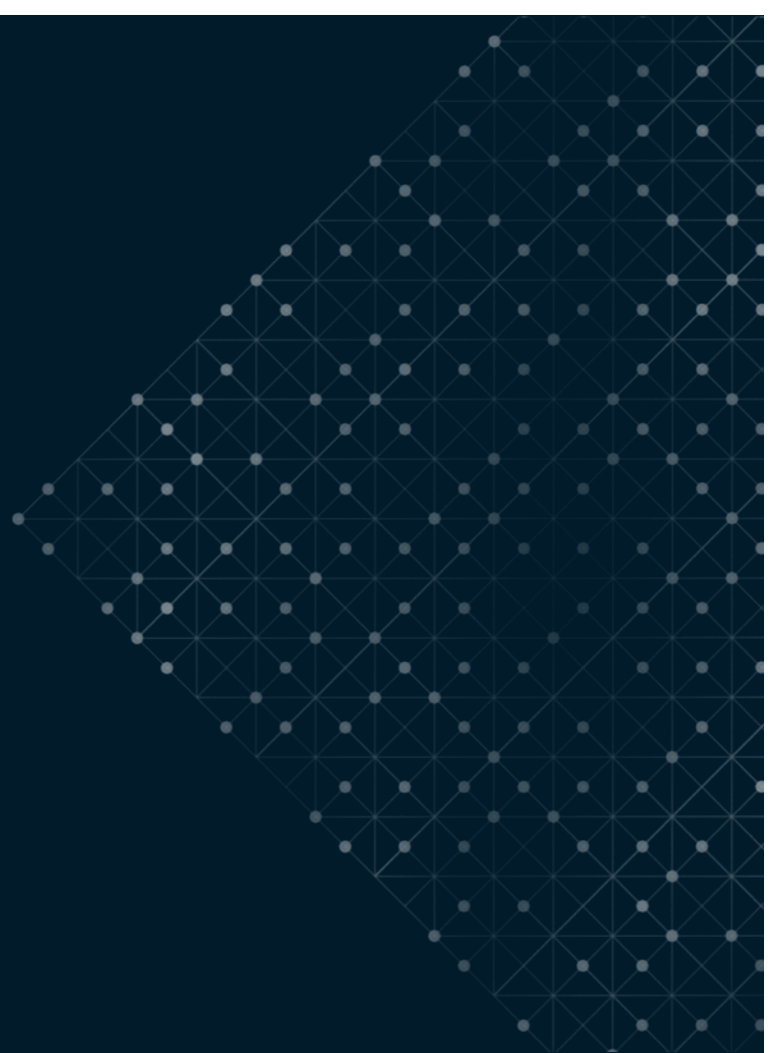




MSCI Inc.

INVESTOR PRESENTATION

November 11, 2022



Forward-Looking Statements

- This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including without limitation, MSCI's full-year 2022 guidance and long-term targets. 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 presentation 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.

Other Information

- Percentage changes and totals in this presentation may not sum due to rounding.
- Percentage changes refer to the comparable period in 2021, unless otherwise noted.
- All financial figures for the three months ended September 30, 2022 are unaudited unless otherwise noted.
- 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 assets under management (“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.

Company overview



Global Franchise Serving the Who's Who of the Investment Industry



What We Do

Provide products and services that global investors can use to build **better portfolios** for a better world

4,767
employees¹

~\$2.2B

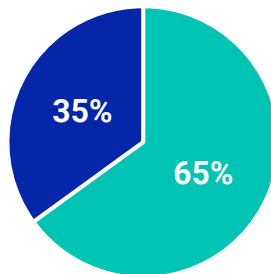
Total Run Rate¹

↑ 5%

YoY

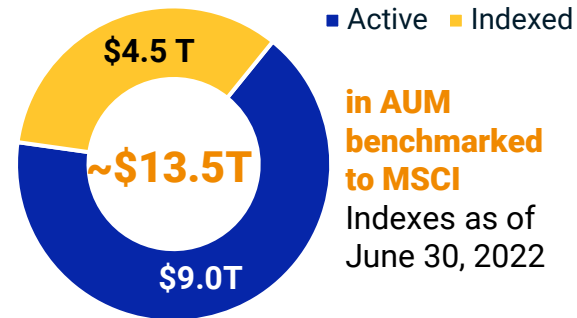
30+ Office
locations¹

**Must-have investment data,
tools, models and technology**
across asset classes for performance and risk



35%¹ of employees located in
developed market centers

65%¹ of employees located in
emerging market centers



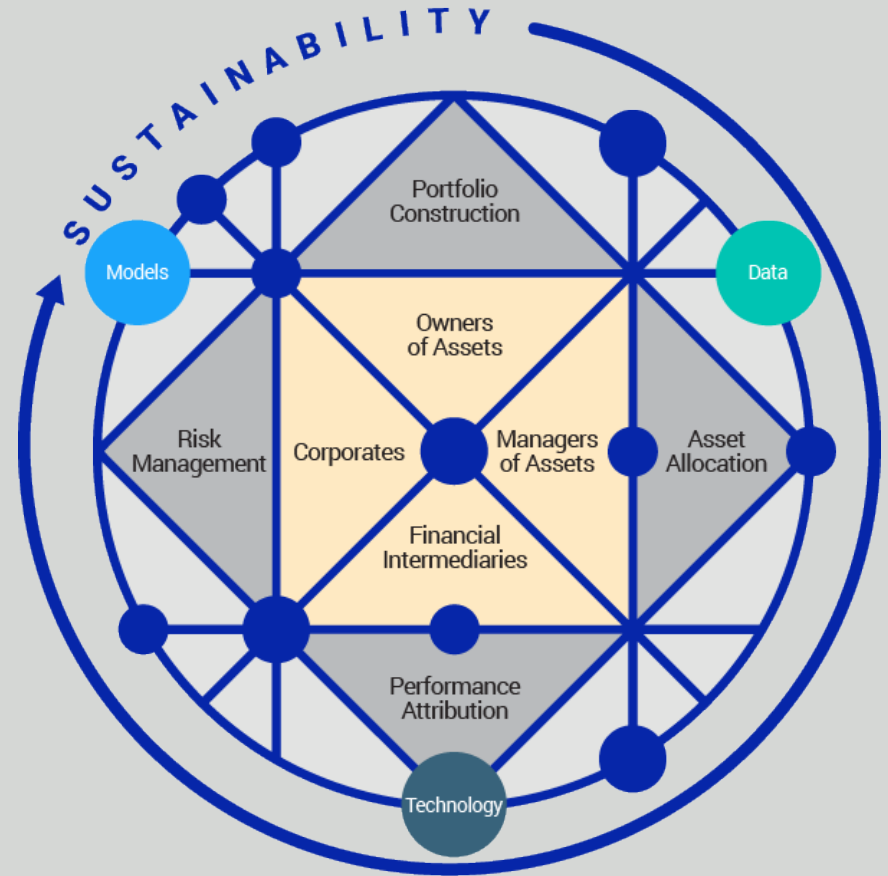
**Extensive knowledge of the
investment process**

6,600+ clients¹ in
95+ countries¹

- Providing solutions to enable all participants in the investment process
- Driving innovation for industry-leading solutions
- 50+ years of establishing standards in the investment industry

Our Strategy

Support the Investment Process Needs of our Clients with Highly Differentiated Solutions Supported by Best-in-Class Capabilities



Helping Investors Navigate Increasingly Complex Global Landscape

\$110T+ Managed Assets

100,000+ Public Equities

Millions Fixed Income Instruments

12,000+ Private Equity (PE) Funds

180,000+ PE-owned Companies

\$11T+ Global Investment Properties

\$600T Notional Derivatives Contracts

\$150T+ Bank Assets



MORE:

Investors

- Proliferation of institutional and individual investors

Markets

- New geographies and markets are accessible

Choices

- Securities
- Instruments
- Asset classes

Styles

- Factors
- ESG percentage climate consideration
- Thematics and mega themes

Vehicles

- Funds
- Co-investing
- Direct investments

Scale

- Investable assets growing as a % of global economies
- Increased allocations to private markets

