



# Nasdaq 4Q22 Quarterly Update

January 25, 2023

# Disclaimers

## **Non-GAAP Information**

In addition to disclosing results determined in accordance with U.S. GAAP, Nasdaq also discloses certain non-GAAP results of operations, including, but not limited to, non-GAAP net income attributable to Nasdaq, non-GAAP diluted earnings per share, non-GAAP operating income, non-GAAP operating expenses, and non-GAAP EBITDA, that include certain adjustments or exclude certain charges and gains that are described in the reconciliation table of U.S. GAAP to non-GAAP information provided at [ir.nasdaq.com/Income-Statement-Trend-Summary-and-GAAP-to-Non-GAAP-Reconciliation](http://ir.nasdaq.com/Income-Statement-Trend-Summary-and-GAAP-to-Non-GAAP-Reconciliation). Management uses this non-GAAP information internally, along with U.S. GAAP information, in evaluating our performance and in making financial and operational decisions. We believe our presentation of these measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations. In addition, we believe the presentation of these measures is useful to investors for period-to-period comparisons of results as certain items do not reflect ongoing operating performance.

These measures are not in accordance with, or an alternative to, U.S. GAAP, and may be different from non-GAAP measures used by other companies. In addition, other companies, including companies in our industry, may calculate such measures differently, which reduces their usefulness as a comparative measure. Investors should not rely on any single financial measure when evaluating our business. This information should be considered as supplemental in nature and is not meant as a substitute for our operating results in accordance with U.S. GAAP. We recommend investors review the U.S. GAAP financial measures included in this presentation. When viewed in conjunction with our U.S. GAAP results and the accompanying reconciliations, we believe these non-GAAP measures provide greater transparency and a more complete understanding of factors affecting our business than U.S. GAAP measures alone.

We understand that analysts and investors regularly rely on non-GAAP financial measures, such as those noted above, to assess operating performance. We use these measures because they highlight trends more clearly in our business that may not otherwise be apparent when relying solely on U.S. GAAP financial measures, since these measures eliminate from our results specific financial items that have less bearing on our ongoing operating performance.

Organic revenue and expense growth, organic change and organic impact are non-GAAP measures that reflect adjustments for: (i) the impact of period-over-period changes in foreign currency exchange rates, and (ii) the revenues, expenses and operating income associated with acquisitions and divestitures for the twelve month period following the date of the acquisition or divestiture. Reconciliations of these measures can be found in the appendix to this presentation.

Foreign exchange impact: In countries with currencies other than the U.S. dollar, revenues and expenses are translated using monthly average exchange rates. Certain discussions in this presentation isolate the impact of year-over-year foreign currency fluctuations to better measure the comparability of operating results between periods. Operating results excluding the impact of foreign currency fluctuations are calculated by translating the current period's results by the prior period's exchange rates.

Divisional alignment program: In October 2022, following our September announcement to realign our segments and leadership, we initiated a divisional alignment program with a focus on realizing the full potential of this structure. In connection with the program, we expect to incur pre-tax charges principally related to employee-related costs, consulting, asset impairments and contract terminations over a two-year period. We expect to achieve benefits in the form of both increased customer engagement and operating efficiencies. Costs related to the divisional alignment program will be recorded as "restructuring" in our consolidated statements of income. We will exclude charges associated with this program for purposes of calculating non-GAAP measures as they are not reflective of ongoing operating performance or comparisons in Nasdaq's performance between periods.

## **Cautionary Note Regarding Forward-Looking Statements**

Information set forth in this communication contains forward-looking statements that involve a number of risks and uncertainties. Nasdaq cautions readers that any forward-looking information is not a guarantee of future performance and that actual results could differ materially from those contained in the forward-looking information. Such forward-looking statements include, but are not limited to (i) projections relating to our future financial results, total shareholder returns, growth, dividend program, trading volumes, products and services, ability to transition to new business models or implement our new corporate structure, taxes and achievement of synergy targets, (ii) statements about the closing or implementation dates and benefits of certain acquisitions, divestitures and other strategic, restructuring, technology, environmental, de-leveraging and capital allocation initiatives, (iii) statements about our integrations of our recent acquisitions, (iv) statements relating to any litigation or regulatory or government investigation or action to which we are or could become a party, and (v) other statements that are not historical facts. Forward-looking statements involve a number of risks, uncertainties or other factors beyond Nasdaq's control. These factors include, but are not limited to, Nasdaq's ability to implement its strategic initiatives, economic, political and market conditions and fluctuations, geopolitical instability, government and industry regulation, interest rate risk, U.S. and global competition, and other factors detailed in Nasdaq's filings with the U.S. Securities and Exchange Commission, including its annual reports on Form 10-K and quarterly reports on Form 10-Q which are available on Nasdaq's investor relations website at <http://ir.nasdaq.com> and the SEC's website at [www.sec.gov](http://www.sec.gov). Nasdaq undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

## **Website Disclosure**

Nasdaq intends to use its website, [ir.nasdaq.com](http://ir.nasdaq.com), as a means for disclosing material non-public information and for complying with SEC Regulation FD and other disclosure obligations.

# Strategic Update



“We delivered another year of strong growth against an uncertain macroeconomic backdrop, illustrating the strength of our diversified business and our ability to deliver on our longer-term objectives.

As we look to 2023, our new corporate structure positions us to deliver greater liquidity, transparency, and integrity solutions to our clients throughout the financial system.”

Adena Friedman, Chair & CEO, Nasdaq

# New Corporate Structure to Amplify Our Strategy

## Delivering Our Story In A Simple And Powerful Way

### Prior Segment Reporting



### Current Segment Reporting



# Strong growth in 2022, Continued Progress Advancing Strategy

(Year over year % change)

Annualized Recurring  
Revenues (ARR)\*

\$2,007M

+8%

Solutions Businesses\*  
Revenue

\$2,552M

+9%

Solutions Businesses  
Organic Revenue  
Growth

\$227M

+10%

Net Revenues\*

\$3,582M

+5%

Non-GAAP Diluted EPS

\$2.66

+6%

- **Our evolution continues:** 4Q22 Annualized SaaS revenues increased to 36% of ARR
- **Success in our foundational listings business creates "flywheel effects"**, driving growth in Trading Services, corporate solutions\*, and data businesses
- **2022 capital market and macroeconomic backdrop incorporated several shifts**, but remains conducive to the company's continued strategic execution
- **Clear strategy to deliver on our unique ESG potential**
- **Key secular growth areas** that we are positioned to serve are large and growing: **Anti-Financial Crime, Index, and Workflow and Insights**

For all non-GAAP information throughout this presentation, the U.S. GAAP to non-GAAP reconciliations may be found at [ir.nasdaq.com/Income-Statement-Trend-Summary-and-GAAP-to-Non-GAAP-Reconciliation](https://ir.nasdaq.com/Income-Statement-Trend-Summary-and-GAAP-to-Non-GAAP-Reconciliation). Reconciliations of organic revenue growth can be found in the appendix to this presentation. Organic revenue growth is considered a non-GAAP metric.

The updated unaudited supplemental recast financial information for the period 2017-2022 reflecting the segment changes is available on our website at [ir.nasdaq.com/news-and-events/events-and-presentations](https://ir.nasdaq.com/news-and-events/events-and-presentations).

\* For all defined terms, refer to the appendix to this presentation.

