

MSCI Reports Financial Results for Fourth Quarter and Full Year 2022

New York – January 31, 2023 – MSCI Inc. (“MSCI” or the “Company”) (NYSE: MSCI), a leading provider of critical decision support tools and services for the global investment community, today announced its financial results for the three months ended December 31, 2022 (“fourth quarter 2022”) and full year ended December 31, 2022 (“full year 2022”).

Financial and Operational Highlights for Fourth Quarter 2022

(Note: Unless otherwise noted, percentage and other changes are relative to the three months ended December 31, 2021 (“fourth quarter 2021”) and Run Rate percentage changes are relative to December 31, 2021).

- **Operating revenues of \$576.2 million, up 4.8%; Organic operating revenue growth of 6.8%**
- **Recurring subscription revenues up 13.1%; Asset-based fees down 16.2%**
- **Operating margin of 53.6%; Adjusted EBITDA margin of 58.8%**
- **Diluted EPS of \$2.67, up 15.1%; Adjusted EPS of \$2.84, up 13.1%**
- **New recurring subscription sales down by 2.0%; Organic subscription Run Rate growth of 13.0%; Retention Rate of 93.0%**
- **In full year 2022 and through trade date of January 30, 2023, a total of \$1,284.8 million or 2,729,715 shares were repurchased at an average repurchase price of \$470.68**
- **Fourth quarter 2022, dividends of \$100.0 million were paid to shareholders; Cash dividend of \$1.38 per share declared by MSCI Board of Directors for first quarter 2023, an increase of 10.4%**

In thousands, except per share data	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
Operating revenues	\$ 576,208	\$ 549,842	4.8 %	\$2,248,598	\$2,043,544	10.0 %
Operating income	\$ 308,750	\$ 280,587	10.0 %	\$1,207,640	\$1,072,725	12.6 %
Operating margin %	53.6 %	51.0 %		53.7 %	52.5 %	
Net income	\$ 214,971	\$ 193,865	10.9 %	\$ 870,573	\$ 725,983	19.9 %
Diluted EPS	\$ 2.67	\$ 2.32	15.1 %	\$ 10.72	\$ 8.70	23.2 %
Adjusted EPS	\$ 2.84	\$ 2.51	13.1 %	\$ 11.45	\$ 9.95	15.1 %
Adjusted EBITDA	\$ 339,022	\$ 318,660	6.4 %	\$1,329,671	\$1,196,790	11.1 %
Adjusted EBITDA margin %	58.8 %	58.0 %		59.1 %	58.6 %	

“Despite a global bear market and historically volatile market conditions, MSCI delivered strong performance for the year with Adjusted EPS growth of 15.1% and a record full year retention rate of 95.2%. Among other highlights, we achieved our ninth consecutive year of double-digit subscription run rate growth in Index. Meanwhile, our full-year Climate results across all product lines included 79.6% run rate growth and 97.8% retention rate. Climate remains a significant opportunity and area of keen focus for MSCI.” said Henry A. Fernandez, Chairman and CEO of MSCI.

“While the external environment created headwinds for AUM-linked fees, our all-weather franchise has enabled us to continue making critical investments in our long-term growth areas. These investments are helping MSCI expand and enhance our solutions to meet the needs of an increasingly diverse client base.”

Fourth Quarter Consolidated Results

Operating Revenues: Operating revenues were \$576.2 million, up 4.8%. The \$26.4 million increase was primarily the result of \$50.0 million in higher recurring subscription revenues offset by a \$24.2 million decrease in asset-based fees. Organic operating revenue growth was 6.8%.

Run Rate and Retention Rate: Total Run Rate at December 31, 2022 was \$2,320.3 million, up 5.3%. Recurring subscriptions Run Rate increased by \$191.5 million, and asset-based fees Run Rate decreased by \$75.1 million. Organic recurring subscriptions Run Rate growth was 13.0%. Retention Rate in fourth quarter 2022 was 93.0%, compared to 94.4% in fourth quarter 2021.

Expenses: Total operating expenses were \$267.5 million, down 0.7%. Adjusted EBITDA expenses were \$237.2 million, up 2.6%, primarily related to higher non-compensation costs including information technology costs. Compensation costs were up slightly, primarily driven by higher severance and salary costs, partially offset by lower incentive compensation. Total operating expenses excluding the impact of foreign currency exchange rate fluctuations ("ex-FX") and adjusted EBITDA expenses ex-FX increased 3.8% and 7.6%, respectively.

Operating Income: Operating Income was 308.8 million, up 10.0%. Operating Income margin in fourth quarter 2022 was 53.6%, compared to 51.0% in fourth quarter 2021.

Headcount: As of December 31, 2022, headcount was 4,759 employees, with approximately 35% and approximately 65% of employees located in developed market and emerging market locations, respectively.

Other Expense (Income), Net: Other expense (income), net was \$43.1 million, up 23.7% primarily driven by the absence of the one-time gain of \$7.0 million from changes in ownership interest of The Burgiss Group, LLC, an equity method investment, and higher interest expense associated with higher average outstanding debt balances, partially offset by higher interest income.

Income Taxes: The effective tax rate was 19.1% in fourth quarter 2022, compared to 21.1% in fourth quarter 2021. The higher rate in the prior period reflected higher net unfavorable discrete expenses, primarily driven by accrual adjustments for potential audit settlements based on latest developments with tax authorities.

Net Income: As a result of the factors described above, net income was \$215.0 million, up 10.9%.

Adjusted EBITDA: Adjusted EBITDA was \$339.0 million, up 6.4%. Adjusted EBITDA margin in fourth quarter 2022 was 58.8%, compared to 58.0% in fourth quarter 2021.

Index Segment:

Table 1A: Results (unaudited)

In thousands	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
Operating revenues:						
Recurring subscriptions	\$ 189,970	\$ 170,141	11.7 %	\$ 729,710	\$ 650,629	12.2 %
Asset-based fees	125,238	149,398	(16.2)%	528,127	553,991	(4.7)%
Non-recurring	14,053	12,268	14.6 %	45,372	47,144	(3.8)%
Total operating revenues	329,261	331,807	(0.8)%	1,303,209	1,251,764	4.1 %
Adjusted EBITDA expenses	80,866	79,429	1.8 %	317,802	300,452	5.8 %
Adjusted EBITDA	\$ 248,395	\$ 252,378	(1.6)%	\$ 985,407	\$ 951,312	3.6 %
Adjusted EBITDA margin %	75.4 %	76.1 %		75.6 %	76.0 %	

Index operating revenues were \$329.3 million, down 0.8%. The \$2.5 million decrease was primarily driven by \$24.2 million in lower asset-based fees, partially offset by \$19.8 million in higher recurring subscription revenues.