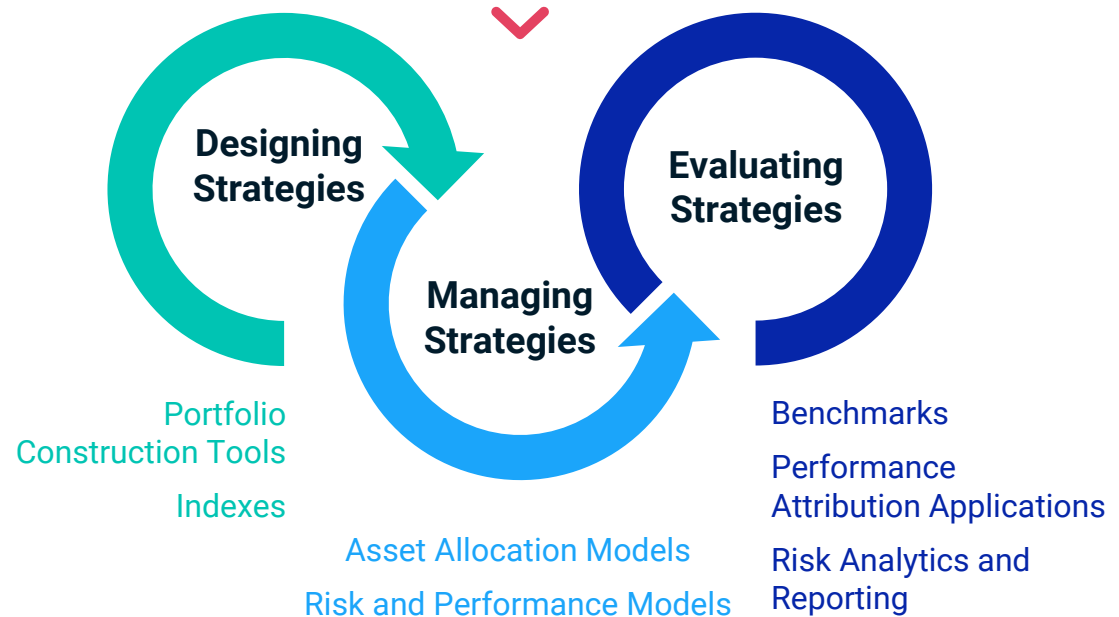


Addressing Client Needs to Power Better Investment Decisions

> Investors rely on MSCI for

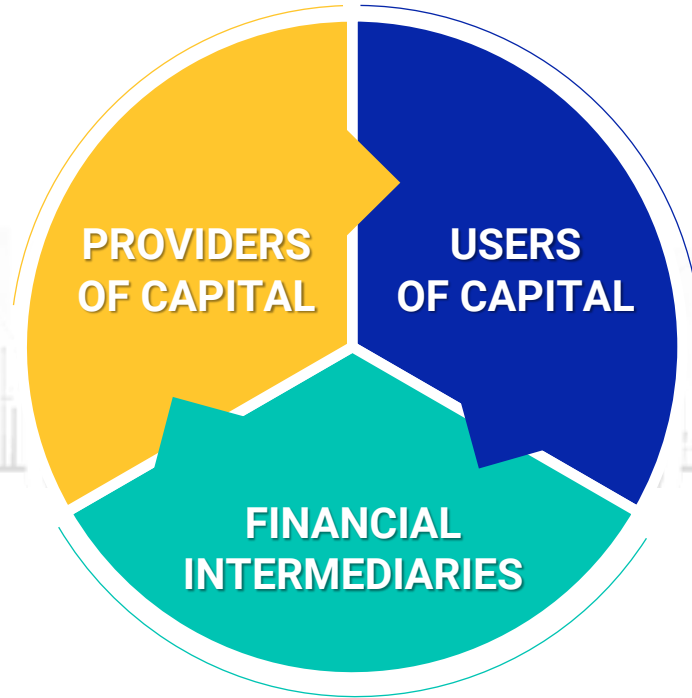
- Data- and research-driven insights into drivers of risk and performance
- Broad asset class coverage
- Innovative tools to help bring investment strategies to market
- Exceptional quality
- Reliability, technology and business continuity infrastructure

Supporting Investors' Needs in Every Part of the Investment Cycle



Enabling All Participants in the Investment Process

Enabling Owners and
Managers of Assets
**Build Better Portfolios for a
Better World**

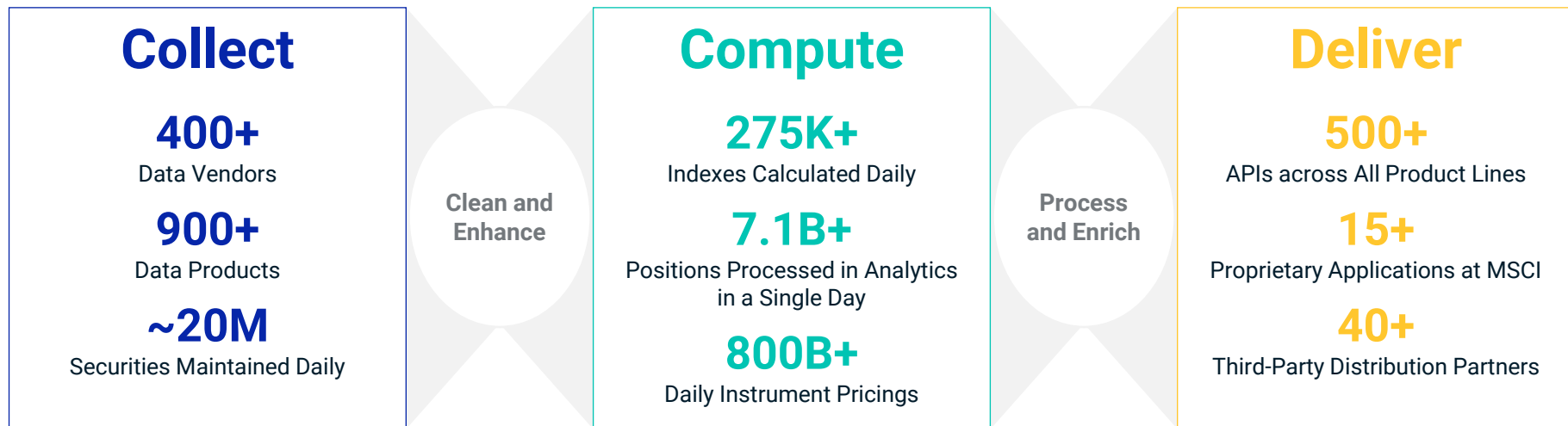


Enabling corporates and others
**to define ESG and climate
objectives and power internal
and external reporting**

Enabling Banks, Broker Dealers, Exchanges,
Custodians and Others Support Providers and Users
of Capital in the **Investment Process**

MSCI Data and Technology Capabilities

Proven Ability to Handle Complex, Integrated and High-volume Workflows with Flexible and Scalable Solutions for Clients



To Stay Ahead of Client Demands, MSCI Will Deliver Everything We Do “As a Service”

Widespread Demand for MSCI's Offerings



Clients

- Asset managers
- Asset owners
- Broker-dealers
- Wealth managers
- Corporates
- Insurance companies
- Private asset managers
- Regions (Americas, EMEA, APAC)



Solutions for

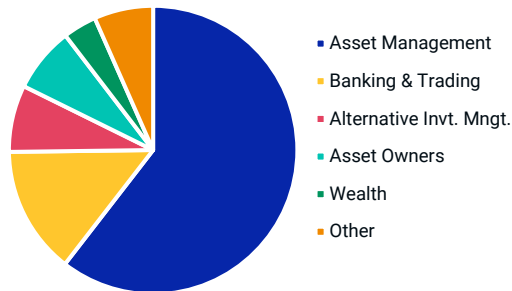
- ESG and climate investing
- Customized Indexes
- Derivatives
- Factor Investing
- Private Asset Investing
- Fixed income and liquidity
- Investment Themes



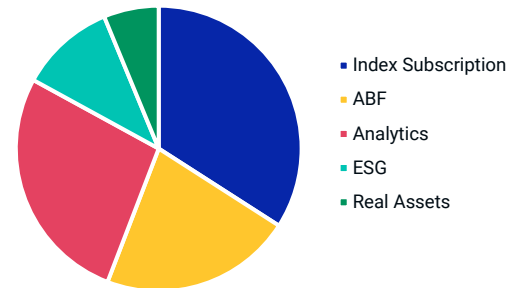
Capabilities

- Data
- Technology
- Talent

Client Segment Run Rate (\$2.2B)



Product Run Rate (\$2.2B)



Well Positioned In All Markets From All Weather Franchise

	Times of Strength	Times of Stress
	<ul style="list-style-type: none"> • 97% recurring revenue¹ • ~70% recurring subscription • Retention rates >90% across products 	
REVENUE	AUM-Based Revenue	F&O Volumes
	Performance-oriented Products	Risk-oriented Products
	~84% of Revenue in USD ² ~Balances Non-USD Expense ¹	
EXPENSES	Upturn Growth Investment	Expense Management
EPS	Refi Callable Debt	Share Repurchases

← **Diversified Geographic & Product Footprint** →



Upturn / Downturn Investing Levers		Approx. Annual Impact of ~10% or higher Flex ³
Upturn Priorities	Self-Adjusting Metric-based Annual Incentives Plans	+/- \$15M
	Pacing of Investments Reprioritization, Pace of Hiring Headcount Optimization	+/- \$20M
Downturn Priorities	Mostly Discretionary T&E Training Professional Fees Marketing	+/- \$20M

¹Includes ABF and Subscription Recurring Revenue; ²Remaining non-US dollar revenue exposure primarily in EUR, GBP or JPY

³Based on respective categories of current expense base.

Robust and Compelling Financial Model



Recurring, visible revenue model

~97% recurring revenues¹ as percent of total revenue from 2016 – 3Q2022



Operating efficiency strength

Disciplined operating expense management



Triple-Crown investment opportunities to grow business

Investing in multiple strategic product areas, client segments and capabilities, including technology and partnerships, to drive growth



Attractive cash generation profile

Our business is not highly capital intensive and, as such, we convert a high percentage of our profits into excess cash



Strong balance sheet and liquidity

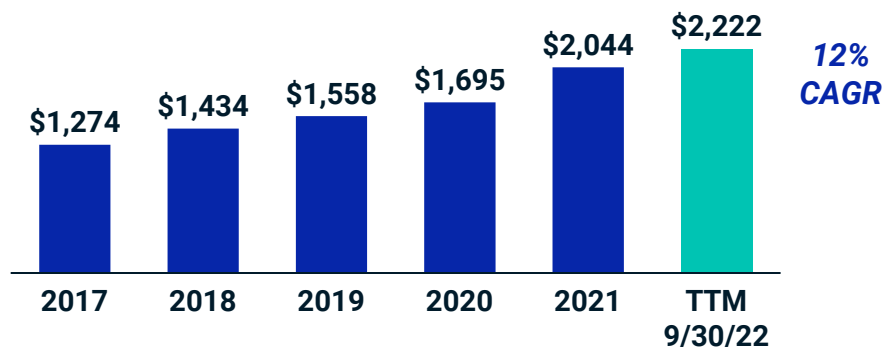
Total cash and equivalents of \$867M, approximately \$600M is readily available, as of September 30, 2022