# Executing our Strategy to Broaden Opportunity & Accelerate Progress

\$2.0B

Annualized recurring revenue 4Q22

+8%

YoY increase

\$725M

Annualized SaaS revenues 4Q22

+13%

YoY increase

## Pillars of Strategy

**Re-allocating capital to support opportunities as a technology and analytics provider**

## Accomplishments Since 2021

- Acquisition of **Verafin**, creating a new Anti-Financial Crime technology leader
- Divested **U.S. Fixed Income business**

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**Implementing our vision of a SaaS-enabled technology provider**

- Annualized SaaS revenues of **\$725 million** in 4Q22, **+13% YoY**
- SaaS as a percentage of ARR totaled **36%** in 4Q22

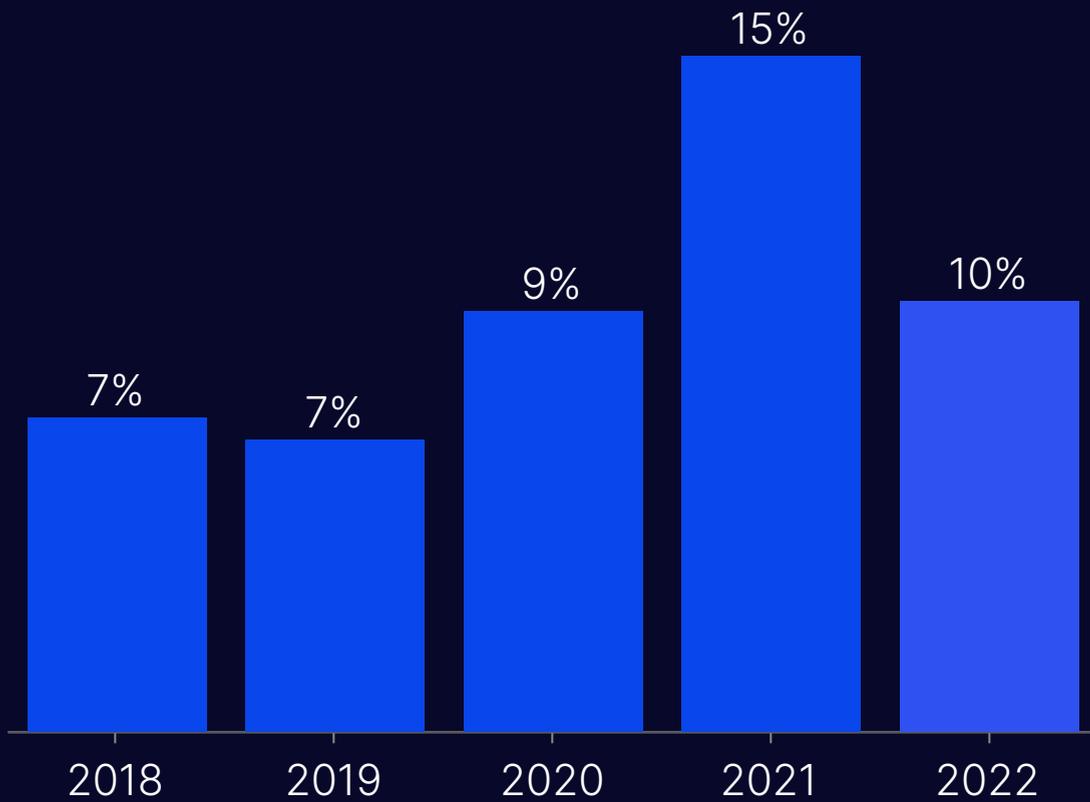
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**Amplifying the most distinctive aspects of our marketplace and corporate foundational businesses**

- Acquisitions of **Metrio** and **QDiligence** and a majority position in **Puro.earth** to address expanding client ESG needs

# Progress on Key Metrics Confirms our Confidence in our Strategy

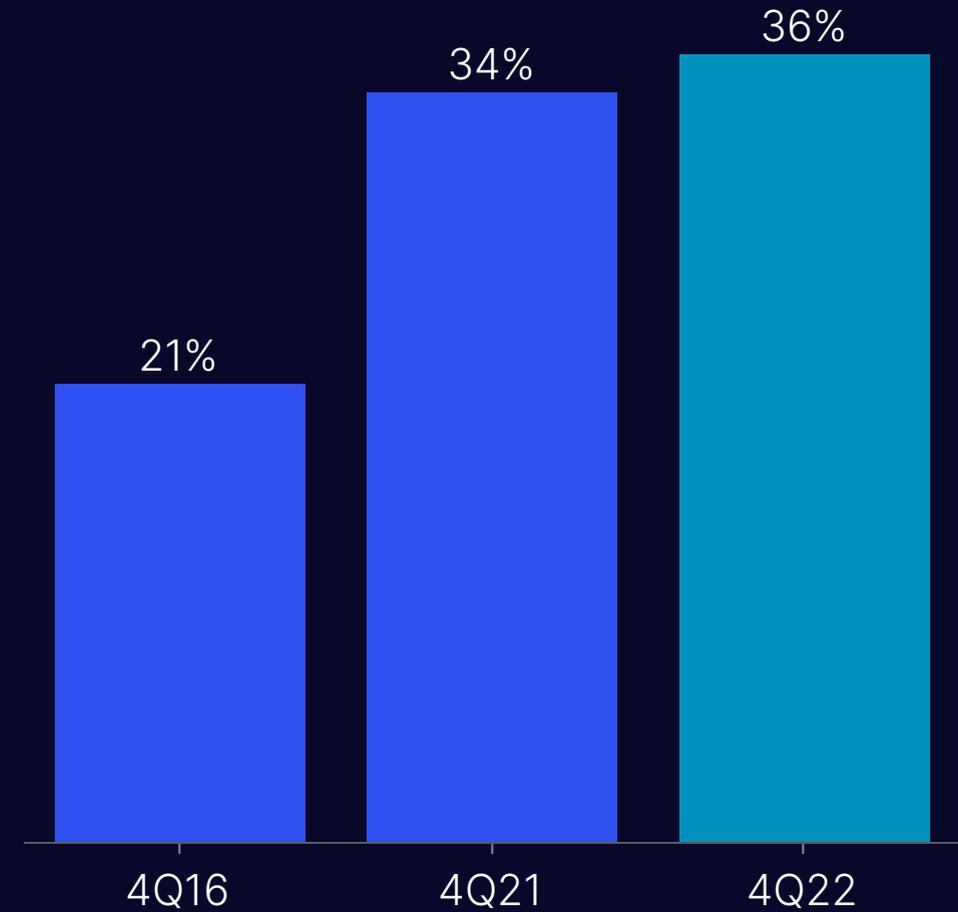
## Solutions Businesses Organic Revenue Growth



3-5 Year Outlook<sup>1</sup>:

7-10%

## SaaS as % of ARR



4Q27E Objective:

>50%

<sup>1</sup> Growth outlook assumes stable market backdrop.

# Today's Environment Generally Supportive of Near-Term Execution

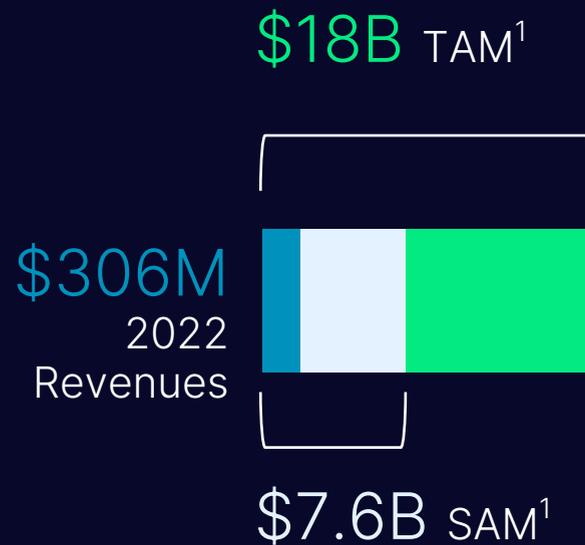
How our business environment impacts our ability to meet client needs and address challenges of our clients

	 <b>Institutional Investors &amp; Asset Owners</b>	 <b>Exchanges and other Market Operators</b>	 <b>Corporate Issuers</b>	 <b>Banks &amp; Broker Dealers</b>
<b>Long-term Secular Dynamics</b>	<p><b>Digitalization of investment processes</b> drives increased demand for analytics and data</p> <p>Increases in <b>passive</b> and <b>thematic investing</b></p>	<p><b>Increased demand</b> for <b>SaaS scalability</b> and <b>flexibility</b></p>	<p><b>Pipeline of companies planning IPOs is healthy</b></p> <p><b>Overall demand for corporate solutions remains strong</b></p>	<p><b>Increased outsourcing of technology</b> that is not critical to client competitive differentiation</p> <p>Increasing <b>needs for technology</b> solutions to <b>stop financial crime more effectively</b></p>
<b>Cyclical &amp; External Factors</b>	<p>2022 experienced <b>market and AUM declines</b> following strong gains in 2021</p> <p><b>Modest impact on the sales cycles</b> for Asset Owners Solutions as a part of Analytics</p>	<p><b>Market technology</b> implementation and change request timelines are <b>improved since the pandemic period</b></p>	<p>Large number of <b>2020-2021 IPOs</b> and other new Nasdaq-listed issuers represent future <b>IR &amp; ESG opportunities</b></p> <p><b>IPO environment negatively impacted</b> by market dynamics</p> <p><b>Modest impact on the sales cycles</b> for IR solutions</p>	<p><b>Market volumes remain elevated versus a few years ago</b>, but challenging comparisons in equity and equity option asset classes versus record 2021</p> <p><b>Demand remains strong among banks for anti-financial crime solutions</b></p>