Growth in recurring subscription revenues was primarily driven by strong growth from market-cap weighted Index products and growth from factor, ESG and climate Index products.

The decrease in revenues attributable to asset-based fees reflected a decline in revenues from ETFs linked to MSCI equity indexes and non-ETF indexed funds linked to MSCI indexes, driven by a decrease in average AUM and average basis point fees. The decrease in revenues attributable to asset-based fees was partially offset by an increase in revenues from exchange traded futures and options contracts linked to MSCI indexes, driven by volume increases.

Index Run Rate as of December 31, 2022 was \$1.3 billion, up 0.6%. The \$8.0 million increase was comprised of a \$83.0 million increase in recurring subscription Run Rate partially offset by a \$75.1 million decrease in asset-based fees Run Rate. The increase in recurring subscription Run Rate was driven by strong growth from market cap-weighted, factor, ESG and climate, and custom Index products and special packages, and reflected growth across all regions and client segments. The decline in asset-based fees Run Rate primarily reflected lower AUM in ETFs linked to MSCI equity indexes and non-ETF indexed funds linked to MSCI indexes, partially offset by higher exchange traded futures and options volume.

Analytics Segment:

Table 1B: Results (unaudited)

In thousands	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
Operating revenues:						
Recurring subscriptions	\$ 146,957	\$ 133,818	9.8 %	\$ 567,004	\$ 533,178	6.3 %
Non-recurring	2,754	4,264	(35.4)%	9,103	11,121	(18.1)%
Total operating revenues	149,711	138,082	8.4 %	576,107	544,299	5.8 %
Adjusted EBITDA expenses	83,300	85,119	(2.1)%	328,212	345,500	(5.0)%
Adjusted EBITDA	\$ 66,411	\$ 52,963	25.4 %	\$ 247,895	\$ 198,799	24.7 %
Adjusted EBITDA margin %	44.4 %	38.4 %		43.0 %	36.5 %	

Analytics operating revenues were \$149.7 million, up 8.4%. The \$11.6 million increase was primarily driven by growth from recurring subscriptions related to both Multi-Asset Class and Equity Analytics

products. Excluding the impact of foreign currency exchange rate fluctuations, Analytics operating revenue growth was 9.5%.

Analytics Run Rate as of December 31, 2022, was \$616.1 million, up 5.3%. The increase of \$30.8 million was driven by strong growth in Equity Analytics products as well as growth in Multi-Asset Class products, and reflected growth across all regions. Excluding the impact of foreign currency exchange rate fluctuations, Analytics Run Rate growth was 6.6%.

ESG and Climate Segment:

Table 1C: Results (unaudited)

In thousands	Three Months Ended			Year Ended		
	Dec. 31,	Dec. 31,	% Change	Dec. 31,	Dec. 31,	% Change
	2022	2021		2022	2021	
Operating revenues:						
Recurring subscriptions	\$ 62,198	\$ 47,310	31.5 %	\$ 223,160	\$ 162,609	37.2 %
Non-recurring	1,361	1,133	20.1 %	5,151	3,583	43.8 %
Total operating revenues	63,559	48,443	31.2 %	228,311	166,192	37.4 %
Adjusted EBITDA expenses	44,799	39,280	14.1 %	167,217	136,444	22.6 %
Adjusted EBITDA	<u>\$ 18,760</u>	<u>\$ 9,163</u>	104.7 %	<u>\$ 61,094</u>	<u>\$ 29,748</u>	105.4 %
Adjusted EBITDA margin %	29.5 %	18.9 %		26.8 %	17.9 %	

ESG and Climate operating revenues were \$63.6 million, up 31.2%. The \$15.1 million increase was primarily driven by strong growth from recurring subscriptions related to Ratings, Climate and Screening products. Excluding the impact of foreign currency exchange rate fluctuations, ESG and Climate operating revenue growth was 43.0%.

ESG and Climate Run Rate as of December 31, 2022, was \$267.0 million, up 33.8%. The \$67.4 million increase primarily reflects strong growth from Ratings, Climate and Screening products with contributions across all regions and client segments. Excluding the impact of foreign currency exchange rate fluctuations, ESG and Climate Run Rate growth was 36.8%.

All Other – Private Assets Segment:

Table 1D: Results (unaudited)

In thousands	Three Months Ended			Year Ended		
	Dec. 31,	Dec. 31,	% Change	Dec. 31,	Dec. 31,	% Change
	2022	2021		2022	2021	
Operating revenues:						
Recurring subscriptions	\$ 33,373	\$ 31,269	6.7 %	\$ 139,649	\$ 79,624	75.4 %
Non-recurring	304	241	26.1 %	1,322	1,665	(20.6)%
Total operating revenues	33,677	31,510	6.9 %	140,971	81,289	73.4 %
Adjusted EBITDA expenses	28,221	27,354	3.2 %	105,696	64,358	64.2 %
Adjusted EBITDA	<u>\$ 5,456</u>	<u>\$ 4,156</u>	31.3 %	<u>\$ 35,275</u>	<u>\$ 16,931</u>	108.3 %
Adjusted EBITDA margin %	16.2 %	13.2 %		25.0 %	20.8 %	

All Other – Private Assets operating revenues, which reflects the Real Assets operating segment, were \$33.7 million, up 6.9%, primarily driven by growth from recurring subscriptions related to strong growth from RCA, Global Intel, Enterprise Analytics and Climate Value-at-Risk products, partially offset by unfavorable foreign currency exchange rate fluctuations. Excluding the impact of foreign currency exchange rate fluctuations, All Other – Private Assets operating revenue growth was 13.8%.

All Other – Private Assets Run Rate, which reflects the Real Assets operating segment, was \$145.3 million as of December 31, 2022, up 7.5%, driven by growth in RCA, Global Intel, Climate Value-at-Risk and Enterprise Analytics products across all regions, partially offset by unfavorable foreign currency exchange rate fluctuations. Excluding the impact of foreign currency exchange rate fluctuations, All Other – Private Assets Run Rate growth was 11.6%.

Select Balance Sheet Items and Capital Allocation

Cash Balances and Outstanding Debt: Cash and cash equivalents was \$1.0 billion as of December 31, 2022. MSCI typically seeks to maintain minimum cash balances globally of approximately \$225.0 million to \$275.0 million for general operating purposes.

Total principal amount of debt outstanding as of December 31, 2022 was \$4.5 billion. The total debt to net income ratio (based on trailing twelve months net income) was 5.2x. The total debt to adjusted EBITDA ratio (based on trailing twelve months adjusted EBITDA) was 3.4x.

MSCI seeks to maintain total debt to adjusted EBITDA in a target range of 3.0x to 3.5x.

