1)	\$ -	\$ -	\$ (17.3)	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Organic adjusted operating expenses</b>	<b>\$ 174.0</b>	<b>\$ 187.1</b>	<b>\$ 180.3</b>	<b>\$ 191.7</b>	<b>\$ 733.2</b>	<b>\$ 192.9</b>	<b>\$ 197.1</b>	<b>\$ 204.0</b>	<b>\$ 204.8</b>	<b>\$ 798.8</b>
Operating income	\$ 247.9	\$ 244.8	\$ 271.2	\$ 294.0	\$ 1,057.9	\$ 282.4	\$ 210.1	\$ 307.4	\$ 298.5	\$ 1,098.4
Non-GAAP expense adjustments noted above	37.3	30.0	29.0	13.3	109.6	26.8	105.6	20.6	21.2	174.2
<b>Adjusted operating income</b>	<b>\$ 285.2</b>	<b>\$ 274.8</b>	<b>\$ 300.2</b>	<b>\$ 307.3</b>	<b>\$ 1,167.5</b>	<b>\$ 309.2</b>	<b>\$ 315.7</b>	<b>\$ 328.0</b>	<b>\$ 319.7</b>	<b>\$ 1,272.6</b>
<b>Adjusted operating margin (15)</b>	<b>60.5%</b>	<b>58.8%</b>	<b>62.5%</b>	<b>61.6%</b>	<b>60.9%</b>	<b>61.6%</b>	<b>61.6%</b>	<b>61.7%</b>	<b>61.0%</b>	<b>61.4%</b>

### Reconciliation of Income Tax Rate to Non-GAAP

Income before income taxes	\$ 248.2	\$ 241.8	\$ 270.1	\$ 287.5	\$ 1,047.6	\$ 292.1	\$ 203.0	\$ 309.0	\$ 279.7	\$ 1,083.8
Non-GAAP adjustments noted above	37.3	27.9	29.0	15.1	109.3	26.4	119.6	21.6	35.6	203.2
<b>Adjusted income before income taxes</b>	<b>\$ 285.5</b>	<b>\$ 269.7</b>	<b>\$ 299.1</b>	<b>\$ 302.6</b>	<b>\$ 1,156.9</b>	<b>\$ 318.5</b>	<b>\$ 322.6</b>	<b>\$ 330.6</b>	<b>\$ 315.3</b>	<b>\$ 1,287.0</b>
Income tax expense	\$ 74.8	\$ 74.0	\$ 61.9	\$ 75.5	\$ 286.2	\$ 82.6	\$ 62.6	\$ 90.5	\$ 83.2	\$ 318.9
Non-GAAP adjustments noted above	8.0	6.1	17.1	7.1	38.3	6.9	32.6	6.0	9.8	55.3
<b>Adjusted income tax expense</b>	<b>\$ 82.8</b>	<b>\$ 80.1</b>	<b>\$ 79.0</b>	<b>\$ 82.6</b>	<b>\$ 324.5</b>	<b>\$ 89.5</b>	<b>\$ 95.2</b>	<b>\$ 96.5</b>	<b>\$ 93.0</b>	<b>\$ 374.2</b>
<b>Adjusted income tax rate</b>	<b>29.0%</b>	<b>29.7%</b>	<b>26.4%</b>	<b>27.3%</b>	<b>28.0%</b>	<b>28.1%</b>	<b>29.5%</b>	<b>29.2%</b>	<b>29.5%</b>	<b>29.1%</b>

(1) This amount includes acquisition-related costs primarily from the Company's Cboe Digital, Cboe Canada, and Cboe Asia Pacific acquisitions, which is included in acquisition-related costs on the condensed consolidated statements of income.

(2) This amount represents the amortization of acquired intangible assets related to the Company's acquisitions, which is included in depreciation and amortization on the condensed consolidated statements of income.

(3) This amount represents the dividend from the Company's minority ownership of Vest Group Inc., which is included in other (expense) income, net on the condensed consolidated statements of income. In 2024, the Company determined the dividend to be a recurring event and therefore has been excluded from the non-GAAP adjustments in 2024 and going forward.

(4) This amount represents the revaluation and the gain associated with the wind down of the Cboe Digital non-recourse notes and warrants, which is included in other (expense) income, net on the condensed consolidated statements of income.