Financial review

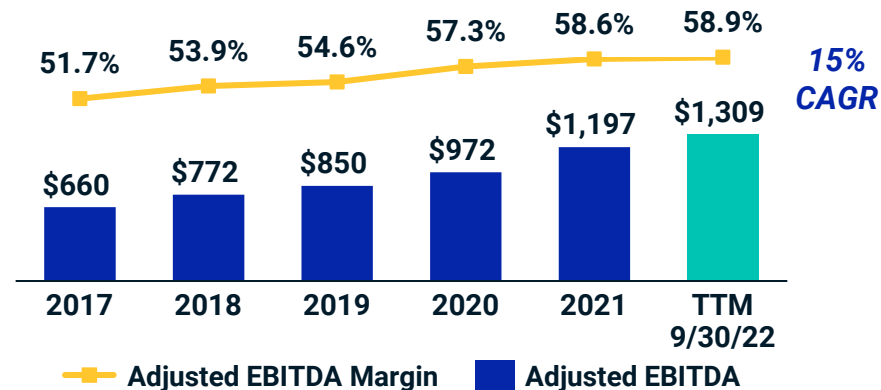


Exceptional Track Record of Financial Execution

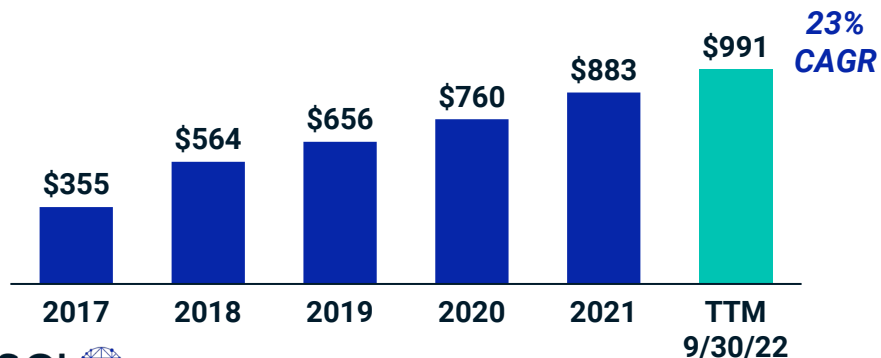
Revenue (\$m)



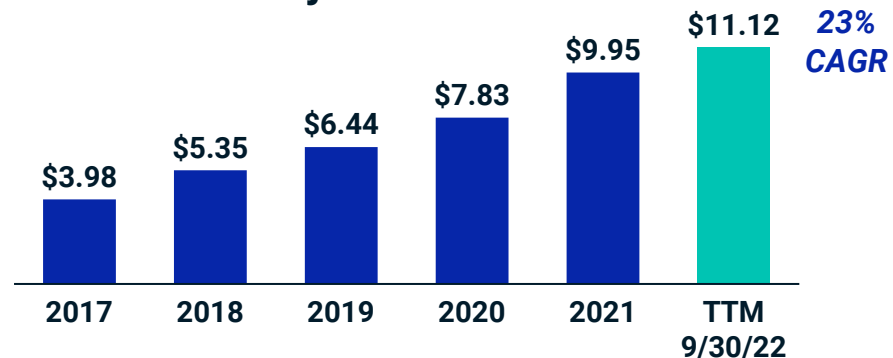
Adjusted EBITDA¹ (\$m)



Free Cash Flow¹ (\$m)



Adjusted EPS¹



Significant Recurring Revenue Model with Global Client Base

Operating Revenues Mix
Quarter Ended 09/30/2022

by Segment

by Type

All Other – Private Assets 6%

Non-Recurring 3%

ESG & Climate
10%

Asset-Based
Fees
22%

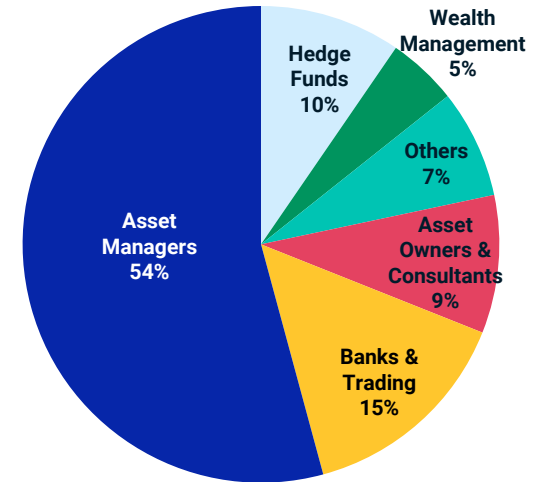
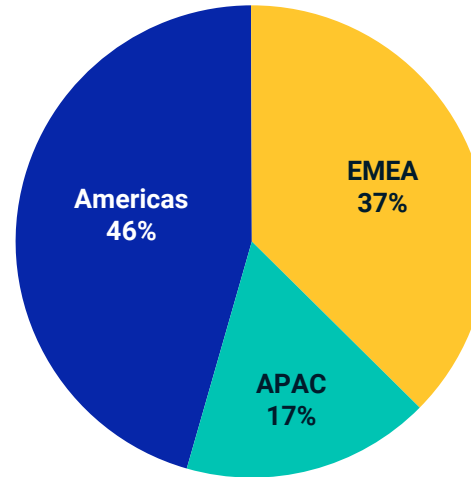
Analytics
26%

Recurring
Subscription
75%

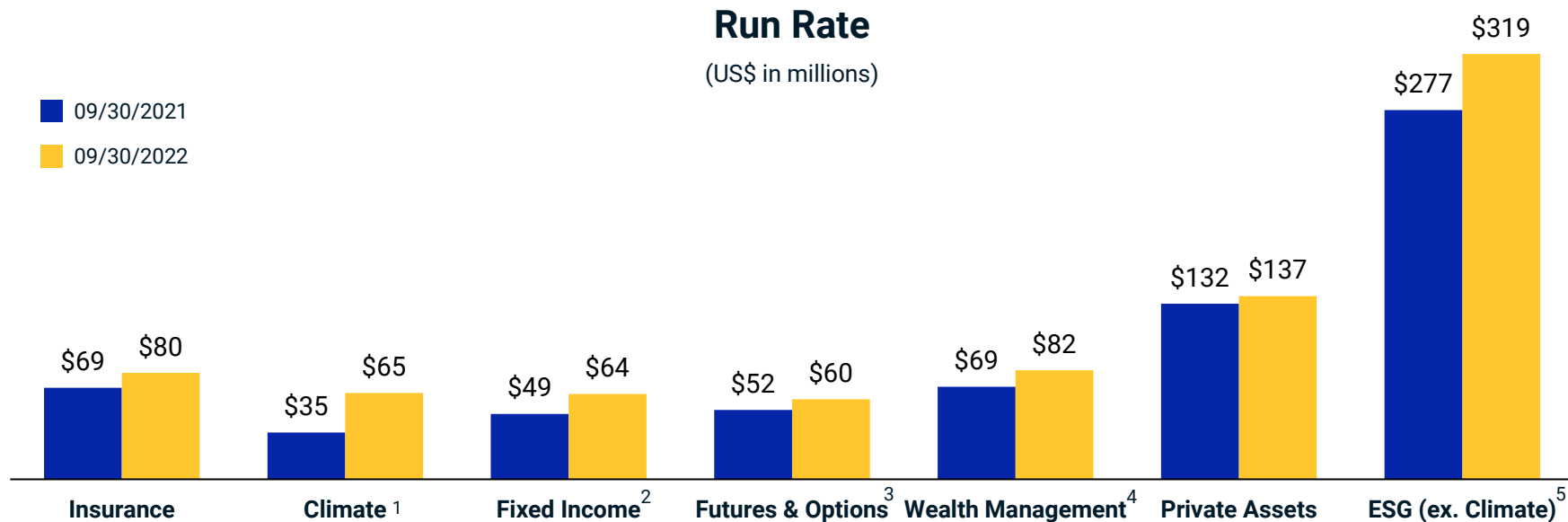
Index
58%

MSCI Subscription Run Rate
as of 09/30/2022 by Geography

MSCI Subscription Run Rate
as of 09/30/2022 by Client Base



Significant Demand and Growth Across Large Emerging Opportunities



Expanding in attractive additional addressable markets

Note: Run Rate totals may include overlap between different client segments. ¹Includes Climate run rate reported in Index, ESG & Climate, Analytics and Private Asset segments. ²Excludes Analytics Enterprise Risk & Performance. ³Listed only. ⁴Represents total subscription run rate from wealth management client base. ⁵Includes ESG & Climate Research Run Rate, reported in the ESG & Climate, Analytics and Real Assets Segments, and ESG & Climate related Index subscription and asset-based fees Run Rate reported in the Index segment.

Innovation and Investment in Key Growth Areas



New Growth

Drive new business capabilities through new products and services

Examples:

- Climate and Corporates client segments
- Thematic Indexes
- Index Builder
- Fixed income Indexes



Scale

Expand existing products and capabilities to accelerate growth

Examples:

- Innovative Factors & ESG Indexes
- ESG securities coverage expansion
- Expanding Futures and Options



Efficiencies

Avoid and/or repurpose costs; achieve productivity gains

Examples:

- Cloud migration
- Streamline technology development
- Data process improvements

Triple-Crown Investment Criteria



High Returns

Projects must have a high return (ROI)



Quick Payback <3 Years

Earlier payback preferred



Strong Valuation

Prefer investments with greater impact to MSCI's valuation

Rigorous metric-driven approach to allocate capital across different business areas

Strong Balance Sheet Provides Optionality

(US\$ in millions, unless otherwise noted)

Cash¹ and Debt as of 09/30/2022

Total Cash	\$867M
Total Debt ²	\$4,513M
Net Debt (total Debt less total cash)	\$3,646M
Total Debt / LTM Adjusted EBITDA	3.4x
Net Debt / LTM Adjusted EBITDA	2.8x

Unsecured Debt Maturity Profile



- In 3Q22, returned \$265.7M to shareholders through share repurchases of \$165.0M and quarterly dividends of \$100.7M.
- YTD through trade date of October 24, 2022, \$1.3B worth of shares were repurchased.
- Strong balance sheet provides optionality
 - Next maturity not until 2027
- Disciplined and consistent approach to capital deployment
 - Triple-Crown framework to evaluate internal opportunities and MP&A (mergers, partnerships and acquisitions)

Credit Ratings as of 11/10/2022:

	Moody's	S&P	Fitch
Outlook	Stable	Stable	Stable
Long-term issuer rating	Ba1	BB+	BBB-
Senior unsecured	Ba1	BB+	BBB-

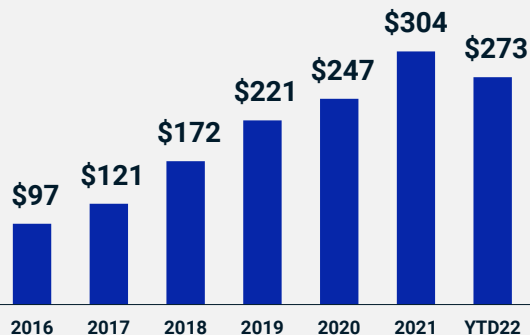
Note: Credit ratings reflect the views of the different agencies and are not a recommendation to buy, sell or hold any security including our common stock or debt securities. These ratings are subject to periodic review and may be raised upward, downward or revoked at the sole discretion of the agencies.