Capex and Cash Flow: Capex was \$20.5 million, and net cash provided by operating activities increased by 12.8% to \$315.4 million, primarily reflecting lower tax payments and higher cash collections from customers, partially offset by higher cash expenses paid in the quarter. Free cash flow was up 12.1% to \$295.0 million.

Share Count and Share Repurchases: Weighted average diluted shares outstanding were 80.4 million in fourth quarter 2022, down 3.8% year-over-year. Total share repurchases during the quarter were \$70.1 million or 163,064 shares at an average repurchase price of \$430.07. Total shares outstanding as of December 31, 2022 were 80.0 million. A total of \$1.3 billion remains on the outstanding share repurchase authorization as of trade date of January 30, 2023.

Dividends: Approximately \$100.0 million in dividends were paid to shareholders in fourth quarter 2022. On January 30, 2023, the MSCI Board of Directors declared a cash dividend of \$1.38 per share for first quarter 2023, payable on February 28, 2023 to shareholders of record as of the close of trading on February 17, 2023.

Full-Year 2023 Guidance

MSCI's guidance for the year ending December 31, 2023 ("Full-Year 2023") is based on assumptions about a number of macroeconomic and capital market factors, in particular related to equity markets. These assumptions are subject to uncertainty, and actual results for the year could differ materially from our current guidance, including as a result of the impact from changes in interest rates, the economic and market impacts of elevated inflation levels and Russia's invasion of Ukraine, as well as the ongoing uncertainty related to the duration, magnitude and the impact of the ongoing COVID-19 pandemic. See "Forward-Looking Statements" below.

Guidance Item	Current Guidance for Full-Year 2023
Operating Expense	\$1,090 to \$1,130 million
Adjusted EBITDA Expense	\$965 to \$995 million
Interest Expense (including amortization of financing fees)	\$184 to \$187 million
Depreciation & Amortization Expense	\$125 to \$135 million
Effective Tax Rate	17.0% to 20.0%
Capital Expenditures	\$75 to \$85 million
Net Cash Provided by Operating Activities	\$1,145 to \$1,195 million
Free Cash Flow	\$1,060 to \$1,120 million

The guidance provided above assumes, among other things, that MSCI maintains its current debt levels.

Conference Call Information

MSCI's senior management will review the fourth quarter and full year 2022 results on Tuesday, January 31, 2023 at 11:00 AM Eastern Time. To listen to the live event via webcast, visit the events and presentations section of MSCI's Investor Relations website, <https://ir.msci.com/events-and-presentations>, or via telephone, dial 1-833-630-1956 within the United States. International callers may dial 1-412-317-1837. Participants should ask the operator to be joined into the MSCI call. The teleconference will also be webcast with an accompanying slide presentation that can be accessed through MSCI's Investor Relations website.

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About MSCI Inc.

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com. MSCI#IR

MSCI Inc. Contacts**Investor Inquiries**jeremy.ulan@msci.com

Jeremy Ulan

+1 646 778 4184

jisoo.suh@msci.com

Jisoo Suh

+ 1 917 825 7111

Media InquiriesPR@msci.com

Sam Wang

+1 212 804 5244

Melanie Blanco

+1 212 981 1049

Tina Tan

+ 852 2844 9320

Forward-Looking Statements

This earnings release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including without limitation, MSCI's Full-Year 2023 guidance. These forward-looking statements relate to future events or to future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements. In some cases, you can identify forward-looking statements by the use of words such as "may," "could," "expect," "intend," "plan," "seek," "anticipate," "believe," "estimate," "predict," "potential" or "continue," or the negative of these terms or other comparable terminology. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond MSCI's control and that could materially affect actual results, levels of activity, performance or achievements.

Other factors that could materially affect actual results, levels of activity, performance or achievements can be found in MSCI's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 filed with the Securities and Exchange Commission ("SEC") on February 11, 2022 and in quarterly reports on Form 10-Q and current reports on Form 8-K filed or furnished with the SEC. If any of these risks or uncertainties materialize, or if MSCI's underlying assumptions prove to be incorrect, actual results may vary significantly from what MSCI projected. Any forward-looking statement in this earnings release reflects MSCI's current views with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to MSCI's operations, results of operations, growth strategy and liquidity. MSCI assumes no obligation to publicly update or revise these forward-looking statements for any reason, whether as a result of new information, future events, or otherwise, except as required by law.

Website and Social Media Disclosure

MSCI uses its Investor Relations homepage, Corporate Responsibility homepage and corporate Twitter account (@MSCI_Inc), as channels of distribution of company information. The information MSCI posts through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following MSCI's press releases, quarterly SEC filings and public conference calls and webcasts. In addition, you may automatically receive email alerts and other information about MSCI when you enroll your email address by visiting the "Email Alerts Subscription" section of MSCI's Investor Relations homepage at <http://ir.msci.com/email-alerts>. The contents of MSCI's website, including its quarterly updates, blog, podcasts and social media channels are not, however, incorporated by reference into this earnings release.

Notes Regarding the Use of Operating Metrics

MSCI has presented supplemental key operating metrics as part of this earnings release, including Retention Rate, Run Rate, subscription sales, subscription cancellations and non-recurring sales.

Retention Rate is an important metric because subscription cancellations decrease our Run Rate and ultimately our operating revenues over time. The annual Retention Rate represents the retained subscription Run Rate (subscription Run Rate at the beginning of the fiscal year less actual cancels during the year) as a percentage of the subscription Run Rate at the beginning of the fiscal year.

The Retention Rate for a non-annual period is calculated by annualizing the cancellations for which we have received a notice of termination or for which we believe there is an intention not to renew or discontinue the subscription during the non-annual period, and we believe that such notice or intention evidences the client's final decision to terminate or not renew the applicable agreement, even though such notice is not effective until a later date. This annualized cancellation figure is then divided by the subscription Run Rate at the beginning of the fiscal year to calculate a cancellation rate. This cancellation rate is then subtracted from 100% to derive the annualized Retention Rate for the period.

Retention Rate is computed by operating segment on a product/service-by-product/service basis. In general, if a client reduces the number of products or services to which it subscribes within a segment, or switches between products or services within a segment, we treat it as a cancellation for purposes of calculating our Retention Rate except in the case of a product or service switch that management considers to be a replacement product or service. In those replacement cases, only the net change to the client subscription, if a decrease, is reported as a cancellation. In the Analytics and the ESG and Climate operating segments, substantially all product or service switches are treated as replacement products or services and netted in this manner, while in our Index and Real Assets operating segments, product or service switches that are treated as replacement products or services and receive netting treatment occur only in certain limited instances. In addition, we treat any reduction in fees resulting from a down-sell of the same product or service as a cancellation to the extent of the reduction. We do not calculate Retention Rate for that portion of our Run Rate attributable to assets in index-linked investment products or futures and options contracts, in each case, linked to our indexes.