# Continue to Be Well Positioned Against Sizeable, Growing Opportunities

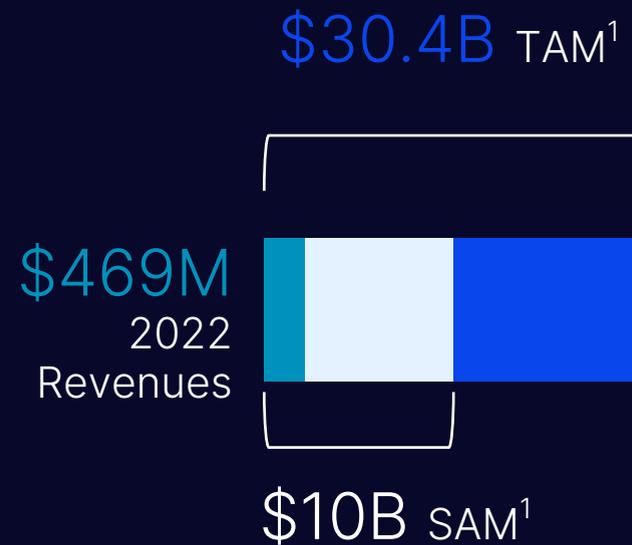
## Anti-Financial Crime

- Fraud Detection & AML (FRAML)
- Nasdaq Surveillance



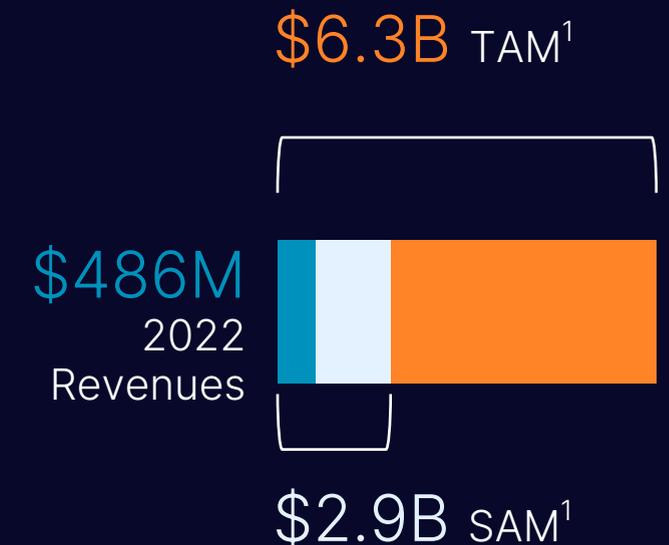
## Workflow and Insights<sup>2</sup>

- eVestment
- Nasdaq Data Link
- Nasdaq Fund Secondaries
- Investor Relations Intelligence
- Governance Solutions
- ESG Solutions



## Index

- Nasdaq-100
- Thematics
- Smart Beta



<sup>1</sup> Total addressable market (TAM) based on consulting reports (including from Burton-Taylor and Opimas), public filings, and Nasdaq analysis. Serviceable addressable market (SAM) is based on internal estimates reflecting market opportunity of existing offerings.

<sup>2</sup> TAM/SAM refer to Workflow & Insights solutions within the Capital Access Platforms division.

# Business and Financial Update



“In 2022 we successfully executed our capital plan to minimize the impact of rising rates, reduce net leverage and support our long term growth strategy. We enter 2023 with a strong capital position and the flexibility to adapt to varying operating environments.

Additionally, we raised our dividend growth potential with an expectation for a rising payout ratio over the next five years, amplifying our ability to continue delivering a compelling dividend growth story.”

Ann Dennison, Executive Vice President  
and Chief Financial Officer, Nasdaq

# 4Q22 Financial Performance Summary

Driving Accelerating Growth,  
Creating Sustainable Value

+5%

Solutions Businesses  
Organic Revenue Growth

+4%

Trading Services  
Organic Revenue Growth

+8%

Growth in ARR  
to \$2.01 billion

+13%

Growth in Annualized SaaS  
Revenues to \$725 million

\$1.0B

Capital returned to  
shareholders through  
December 31, 2022,  
including \$633 million in  
share repurchases

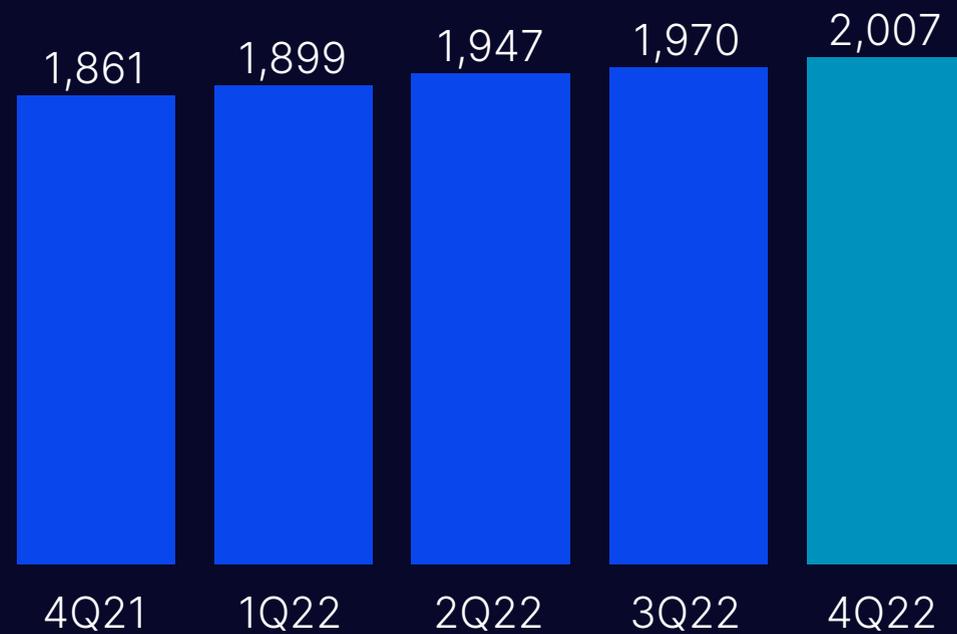
## Non-GAAP Financial Results

(US\$ millions, except per share)	4Q22	4Q21	% Δ
Net Revenues	\$906	\$885	2%
Organic			5%
Operating Expenses	\$460	\$434	6%
Organic			10%
Operating Income	\$446	\$451	(1)%
Operating Margin	49%	51%	
Income Before Income Taxes	\$418	\$419	—%
Net Income	\$317	\$328	(3)%
Diluted EPS <sup>1</sup>	\$0.64	\$0.64	—%
Effective Tax Rate	24.4%	21.7%	
Dividend Per Share	\$0.20	\$0.18	11%

<sup>1</sup> Diluted EPS reflects weighted average diluted shares outstanding of 497.0 million in 4Q22 and 509.1 million in 4Q21.