(5) This amount represents the contra-revenue that was reversed as a result of the Cboe Digital syndication wind down, which is included in transaction and clearing fees in the condensed consolidated statements of income.

(6) This amount represents the gains and losses related to contingent consideration liabilities achieved related to the acquisitions of Cboe Canada and Cboe Asia Pacific, which is included in other expenses on the condensed consolidated statements of income.

(7) This amount represents the impairment of intangible assets related to the Cboe Digital wind down, which is included in impairment of intangible assets on the condensed consolidated statements of income.

(8) This amount represents the net loss on investments related to the company's minority investments in Globacap Technology Limited, StratiFi Technologies Inc., Coin Metrics Inc., Eris Innovations Holdings, LLC, and Curve Global Limited, as well as the loss on note receivable related to Cboe Digital, which were recorded in 2024 in other (expense) income, net on the condensed consolidated statements of income, and the net loss on investments in American Financial Exchange, LLC and Effective Investing Limited recorded in 2023, which are included in other (expense) income, net on the condensed consolidated statements of income.

(9) This amount represents certain wind down costs related to Cboe Digital, which are included in compensation and benefits on the condensed consolidated statements of income.

(10) This amount represents the net gain on the sale of the Company's former headquarters, which is included in other (expense) income, net on the condensed consolidated statements of income.

(11) This amount represents the tax impact related to Section 199 matters.

(12) This amount represents remeasurements of deferred tax assets and liabilities at prevailing effective tax rates.

(13) This amount represents valuation allowance releases recorded against gross deferred tax assets for net operating losses.

(14) 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 (\$1.4 million and \$3.2 million in expense for the three months ended December 31, 2024 and 2023, respectively, and \$3.6 million and \$9.2 million in expense for the twelve months ended December 31, 2024 and 2023, respectively), and are directly offset by deferred compensation income, expenses and dividends included within other (expense) income, net (\$1.4 million and \$3.2 million in income, expense and dividends in the three months ended December 31, 2024 and 2023, respectively, and \$3.6 million and \$9.2 million in income, expense and dividends in the twelve months ended December 31, 2024 and 2023, 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.