¹MSCI typically seeks to maintain minimum cash balances globally of approximately \$225.0 million to \$275.0 million for general operating purposes

²Reflects gross debt, net of deferred financing fees and premium.

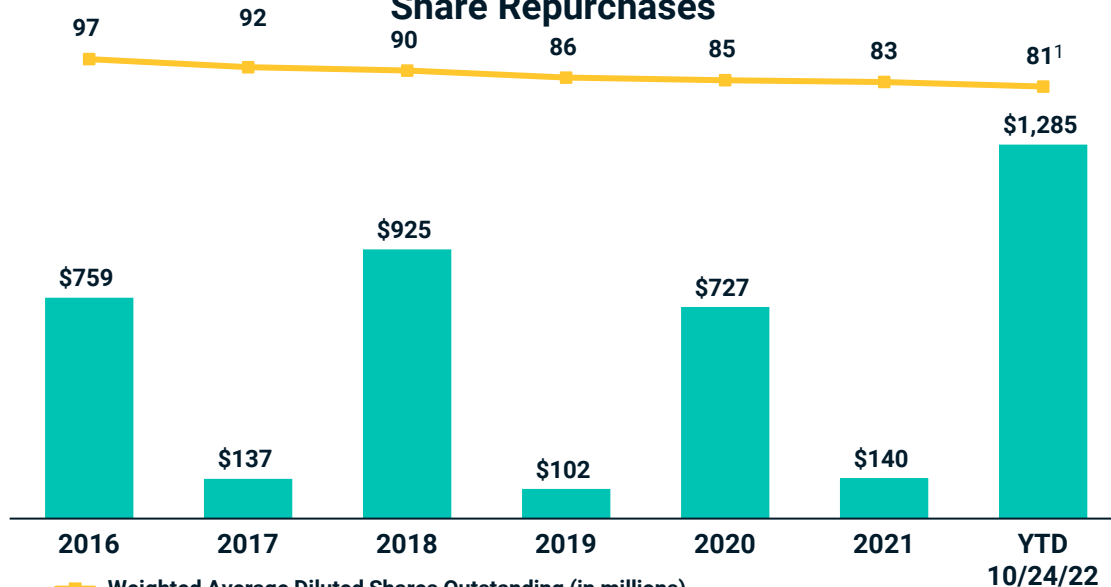
Disciplined Approach to Capital Deployment for Shareholders

Dividends (\$M)



- Meaningful dividend with strong historical growth
- Historical payout ratio target of 40% – 50% of Adjusted EPS
- In Q4 2022, cash dividend of \$1.25 per share declared by MSCI Board of Directors

Share Repurchases



— Weighted Average Diluted Shares Outstanding (in millions)

■ Aggregate Dollar Value of Shares Repurchased (\$ in millions)

Opportunistic Share Repurchases Capitalize on Attractive Values and Volatility

\$5.3B of Share Repurchases since 2012

Full-Year 2022 Guidance As Of October 25, 2022

Full-Year 2022 Guidance Item	Current Guidance	Prior Guidance (Pre October 25, 2022)
Operating Expense	\$1,030 to \$1,060 million	\$1,045 to \$1,085 million
Adjusted EBITDA Expense	\$910 to \$940 million	\$940 to \$970 million
Interest Expense (including amortization of financing fees)	~\$172 million	~\$172 million
Depreciation & Amortization Expense	\$110 to \$120 million	\$105 to \$115 million
Effective Tax Rate	16.0% to 17.5%	15.5% to 18.5%
Capital Expenditures	\$65 to \$75 million	\$65 to \$75 million
Net Cash Provided by Operating Activities	\$1,100 to \$1,140 million	\$1,080 to \$1,120 million
Free Cash Flow	\$1,025 to \$1,075 million	\$1,005 to \$1,055 million

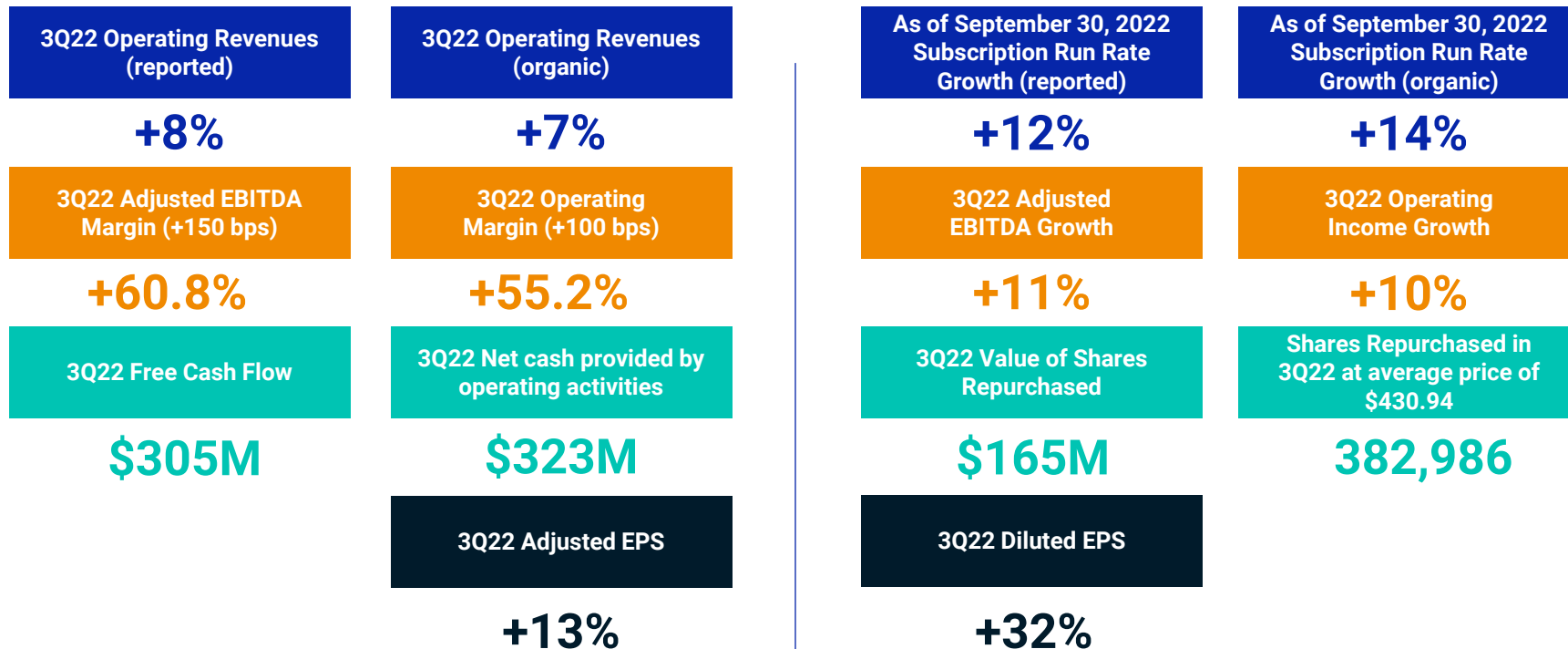
MSCI's guidance for the year ending December 31, 2022 ("Full-Year 2022") is based on assumptions about a number of macroeconomic and capital market factors, in particular related to equity markets. These assumptions are subject to uncertainty, and actual results for the year could differ materially from our current guidance, including as a result of ongoing uncertainty related to the economic and market impacts of elevated inflation levels and duration, magnitude and impact of the ongoing COVID-19 pandemic as well as Russia's invasion of Ukraine. The guidance provided above assumes, among other things, that MSCI maintains its current debt levels.

Long-term Targets

	Revenue Growth Rate ¹	Adj. EBITDA Expense Growth Rate	Adj. EBITDA Growth Rate	Adj. EBITDA Margin %
Index	Low Double Digit	Low Double Digit	↓	↓
Analytics	High Single Digit	Mid Single Digit		
ESG & Climate	Mid to High 20s	Mid to High 20s		
All Other – Private Assets	High Teens	Mid Teens		
MSCI	Low Double Digit	High Single Digit to Low Double Digit		

3Q22 Financial Results Snapshot

Robust earnings growth reflecting all weather franchise



Segment highlights



Index: We are Uniquely Positioned to Meet the Industry's Needs

By Leveraging Our Entire Firm, We Offer Clients a Comprehensive Toolset



- MSCI Indexes are built using a **modular approach** with a **rules-based, consistent and transparent** methodology
- Indexes designed to represent **full opportunity set** across geographies and products with **no gaps or overlaps**
- Can be used as **building blocks for portfolio construction in indexed and active portfolios** representing the performance of investment strategies, using a consistent framework

Index: Ready-Made Indexes Across Market-Cap, Size and Geographic Exposures and Across Investment Thesis Areas for Equity and Fixed Income

Market Cap Weighted



Factors



ESG & Climate Indexes

Climate Integration

- MSCI Climate Change
- MSCI Climate Paris Aligned
- MSCI Low Carbon Target

ESG Integration

- MSCI ESG Leaders
- MSCI ESG Focus
- MSCI ESG Universal

Screening & Values

- MSCI Ex Controversial Weapons
- MSCI Ex Tobacco Involvement
- MSCI Ex Fossil Fuel
- MSCI Faith Based

Impact Investing

- MSCI Global Environment
- MSCI Sustainable Impact
- MSCI Women's Leadership

Thematic Indexes Aligned with Megatrends



Transformative Tech

Future mobility, robotics, digital economy, fintech innovation



Society & Lifestyle

Smart cities, ageing societies, future education, food revolution



Health & Healthcare

Genomic innovation, digital health



Environment & Resources

Efficient energy
Circular economy

Index: Ongoing Client Demand for Customized Indexes



Custom Indexes

Clients can use any MSCI Index as a starting point

- Regional and Country Selection
- Stock Exclusions
- GICS Selection
- Custom ESG & Climate Overlay
- Rule-based Security Selection
- Custom Factors Overlay
- Equity Screening
- Custom Thematic Overlay
- Custom Weighting
- Custom Delivery and File Format
- Custom Special Tax rates

Client use cases:

- Construct and issue index-linked products such as ETFs or derivatives to meet specific investment themes
- Allow clients, including asset owners, ability to avoid benchmark misalignment by designing themselves an index that more accurately reflects their investment strategy, thesis or constraints
- Allow wealth managers the ability to construct personalized portfolios at scale using Direct indexing



Benefits



Broad Coverage

Clients can customize and adapt any MSCI index such as Market Cap, Factor, Thematic, ESG and Climate to reflect their specific benchmark or product requirements.