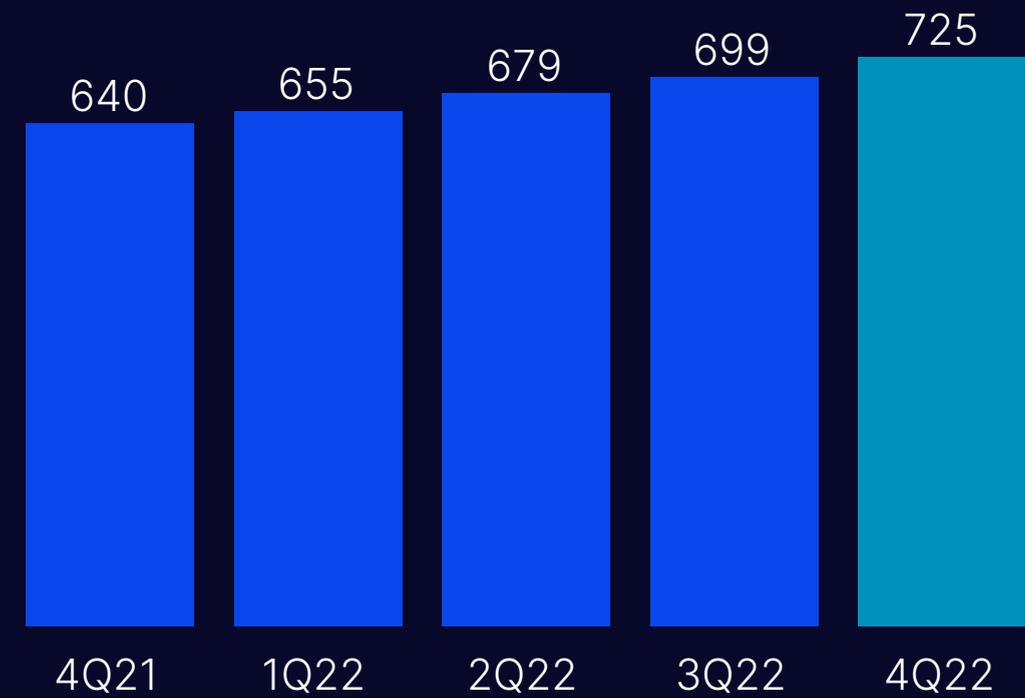
# Recurring Revenue KPIs Reflect Organic Growth

Annualized Recurring Revenue<sup>1</sup> (\$Ms)



+8% YoY

Annualized SaaS Revenues (\$Ms)



+13% YoY

<sup>1</sup> Prior periods ARR was recast due to Broker Services wind down and 2Q22 was adjusted to conform to current period presentation of certain contracts within Workflow and Insights. See appendix for further details.

# Market Platforms

+5%

Organic YoY revenue growth

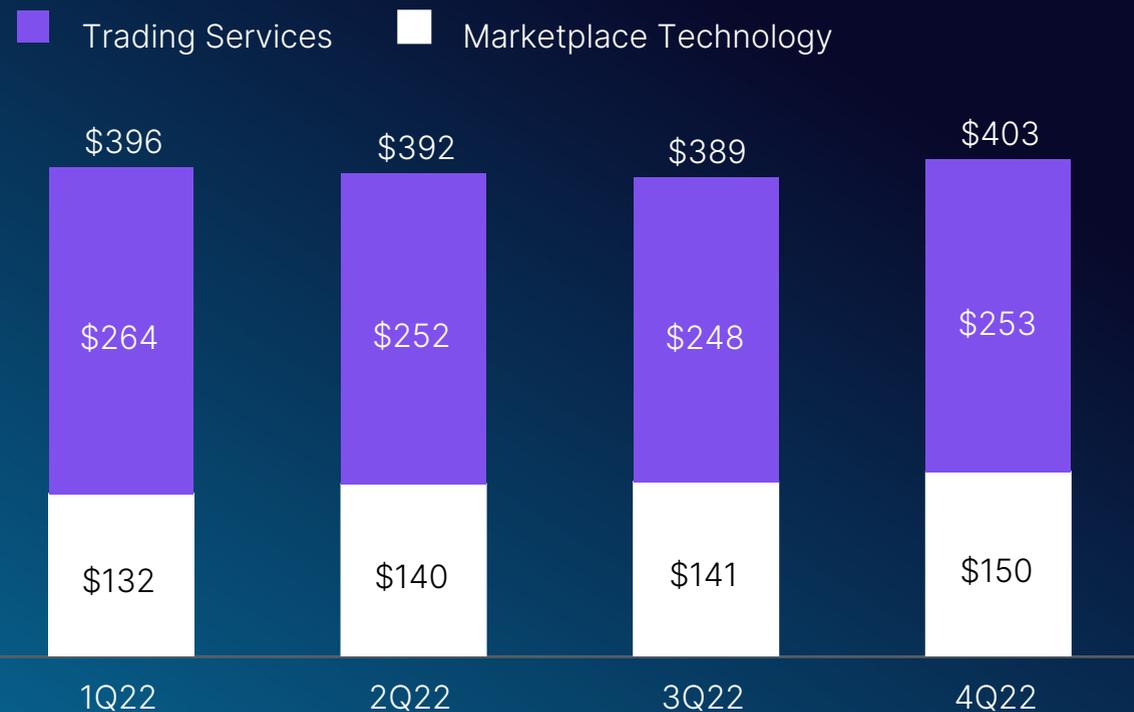
+5%

Increase in ARR

~80%

% of Cash Equities net revenues from Nasdaq-listed companies

## 4Q22 Net Revenues



## Quarter over Quarter Comparison

(US\$ millions)	4Q22	4Q21	% Δ
Trading Services	\$253	\$250	1%
Marketplace Technology <sup>1</sup>	\$150	\$143	5%
Total Net Revenues	\$403	\$393	3%
Organic revenue growth			5%
Operating income	\$209	\$211	(1)%
Operating margin	52%	54%	
Annualized SaaS revenues	\$39	\$31	26%
ARR <sup>1</sup>	\$503	\$479	5%

## 4Q22 Financial Highlights

- Trading Services: Revenues increased primarily due to higher U.S. equity derivatives and U.S. cash equity revenues due to higher capture and higher industry volumes, partially offset by lower European cash equity revenues due to lower industry volumes.
- Marketplace Technology: Revenues increased primarily due to increased demand for trade management services and higher SaaS-based market technology revenues.

<sup>1</sup> 4Q21 prior year trade management services revenues, within Marketplace Technology, and ARR were recast due to the Broker Services wind down. See appendix for further details.

# Capital Access Platforms

8% + \$34B 100%

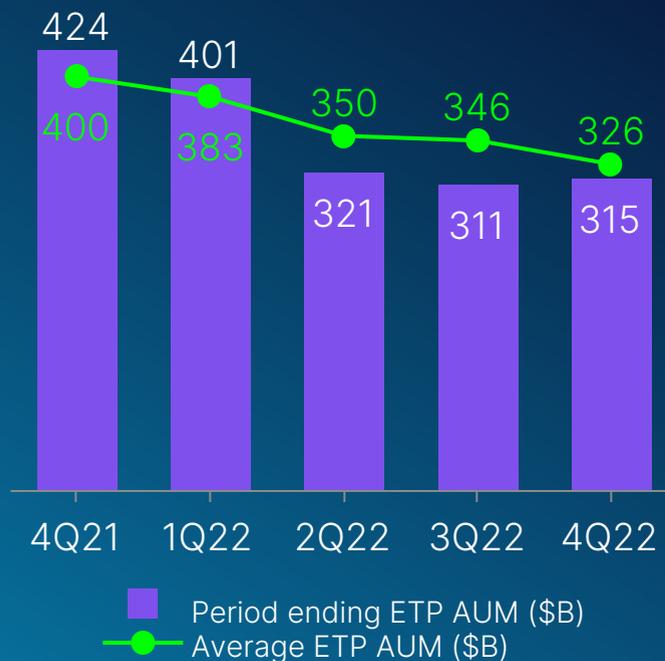
Workflow and Insights  
YoY revenue growth

LTM net  
inflows

IPO win rate. Nasdaq led  
U.S. exchanges for IPOs  
with 18 IPOs

Period ending and average ETP  
AUM (\$B)

Total listed corporate issuers  
and U.S. operating company  
IPO win rate



## Quarter over Quarter Comparison

(US\$ millions)	4Q22	4Q21	% Δ
Data and Listing Services <sup>1</sup>	\$183	\$178	3%
Index <sup>2</sup>	\$116	\$130	(11)%
Workflow and Insights <sup>3</sup>	\$121	\$112	8%
Total Revenues	\$420	\$420	—%
Organic revenue growth			2%
Operating income	\$211	\$221	(5)%
Operating margin <sup>4</sup>	50%	53%	
Annualized SaaS revenues	\$388	\$356	9%
ARR	\$1,192	\$1,113	7%

## 4Q22 Financial Highlights

- Data and Listing Services: Revenues increased primarily due to an increase in annual listing fees and increase in proprietary data revenues driven by higher international demand, partially offset by lower initial listings fees and the negative impact of changes in FX rates.
- Index: Revenues decreased primarily due to lower AUM in exchange traded products linked to Nasdaq indexes, partially offset by higher revenues related to futures trading linked to the Nasdaq-100 Index.
- Workflow and Insights: Revenues increased primarily due to growth in ESG services, IR advisory services and Analytics.