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

# Non-GAAP Information

## Non-GAAP Information

(in millions, except per share amounts)	1Q21	2Q21	3Q21	4Q21	2021	1Q22	2Q22	3Q22	4Q22	2022
<b>Reconciliation of Net Income Allocated to Common Stockholders to Non-GAAP</b>										
Net income allocated to common stockholders	\$ 136.8	\$ 105.2	\$ 120.0	\$ 165.3	\$ 527.3	\$ 109.2	\$ (184.5)	\$ 149.6	\$ 159.0	\$ 234.1
Acquisition-related costs (1)	3.4	1.8	6.7	3.7	15.6	2.0	14.3	1.6	2.0	19.9
Investment establishment costs (2)	-	-	-	-	-	3.0	-	-	-	3.0
Income from investment (3)	-	-	-	-	-	-	(7.5)	-	-	(7.5)
Loan forgiveness (4)	-	-	-	-	-	-	(1.3)	-	-	(1.3)
Amortization of acquired intangible assets (2)	32.9	30.5	31.8	31.4	126.6	30.6	30.1	30.4	33.2	124.3
Impairment of goodwill (6)	-	-	-	-	-	-	460.1	0.8	-	460.9
Impairment of investment (7)	-	-	5.0	-	5.0	-	10.6	-	-	10.6
Change in contingent consideration (8)	-	-	-	(2.7)	(2.7)	-	-	-	(5.2)	(5.2)
<b>Total Non-GAAP adjustments - pretax</b>	<b>36.3</b>	<b>32.3</b>	<b>43.5</b>	<b>32.4</b>	<b>144.5</b>	<b>35.6</b>	<b>506.3</b>	<b>32.8</b>	<b>30.0</b>	<b>604.7</b>
Income tax expense related to the items above	(8.2)	(7.7)	(8.5)	(7.4)	(31.8)	(8.7)	(143.2)	2.9	5.3	(143.7)
Release of tax reserves	-	-	-	(5.4)	(5.4)	-	-	-	-	-
Tax reserves (9)	-	-	-	-	-	48.5	-	-	-	48.5
Deferred tax re-measurements	-	17.7	-	(3.1)	14.6	-	-	-	(2.0)	(2.0)
Net income allocated to participating securities - effect on reconciling items	(0.1)	(0.1)	(0.1)	(0.1)	(0.4)	(0.3)	(1.3)	(0.1)	(0.1)	(1.8)
<b>Adjusted earnings</b>	<b>\$ 164.8</b>	<b>\$ 147.4</b>	<b>\$ 154.9</b>	<b>\$ 181.7</b>	<b>\$ 648.8</b>	<b>\$ 184.3</b>	<b>\$ 177.3</b>	<b>\$ 185.2</b>	<b>\$ 192.2</b>	<b>\$ 739.8</b>
<b>Reconciliation of Diluted EPS to Non-GAAP</b>										
Diluted earnings per common share	\$ 1.27	\$ 0.98	\$ 1.12	\$ 1.54	\$ 4.92	\$ 1.02	\$ (1.74)	\$ 1.41	\$ 1.49	\$ 2.19
Per share impact of non-GAAP adjustments noted above	0.26	0.40	0.33	0.16	1.13	0.71	3.41	0.33	0.31	4.74
<b>Adjusted diluted earnings per common share</b>	<b>\$ 1.53</b>	<b>\$ 1.38</b>	<b>\$ 1.45</b>	<b>\$ 1.70</b>	<b>\$ 6.05</b>	<b>\$ 1.73</b>	<b>\$ 1.67</b>	<b>\$ 1.74</b>	<b>\$ 1.80</b>	<b>\$ 6.93</b>
<b>Reconciliation of Operating Margin to Non-GAAP</b>										
Revenue less cost of revenue	\$ 365.5	\$ 350.6	\$ 369.5	\$ 390.5	\$1,476.1	\$ 418.1	\$ 424.1	\$ 442.4	\$ 457.1	\$1,741.7
Non-GAAP adjustments noted above	-	-	-	-	-	-	-	-	-	-
<b>Adjusted revenue less cost of revenue</b>	<b>\$ 365.5</b>	<b>\$ 350.6</b>	<b>\$ 369.5</b>	<b>\$ 390.5</b>	<b>\$1,476.1</b>	<b>\$ 418.1</b>	<b>\$ 424.1</b>	<b>\$ 442.4</b>	<b>\$ 457.1</b>	<b>\$1,741.7</b>