Data Reliability

Clients can make use of MSCI's well-established, reliable index administration and calculation process – same as used for calculating all MSCI Standard indexes.



Rigorous Methodology

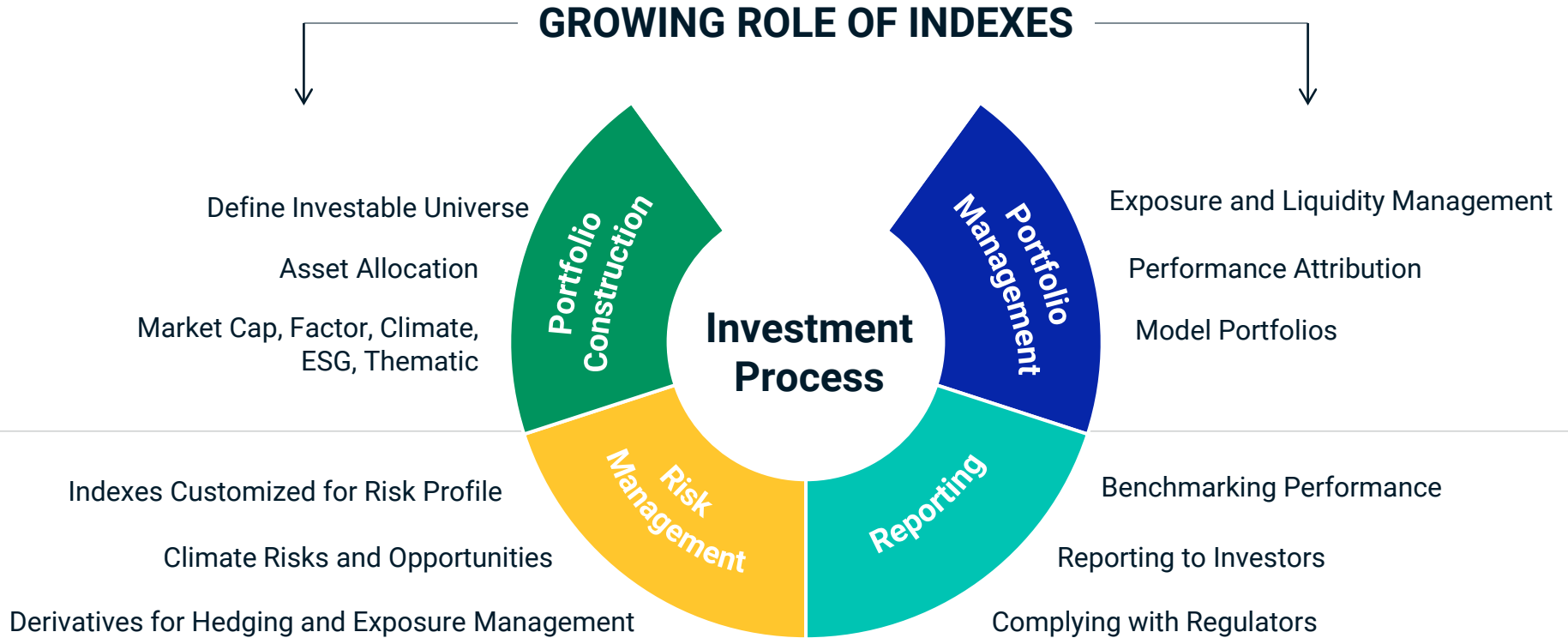
Investable, transparent and replicable indexes designed by clients, and with the same rigorous calculation and maintenance methodology as applied to the MSCI Standard Indexes.



Global Support

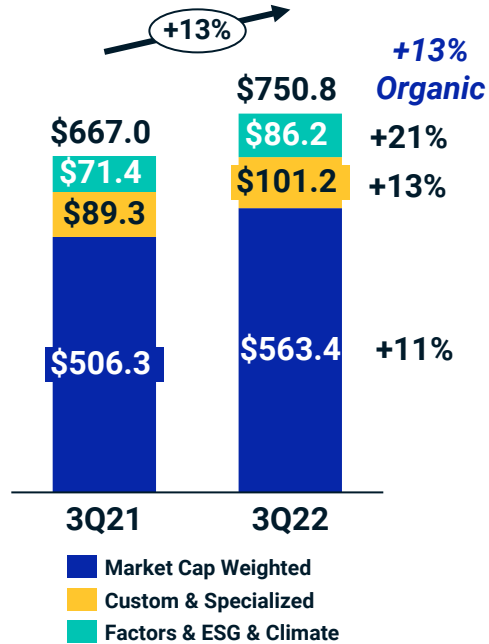
Cross-functional custom indexes team of experts in Research, Index Production, Technology and Product Management supports the administration of client-designed custom indexes.

Index: Helping Integrate Indexes at the Center of the Investment Process

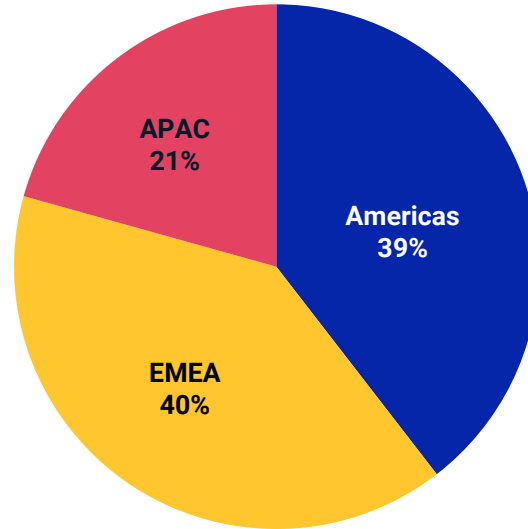


Index Subscription at a Glance

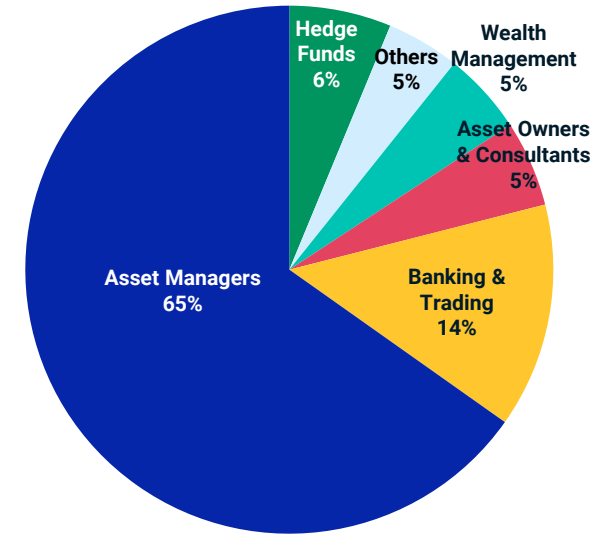
Index Subscription Run Rate



Index Subscription Run Rate as of 09/30/2022 by Geography



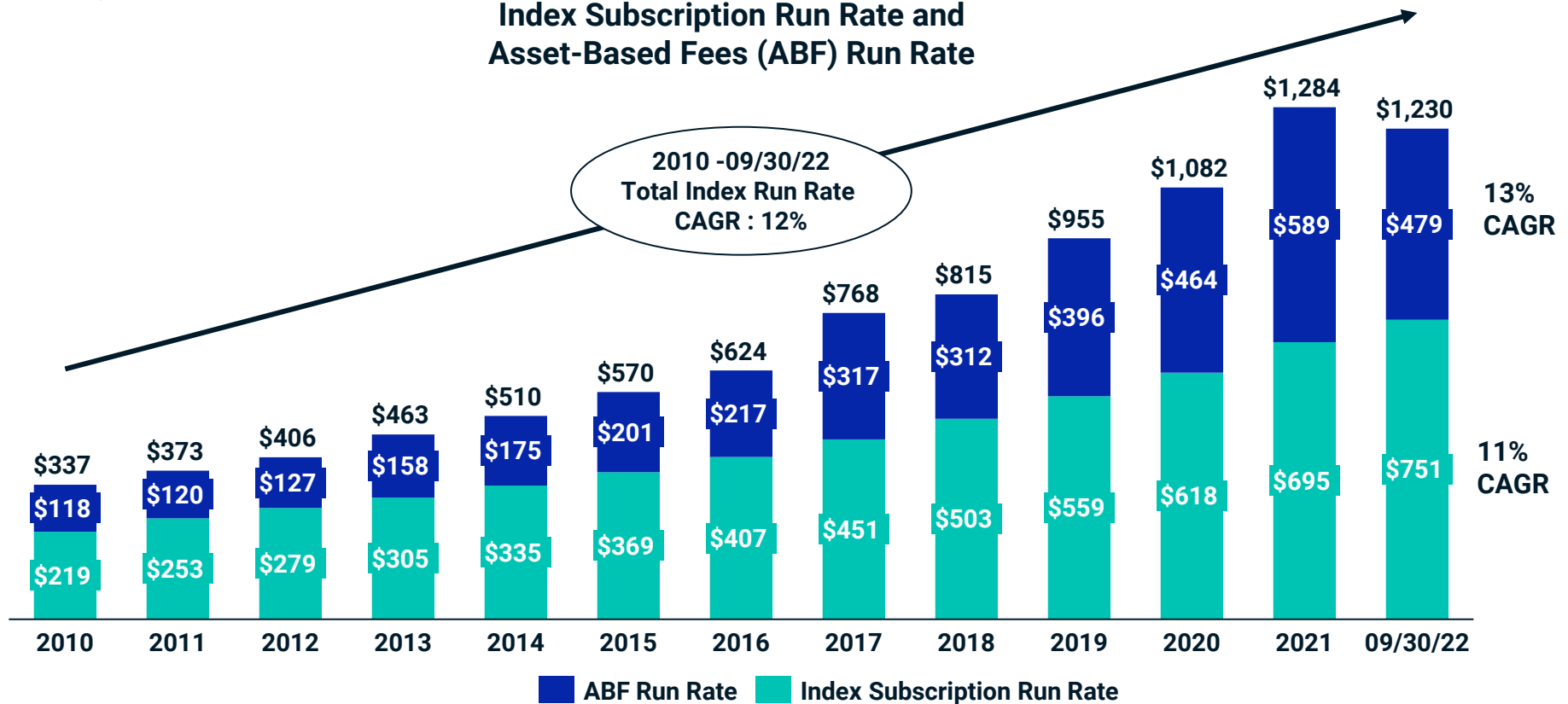
Index Subscription Run Rate as of 09/30/2022 by Client base