<sup>1</sup> Organic increase 6%, excluding the impact of FX of 3%.

<sup>2</sup> Organic decrease 11%.

<sup>3</sup> Organic increase 10%, excluding the impact of FX and an acquisition of 2%.

<sup>4</sup> The Capital Access Platforms operating margin reflects the allocation of certain costs that support the operation of various aspects of Nasdaq's business, including Trading Services, to units other than Capital Access Platforms.

# Anti-Financial Crime

**+21%**

Organic YoY revenue growth

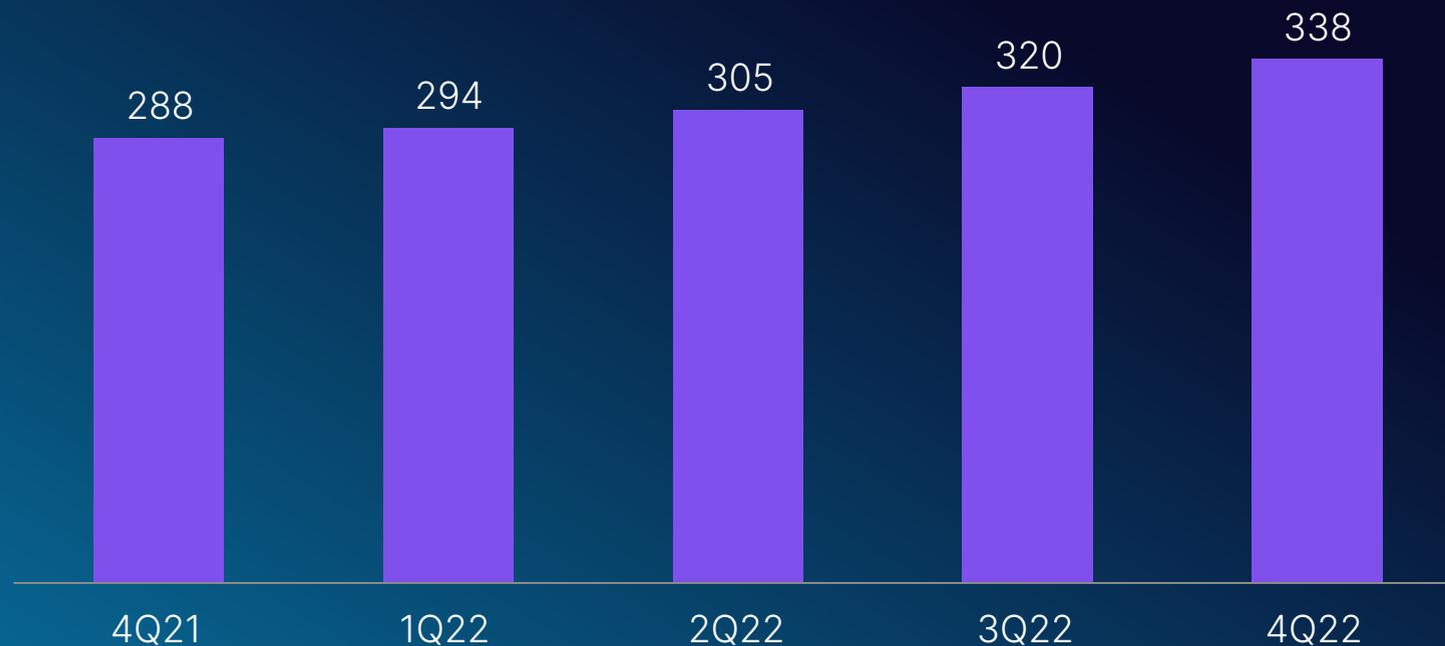
**17%**

Increase in Signed ARR\* year over year

**47**

Rule of 40 last 12 months

Signed ARR (\$M)



## Quarter over Quarter Comparison

(US\$ millions)	4Q22	4Q21	% Δ
Total Revenues	\$82	\$68	21%
Organic revenue growth			21%
Operating income	\$26	\$17	53%
Operating margin	32%	25%	
Annualized SaaS revenues	\$298	\$253	18%
ARR	\$312	\$269	16%
Signed ARR	\$338	\$288	17%

## 4Q22 Financial Highlights

- Revenues increased due to strong performance by our surveillance business in new sales to existing clients and new customer acquisitions across all regions; continued penetration into the small-to-medium banks FRAML market; and increased demand in Tier 2 banks for AML and fraud detection solutions, particularly payments fraud.
- The operating margin in the fourth quarter of 2022 totaled 32% versus 25% in the prior year period. Adjusting for the impact of the deferred revenue writedown on Verafin, the operating margin increased three percentage points.

\* For all defined terms, refer to the appendix to this presentation.

# Supporting Growth with Appropriate Resources

## 2023 Non-GAAP Operating Expense Guidance

**\$1.77B-\$1.85B**

- The midpoint of the expense guidance range reflects an increase of just over 5% including an increase of 1% related to our digital asset strategy, and primarily reflects our continued investments to drive growth across ESG, Anti-Financial Crime and market modernization.

## Non-GAAP Tax Rate<sup>1</sup>

**24.0%-26.0%**

## Quarter over Quarter Comparison

(US\$ millions)	4Q22	4Q21	% Δ
Non-GAAP operating expenses			
Compensation and benefits	\$252	\$238	6%
Professional and contract services	\$41	\$40	3%
Computer operations and data communications	\$56	\$49	14%
Occupancy	\$26	\$28	(7)%
General, administrative and other	\$32	\$19	68%
Marketing and advertising	\$20	\$26	(23)%
Depreciation and amortization	\$25	\$26	(4)%
Regulatory	\$8	\$8	—%
Non-GAAP operating expenses	\$460	\$434	6%
Organic non-GAAP operating expense			10%

4Q22 non-GAAP operating expenses increased \$26 million, or 6%, to \$460 million. The \$45 million, or 10%, organic increase primarily reflects:

- \$25 million, or 11%, increase in compensation and benefits expense, driven by increased headcount and the impact of merit increases
- \$14 million, or 74%, increase in general, administrative and other expense, reflecting higher travel costs
- \$9 million, or 18%, increase in computer operations and data communications expense, reflecting the continued investment in our businesses
- \$6 million, or 23%, decrease in marketing and advertising expense, reflecting lower IPO activity

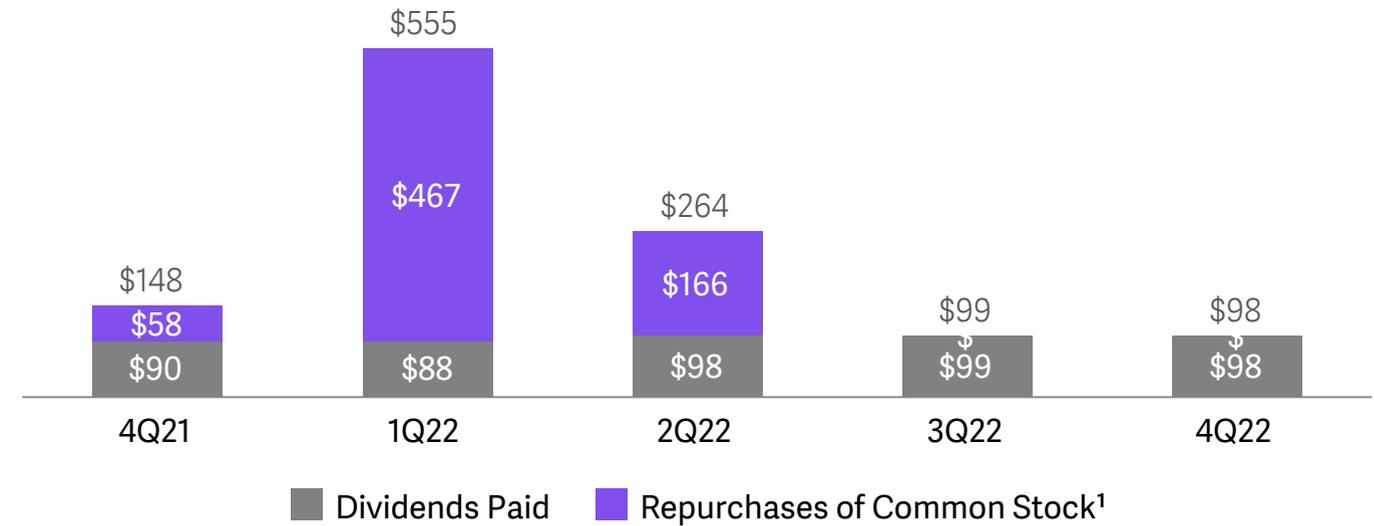
<sup>1</sup> U.S. GAAP operating expense and tax rate guidance are not provided due to the inherent difficulty in quantifying certain amounts due to a variety of factors including the unpredictability in the movement in foreign currency rates, as well as future charges or reversals outside of the normal course of business.