Run Rate estimates at a particular point in time the annualized value of the recurring revenues under our client license agreements ("Client Contracts") for the next 12 months, assuming all Client Contracts that come up for renewal, or reach the end of the committed subscription period, are renewed and assuming then-current currency exchange rates, subject to the adjustments and exclusions described below. For any Client Contract where fees are linked to an investment product's assets or trading volume/fees, the Run Rate calculation reflects, for ETFs, the market value on the last trading day of the period, for futures and options, the most recent quarterly volumes and/or reported exchange fees, and for other non-ETF products, the most recent client-reported assets. Run Rate does not include fees associated with "one-time" and other non-recurring transactions. In addition, we add to Run Rate the annualized fee value of recurring new sales, whether to existing or new clients, when we execute Client Contracts, even though the license start date, and associated revenue recognition, may not be effective until a later date. We remove from Run Rate the annualized fee value associated with products or services under any Client Contract with respect to which we have received a notice of termination, non-renewal or an indication the client does not intend to continue their subscription during the period and have determined that such notice evidences the client's final decision to terminate or not renew the applicable products or services, even though such notice is not effective until a later date.

“Organic subscription Run Rate growth” is defined as the period over period Run Rate growth, excluding the impact of changes in foreign currency and the first year impact of any acquisitions. It is also adjusted for divestitures. Changes in foreign currency are calculated by applying the currency exchange rate from the comparable prior period to current period foreign currency denominated Run Rate.

Sales represents the annualized value of products and services clients commit to purchase from MSCI and will result in additional operating revenues. Non-recurring sales represent the actual value of the customer agreements entered into during the period and are not a component of Run Rate. New recurring subscription sales represent additional selling activities, such as new customer agreements, additions to existing agreements or increases in price that occurred during the period and are additions to Run Rate. Subscription cancellations reflect client activities during the period, such as discontinuing products and services and/or reductions in price, resulting in reductions to Run Rate. Net new recurring subscription sales represent the amount of new recurring subscription sales net of subscription cancellations during the period, which reflects the net impact to Run Rate during the period.

Total gross sales represent the sum of new recurring subscription sales and non-recurring sales. Total net sales represent the total gross sales net of the impact from subscription cancellations.

Notes Regarding the Use of Non-GAAP Financial Measures

MSCI has presented supplemental non-GAAP financial measures as part of this earnings release. Reconciliations are provided in Tables 9 through 14 below that reconcile each non-GAAP financial measure with the most comparable GAAP measure. The non-GAAP financial measures presented in this earnings release should not be considered as alternative measures for the most directly comparable GAAP financial measures. The non-GAAP financial measures presented in this earnings release are used by management to monitor the financial performance of the business, inform business decision-making and forecast future results.

“Adjusted EBITDA” is defined as net income before (1) provision for income taxes, (2) other expense (income), net, (3) depreciation and amortization of property, equipment and leasehold improvements, (4) amortization of intangible assets and, at times, (5) certain other transactions or adjustments, including, when applicable, impairment related to sublease of leased property and certain non-recurring acquisition related integration and transaction costs.

“Adjusted EBITDA expenses” is defined as operating expenses less depreciation and amortization of property, equipment and leasehold improvements and amortization of intangible assets and, at times, certain other transactions or adjustments, including, when applicable, impairment related to sublease of leased property and certain non-recurring acquisition-related integration and transaction costs.

“Adjusted EBITDA margin” is defined as adjusted EBITDA divided by operating revenues.

“Adjusted net income” and “adjusted EPS” are defined as net income and diluted EPS, respectively, before the after-tax impact of: the amortization of acquired intangible assets, including the amortization of the basis difference between the cost of the equity method investment and MSCI’s share of the net assets of the investee at historical carrying value and, at times, certain other transactions or adjustments, including, when applicable, the impact related to costs associated with debt extinguishment, the impact related to certain non-recurring acquisition-related integration and transaction costs, the impact from the write-off of internally developed capitalized software, the impact from impairment related to sublease of leased property and the impact related to gain from changes in ownership interest of equity method investee.

“Capex” is defined as capital expenditures plus capitalized software development costs.

“Free cash flow” is defined as net cash provided by operating activities, less Capex.

“Organic operating revenue growth” is defined as operating revenue growth compared to the prior year period excluding the impact of acquired businesses, divested businesses and foreign currency exchange rate fluctuations.

Asset-based fees ex-FX does not adjust for the impact from foreign currency exchange rate fluctuations on the underlying assets under management ("AUM").

We believe adjusted EBITDA, adjusted EBITDA margin and adjusted EBITDA expenses are meaningful measures of the operating performance of MSCI because they adjust for significant one-time, unusual or non-recurring items as well as eliminate the accounting effects of certain capital spending and acquisitions that do not directly affect what management considers to be our ongoing operating performance in the period.

We believe adjusted net income and adjusted EPS are meaningful measures of the performance of MSCI because they adjust for the after-tax impact of significant one-time, unusual or non-recurring items as well as eliminate the impact of any transactions that do not directly affect what management considers to be our ongoing operating performance in the period. We also exclude the after-tax impact of the amortization of acquired intangible assets and amortization of the basis difference between the cost of the equity method investment and MSCI's share of the net assets of the investee at historical carrying value, as these non-cash amounts are significantly impacted by the timing and size of each acquisition and therefore not meaningful to the ongoing operating performance in the period.

We believe that free cash flow is useful to investors because it relates the operating cash flow of MSCI to the capital that is spent to continue and improve business operations, such as investment in MSCI's existing products. Further, free cash flow indicates our ability to strengthen MSCI's balance sheet, repay our debt obligations, pay cash dividends and repurchase shares of our common stock.

We believe organic operating revenue growth is a meaningful measure of the operating performance of MSCI because it adjusts for the impact of foreign currency exchange rate fluctuations and excludes the impact of operating revenues attributable to acquired and divested businesses for the comparable prior year period, providing insight into our ongoing operating performance for the period(s) presented.

We believe that the non-GAAP financial measures presented in this earnings release facilitate meaningful period-to-period comparisons and provide a baseline for the evaluation of future results.

Adjusted EBITDA expenses, adjusted EBITDA, adjusted EBITDA margin, adjusted net income, adjusted EPS, Capex, free cash flow and organic operating revenue growth are not defined in the same manner by all companies and may not be comparable to similarly-titled non-GAAP financial measures of other companies. These measures can differ significantly from company to company depending on, among other things, long-term strategic decisions regarding capital structure, the tax jurisdictions in which companies operate and capital investments. Accordingly, the Company's computation of these measures may not be comparable to similarly-titled measures computed by other companies.

