

NEW YORK, January 31, 2024 - Nasdaq, Inc. (Nasdaq: NDAQ) today reported financial results for the fourth quarter and year 2023.

- 2023 net revenues¹ were **\$3.9 billion**, an increase of **9%** over 2022 and an increase of **5%** organically. Solutions² revenues increased **13%**, with organic growth³ of **7%**. Market Services net revenues were flat on a reported and organic basis.
- Fourth quarter of 2023 net revenues were **\$1.1 billion**, an increase of **23%** over the fourth quarter of 2022 and an increase of **7%** organically. Solutions revenues increased **32%**, with organic growth of **9%**. Market Services net revenues increased **1%** and remained relatively flat organically.
- Annualized Recurring Revenue (ARR)⁴ of **\$2.6 billion** increased **29%** compared to the fourth quarter of 2022, up **6%** organically. Annualized SaaS revenues increased **26%** or **12%** organically and represented **35%** of ARR or **38%**, excluding Adenza.
- GAAP diluted earnings per share decreased **8%** in 2023 and **25%** in the fourth quarter of 2023. Non-GAAP³ diluted earnings per share increased **6%** in 2023 and **13%** in the fourth quarter of 2023.
- Nasdaq generated **\$1.7 billion** in cash flow from operations.
- The company returned **\$127 million** to shareholders in the fourth quarter of 2023 through dividends and **\$110 million** in repurchases of our common stock.

Fourth Quarter and Full-Year 2023 Highlights

(US\$ millions, except per share)	4Q23	Change (YoY)	Organic Change (YoY)	2023	Change (YoY)	Organic Change (YoY)
Solutions Revenues	\$860	32.3%	8.9%	\$2,869	12.7%	6.8%
Market Services Net Revenues	\$247	0.8%	0.4%	\$987	(0.1)%	0.3%
Net Revenues*	\$1,117	23.3%	6.5%	\$3,895	8.7%	5.0%
ARR	\$2,585	29.2%	5.8%	\$2,585	29.2%	5.8%
GAAP Diluted EPS	\$0.36	(25.0)%		\$2.08	(8.0)%	
Non-GAAP Diluted EPS	\$0.72	12.5%		\$2.82	6.0%	

*Net revenues include Other Revenues which primarily reflect revenues associated with the European power trading and clearing business which is pending sale. Refer to the financial tables at the end of this press release for fourth quarter and full year Other Revenues.

Adena Friedman, Chair and CEO said, “We delivered another strong year of operating performance in a dynamic economic and capital markets backdrop. We executed well across our business in 2023, maintaining our listings leadership in the U.S., achieving a breakthrough year for Verafin in our strategy to move upmarket, and introducing new innovations across our products and services.

We successfully completed our acquisition of Adenza, bolstering our suite of mission-critical technology solutions, and accelerating our strategic vision of being the trusted fabric of the world's financial system.”

Sarah Youngwood, Executive Vice President and CFO said, “I am excited to join Nasdaq at such a transformational time for the firm.

Despite an uncertain environment, we delivered solid financial performance and strong cash flow generation.

With our acquisition of Adenza now closed, we are focused on achieving our deal-related financial goals including our cross-sell and synergy targets as well as debt paydown.”