# Executing Consistent Capital Plan

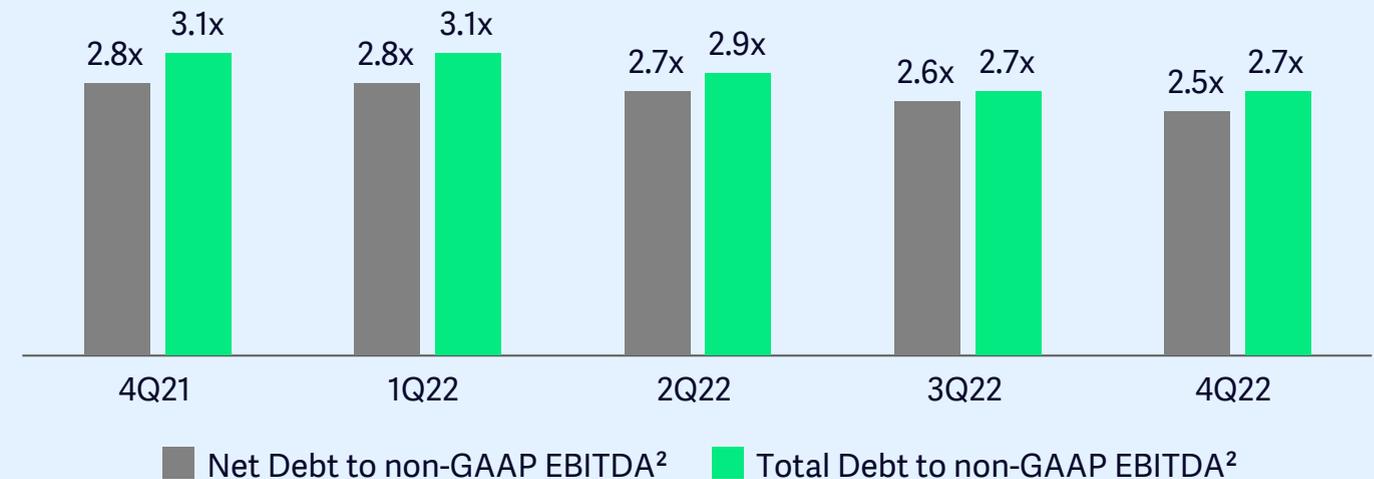
## 4Q22 Highlights

- Returned \$98 million to shareholders through the payment of dividends.
- 4Q22 end of period diluted share count totaled 497.5 million.
- As of December 31, 2022, there was \$650 million remaining under the board authorized share repurchase program following an approval by the Board of Directors in December 2022 to increase the authorization.
- 4Q22 debt increased by \$27 million versus 3Q22 primarily due to net issuance of \$465 million of commercial paper and a \$164 million increase in Euro bonds book values caused by a stronger Euro offset by repayment of \$600 million of 0.445% senior unsecured notes at maturity.

## Shareholder Returns



## Leverage Ratios



<sup>1</sup> Repurchases of common stock include the impact of the ASR agreements.

<sup>2</sup> All non-GAAP EBITDA is last twelve months.

# Our ESG Strategy

At the epicenter of capital markets and technology, we are uniquely positioned to lead the acceleration of ESG excellence both in how we operate internally and by empowering our communities with strategic solutions that have measurable and lasting impact.



## 2022 Developments

### External Impact

- Acquired Metrio, an environmental, social and governance (ESG) data collection, analytics and reporting services platform, expanding the capabilities we leverage to answer corporate issuers' expanding sustainability program needs.

### Corporate Sustainability

- Enhanced our supplier sustainability program to improve diversity and reduce environmental impacts.
- Published our annual Sustainability Report (with GRI, SASB, and WEF indexes) and Task Force on Climate-Related Financial Disclosures (TCFD) Report.
- Nasdaq's GHG reduction targets approved by The Science Based Targets initiative (SBTi).

### Third Party Recognition

- MSCI ESG Rating upgraded two levels to "AA", which they characterize as a "Leader" amongst the Diversified Financials Industry.
- Named for the 7th consecutive year to the Dow Jones Sustainability North America Index (DJSI North America).
- CDP Climate Score upgraded from B to A, included on CDP's Climate Change A List.

# Recap:

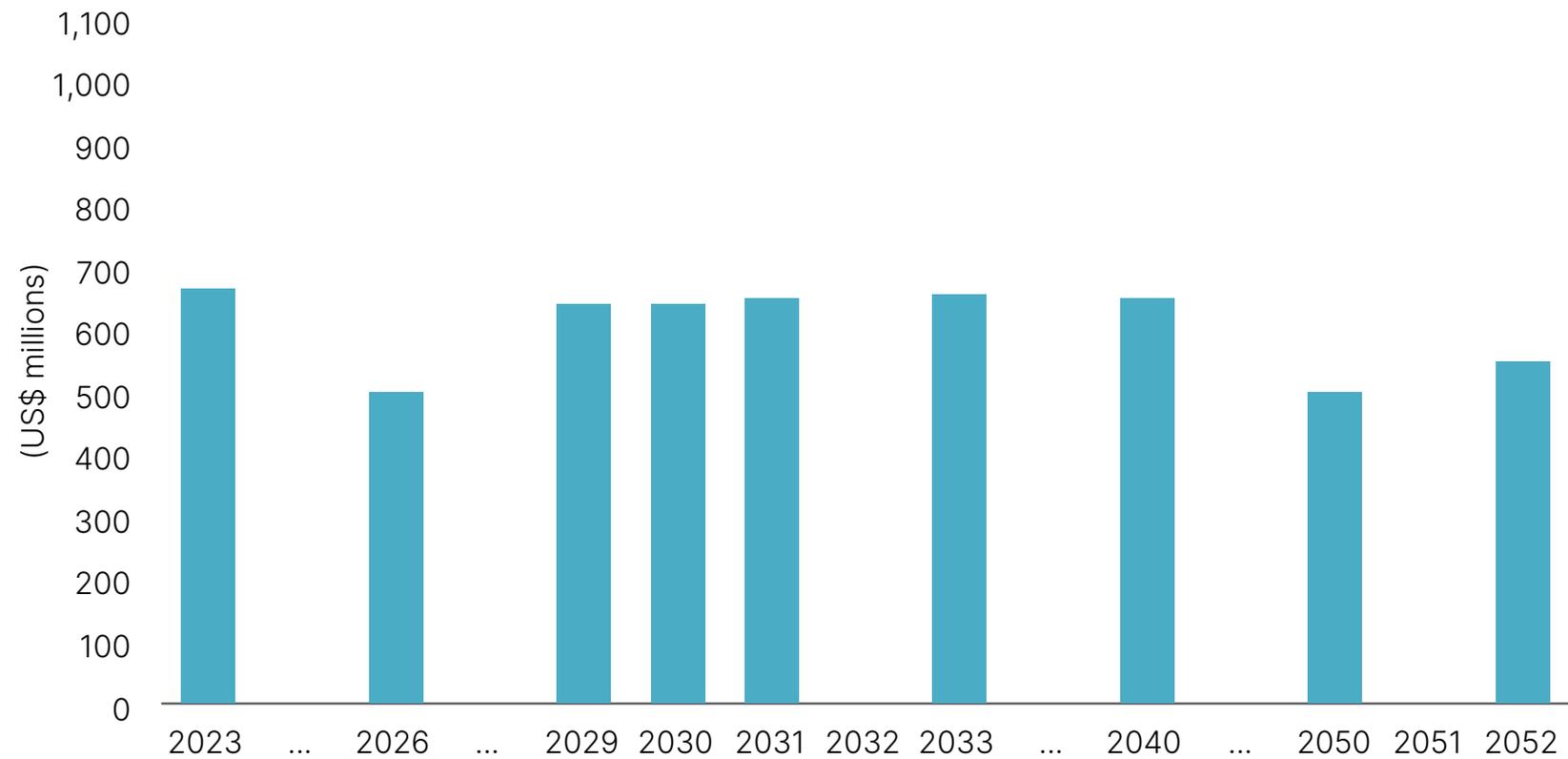
## Continued Progress Advancing Strategy