Notes Regarding Adjusting for the Impact of Foreign Currency Exchange Rate Fluctuations

Foreign currency exchange rate fluctuations reflect the difference between the current period results as reported compared to the current period results recalculated using the foreign currency exchange rates in effect for the comparable prior period. While operating revenues adjusted for the impact of foreign currency fluctuations includes asset-based fees that have been adjusted for the impact of foreign currency fluctuations, the underlying AUM, which is the primary component of asset-based fees, is not adjusted for foreign currency fluctuations. Approximately three-fifths of the AUM are invested in securities denominated in currencies other than the U.S. dollar, and accordingly, any such impact is excluded from the disclosed foreign currency-adjusted variances.

Table 2: Condensed Consolidated Statements of Income (unaudited)

	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
In thousands, except per share data						
Operating revenues	\$ 576,208	\$ 549,842	4.8 %	\$ 2,248,598	\$ 2,043,544	10.0 %
Operating expenses:						
Cost of revenues (exclusive of depreciation and amortization)	102,384	95,903	6.8 %	404,341	358,684	12.7 %
Selling and marketing	71,912	68,708	4.7 %	264,583	243,185	8.8 %
Research and development	29,026	30,819	(5.8)%	107,205	111,564	(3.9)%
General and administrative	33,864	44,873	(24.5)%	146,857	147,893	(0.7)%
Amortization of intangible assets	23,805	21,023	13.2 %	91,079	80,592	13.0 %
Depreciation and amortization of property, equipment and leasehold improvements	6,467	7,929	(18.4)%	26,893	28,901	(6.9)%
Total operating expenses(1)	267,458	269,255	(0.7)%	1,040,958	970,819	7.2 %
Operating income	308,750	280,587	10.0 %	1,207,640	1,072,725	12.6 %
Interest income	(6,609)	(368)	n/m	(11,769)	(1,497)	n/m
Interest expense	45,610	40,336	13.1 %	171,571	159,614	7.5 %
Other expense (income)	4,087	(5,144)	179.5 %	3,997	56,472	(92.9)%
Other expense (income), net	43,088	34,824	23.7 %	163,799	214,589	(23.7)%
Income before provision for income taxes	265,662	245,763	8.1 %	1,043,841	858,136	21.6 %
Provision for income taxes	50,691	51,898	(2.3)%	173,268	132,153	31.1 %
Net income	214,971	193,865	10.9 %	870,573	725,983	19.9 %
Earnings per basic common share	\$ 2.69	\$ 2.35	14.5 %	\$ 10.78	\$ 8.80	22.5 %
Earnings per diluted common share	\$ 2.67	\$ 2.32	15.1 %	\$ 10.72	\$ 8.70	23.2 %
Weighted average shares outstanding used in computing earnings per share:						
Basic	79,989	82,473	(3.0)%	80,746	82,508	(2.1)%
Diluted	80,424	83,578	(3.8)%	81,215	83,479	(2.7)%

n/m: not meaningful.

(1) Includes stock-based compensation expense of \$12.6 million and \$12.2 million for the three months ended Dec. 31, 2022 and Dec. 31, 2021, respectively. Includes stock-based compensation expense of \$58.0 million and \$58.5 million for the year ended Dec. 31, 2022 and Dec. 31, 2021, respectively.

Table 3: Selected Balance Sheet Items (unaudited)

In thousands	As of	
	Dec. 31, 2022	Dec. 31, 2021
Cash and cash equivalents	\$993,564	\$1,421,449
Accounts receivable, net of allowances	\$663,236	\$664,511
Current deferred revenue	\$882,886	\$824,912
Current portion of long-term debt (1)	\$8,713	\$—
Long-term debt(2)	\$4,503,233	\$4,161,422

(1) Consists of gross current portion of long-term debt, net of deferred financing fees. Gross current portion of long-term debt was \$8.8 million at Dec. 31, 2022.

(2) Consists of gross long-term debt, net of deferred financing fees. Gross long-term debt was \$4,539.1 million at Dec. 31, 2022 and \$4,200.0 million at Dec. 31, 2021.

Table 4: Selected Cash Flow Items (unaudited)

In thousands	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
Net cash provided by operating activities	\$ 315,427	\$ 279,664	12.8 %	\$ 1,095,369	\$ 936,069	17.0 %
Net cash used in investing activities	(26,922)	(49,834)	46.0 %	(79,335)	(1,035,713)	92.3 %
Net cash (used in) provided by financing activities	(172,553)	(91,744)	(88.1)%	(1,425,380)	229,505	n/m
Effect of exchange rate changes	10,500	(1,301)	n/m	(18,539)	(8,933)	(107.5)%
Net (decrease) increase in cash and cash equivalents	\$ 126,452	\$ 136,785	(7.6)%	\$ (427,885)	\$ 120,928	n/m

n/m: not meaningful.

Table 5: Operating Results by Segment and Revenue Type (unaudited)

<i>Index</i>	Three Months Ended			Year Ended		
	Dec. 31, 2022	Dec. 31, 2021	% Change	Dec. 31, 2022	Dec. 31, 2021	% Change
In thousands						
Operating revenues:						
Recurring subscriptions	\$ 189,970	\$ 170,141	11.7 %	\$ 729,710	\$ 650,629	12.2 %
Asset-based fees	125,238	149,398	(16.2)%	528,127	553,991	(4.7)%
Non-recurring	14,053	12,268	14.6 %	45,372	47,144	(3.8)%
Total operating revenues	329,261	331,807	(0.8)%	1,303,209	1,251,764	4.1 %
Adjusted EBITDA expenses	80,866	79,429	1.8 %	317,802	300,452	5.8 %
Adjusted EBITDA	\$ 248,395	\$ 252,378	(1.6)%	\$ 985,407	\$ 951,312	3.6 %
Adjusted EBITDA margin %	75.4 %	76.1 %		75.6 %	76.0 %	
Analytics						
In thousands						
Operating revenues:						
Recurring subscriptions	\$ 146,957	\$ 133,818	9.8 %	\$ 567,004	\$ 533,178	6.3 %
Non-recurring	2,754	4,264	(35.4)%	9,103	11,121	(18.1)%
Total operating revenues	149,711	138,082	8.4 %	576,107	544,299	5.8 %
Adjusted EBITDA expenses	83,300	85,119	(2.1)%	328,212	345,500	(5.0)%
Adjusted EBITDA	\$ 66,411	\$ 52,963	25.4 %	\$ 247,895	\$ 198,799	24.7 %
Adjusted EBITDA margin %	44.4 %	38.4 %		43.0 %	36.5 %	
ESG and Climate						
In thousands						
Operating revenues:						
Recurring subscriptions	\$ 62,198	\$ 47,310	31.5 %	\$ 223,160	\$ 162,609	37.2 %
Non-recurring	1,361	1,133	20.1 %	5,151	3,583	43.8 %
Total operating revenues	63,559	48,443	31.2 %	228,311	166,192	37.4 %
Adjusted EBITDA expenses	44,799	39,280	14.1 %	167,217	136,444	22.6 %
Adjusted EBITDA	\$ 18,760	\$ 9,163	104.7 %	\$ 61,094	\$ 29,748	105.4 %
Adjusted EBITDA margin %	29.5 %	18.9 %		26.8 %	17.9 %	
All Other - Private Assets						
In thousands						
Operating revenues:						
Recurring subscriptions	\$ 33,373	\$ 31,269	6.7 %	\$ 139,649	\$ 79,624	75.4 %
Non-recurring	304	241	26.1 %	1,322	1,665	(20.6)%
Total operating revenues	33,677	31,510	6.9 %	140,971	81,289	73.4 %
Adjusted EBITDA expenses	28,221	27,354	3.2 %	105,696	64,358	64.2 %
Adjusted EBITDA	\$ 5,456	\$ 4,156	31.3 %	\$ 35,275	\$ 16,931	108.3 %
Adjusted EBITDA margin %	16.2 %	13.2 %		25.0 %	20.8 %	
Consolidated						
In thousands						
Operating revenues:						
Recurring subscriptions	\$ 432,498	\$ 382,538	13.1 %	\$ 1,659,523	\$ 1,426,040	16.4 %
Asset-based fees	125,238	149,398	(16.2)%	528,127	553,991	(4.7)%
Non-recurring	18,472	17,906	3.2 %	60,948	63,513	(4.0)%
Operating revenues total	576,208	549,842	4.8 %	2,248,598	2,043,544	10.0 %
Adjusted EBITDA expenses	237,186	231,182	2.6 %	918,927	846,754	8.5 %
Adjusted EBITDA	\$ 339,022	\$ 318,660	6.4 %	\$ 1,329,671	\$ 1,196,790	11.1 %
Operating margin %	53.6 %	51.0 %		53.7 %	52.5 %	
Adjusted EBITDA margin %	58.8 %	58.0 %		59.1 %	58.6 %	