FINANCIAL REVIEW

- 2023 net revenues were \$3,895 million, an increase of \$313 million, or 9%, from \$3,582 million in the prior year period. Net revenue growth included \$178 million, or 5%, from organic growth and a \$141 million, or 4%, net benefit from acquisitions and divestitures, including \$149 million in revenue from Adenza, which was partially offset by a \$6 million decrease from the impact of changes in FX rates.
- Fourth quarter 2023 net revenues were \$1,117 million, an increase of \$211 million, or 23%, from \$906 million in the prior year period. Net revenues reflected a \$59 million, or 7%, positive impact from organic growth, a \$148 million net benefit from acquisitions and divestitures including Adenza, and a \$4 million increase from the impact of changes in FX rates.
- Solutions revenue was \$860 million in the fourth quarter of 2023, an increase of \$210 million, or 32%, with organic growth of 9%, reflecting growth from both the Capital Access Platforms and Financial Technology divisions. ARR reflects the majority of Solutions revenue but excludes the AUM and transaction licensing components of our Index business. ARR grew 29% year over year or 6% organically.
- Market Services net revenues were \$247 million in the fourth quarter of 2023, an increase of \$2 million, or 1%. The increase reflects \$1 million in organic growth and a \$1 million positive impact from changes in FX rates.
- 2023 GAAP operating expenses were \$2,317 million, an increase of \$299 million, or 15% over 2022. Fourth quarter 2023 GAAP operating expenses were \$765 million, an increase of \$208 million, or 37%, versus the prior year period. The increase for 2023 and the fourth quarter of 2023 is due to the inclusion of \$94 million of Adenza operating expenses (including the amortization expense of acquired intangible assets), an increase in merger and strategic initiatives expense and restructuring costs. The expense increase in both periods reflects continued investment in our people and our businesses to drive long term growth, partially offset by lower professional services.
- 2023 non-GAAP operating expenses were \$1,830 million, an increase of \$109 million, or 6% over 2022, including an organic increase of \$89 million, or 5%. Fourth quarter 2023 non-GAAP operating expenses were \$504 million, an increase of \$44 million, or 10% versus the prior year period, including an organic increase of \$8 million, or 2%. The increase for 2023 and the fourth quarter of 2023 is primarily due to the inclusion of \$35 million of Adenza operating expenses. The increase in both periods also reflects increased expenses associated with the continued investment in our people and our businesses to drive long term growth, higher computer operations and data costs, and higher depreciation. These impacts were partially offset by decreased professional services fees in both the quarter and year ended 2023.
- The company returned \$127 million to shareholders through dividends, repurchased \$110 million in shares of its common stock, and repaid \$260 million in debt during the fourth quarter

of 2023. As of December 31, 2023, there was \$1.9 billion remaining under the board authorized share repurchase program.

INITIATING 2024 EXPENSE AND TAX GUIDANCE⁵

- The company is initiating its 2024 non-GAAP operating expense guidance to a range of \$2,105 million to \$2,185 million, and its 2024 non-GAAP tax rate guidance to be in the range of 24.5% to 26.5%.

STRATEGIC AND BUSINESS UPDATES

- **Nasdaq completed transformative acquisition of Adenza.** Nasdaq completed its acquisition of Adenza, a provider of mission-critical risk management, regulatory reporting, and capital markets software to the financial services industry from a leading software investment firm, Thoma Bravo, on November 1, 2023. The acquisition enhances Nasdaq's technology solutions and further expands the company's complementary offerings across mission-critical capital markets infrastructure and compliance. In addition, Adenza's financial profile is highly attractive and is expected to enhance Nasdaq's organic revenue growth rate and improve the company's operating margins as the deal synergies are achieved.
- **Adenza continued new client wins and cloud progress under the Nasdaq brand.** Adenza added 6 new clients in November and December, including 2 new central banks. In total, Adenza garnered 23 new clients in 2023, up from 17 in the prior year, highlighting continued demand for these mission-critical products amidst a dynamic market environment. Overall, cloud represented nearly 50% of new annual contract value in the year, underscoring the ongoing cloud progress at Adenza which Nasdaq aims to bolster and accelerate going forward.
- **Verafin had a breakthrough year in its move upmarket and realized strong small-to-medium bank growth.** Verafin signed both a Tier 1 and a Tier 2 bank client in the fourth quarter, bringing the total number of Tier 1 bank clients signed in the year to 3 and the total number of Tier 2 bank clients signed in the year to 4. 2023 was a milestone year in Verafin's move upmarket including its first Tier 1 bank signing. Verafin also realized continued adoption by small-to-medium banks resulting in 100 overall new clients added in the fourth quarter and 237 overall new clients added in 2023.
- **Index generated \$31 billion in exchange traded product (ETP) net inflows during 2023.** In 2023, ETPs linked to Nasdaq indices realized \$31 billion of net inflows, ending the year at \$473 billion in assets under management. Nasdaq supported our clients in launching 83 new products linked to Nasdaq indices, bringing to market robust solutions in-line with investor demand.
- **Nasdaq maintained its listings leadership in the U.S.** Nasdaq led U.S. exchanges for operating company IPOs with a 71% total win rate in the fourth quarter of 2023 and an 81% total win rate in 2023. In a muted capital markets year, Nasdaq welcomed 103 U.S. operating company IPOs that raised more than \$11 billion in proceeds, marking Nasdaq's fifth consecutive year as the leading U.S. listing exchange in terms of both number of IPOs and

proceeds raised. During the year, three of the five largest U.S. operating company IPOs by capital raised chose to list with Nasdaq: Arm, Instacart, and Nextracker.