Index: Consistent Growth through the Index Revolution

(US\$ in millions)

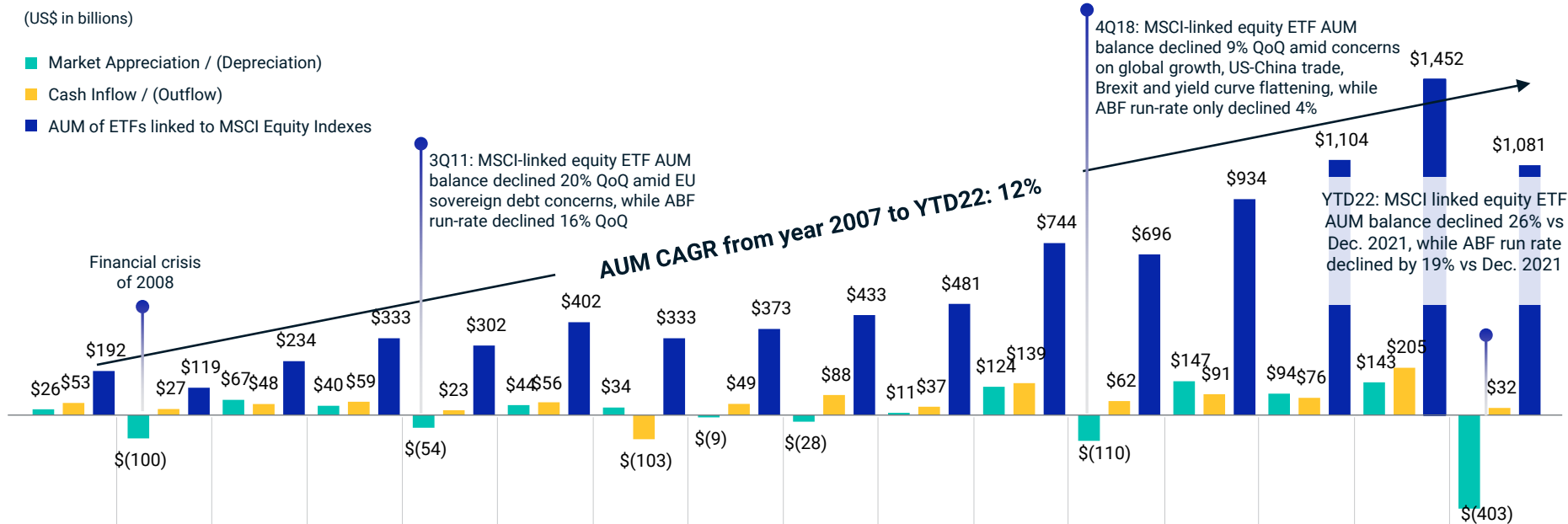
Index Subscription Run Rate and Asset-Based Fees (ABF) Run Rate



Market Movement Impacts AUM; Growth in F&O Offsets the Decrease

(US\$ in billions)

- Market Appreciation / (Depreciation)
- Cash Inflow / (Outflow)
- AUM of ETFs linked to MSCI Equity Indexes

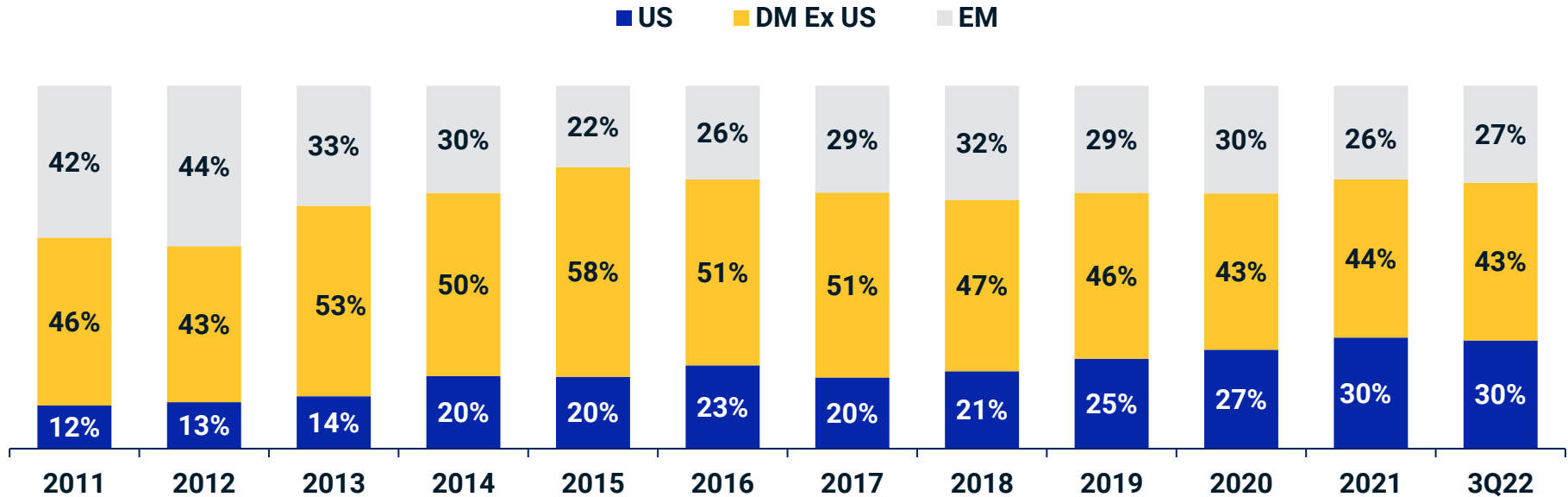


	2007 ¹	2008 ¹	2009 ¹	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD
AUM YoY%	56%	(38%)	97%	42%	(10%)	33%	(17%)	12%	16%	11%	55%	(7%)	34%	18%	32%	(19%)
ABF RR YoY%	76%	(30%)	68%	22%	2%	6%	25%	10%	15%	8%	46%	(2%)	27%	17%	27%	(13%)

Positive annual cash inflows for all years in ETFs linked to MSCI indexes except 2013

Geographic Market Exposures Of MSCI-Linked ETFs Increasingly Diversified Over Time

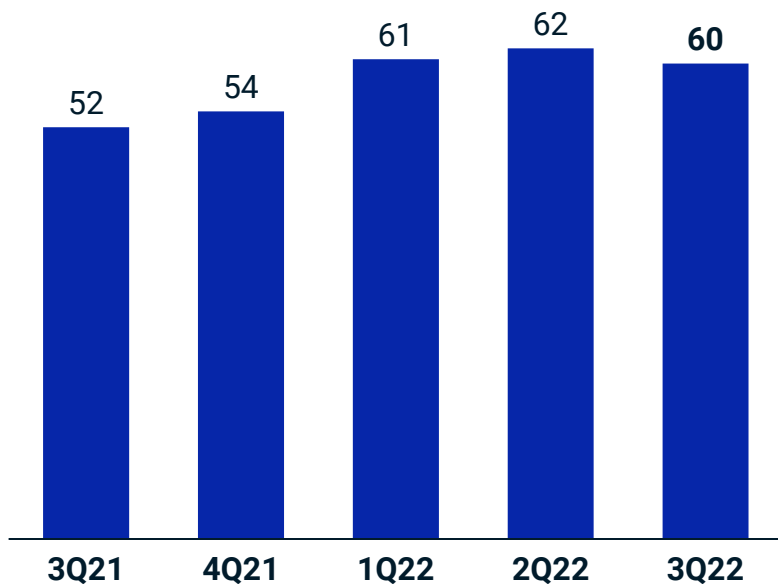
Mix of MSCI linked equity ETF AUM balance by geographic exposure %



Listed Futures & Options Linked to MSCI Indexes

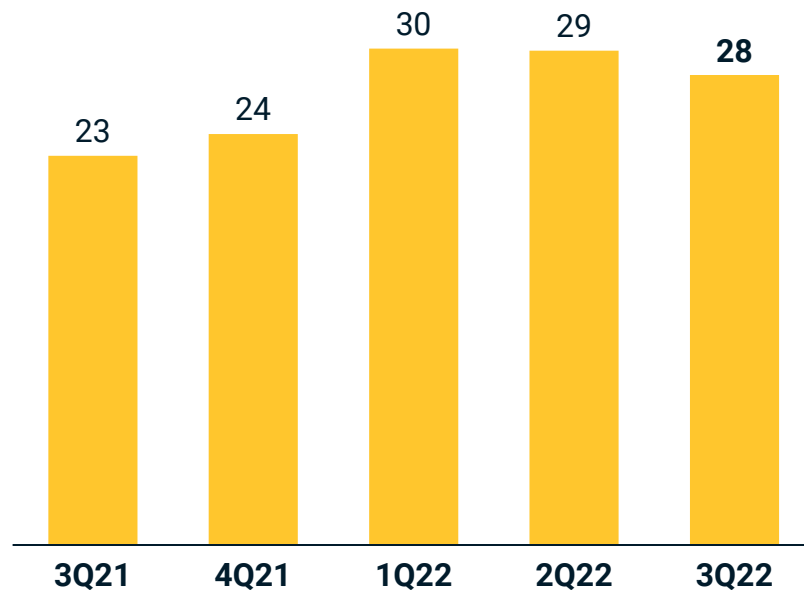
Run Rate From Listed Futures & Options Linked to MSCI Indexes