Table 6: Sales and Retention Rate by Segment (unaudited)(1)

In thousands	Three Months Ended		Year Ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Index				
New recurring subscription sales	\$ 35,206	\$ 33,649	\$ 109,699	\$ 99,686
Subscription cancellations	(8,635)	(6,207)	(27,103)	(24,399)
Net new recurring subscription sales	\$ 26,571	\$ 27,442	\$ 82,596	\$ 75,287
Non-recurring sales	\$ 16,203	\$ 14,690	\$ 57,560	\$ 54,030
Total gross sales	\$ 51,409	\$ 48,339	\$ 167,259	\$ 153,716
Total Index net sales	\$ 42,774	\$ 42,132	\$ 140,156	\$ 129,317
Index Retention Rate	95.0 %	96.0 %	96.1 %	96.1 %
Analytics				
New recurring subscription sales	\$ 25,193	\$ 27,275	\$ 75,584	\$ 71,656
Subscription cancellations	(14,648)	(9,103)	(37,171)	(34,291)
Net new recurring subscription sales	\$ 10,545	\$ 18,172	\$ 38,413	\$ 37,365
Non-recurring sales	\$ 2,731	\$ 4,284	\$ 11,143	\$ 12,407
Total gross sales	\$ 27,924	\$ 31,559	\$ 86,727	\$ 84,063
Total Analytics net sales	\$ 13,276	\$ 22,456	\$ 49,556	\$ 49,772
Analytics Retention Rate	90.0 %	93.4 %	93.6 %	93.8 %
ESG and Climate				
New recurring subscription sales	\$ 23,363	\$ 23,258	\$ 78,980	\$ 69,964
Subscription cancellations	(2,303)	(1,175)	(5,618)	(4,811)
Net new recurring subscription sales	\$ 21,060	\$ 22,083	\$ 73,362	\$ 65,153
Non-recurring sales	\$ 715	\$ 1,208	\$ 4,268	\$ 4,135
Total gross sales	\$ 24,078	\$ 24,466	\$ 83,248	\$ 74,099
Total ESG and Climate net sales	\$ 21,775	\$ 23,291	\$ 77,630	\$ 69,288
ESG and Climate Retention Rate	95.4 %	96.6 %	97.2 %	96.5 %
All Other - Private Assets				
New recurring subscription sales	\$ 6,723	\$ 8,119	\$ 23,213	\$ 14,142
Subscription cancellations	(2,489)	(3,856)	(7,569)	(6,737)
Net new recurring subscription sales	\$ 4,234	\$ 4,263	\$ 15,644	\$ 7,405
Non-recurring sales	\$ 574	\$ 493	\$ 1,264	\$ 1,694
Total gross sales	\$ 7,297	\$ 8,612	\$ 24,477	\$ 15,836
Total All Other - Private Assets net sales	\$ 4,808	\$ 4,756	\$ 16,908	\$ 9,099
All Other - Private Assets Retention Rate(2)	92.6 %	88.1 %	94.4 %	90.5 %
Consolidated				
New recurring subscription sales	\$ 90,485	\$ 92,301	\$ 287,476	\$ 255,448
Subscription cancellations	(28,075)	(20,341)	(77,461)	(70,238)
Net new recurring subscription sales	\$ 62,410	\$ 71,960	\$ 210,015	\$ 185,210
Non-recurring sales	\$ 20,223	\$ 20,675	\$ 74,235	\$ 72,266
Total gross sales	\$ 110,708	\$ 112,976	\$ 361,711	\$ 327,714
Total net sales	\$ 82,633	\$ 92,635	\$ 284,250	\$ 257,476
Total Retention Rate	93.0 %	94.4 %	95.2 %	94.7 %

(1) See "Notes Regarding the Use of Operating Metrics" for details regarding the definition of new recurring subscription sales, subscription cancellations, net new recurring subscription sales, non-recurring sales, total gross sales, total net sales and Retention Rate.

(2) Retention rate for All Other – Private Assets excluding the impact of RCA was 92.7% for the year ended Dec. 31, 2022.