- **Nasdaq continued market modernization with the migration of its second U.S. options market to Amazon Web Services (AWS).** Nasdaq successfully completed the migration of the core trading system of Nasdaq GEMX, one of Nasdaq's six options exchanges, to AWS. The new cloud-enabled market infrastructure, which uses AWS Outposts, delivers up to a 10% improvement in latency and the ability to more seamlessly adjust capacity in response to changing market conditions, which can deliver a better trading environment for market participants.
- **Market technology growth included significant Latin America (LATAM) client wins.** Nasdaq market technology continued its progress in providing critical technology underpinning global financial market infrastructure providers with particular strength in LATAM. In the fourth quarter, Nasdaq partnered with nuam exchange, formed by the merger of the Chile, Peru, and Colombia stock exchanges, to provide technology that will underpin the integration, development, and expansion of the new marketplace in LATAM, and expanded its partnership with BMV, the Mexican Stock Exchange, to modernize its entire post-trade technology platform across clearing and settlement.

NASDAQ TO HOST 2024 INVESTOR DAY

- Nasdaq announced that it will host its 2024 Investor Day on Tuesday, March 5, 2024. The event will feature presentations on the company's operations and strategy, as well as question and answer sessions, with members of Nasdaq's senior leadership team including Adena Friedman, Chair and CEO, and Sarah Youngwood, Executive Vice President and CFO. A registration for the webcast of the event can be found [here](#).

¹ Represents revenues less transaction-based expenses.

² Constitutes revenues from our Capital Access Platforms and Financial Technology segments.

³ Refer to our reconciliations of U.S. GAAP to non-GAAP net income, diluted earnings per share, operating income, operating expenses and organic impacts included in the attached schedules.

⁴ Annualized Recurring Revenue (ARR) for a given period is the current annualized value 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. For Adenza recurring revenue contracts, the amount included in ARR is consistent with the amount that we invoice the customer during the current period. Additionally, for Adenza recurring revenue contracts that include annual values that increase over time, we include in ARR only the annualized value of components of the contract that are considered active as of the date of the ARR calculation. We do not include the future committed increases in the contract value as of the date of the ARR calculation. 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.

⁵ 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.

ABOUT NASDAQ

Nasdaq (Nasdaq: NDAQ) is a global technology company serving corporate clients, investment managers, banks, brokers, and exchange operators as they navigate and interact with the global capital markets and the broader financial system. We aspire to deliver world-leading platforms that improve the liquidity, transparency, and integrity of the global economy. Our diverse offering of data, analytics, software, exchange capabilities, and client-centric services enables clients to optimize and execute their business vision with confidence. To learn more about the company, technology solutions and career opportunities, visit us on [LinkedIn](#), on X [@Nasdaq](#), or at www.nasdaq.com/.

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, and non-GAAP operating expenses, 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 the end of this release. 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 the items described below in the reconciliation tables 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 earnings release. 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 are described within the body of this release or in the reconciliation tables at the end of this release.

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 release 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.

Restructuring programs: In the fourth quarter of 2023, following the closing of the Adenza acquisition, our management approved, committed to and initiated a restructuring program, "Adenza Restructuring" to optimize our efficiencies as a combined organization. In connection with this program, we expect to incur pre-tax charges principally related to employee-related costs, contract terminations, real estate impairments and other related costs. We expect to achieve benefits primarily in the form of expense and revenue synergies. 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 Adenza restructuring and the divisional alignment programs 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. Further information on these and other factors are 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. 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, as a means for disclosing material non-public information and for complying with SEC Regulation FD and other disclosure obligations.