<b>Operating expenses (10)</b>	<b>\$ 160.9</b>	<b>\$ 160.6</b>	<b>\$ 178.8</b>	<b>\$ 169.9</b>	<b>\$ 670.2</b>	<b>\$ 178.4</b>	<b>\$ 661.5</b>	<b>\$ 205.6</b>	<b>\$ 206.6</b>	<b>\$ 1,252.1</b>
Non-GAAP expense adjustments noted above	(36.3)	(32.3)	(38.5)	(32.4)	(139.5)	32.6	504.5	32.8	30.0	599.9
<b>Adjusted operating expenses</b>	<b>\$ 124.6</b>	<b>\$ 128.3</b>	<b>\$ 140.3</b>	<b>\$ 137.5</b>	<b>\$ 530.7</b>	<b>\$ 145.8</b>	<b>\$ 157.0</b>	<b>\$ 172.8</b>	<b>\$ 176.6</b>	<b>\$ 652.2</b>
Non-GAAP expense adjustments to arrive at organic adjusted operating expenses	(18.4)	\$ (17.0)	\$ (12.6)	\$ (10.7)	\$ (58.7)	\$ (6.4)	\$ (13.7)	\$ (7.6)	\$ (10.8)	\$ (38.5)
<b>Organic adjusted operating expenses</b>	<b>\$ 106.2</b>	<b>\$ 111.3</b>	<b>\$ 127.7</b>	<b>\$ 126.8</b>	<b>\$ 472.0</b>	<b>\$ 139.4</b>	<b>\$ 143.3</b>	<b>\$ 165.2</b>	<b>\$ 165.8</b>	<b>\$ 613.7</b>
Operating income	\$ 204.6	\$ 190.0	\$ 190.7	\$ 220.6	\$ 805.9	\$ 239.7	\$ (237.4)	\$ 236.8	\$ 250.5	\$ 489.6
Non-GAAP expense adjustments noted above	36.3	32.3	38.5	32.4	139.5	32.6	504.5	32.8	30.0	599.9
<b>Adjusted operating income</b>	<b>\$ 240.9</b>	<b>\$ 222.3</b>	<b>\$ 229.2</b>	<b>\$ 253.0</b>	<b>\$ 945.4</b>	<b>\$ 272.3</b>	<b>\$ 267.1</b>	<b>\$ 269.6</b>	<b>\$ 280.5</b>	<b>\$1,089.5</b>
<b>Adjusted operating margin (11)</b>	<b>65.9%</b>	<b>63.4%</b>	<b>62.0%</b>	<b>64.8%</b>	<b>64.0%</b>	<b>65.1%</b>	<b>63.0%</b>	<b>60.9%</b>	<b>61.4%</b>	<b>62.6%</b>
<b>Reconciliation of Income Tax Rate to Non-GAAP</b>										
Income before income taxes	\$ 192.9	\$ 179.2	\$ 173.8	\$ 210.2	\$ 756.1	\$ 224.9	\$ (256.8)	\$ 229.0	\$ 235.8	\$ 432.9
Non-GAAP adjustments noted above	36.3	32.3	43.5	32.4	144.5	35.6	506.3	32.8	30.0	604.7
<b>Adjusted income before income taxes</b>	<b>\$ 229.2</b>	<b>\$ 211.5</b>	<b>\$ 217.3</b>	<b>\$ 242.6</b>	<b>\$ 900.6</b>	<b>\$ 260.5</b>	<b>\$ 249.5</b>	<b>\$ 261.8</b>	<b>\$ 265.8</b>	<b>\$1,037.6</b>
Income tax expense	\$ 55.7	\$ 73.7	\$ 53.4	\$ 44.3	\$ 227.1	\$ 115.3	\$ (72.3)	\$ 78.8	\$ 76.1	\$ 197.9
Non-GAAP adjustments noted above	8.2	(10.0)	8.5	15.9	22.6	(39.8)	143.2	(2.9)	(3.3)	97.2
<b>Adjusted income tax expense</b>	<b>\$ 63.9</b>	<b>\$ 63.7</b>	<b>\$ 61.9</b>	<b>\$ 60.2</b>	<b>\$ 249.7</b>	<b>\$ 75.5</b>	<b>\$ 70.9</b>	<b>\$ 75.9</b>	<b>\$ 72.8</b>	<b>\$ 295.1</b>
<b>Adjusted income tax rate</b>	<b>27.9%</b>	<b>30.1%</b>	<b>28.5%</b>	<b>24.8%</b>	<b>27.7%</b>	<b>29.0%</b>	<b>28.4%</b>	<b>29.0%</b>	<b>27.4%</b>	<b>28.4%</b>