Table 7: AUM in ETFs Linked to MSCI Equity Indexes (unaudited)(1)(2)

In billions	Three Months Ended				Year Ended		
	Dec. 31, 2021	Mar. 31, 2022	June 30, 2022	Sep. 30, 2022	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022
Beginning Period AUM in ETFs linked to MSCI equity indexes	\$ 1,336.6	\$ 1,451.6	\$ 1,389.3	\$ 1,189.5	\$ 1,081.2	\$ 1,103.6	\$ 1,451.6
Market Appreciation/(Depreciation)	56.5	(89.7)	(207.3)	(105.7)	118.8	142.7	(283.9)
Cash Inflows/(Outflows)	58.5	27.4	7.5	(2.6)	22.9	205.3	55.2
Period-End AUM in ETFs linked to MSCI equity indexes	<u>\$ 1,451.6</u>	<u>\$ 1,389.3</u>	<u>\$ 1,189.5</u>	<u>\$ 1,081.2</u>	<u>\$ 1,222.9</u>	<u>\$ 1,451.6</u>	<u>\$ 1,222.9</u>
Period Average AUM in ETFs linked to MSCI equity indexes	\$ 1,414.8	\$ 1,392.5	\$ 1,285.4	\$ 1,208.9	\$ 1,182.1	\$ 1,309.6	\$ 1,267.2
Period-End Basis Point Fee(3)	2.54	2.51	2.52	2.52	2.54	2.54	2.54

(1) The historical values of the AUM in ETFs linked to our equity indexes as of the last day of the month and the monthly average balance can be found under the link "AUM in ETFs Linked to MSCI Equity Indexes" on our Investor Relations homepage at <http://ir.msci.com>. Information contained on our website is not incorporated by reference into this Press Release or any other report filed or furnished with the SEC. The AUM in ETFs also includes AUM in Exchange Traded Notes, the value of which is less than 1.0% of the AUM amounts presented.

(2) The value of AUM in ETFs linked to MSCI equity indexes is calculated by multiplying the equity ETFs net asset value by the number of shares outstanding.

(3) Based on period-end Run Rate for ETFs linked to MSCI equity indexes using period-end AUM.

Table 8: Run Rate by Segment and Type (unaudited)(1)

In thousands	As of		% Change
	Dec. 31, 2022	Dec. 31, 2021	
Index			
Recurring subscriptions	\$ 777,633	\$ 694,591	12.0 %
Asset-based fees	514,253	589,320	(12.7)%
Index Run Rate	<u>1,291,886</u>	<u>1,283,911</u>	0.6 %
Analytics Run Rate	<u>616,069</u>	<u>585,223</u>	5.3 %
ESG and Climate Run Rate	<u>267,019</u>	<u>199,597</u>	33.8 %
All Other - Private Assets Run Rate	<u>145,333</u>	<u>135,150</u>	7.5 %
Total Run Rate	<u>\$ 2,320,307</u>	<u>\$ 2,203,881</u>	5.3 %
Total recurring subscriptions	\$ 1,806,054	\$ 1,614,561	11.9 %
Total asset-based fees	514,253	589,320	(12.7)%
Total Run Rate	<u>\$ 2,320,307</u>	<u>\$ 2,203,881</u>	5.3 %

(1) See "Notes Regarding the Use of Operating Metrics" for details regarding the definition of Run Rate.

Table 9: Reconciliation of Net Income to Adjusted EBITDA (unaudited)

In thousands	Three Months Ended		Year Ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Net income	\$ 214,971	\$ 193,865	\$ 870,573	\$ 725,983
Provision for income taxes	50,691	51,898	173,268	132,153
Other expense (income), net	43,088	34,824	163,799	214,589
Operating income	308,750	280,587	1,207,640	1,072,725
Amortization of intangible assets	23,805	21,023	91,079	80,592
Depreciation and amortization of property, equipment and leasehold improvements	6,467	7,929	26,893	28,901
Impairment related to sublease of leased property	—	7,702	—	7,702
Acquisition-related integration and transaction costs(1)	—	1,419	4,059	6,870
Consolidated adjusted EBITDA	\$ 339,022	\$ 318,660	\$ 1,329,671	\$ 1,196,790
Index adjusted EBITDA	\$ 248,395	\$ 252,378	\$ 985,407	\$ 951,312
Analytics adjusted EBITDA	66,411	52,963	247,895	198,799
ESG and Climate adjusted EBITDA	18,760	9,163	61,094	29,748
All Other - Private Assets adjusted EBITDA	5,456	4,156	35,275	16,931
Consolidated adjusted EBITDA	\$ 339,022	\$ 318,660	\$ 1,329,671	\$ 1,196,790

(1) Incremental and non-recurring costs attributable to acquisitions directly related to the execution of the transaction and integration of the acquired business that have occurred no later than 12 months after the close of the transaction.

Table 10: Reconciliation of Net Income and Diluted EPS to Adjusted Net Income and Adjusted EPS (unaudited)

In thousands, except per share data	Three Months Ended		Year Ended	
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
Net income	\$ 214,971	\$ 193,865	\$ 870,573	\$ 725,983
Plus: Amortization of acquired intangible assets and equity method investment basis difference	16,809	17,086	67,373	47,001
Plus: Debt extinguishment costs associated with the 2024, 2025, 2026 and 2027 Senior Notes Redemptions	—	—	—	59,104
Plus: Write-off of internally developed capitalized software	—	—	—	16,013
Plus: Impairment related to sublease of leased property	—	8,702	—	8,702
Plus: Acquisition-related integration and transaction costs(1)(2)	—	1,590	4,220	7,041
Less: Gain from changes in ownership interest of equity method investee	—	(6,972)	—	(6,972)
Less: Income tax effect(3)	(3,218)	(4,497)	(11,883)	(26,462)
Adjusted net income	\$ 228,562	\$ 209,774	\$ 930,283	\$ 830,410
Diluted EPS	\$ 2.67	\$ 2.32	\$ 10.72	\$ 8.70
Plus: Amortization of acquired intangible assets and equity method investment basis difference	0.21	0.20	0.83	0.56
Plus: Debt extinguishment costs associated with the 2024, 2025, 2026 and 2027 Senior Notes Redemptions	—	—	—	0.71
Plus: Write-off of internally developed capitalized software	—	—	—	0.19
Plus: Impairment related to sublease of leased property	—	0.10	—	0.10
Plus: Acquisition-related integration and transaction costs(1)(2)	—	0.02	0.05	0.08
Less: Gain from changes in ownership interest of equity method investee	—	(0.08)	—	(0.08)
Less: Income tax effect(3)	(0.04)	(0.05)	(0.15)	(0.31)
Adjusted EPS	\$ 2.84	\$ 2.51	\$ 11.45	\$ 9.95
Diluted weighted average common shares outstanding	80,424	83,578	81,215	83,479

(1) Acquisition-related integration and transaction costs of \$4.1 million are presented within "General and administrative" expenses and \$0.2 million are presented within "Depreciation and amortization of property, equipment and leasehold improvements" expenses for the year ended Dec. 31, 2022.

(2) Incremental and non-recurring costs attributable to acquisitions directly related to the execution of the transaction and integration of the acquired business that have occurred no later than 12 months after the close of the transaction.

(3) Adjustments relate to the tax effect of non-GAAP adjustments, which were determined based on the nature of the underlying non-GAAP adjustments and their relevant jurisdictional tax rates.