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Nasdaq, Inc.
Condensed Consolidated Statements of Income
(in millions, except per share amounts)

	Three Months Ended		Year Ended	
	December 31,	December 31,	December 31,	December 31,
	2023	2022	2023	2022
	(unaudited)	(unaudited)	(unaudited)	
Revenues:				
Capital Access Platforms	\$ 461	\$ 419	\$ 1,770	\$ 1,682
Financial Technology	399	231	1,099	864
Market Services	778	921	3,156	3,632
Other Revenues	10	11	39	48
Total revenues	1,648	1,582	6,064	6,226
Transaction-based expenses:				
Transaction rebates	(462)	(488)	(1,838)	(2,092)
Brokerage, clearance and exchange fees	(69)	(188)	(331)	(552)
Revenues less transaction-based expenses	1,117	906	3,895	3,582
Operating Expenses:				
Compensation and benefits	305	252	1,082	1,003
Professional and contract services	36	43	128	140
Computer operations and data communications	65	56	233	207
Occupancy	30	26	129	104
General, administrative and other	52	32	113	125
Marketing and advertising	16	20	47	51
Depreciation and amortization	125	63	323	258
Regulatory	8	9	34	33
Merger and strategic initiatives	97	41	148	82
Restructuring charges	31	15	80	15
Total operating expenses	765	557	2,317	2,018
Operating income	352	349	1,578	1,564
Interest income	30	4	115	7
Interest expense	(111)	(33)	(284)	(129)
Other income (loss)	5	(6)	(1)	2
Net income (loss) from unconsolidated investees	2	8	(7)	31
Income before income taxes	278	322	1,401	1,475
Income tax provision	81	82	344	352
Net income	197	240	1,057	1,123
Net loss attributable to noncontrolling interests	—	1	2	2
Net income attributable to Nasdaq	\$ 197	\$ 241	\$ 1,059	\$ 1,125
Per share information:				
Basic earnings per share	\$ 0.36	\$ 0.49	\$ 2.10	\$ 2.28
Diluted earnings per share	\$ 0.36	\$ 0.48	\$ 2.08	\$ 2.26
Cash dividends declared per common share	\$ 0.22	\$ 0.20	\$ 0.86	\$ 0.78
Weighted-average common shares outstanding for earnings per share:				
Basic	547.1	491.3	504.9	492.4
Diluted	550.6	497.0	508.4	497.9

Nasdaq, Inc.
Revenue Detail
(in millions)

	Three Months Ended		Year Ended	
	December 31,	December 31,	December 31,	December 31,
	2023	2022	2023	2022
	(unaudited)	(unaudited)	(unaudited)	
CAPITAL ACCESS PLATFORMS				
Data and Listing Services revenues	\$ 189	\$ 182	\$ 749	\$ 727
Index revenues	146	116	528	486
Workflow and Insights revenues	126	121	493	469
Total Capital Access Platforms revenues	461	419	1,770	1,682
FINANCIAL TECHNOLOGY				
Regulatory Technology revenues	170	82	435	306
Capital Markets Technology revenues	229	149	664	558
Total Financial Technology revenues	399	231	1,099	864
MARKET SERVICES				
Market Services revenues	778	921	3,156	3,632
Transaction-based expenses:				
Transaction rebates	(462)	(488)	(1,838)	(2,092)
Brokerage, clearance and exchange fees	(69)	(188)	(331)	(552)
Total Market Services revenues, net	247	245	987	988
OTHER REVENUES	10	11	39	48
REVENUES LESS TRANSACTION-BASED EXPENSES	\$ 1,117	\$ 906	\$ 3,895	\$ 3,582

Nasdaq, Inc.
Condensed Consolidated Balance Sheets
(in millions)

	December 31,	December 31,
	2023	2022
	(unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 453	\$ 502
Restricted cash and cash equivalents	20	22
Default funds and margin deposits	7,275	7,021
Financial investments	188	181
Receivables, net	929	677
Other current assets	231	201
Total current assets	9,096	8,604
Property and equipment, net	576	532
Goodwill	14,089	8,099
Intangible assets, net	7,473	2,581
Operating lease assets	402	444
Other non-current assets	665	608
Total assets	\$ 32,301	\$ 20,868
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	\$ 332	\$ 185
Section 31 fees payable to SEC	84	243
Accrued personnel costs	303	243
Deferred revenue	594	357
Other current liabilities	146	122
Default funds and margin deposits	7,275	7,021
Short-term debt	291	664
Total current liabilities	9,025	8,835
Long-term debt	10,163	4,735
Deferred tax liabilities, net	1,650	456
Operating lease liabilities	417	452
Other non-current liabilities	219	226
Total liabilities	21,474	14,704
Commitments and contingencies		
Equity		
Nasdaq stockholders' equity:		
Common stock	6	5
Additional paid-in capital	5,496	1,445
Common stock in treasury, at cost	(587)	(515)
Accumulated other comprehensive loss	(1,924)	(1,991)
Retained earnings	7,825	7,207
Total Nasdaq stockholders' equity	10,816	6,151
Noncontrolling interests	11	13
Total equity	10,827	6,164
Total liabilities and equity	\$ 32,301	\$ 20,868