(US\$ in millions)



Futures & Options Volume Linked to MSCI Indexes

(in millions of contracts traded)



Analytics: Significant Opportunities in Equity Portfolio Management: \$1B+ TAM

Growth Drivers

Asset Owners

- > **Increasingly using Factors** for portfolio construction and asset allocation

Asset Managers

- > **Portfolio customization** through end-user applications

Hedge Funds and Broker Dealers

- > **Large consumers of model data** to embed into their investment processes. Eager to consume all the new content we produce

Accelerators

Integration of **ESG and Climate** in portfolio construction

- **Client-facing applications**
- **ESG/climate/thematic** integration
- **Capabilities to customize indexes**

Content distribution through **APIs, partners and digital marketplaces**

Broad Adoption of Factors and Portfolio Customization Driving Growth

Analytics: Multi-Asset Class Solutions Well Positioned to Grow in a \$2B+ TAM

Growth Drivers

Multi-Asset Class Portfolio Management



Large demand for **multi-asset solutions** from **institutional and individual** investors

Multi-Asset Class Risk Management



Demand for solutions to new problems from **asset managers and asset owners**
Need to **innovate, decrease complexity and achieve scale**

Accelerators

- **Tools for multi-asset solution managers**
- **Asset allocation solutions for asset owners**
- **Mass portfolio personalization for wealth managers**
- Solutions for **liquidity, climate change, long horizon risk, private asset investing** and **new regulations**
- Models and analytics through **cloud-hosted APIs** and **integration with clients' infrastructure**

Solving Two Critical Needs: Building MAC Portfolios and Managing Portfolios across Asset Classes

Analytics: Fast Growth Potential in Fixed Income Portfolio Management

Key Drivers

- **Systematic investing in fixed income is growing** as data becomes widely available and price transparency improves
- Fixed income investors **need to integrate ESG/Climate considerations**

Key Opportunities

- **Estimated \$200M opportunity** to help **asset owners and asset managers** build fixed income portfolios
- Expansion into **insurance companies**

3Q2022 Results

- **Approximately 20% YoY run rate growth in 3Q22** for Fixed Income Analytics¹
- Resulted from **cross-selling** fixed income teams of our large **multi-asset class client base**, as well as **winning new clients**

MSCI is Offering Differentiated Solutions

Developed Closely with Clients to Solve Unmet Needs

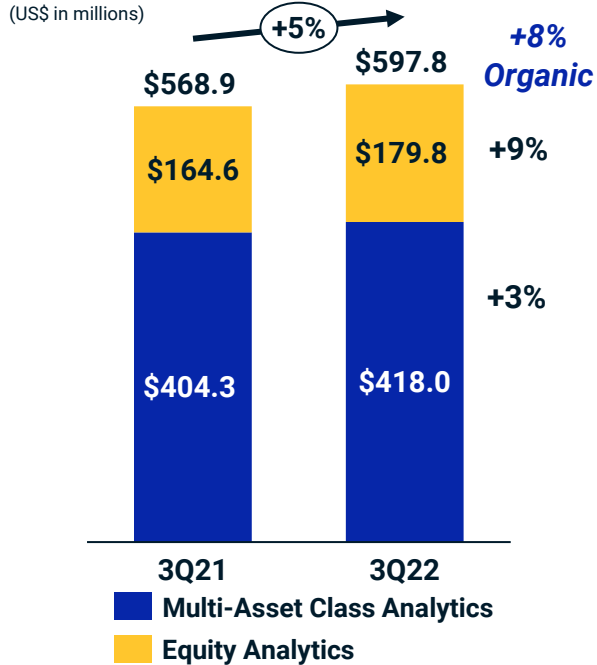
Distributed through Order Management System, which Simplifies Workflows and Creates Consistency

Will be Integrated with MSCI Fixed Income Indexes and ESG/Climate Data, which are Competitive Differentiators

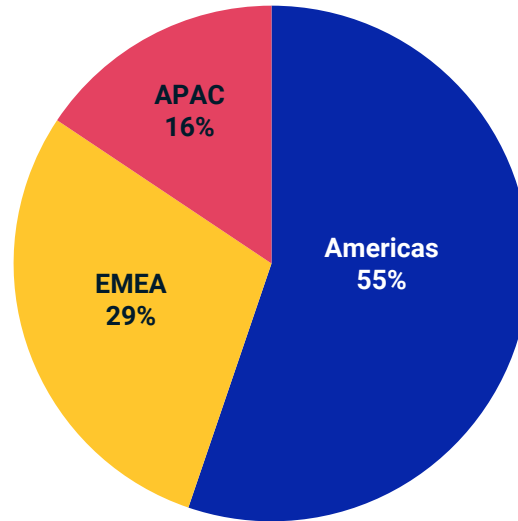
Investors are Demanding Innovative Solutions and Better Service

Analytics Segment at a Glance

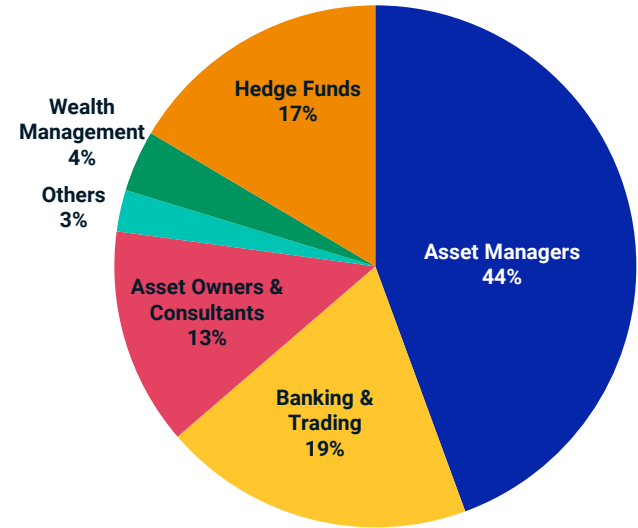
Analytics Run Rate



Analytics Run Rate as of 09/30/2022 by Geography



Analytics Run Rate as of 09/30/2022 by Client base



ESG & Climate: A Pioneer and Market Leader

Setting Standards and Providing a Common Language

45+ years experience in objectively measuring and modeling ESG characteristics¹

1,500+ MSCI ESG equity and fixed income indexes²

Deep integration across MSCI products catering to the investment value chain

950+ ESG & Climate employees including experts and technologists providing the most efficient investment signals

Extensive set of solutions for ESG and Climate integration

Leadership and Depth of Coverage:

■ ESG Indexes:

- #1 ESG Index Provider by Equity ETF Assets Linked to its ESG Indexes³;
- \$740B in institutional, retail and ETF assets benchmarked to MSCI ESG & Climate Indexes as of 12/31/21

■ ESG Ratings & Data:

- All of the top 50 Asset Managers⁴ leverage MSCI ESG Research Products;
- ~3,000 ESG Clients⁵ Globally with Coverage of 16,650+ Issuers and 791,500+ Securities,
- Approximately 20% penetration of UN-PRI signatories⁶

■ Climate Data & Analytics:

- Climate Data Provider to 46 of the World's Top 50 Asset Managers⁷;
- 1,000+ Climate Change Metrics, Covering 11,000+ Issuers⁸

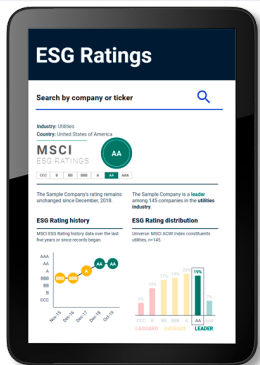
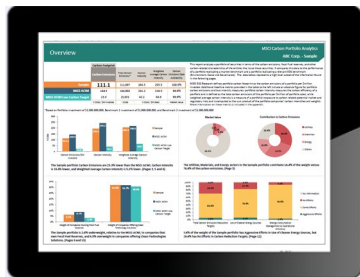
■ Climate Indexes:

- #1 Climate Index Provider by Equity Assets Linked to its Climate Indexes⁹

Multiple Years of Creating a Comprehensive Ecosystem

¹ Through MSCI legacy companies KLD, Innovest, IRRIC, and GMI Ratings; ² Source MSCI Inc. as of June 2022; ³ Data based on Refinitiv Universe as of June 2022, only primary listings, and not cross-listings; ⁴MSCI ESG solutions are used by 50 of the top 50 world's largest Asset Managers as determined by Willis Towers Watson report "The world's largest 500 asset managers, Joint study with Pensions & Investments." AUM and rankings calculated as of December 2020. Report published October 2021"; ⁵ To calculate the number of clients, we use the shipping address of the ultimate customer utilizing the product, which counts affiliates, user locations or business units within a single organization as separate clients; ⁶ As of June 2022 Analysis includes ESG & Climate reportable segment "MSCI ESG Research's climate solutions are used by 46 of the top 50 world's largest Asset Managers as determined by Willis Towers Watson report "The world's largest 500 asset managers, Joint study with Pensions & Investments." AUM and rankings calculated as of December 2020. Report published October 2021"; ⁷ Source: MSCI ESG Research as of July 2022; ⁸ Data as of December 31, 2021, based on eVestment for Institutional funds, Morningstar for Retail funds and Refinitiv Universe for ETFs

ESG & Climate: Comprehensive Solutions Backed by Unique Capabilities



Financial Materiality ¹

- First ESG provider to assess companies based on industry financial materiality, dating back to 1999¹
- Focus on the issues that are most relevant to a company's core business model

Deep Knowledge

- Team of 350+ analysts vets, validates and transforms data into meaningful insight⁴
- Deep climate expertise with dedicated MSCI Climate Risk Center

Alternative data beyond corporate disclosure

- On average, 37% of the data to determine a corporate MSCI ESG Rating is derived from alternative sources²
- Leverage technology and AI to increase timeliness and precision of data collection and analysis