Table 11: Reconciliation of Operating Expenses to Adjusted EBITDA Expenses (unaudited)

In thousands	Three Months Ended		Year Ended		Full-Year
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021	2023 Outlook(1)
Total operating expenses	\$ 267,458	\$ 269,255	\$ 1,040,958	\$ 970,819	\$1,090,000 - \$1,130,000
Amortization of intangible assets	23,805	21,023	91,079	80,592	
Depreciation and amortization of property, equipment and leasehold improvements	6,467	7,929	26,893	28,901	\$125,000 - \$135,000
Impairment related to sublease of leased property	—	7,702	—	7,702	
Acquisition-related integration and transaction costs(2)	—	1,419	4,059	6,870	
Consolidated adjusted EBITDA expenses	\$ 237,186	\$ 231,182	\$ 918,927	\$ 846,754	\$965,000 - \$995,000
Index adjusted EBITDA expenses	\$ 80,866	\$ 79,429	\$ 317,802	\$ 300,452	
Analytics adjusted EBITDA expenses	83,300	85,119	328,212	345,500	
ESG and Climate adjusted EBITDA expenses	44,799	39,280	167,217	136,444	
All Other - Private Assets adjusted EBITDA expenses	28,221	27,354	105,696	64,358	
Consolidated adjusted EBITDA expenses	\$ 237,186	\$ 231,182	\$ 918,927	\$ 846,754	\$965,000 - \$995,000

(1) We have not provided a full line-item reconciliation for total operating expenses to adjusted EBITDA expenses for this future period because we believe such a reconciliation would imply a degree of precision and certainty that could be confusing to investors and we are unable to reasonably predict certain items contained in the GAAP measure without unreasonable efforts. This is due to the inherent difficulty of forecasting the timing or amount of various items that have not yet occurred and are out of the Company's control or cannot be reasonably predicted. For the same reasons, the Company is unable to address the probable significance of the unavailable information. Forward-looking non-GAAP financial measures provided without the most directly comparable GAAP financial measures may vary materially from the corresponding GAAP financial measures. See "Forward-Looking Statements" above.

(2) Incremental and non-recurring costs attributable to acquisitions directly related to the execution of the transaction and integration of the acquired business that have occurred no later than 12 months after the close of the transaction.

Table 12: Reconciliation of Net Cash Provided by Operating Activities to Free Cash Flow (unaudited)

In thousands	Three Months Ended		Year Ended		Full-Year
	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021	2023 Outlook(1)
Net cash provided by operating activities	\$ 315,427	\$ 279,664	\$ 1,095,369	\$ 936,069	\$1,145,000 - \$1,195,000
Capital expenditures	(5,605)	(6,390)	(13,617)	(13,509)	
Capitalized software development costs	(14,853)	(10,207)	(59,278)	(39,285)	
Capex	(20,458)	(16,597)	(72,895)	(52,794)	(\$85,000 - \$75,000)
Free cash flow	\$ 294,969	\$ 263,067	\$ 1,022,474	\$ 883,275	\$1,060,000 - \$1,120,000

(1) We have not provided a line-item reconciliation for free cash flow to net cash from operating activities for this future period because we believe such a reconciliation would imply a degree of precision and certainty that could be confusing to investors and we are unable to reasonably predict certain items contained in the GAAP measure without unreasonable efforts. This is due to the inherent difficulty of forecasting the timing or amount of various items that have not yet occurred and are out of the Company's control or cannot be reasonably predicted. For the same reasons, the Company is unable to address the probable significance of the unavailable information. Forward-looking non-GAAP financial measures provided without the most directly comparable GAAP financial measures may vary materially from the corresponding GAAP financial measures. See "Forward-Looking Statements" above.

Table 13: Fourth Quarter 2022 Reconciliation of Operating Revenue Growth to Organic Operating Revenue Growth (unaudited)

	Comparison of the Three Months Ended December 31, 2022 and 2021			
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Index				
Operating revenue growth	(0.8)%	11.7 %	(16.2)%	14.6 %
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	0.4 %	0.6 %	0.2 %	– %
Organic operating revenue growth	(0.4)%	12.3 %	(16.0)%	14.6 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Analytics				
Operating revenue growth	8.4 %	9.8 %	– %	(35.4)%
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	1.1 %	1.1 %	– %	1.5 %
Organic operating revenue growth	9.5 %	10.9 %	– %	(33.9)%
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
ESG and Climate				
Operating revenue growth	31.2 %	31.5 %	– %	20.1 %
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	11.8 %	11.9 %	– %	6.4 %
Organic operating revenue growth	43.0 %	43.4 %	– %	26.5 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
All Other - Private Assets				
Operating revenue growth	6.9 %	6.7 %	– %	26.1 %
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	6.9 %	7.0 %	– %	7.9 %
Organic operating revenue growth	13.8 %	13.7 %	– %	34.0 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Consolidated				
Operating revenue growth	4.8 %	13.1 %	(16.2)%	3.2 %
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	2.0 %	2.7 %	0.2 %	0.8 %
Organic operating revenue growth	6.8 %	15.8 %	(16.0)%	4.0 %

Table 14: Full-Year 2022 Reconciliation of Operating Revenue Growth to Organic Operating Revenue Growth (unaudited)

Comparison of the Years Ended December 31, 2022 and 2021				
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Index				
Operating revenue growth	4.1 %	12.2 %	(4.7)%	(3.8)%
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	0.4 %	0.5 %	0.2 %	– %
Organic operating revenue growth	4.5 %	12.7 %	(4.5)%	(3.8)%
Analytics				
Operating revenue growth	5.8 %	6.3 %	– %	(18.1)%
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	1.0 %	0.9 %	– %	2.8 %
Organic operating revenue growth	6.8 %	7.2 %	– %	(15.3)%
ESG and Climate				
Operating revenue growth	37.4 %	37.2 %	– %	43.8 %
Impact of acquisitions and divestitures	– %	– %	– %	– %
Impact of foreign currency exchange rate fluctuations	10.1 %	10.2 %	– %	7.2 %
Organic operating revenue growth	47.5 %	47.4 %	– %	51.0 %
All Other - Private Assets				
Operating revenue growth	73.4 %	75.4 %	– %	(20.6)%
Impact of acquisitions and divestitures	(70.9)%	(72.4)%	– %	– %
Impact of foreign currency exchange rate fluctuations	10.0 %	10.1 %	– %	4.9 %
Organic operating revenue growth	12.5 %	13.1 %	– %	(15.7)%
Consolidated				
Operating revenue growth	10.0 %	16.4 %	(4.7)%	(4.0)%
Impact of acquisitions and divestitures	(2.8)%	(4.1)%	– %	– %
Impact of foreign currency exchange rate fluctuations	1.7 %	2.3 %	0.2 %	1.0 %
Organic operating revenue growth	8.9 %	14.6 %	(4.5)%	(3.0)%