Nasdaq, Inc.
Reconciliation of U.S. GAAP to Non-GAAP Net Income, Diluted Earnings Per Share, Operating Income,
Operating Expenses, and Organic Impacts
(In millions, except per share amounts)
(unaudited)

	Three Months Ended		Year Ended	
	December 31,	December 31,	December 31,	December 31,
	2023	2022	2023	2022
U.S. GAAP net income attributable to Nasdaq	\$ 197	\$ 241	\$ 1,059	\$ 1,125
Non-GAAP adjustments:				
Amortization expense of acquired intangible assets ⁽¹⁾	95	38	206	153
Merger and strategic initiatives expense ⁽²⁾	97	41	148	82
Restructuring charges ⁽³⁾	31	15	80	15
Lease asset impairments ⁽⁴⁾	1	—	25	—
Net (income) loss from unconsolidated investees ⁽⁵⁾	(2)	(7)	7	(29)
Extinguishment of debt ⁽⁶⁾	—	—	—	16
Legal and regulatory matters ⁽⁷⁾	23	3	12	26
Pension settlement charge ⁽⁸⁾	9	—	9	—
Other ⁽⁹⁾	3	6	21	2
Total non-GAAP adjustments	257	96	508	265
Non-GAAP adjustment to the income tax provision ⁽¹⁰⁾	(59)	(20)	(134)	(66)
Total non-GAAP adjustments, net of tax	198	76	374	199
Non-GAAP net income attributable to Nasdaq	\$ 395	\$ 317	\$ 1,433	\$ 1,324
U.S. GAAP diluted earnings per share	\$ 0.36	\$ 0.48	\$ 2.08	\$ 2.26
Total adjustments from non-GAAP net income above	0.36	0.16	0.74	0.40
Non-GAAP diluted earnings per share	\$ 0.72	\$ 0.64	\$ 2.82	\$ 2.66
Weighted-average diluted common shares outstanding for earnings per share:	550.6	497.0	508.4	497.9

(1) We amortize intangible assets acquired in connection with various acquisitions. Intangible asset amortization expense can vary from period to period due to episodic acquisitions completed, rather than from our ongoing business operations.

(2) We have pursued various strategic initiatives and completed acquisitions and divestitures in recent years which have resulted in expenses which would not have otherwise been incurred. These expenses generally include integration costs, as well as legal, due diligence and other third party transaction costs. The frequency and amount of such expenses vary significantly based on the size, timing and complexity of the transaction. For the three months and year ended December 31, 2023, these costs primarily related to the Adenza acquisition.

(3) In the fourth quarter of 2023, following the closing of the Adenza acquisition, our management approved, committed to and initiated a restructuring program, "Adenza Restructuring" to optimize our efficiencies as a combined organization. In connection with this program, we expect to incur pre-tax charges principally related to employee-related costs, contract terminations, real estate impairments and other related costs. We expect to achieve benefits primarily in the form of expense and revenue synergies. 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.

(4) During the first quarter of 2023, we initiated a review of our real estate and facility capacity requirements due to our new and evolving work models. As a result, for the three months and year ended December 31, 2023, we recorded impairment charges related to our operating lease assets and leasehold improvements associated with vacating certain leased office space, which are recorded in occupancy expense and depreciation and amortization expense in our Condensed Consolidated Statements of Income.

(5) We exclude our share of the earnings and losses of our equity method investments, primarily our equity interest in the Options Clearing Corporation, or OCC, and Nasdaq Private Market, LLC. This provides a more meaningful analysis of Nasdaq's ongoing operating performance or comparisons in Nasdaq's performance between periods.

(6) For the year ended December 31, 2022, we recorded a loss on early extinguishment of debt. This charge is recorded in general, administrative and other expense in our Condensed Consolidated Statements of Income.