- **Our evolution continues:** 4Q22 Annualized SaaS revenues increased to 36% of ARR
- **Success in our foundational listings business creates "flywheel effects"**, driving growth in Trading Services, corporate solutions, and data businesses
- **2022 capital market and macroeconomic backdrop incorporated several shifts**, but remains conducive to the company's continued strategic execution
- **Clear strategy to deliver on our unique ESG potential**
- **Key secular growth areas** that we are positioned to serve are large and growing: **Anti-Financial Crime, Index, and Workflow and Insights**

# Appendix

# Debt Overview

## Well Laddered Debt Maturities



## \$4.9B Net Debt

(US\$ millions)	12/31/2022	9/30/2022	Maturity Date
Commercial Paper	\$664	\$199	NA
0.445% Notes	\$—	\$600	Dec 2022
Revolver (Libor + 97.5 bps) <sup>1</sup>	\$(5)	\$(3)	Dec 2025
3.85% Notes	\$498	\$498	Jun 2026
1.75% Euro Notes	\$637	\$583	Mar 2029
0.875% Euro Notes	\$637	\$583	Feb 2030
1.65% Notes	\$644	\$644	Jan 2031
0.90% Euro Notes	\$653	\$597	Jul 2033
2.50% Notes	\$644	\$644	Dec 2040
3.25% Notes	\$486	\$486	Apr 2050
3.95% Notes	\$541	\$541	Mar 2052
<b>Total Debt Obligations</b>	<b>\$5,399</b>	<b>\$5,372</b>	
Less Cash and Cash Equivalents <sup>2</sup>	\$(502)	\$(301)	
<b>Net Debt</b>	<b>\$4,897</b>	<b>\$5,071</b>	

<sup>1</sup> Includes debt issuance costs of \$5M at 12/31/2022 and \$3M at 9/30/2022.

<sup>2</sup> Excludes \$22M of restricted cash at 12/31/2022 and \$51M at 9/30/2022.

# Historical Cash Flow / Uses of Cash Flow

- 2022 free cash flow excluding Section 31 fees totaled **\$1,451 million**.
- 2021 free cash flow includes the impact of Verafin related tax and structuring items, described below:
  - The Verafin purchase price of \$2.75B reflected certain amounts that were paid post close due to tax and other structuring items. These included a tax payment of \$221M and a purchase price holdback escrow of \$102M.
  - The cash outflow for the tax liability is offset within acquisitions of businesses, net of cash and cash equivalents acquired within investing activities, leading to no impact on the total change in cash and cash equivalents and restricted cash and cash equivalents for the year ended December 31, 2021.

Free Cash Flow Calculation (US\$ millions)	2019	2020	2021	2022	2019 - 2022
Cash flow from operations	\$963	\$1,252	\$1,083	\$1,706	\$5,004
Capital expenditure	(127)	(188)	(163)	(152)	(630)
<b>Free cash flow</b>	<b>\$836</b>	<b>\$1,064</b>	<b>\$920</b>	<b>\$1,554</b>	<b>\$4,374</b>
Verafin structuring items	—	—	323	—	323
Section 31 fees, net <sup>1</sup>	(14)	(57)	106	(103)	(68)
<b>Free cash flow ex. Section 31 and Verafin structuring items</b>	<b>\$822</b>	<b>\$1,007</b>	<b>\$1,349</b>	<b>\$1,451</b>	<b>\$4,629</b>
Uses of cash flow					
Share repurchases	\$200	\$222	\$468	\$308	\$1,198
Cash paid for ASR agreement	—	—	475	325	800
Net repayment/(borrowing) of debt	430	(1,912)	(409)	334	(1,557)
Acquisitions, net of dispositions and other	63	157	2,240	41	2,501
Verafin structuring items	—	—	323	—	323
Dividends paid	305	320	350	383	1,358
<b>Total uses of cash flow</b>	<b>\$998</b>	<b>\$(1,213)</b>	<b>\$3,447</b>	<b>\$1,391</b>	<b>\$4,623</b>

<sup>1</sup> Net of change in Section 31 fees receivables of \$9M in 2019; \$35M in 2020; \$(56)M in 2021; \$79M in 2022; and \$67M in 2019-2022.

# Total Variance Net Impacts: 4Q22

All figures in US\$ Millions			Total Variance		Organic Impact		Acq. & Div. Impact <sup>1</sup>		FX Impact	
	4Q22	4Q21	\$M	%	\$M	%	\$M	%	\$M	%
Market Platforms	\$403	\$393	\$10	3 %	\$20	5 %	\$—	— %	(\$10)	(3) %
Capital Access Platforms	420	420	—	— %	7	2 %	1	— %	(8)	(2) %
Anti-Financial Crime	82	68	14	21 %	14	21 %	—	— %	—	— %
Other	1	4	(3)	(75) %	—	— %	(3)	(75) %	—	— %
<b>Total Solutions Businesses Revenue</b>	<b>652</b>	<b>631</b>	<b>21</b>	<b>3 %</b>	<b>30</b>	<b>5 %</b>	<b>1</b>	<b>— %</b>	<b>(10)</b>	<b>(2) %</b>
<b>Total Revenue less transaction-based expenses</b>	<b>906</b>	<b>885</b>	<b>21</b>	<b>2 %</b>	<b>41</b>	<b>5 %</b>	<b>(2)</b>	<b>— %</b>	<b>(18)</b>	<b>(2) %</b>
<b>Non-GAAP Operating Expenses</b>	<b>460</b>	<b>434</b>	<b>26</b>	<b>6 %</b>	<b>45</b>	<b>10 %</b>	<b>1</b>	<b>— %</b>	<b>(20)</b>	<b>(5) %</b>
<b>Non-GAAP Operating Income</b>	<b>446</b>	<b>451</b>	<b>(5)</b>	<b>(1) %</b>	<b>(4)</b>	<b>(1) %</b>	<b>(3)</b>	<b>(1) %</b>	<b>2</b>	<b>— %</b>
<b>Non-GAAP Operating Margin</b>	<b>49 %</b>	<b>51 %</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

Note: The sum of the percentage changes may not tie to the percent change in total variance due to rounding.

<sup>1</sup> Reflects the impact of the Broker Services wind down that occurred in 2022.