(1) This amount includes professional fees (which includes fees associated with the valuation of the Cboe Digital goodwill impairment) and outside services.

(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 Cboe Digital goodwill.

(7) This amount represents the impairment of investment related to the Company's investments in American Financial Exchange, LLC in 2022 and Curve Global in 2021.

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

(9) This amount represents the tax impact related to Section 199 matters.

(10) 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" (\$2.0 million and \$1.8 million in expense for the three months ended December 31, 2022 and 2021, respectively, and \$0.5 million and \$3.5 million in expense for the twelve months ended December, 2022 and 2021, respectively), and are directly offset by deferred compensation income, expenses and dividends included within "Other income, net" (\$2.0 million and \$1.8 million in income, expense and dividends in the three months ended December 31, 2022 and 2021, respectively, and \$0.5 million and \$3.5 million in income, expense and dividends in the twelve months ended December, 2022 and 2021, 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."

(11) 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 costs, change in contingent consideration, loss on investments, gain on sale of property held for sale, costs related to the Cboe Digital wind down, gain on Cboe Digital non-recourse notes and warrants wind down, impairment of intangible assets, contra-revenue associated with the Cboe Digital syndication wind down, 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)	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024
<b>Net income allocated to common stockholders</b>	\$ 172.6	\$ 167.0	\$ 207.1	\$ 210.8	\$ 757.5	\$ 208.3	\$ 139.7	\$ 217.4	\$ 195.6	\$ 761.0
Interest expense, net	15.1	13.9	11.9	9.5	50.4	8.9	8.2	1.4	5.7	24.2
Income tax provision	74.8	74.0	61.9	75.5	286.2	82.6	62.6	90.5	83.2	318.9
Depreciation and amortization	41.4	39.8	38.8	38.0	158.0	37.3	31.8	31.8	32.1	133.0
<b>EBITDA</b>	\$ 303.9	\$ 294.7	\$ 319.7	\$ 333.8	\$ 1,252.1	\$ 337.1	\$ 242.3	\$ 341.1	\$ 316.6	\$ 1,237.1
<b>EBITDA Margin</b>	64.5%	63.1%	66.5%	66.9%	65.3%	67.1%	47.2%	64.1%	60.4%	59.7%
<b>Non-GAAP adjustments not included in above line items</b>										
Acquisition-related costs	6.4	0.7	0.8	(0.5)	7.4	0.6	0.6	-	0.1	1.3
Change in contingent consideration	-	-	-	(14.4)	(14.4)	-	3.0	(0.9)	-	2.1
Impairment of intangible assets	-	-	-	-	-	-	81.0	-	-	81.0
Loss on investments	-	-	-	1.8	1.8	-	16.0	1.0	14.4	31.4
Costs related to Cboe Digital wind down	-	-	-	-	-	-	0.8	0.8	0.5	2.1
Gain on sale of property held for sale	-	-	-	-	-	-	(1.0)	-	-	(1.0)
Gain on Cboe Digital non-recourse notes and warrants wind down	-	-	-	-	-	(0.4)	(1.0)	-	-	(1.4)
Cboe Digital syndication wind down	-	-	-	-	-	-	(1.0)	-	-	(1.0)
Income from investment	-	(2.1)	-	-	(2.1)	-	-	-	-	-
<b>Adjusted EBITDA</b>	\$ 310.3	\$ 293.3	\$ 320.5	\$ 320.7	\$ 1,244.8	\$ 337.3	\$ 340.7	\$ 342.0	\$ 331.6	\$ 1,351.6
<b>Adjusted EBITDA Margin</b>	65.8%	62.8%	66.7%	64.3%	64.9%	67.2%	66.3%	64.3%	63.2%	65.2%



# Non-GAAP Information

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

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

(in millions)	1Q24	2Q24	3Q24	4Q24	LTM
Net income allocated to common stockholders	\$ 208.3	\$ 139.7	\$ 217.4	\$ 195.6	\$ 761.0
Interest expense, net	8.9	8.2	1.4	5.7	24.2
Income tax provision	82.6	62.6	90.5	83.2	318.9
Depreciation and amortization	37.3	31.8	31.8	32.1	133.0
<b>EBITDA</b>	<b>\$ 337.1</b>	<b>\$ 242.3</b>	<b>\$ 341.1</b>	<b>\$ 316.6</b>	<b>\$ 1,237.1</b>
<b>Non-GAAP adjustments not included in above line items:</b>					
Acquisition-related expenses	0.6	0.6	-	0.1	1.3
Change in contingent consideration	-	3.0	(0.9)	-	2.1
Impairment of intangible assets	-	81.0	-	-	81.0
Loss on investments	-	16.0	1.0	14.4	31.4
Costs related to Cboe Digital wind down	-	0.8	0.8	0.5	2.1
Gain on sale of property held for sale	-	(1.0)	-	-	(1.0)
Gain on Cboe Digital non-recourse notes and warrants wind down	(0.4)	(1.0)	-	-	(1.4)
Cboe Digital syndication wind down	-	(1.0)	-	-	(1.0)
<b>Adjusted EBITDA</b>	<b>\$ 337.3</b>	<b>\$ 340.7</b>	<b>\$ 342.0</b>	<b>\$ 331.6</b>	<b>\$ 1,351.6</b>
Debt at end of period					\$ 1,450.0
<b>Debt to EBITDA</b>					<b>1.1x</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 12/31/23	As of 3/31/24	As of 6/30/24	As of 9/30/24	As of 12/31/24
Cash and cash equivalents	\$ 543.2	\$ 536.3	\$ 614.6	\$ 763.2	\$ 920.3
Financial investments	57.5	58.8	83.7	39.4	110.3
Less deferred compensation plan	(36.7)	(35.2)	(36.6)	(38.9)	(40.3)
Less cash collected for Section 31 fees	(30.5)	(23.1)	(67.2)	-	(110.8)
<b>Adjusted Cash</b>	<b>\$ 533.5</b>	<b>\$ 536.8</b>	<b>\$ 594.5</b>	<b>\$ 763.7</b>	<b>\$ 879.5</b>

**THANK YOU**