(7) For the three months and year ended December 31, 2023 and the year ended December 31, 2022, these charges primarily included accruals related to certain legal matters recorded in general, administrative and other expense and professional and contract services expense in our Condensed Consolidated Statements of Income. For the year ended December 31, 2023, these accruals were offset with an insurance recovery related to legal matters recorded in general, administrative and other expense and professional and contract services expense in our Condensed Consolidated Statements of Income.

(8) In the fourth quarter of 2023, we recognized a settlement charge of \$9M relating to the termination and partial settlement of our U.S. pension plan related to the lump sum distributions. We expect to incur an additional charge in the first half of 2024 as we complete the settlement. The charge was recorded in Compensation and Benefits expense in our Condensed Consolidated Statements of Income.

(9) We have excluded certain other charges or gains, including certain tax items, that are the result of other non-comparable events to measure operating performance. For the three months and year ended December 31, 2023, these items primarily included certain financing costs related to the Adenza acquisition. For the three months and years ended December 31, 2023 and December 31, 2022, other charges include investment gains and losses related to our corporate venture program, recorded in other income (loss) in our Condensed Consolidated Statements of Income.

(10) The non-GAAP adjustment to the income tax provision primarily includes the tax impact of each non-GAAP adjustment.

Nasdaq, Inc.
Reconciliation of U.S. GAAP to Non-GAAP Net Income, Diluted Earnings Per Share, Operating Income,
Operating Expenses, and Organic Impacts
(in millions)
(unaudited)

	Three Months Ended		Year Ended	
	December 31,	December 31,	December 31,	December 31,
	2023	2022	2023	2022
U.S. GAAP operating income	\$ 352	\$ 349	\$ 1,578	\$ 1,564
Non-GAAP adjustments:				
Amortization expense of acquired intangible assets ⁽¹⁾	95	38	206	153
Merger and strategic initiatives expense ⁽²⁾	97	41	148	82
Restructuring charges ⁽³⁾	31	15	80	15
Lease asset impairments ⁽⁴⁾	1	—	25	—
Extinguishment of debt ⁽⁵⁾	—	—	—	16
Legal and regulatory matters ⁽⁶⁾	23	3	12	26
Pension settlement charge ⁽⁷⁾	9	—	9	—
Other	5	—	7	5
Total non-GAAP adjustments	261	97	487	297
Non-GAAP operating income	\$ 613	\$ 446	\$ 2,065	\$ 1,861
Revenues less transaction-based expenses	\$ 1,117	\$ 906	\$ 3,895	\$ 3,582
U.S. GAAP operating margin ⁽⁸⁾	32 %	39 %	41 %	44 %
Non-GAAP operating margin ⁽⁹⁾	55 %	49 %	53 %	52 %

(1) We amortize intangible assets acquired in connection with various acquisitions. Intangible asset amortization expense can vary from period to period due to episodic acquisitions completed, rather than from our ongoing business operations.

(2) We have pursued various strategic initiatives and completed acquisitions and divestitures in recent years which have resulted in expenses which would not have otherwise been incurred. These expenses generally include integration costs, as well as legal, due diligence and other third party transaction costs. The frequency and amount of such expenses vary significantly based on the size, timing and complexity of the transaction. For the three months and year ended December 31, 2023, these costs primarily related to the Adenza acquisition.

(3) In the fourth quarter of 2023, following the closing of the Adenza acquisition, our management approved, committed to and initiated a restructuring program, "Adenza Restructuring" to optimize our efficiencies as a combined organization. In connection with this program, we expect to incur pre-tax charges principally related to employee-related costs, contract terminations, real estate impairments and other related costs. We expect to achieve benefits primarily in the form of expense and revenue synergies. 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.

(4) During the first quarter of 2023, we initiated a review of our real estate and facility capacity requirements due to our new and evolving work models. As a result, for the three months and year ended December 31, 2023, we recorded impairment charges related to our operating lease assets and leasehold improvements associated with vacating certain leased office space, which are recorded in occupancy expense and depreciation and amortization expense in our Condensed Consolidated Statements of Income.

(5) For the year ended December 31, 2022, we recorded a loss on early extinguishment of debt. This charge is recorded in general, administrative and other expense in our Condensed Consolidated Statements of Income.