# Total Variance Net Impacts: 2022

All figures in US\$ Millions			Total Variance		Organic Impact		Acq. & Div. Impact <sup>1</sup>		FX Impact	
	2022	2021	\$M	%	\$M	%	\$M	%	\$M	%
Market Platforms	\$1,581	\$1,582	(\$1)	— %	\$39	2 %	\$—	— %	(\$40)	(3) %
Capital Access Platforms	1,684	1,568	116	7 %	142	9 %	3	— %	(29)	(2) %
Anti-Financial Crime	306	231	75	32 %	58	25 %	18	8 %	(1)	— %
Other	11	39	(28)	(72) %	—	— %	(28)	(72) %	—	— %
<b>Total Solutions Businesses Revenue</b>	<b>2,552</b>	<b>2,344</b>	<b>208</b>	<b>9 %</b>	<b>227</b>	<b>10 %</b>	<b>21</b>	<b>1 %</b>	<b>(40)</b>	<b>(2) %</b>
<b>Total Revenue less transaction-based expenses</b>	<b>3,582</b>	<b>3,420</b>	<b>162</b>	<b>5 %</b>	<b>239</b>	<b>7 %</b>	<b>(7)</b>	<b>— %</b>	<b>(70)</b>	<b>(2) %</b>
<b>Non-GAAP Operating Expenses</b>	<b>1,721</b>	<b>1,616</b>	<b>105</b>	<b>6 %</b>	<b>164</b>	<b>10 %</b>	<b>6</b>	<b>— %</b>	<b>(65)</b>	<b>(4) %</b>
<b>Non-GAAP Operating Income</b>	<b>1,861</b>	<b>1,804</b>	<b>57</b>	<b>3 %</b>	<b>75</b>	<b>4 %</b>	<b>(13)</b>	<b>(1) %</b>	<b>(5)</b>	<b>— %</b>
<b>Non-GAAP Operating Margin</b>	<b>52 %</b>	<b>53 %</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

Note: The sum of the percentage changes may not tie to the percent change in total variance due to rounding.  
<sup>1</sup> Reflects the impact of the Verafin acquisition as well as the NFI and NPM divestitures.

# Trading Services Additional Detail

(US\$ in Millions)	4Q21	1Q22	2Q22	3Q22	4Q22
<b>U.S. Equity Derivatives Trading</b>	\$83	\$94	\$88	\$92	\$96
<b>U.S. Cash Equity Trading</b>	\$68	\$68	\$76	\$70	\$72
<b>European Cash Equity Trading</b>	33	34	29	24	24
<b>U.S. Tape Plans<sup>1</sup></b>	37	41	36	36	36
<b>Other<sup>2</sup></b>	29	27	23	26	25
<b>Trading Services Net Revenues</b>	<b>\$250</b>	<b>\$264</b>	<b>\$252</b>	<b>\$248</b>	<b>\$253</b>

<sup>1</sup> As part of the new corporate structure, data sales revenues related to our U.S. cash equity and U.S. Options industry data (collectively, U.S. Tape Plans) are reported in Market Platforms (Trading Services).

<sup>2</sup> Other includes Nordic fixed income trading & clearing, Nordic derivatives, Nordic commodities, and Canadian cash equities trading.

# Summary of Historical Financial Results

Non-GAAP Results (US\$ Millions, except EPS)	2019	YoY % Chg	2020	YoY % Chg	2021	YoY % Chg	2022	YoY % Chg
Revenue from Solutions Businesses	\$1,737	9%	\$1,928	11%	\$2,344	22%	\$2,552	9%
Trading Services Net Revenues	740	(4)%	932	26%	1,037	11%	1,019	(2)%
Other Revenues	58	(63)%	43	(26)%	39	(9)%	11	(72)%
<b>Net Revenues</b>	<b>2,535</b>	<b>—%</b>	<b>2,903</b>	<b>15%</b>	<b>3,420</b>	<b>18%</b>	<b>3,582</b>	<b>5%</b>
Operating Expenses	1,295	(2)%	1,414	9%	1,616	14%	1,721	6%
Operating Income	1,240	3%	1,489	20%	1,804	21%	1,861	3%
Operating Margin <sup>1</sup>	49%		51%		53%		52%	
Income Before Income Taxes	1,128	5%	1,393	23%	1,681	21%	1,740	4%
Net Income	835	5%	1,031	23%	1,273	23%	1,324	4%
Diluted Earnings Per Share	\$1.67	6%	\$2.06	23%	\$2.52	22%	\$2.66	6%
Dividend Per share	\$0.62	9%	\$0.65	5%	\$0.70	8%	\$0.78	11%

<sup>1</sup> Operating margin equals operating income divided by net revenues.

# Solutions Businesses Organic Revenue Growth

<u>Solutions Businesses</u>			Total Variance		Organic Impact		Other Impact <sup>(1)</sup>		
	All figures in US\$ Millions	Current Period	Prior-year Period	\$	%	\$	%	\$	%
4Q22		\$652	\$631	21	3 %	30	5 %	(9)	(1)%
3Q22		641	591	50	8 %	61	10 %	(11)	(2)%
2Q22		637	575	62	11 %	73	13 %	(11)	(2)%
1Q22		623	545	78	14 %	70	13 %	8	1 %
2022		2,552	2,344	208	9 %	227	10 %	(19)	(1)%
2021 <sup>(2)</sup>		2,356	1,940	416	21 %	295	15 %	121	6 %
2020 <sup>(3)</sup>		1,962	1,770	192	11 %	168	9 %	24	1 %
2019 <sup>(3)</sup>		1,770	1,635	135	8 %	108	7 %	27	2 %
2018 <sup>(3 4)</sup>		1,675	1,506	169	11 %	107	7 %	62	4 %

Note: The sum of the percentage changes may not tie to the percent change in total variance due to rounding.

1. Other impact includes acquisitions, divestitures, and changes in FX rates.

2. Solutions businesses revenues are not recast for the Broker Services wind down that occurred in 2022.

3. Solutions businesses revenues are not recast for the NPM contribution and NFI sale that occurred in 2021 and the Broker Services wind down that occurred in 2022.

4. Revenues from the BWISE enterprise governance, risk and compliance software platform, which was sold in March 2019, and the Public Relations Solutions and Digital Media Services businesses, which were sold in mid-April 2018, are included in Other Revenues for these periods and therefore not reflected above.

# Trading Services Organic Revenue Growth

<u>Trading Services Business</u>			Total Variance		Organic Impact		Other Impact <sup>(1)</sup>		
	All figures in US\$ Millions	Current Period	Prior-year Period	\$	%	\$	%	\$	%
4Q22		\$253	\$250	3	1 %	11	4 %	(8)	(3)%
3Q22		248	242	6	2 %	16	7 %	(10)	(4)%
2Q22		252	257	(5)	(2)%	3	1 %	(8)	(3)%
1Q22		264	288	(24)	(8)%	(19)	(7)%	(5)	(2)%
2022 <sup>(2)</sup>		1,019	1,037	(18)	(2)%	12	1 %	(30)	(3)%
2021 <sup>(3)</sup>		1,037	932	105	11 %	91	10 %	14	2 %
2020 <sup>(3)</sup>		941	755	186	25 %	182	24 %	4	1 %
2019 <sup>(3)</sup>		755	794	(39)	(5)%	(25)	(3)%	(14)	(2)%
2018 <sup>(3)</sup>		794	711	83	12 %	81	11 %	2	— %

Note: The sum of the percentage changes may not tie to the percent change in total variance due to rounding.

1. Other impact includes acquisitions, divestitures and changes in FX rates.

2. Revenues have not been recast for the Broker Services wind down that occurred in 2022.

3. Revenues have not been recast for the NFI sale in July 2021 or Broker Services wind down that occurred in 2022.

# Defined Terms

**ARR:** ARR for a given period is the annualized revenue derived from subscription contracts with a defined contract value. This excludes contracts that are not recurring, are one-time in nature, or where the contract value fluctuates based on defined metrics. ARR is currently one of our key performance metrics to assess the health and trajectory of our recurring business. ARR does not have any standardized definition and is therefore unlikely to be comparable to similarly titled measures presented by other companies. ARR should be viewed independently of revenue and deferred revenue and is not intended to be combined with or to replace either of those items. ARR is not a forecast and the active contracts at the end of a reporting period used in calculating ARR may or may not be extended or renewed by our customers.

**AUM:** Assets Under Management.

**Corporate Solutions:** Our corporate solutions business serves both public and private companies and organizations through our Investor Relations Intelligence offerings, Governance Solutions & ESG Solutions.

**ETP:** Exchange Traded Product.

**Net Revenues:** Revenues less transaction-based expenses.

**New Logo Clients:** New clients that have not previously transacted with Nasdaq.

**NFI:** Nasdaq's former U.S. Fixed Income business, which was sold in June 2021.

**NPM:** Nasdaq Private Market.

**Signed ARR:** includes ARR recognized as revenue in the current period as well as ARR for new contracts signed but not yet commenced.

**Solutions Businesses:** Revenues from our Capital Access Platforms and Anti-Financial Crime segments and Marketplace Technology business within Market Platforms segment.