(6) For the three months and year ended December 31, 2023 and the year ended December 31, 2022, these charges primarily included accruals related to certain legal matters recorded in general, administrative and other expense and professional and contract services expense in our Condensed Consolidated Statements of Income. For the year ended December 31, 2023, these accruals were offset with an insurance recovery related to legal matters recorded in general, administrative and other expense and professional and contract services expense in our Condensed Consolidated Statements of Income.

(7) In the fourth quarter of 2023, we recognized a settlement charge of \$9M relating to the termination and partial settlement of our U.S. pension plan related to the lump sum distributions. We expect to incur an additional charge in the first half of 2024 as we complete the settlement. The charge was recorded in Compensation and Benefits expense in our Condensed Consolidated Statements of Income.

(8) U.S. GAAP operating margin equals U.S. GAAP operating income divided by revenues less transaction-based expenses.

(9) Non-GAAP operating margin equals non-GAAP operating income divided by revenues less transaction-based expenses.

Nasdaq, Inc.
Reconciliation of U.S. GAAP to Non-GAAP Net Income, Diluted Earnings Per Share, Operating Income,
Operating Expenses, and Organic Impacts
(in millions)
(unaudited)

	Three Months Ended		Year Ended	
	December 31,	December 31,	December 31,	December 31,
	2023	2022	2023	2022
U.S. GAAP operating expenses	\$ 765	\$ 557	\$ 2,317	\$ 2,018
Non-GAAP adjustments:				
Amortization expense of acquired intangible assets ⁽¹⁾	(95)	(38)	(206)	(153)
Merger and strategic initiatives expense ⁽²⁾	(97)	(41)	(148)	(82)
Restructuring charges ⁽³⁾	(31)	(15)	(80)	(15)
Lease asset impairments ⁽⁴⁾	(1)	—	(25)	—
Extinguishment of debt ⁽⁵⁾	—	—	—	(16)
Legal and regulatory matters ⁽⁶⁾	(23)	(3)	(12)	(26)
Pension settlement charge ⁽⁷⁾	(9)	—	(9)	—
Other	(5)	—	(7)	(5)
Total non-GAAP adjustments	(261)	(97)	(487)	(297)
Non-GAAP operating expenses	\$ 504	\$ 460	\$ 1,830	\$ 1,721

(1) We amortize intangible assets acquired in connection with various acquisitions. Intangible asset amortization expense can vary from period to period due to episodic acquisitions completed, rather than from our ongoing business operations.

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Nasdaq, Inc.
Quarterly Key Drivers Detail
(unaudited)

	Three Months Ended		Year Ended	
	December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
Capital Access Platforms				
Annualized recurring revenues (in millions) ⁽¹⁾	\$ 1,235	\$ 1,190	\$ 1,235	\$ 1,190
<u>Initial public offerings</u>				
The Nasdaq Stock Market ⁽²⁾	28	18	130	161
Exchanges that comprise Nasdaq Nordic and Nasdaq Baltic	4	5	7	38
<u>Total new listings</u>				
The Nasdaq Stock Market ⁽²⁾	100	74	330	366
Exchanges that comprise Nasdaq Nordic and Nasdaq Baltic ⁽³⁾	7	10	23	63
<u>Number of listed companies</u>				
The Nasdaq Stock Market ⁽⁴⁾	4,044	4,230	4,044	4,230
Exchanges that comprise Nasdaq Nordic and Nasdaq Baltic ⁽⁵⁾	1,218	1,251	1,218	1,251
<u>Index</u>				
Number of licensed exchange traded products (ETPs)	388	379	388	379
Period end ETP assets under management (AUM) tracking Nasdaq indexes (in billions)	\$ 473	\$ 315	\$ 473	\$ 315
Quarterly average ETP AUM tracking Nasdaq indexes (in billions)	\$ 436	\$ 326		
TTM ⁽⁶⁾ net inflows ETP AUM tracking Nasdaq indexes (in billions)	\$ 31	\$ 34	\$ 31	\$ 34
TTM ⁽⁶⁾ net appreciation (depreciation) ETP AUM tracking Nasdaq indexes (in billions)	\$ 128	\$ (142)	\$ 128	\$ (142)
Financial Technology				
Regulatory Technology				
Annualized recurring revenues (in millions) ⁽¹⁾	\$ 551	\$ 312	\$ 551	\$ 312
Capital Markets Technology				
Annualized recurring revenues (in millions) ⁽¹⁾	\$ 799	\$ 499	\$ 799	\$ 499
Market Services				
Equity Derivative Trading and Clearing				
<u>U.S. equity options</u>				
Total industry average daily volume (in millions)	40.2	39.3	40.4	38.2
Nasdaq PHLX matched market share	11.5 %	12.0 %	11.3 %	11.6 %
The Nasdaq Options Market matched market share	5.5 %	7.0 %	6.1 %	8.0 %
Nasdaq BX Options matched market share	2.4 %	3.3 %	3.3 %	2.8 %
Nasdaq ISE Options matched market share	6.1 %	6.0 %	5.9 %	5.7 %
Nasdaq GEMX Options matched market share	2.7 %	2.2 %	2.4 %	2.3 %
Nasdaq MRX Options matched market share	2.6 %	1.4 %	2.0 %	1.6 %
Total matched market share executed on Nasdaq's exchanges	30.8 %	31.9 %	31.0 %	32.0 %
<u>Nasdaq Nordic and Nasdaq Baltic options and futures</u>				
Total average daily volume of options and futures contracts ⁽⁷⁾	327,680	277,521	301,320	296,626
Cash Equity Trading				
<u>Total U.S.-listed securities</u>				
Total industry average daily share volume (in billions)	11.2	11.2	11.0	11.9
Matched share volume (in billions)	113.3	121.7	455.6	522.8
The Nasdaq Stock Market matched market share	15.4 %	16.1 %	15.8 %	16.2 %
Nasdaq BX matched market share	0.4 %	0.5 %	0.4 %	0.5 %
Nasdaq PSX matched market share	0.3 %	0.7 %	0.3 %	0.8 %
Total matched market share executed on Nasdaq's exchanges	16.1 %	17.3 %	16.5 %	17.5 %
Market share reported to the FINRA/Nasdaq Trade Reporting Facility	40.9 %	36.6 %	36.7 %	35.2 %
Total market share ⁽⁸⁾	57.0 %	53.9 %	53.2 %	52.7 %
<u>Nasdaq Nordic and Nasdaq Baltic securities</u>				
Average daily number of equity trades executed on Nasdaq's exchanges	637,403	778,057	666,411	908,813
Total average daily value of shares traded (in billions)	\$ 4.5	\$ 4.6	\$ 4.5	\$ 5.4
Total market share executed on Nasdaq's exchanges	72.0 %	69.7 %	71.0 %	71.5 %
Fixed Income and Commodities Trading and Clearing				
<u>Fixed Income</u>				
Total average daily volume of Nasdaq Nordic and Nasdaq Baltic fixed income contracts	93,128	97,405	95,625	111,901

(1) Annualized Recurring Revenue (ARR) for a given period is the current annualized value 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. For Adenza recurring revenue contracts, the amount included in ARR is consistent with the amount that we invoice the customer during the current period. Additionally, for Adenza recurring revenue contracts that include annual values that increase over time, we include in ARR only the annualized value of components of the contract that are considered active as of the date of the ARR calculation. We do not include the future committed increases in the contract value as of the date of the ARR calculation. 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.

(2) New listings include IPOs, including issuers that switched from other listing venues, closed-end funds and separately listed ETPs. For the three months ended December 31, 2023 and 2022, IPOs included 8 SPACs in each period. For the year ended December 31, 2023 and 2022, IPOs included 27 and 74 SPACs, respectively.

(3) New listings include IPOs and represent companies listed on the Nasdaq Nordic and Nasdaq Baltic exchanges and companies on the alternative markets of Nasdaq First North.

(4) Number of total listings on The Nasdaq Stock Market at period end includes 600 ETPs as of December 31, 2023 and 528 as of December 31, 2022.

(5) Represents companies listed on the Nasdaq Nordic and Nasdaq Baltic exchanges and companies on the alternative markets of Nasdaq First North.

(6) Trailing 12-months.

(7) Includes Finnish option contracts traded on Eurex for which Nasdaq and Eurex have a revenue sharing arrangement.

(8) Includes transactions executed on The Nasdaq Stock Market's, Nasdaq BX's and Nasdaq PSX's systems plus trades reported through the Financial Industry Regulatory Authority/Nasdaq Trade Reporting Facility.