Broad ESG and Climate coverage

- Broad ESG Ratings coverage with 90% of equity and fixed income market value³
- Provide consistent solutions across investment instruments

Leading Technology

- Approximately 250 Technologists dedicated to ESG and Climate⁴
- 100+ data scientists develop robust models turning unstructured data into meaningful output⁴

Unique Track Record⁵

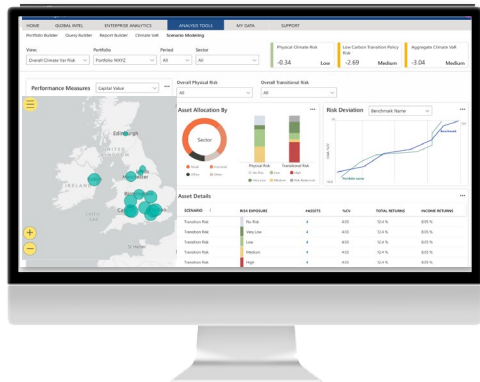
- Extensive track record, analyzed by multiple academic studies
- Tried and tested solution

“One way out of the dilemma of uncorrelated ratings is to use the one with the most predictive power, which they found to be MSCI ESG Ratings” Linda-Eling Lee⁶

¹ Origins of MSCI ESG Ratings from 1999; Financial materiality - ratings focus key ESG issues that could become financially material over the medium to long term ² MSCI ESG Research: 2,879 constituents of the MSCI ACWI Index as of January 2021; ³ Source: MSCI ESG Research as of as of June 2022, coverage subject to change; ⁴ Source: MSCI ESG Research as of June 2022. Includes full time employees, employees of foreign affiliates providing investment advisory services to MSCI ESG Research LLC, and global allocated staff performing non-investment advisory tasks; ⁵ Serafeim, G & Yoon, A, (2021). [Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreement](#) Harvard Business School Accounting & Management Unit; ⁶ Linda-Eling Lee's February 2021 comment on the results of the Serafeim, G & Yoon, A, (2021) paper

Climate: Tools to Help Investors Identify, Measure and Monitor Risks and Opportunities from Climate Change and the Net Zero Revolution

Integration and Analysis of Climate Exposure



- **Measure and monitor the carbon emissions of issuers and portfolio companies**
- Broad asset class offering including **Carbon Footprinting of Private Equity and Debt Funds** launched by MSCI and The Burgiss Group, LLC
- Tools to help investors monitor **climate transition** and **physical risks**, including leaders and laggards in the portfolio, and advance their net zero strategy

Forward-Looking Climate Insights

Implied Temperature Rise (ITR) provides a forward-looking portfolio level metric in degrees Celsius demonstrating how aligned the companies in the portfolio are to global temperature targets

Implied Temperature Rise

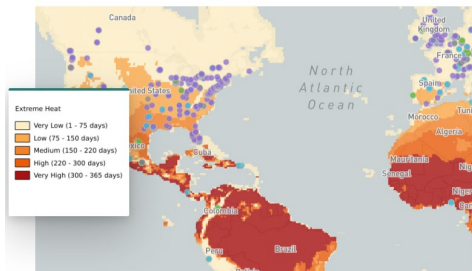
Portfolio

2.06°C



Benchmark

2.96°C



Cloud-native platforms Climate Models and Metrics



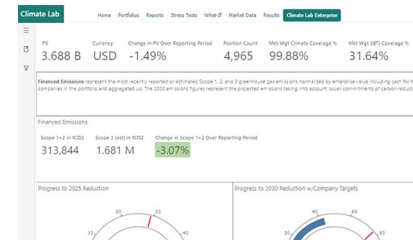
Carbon Emissions & Foot Printing



Physical Risk Assessment
Low Carbon Transition Risk



MSCI Climate Scenario Analysis (Climate VaR)

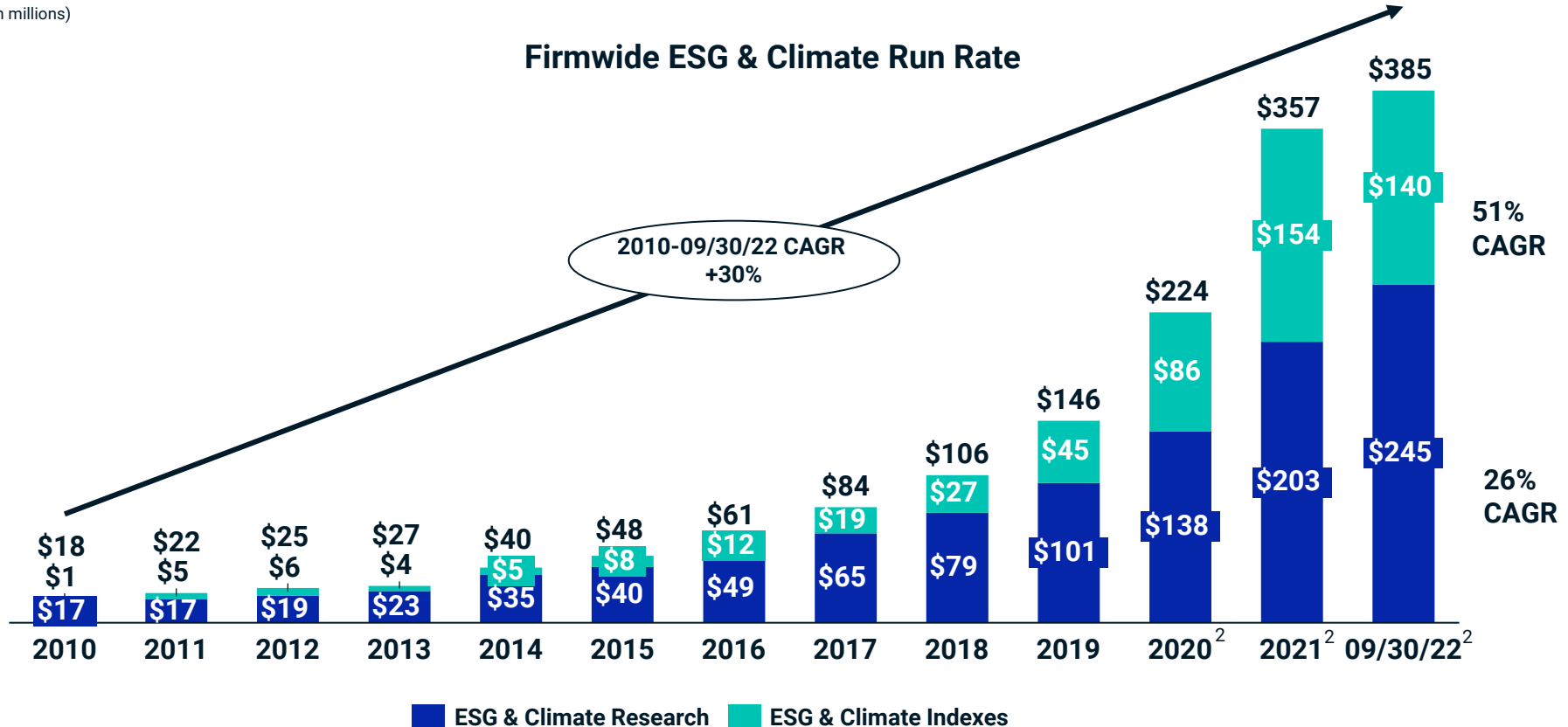


MSCI Climate Lab - a new application that provides investors with the data and tools to track and assess companies' progress towards net-zero commitments and align their portfolios with climate targets

ESG & Climate: Continued Growth Across Firmwide Franchise

(US\$ in millions)

Firmwide ESG & Climate Run Rate



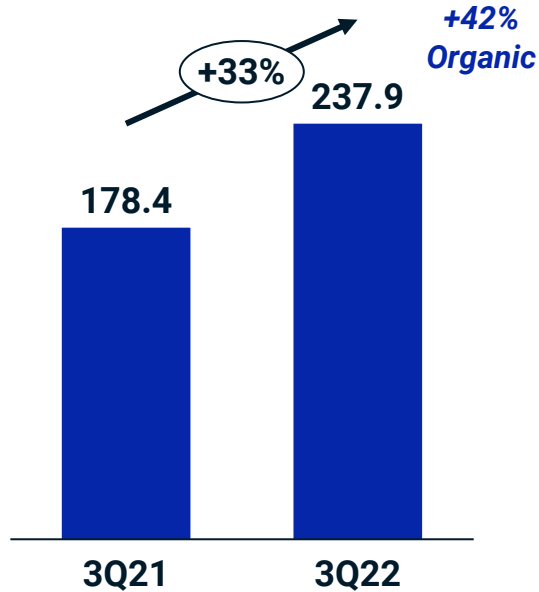
(1) Includes ESG & Climate Research Run Rate, reported in the ESG & Climate segment, and ESG & Climate related Index subscription and asset-based fees Run Rate reported in the Index segment.

(2) Includes ESG & Climate Run Rate in Analytics and Real Assets Segments

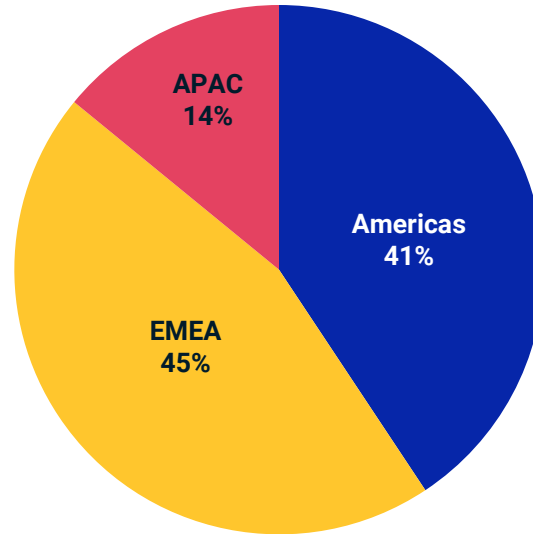
ESG & Climate Segment at a Glance

ESG & Climate Segment Run Rate

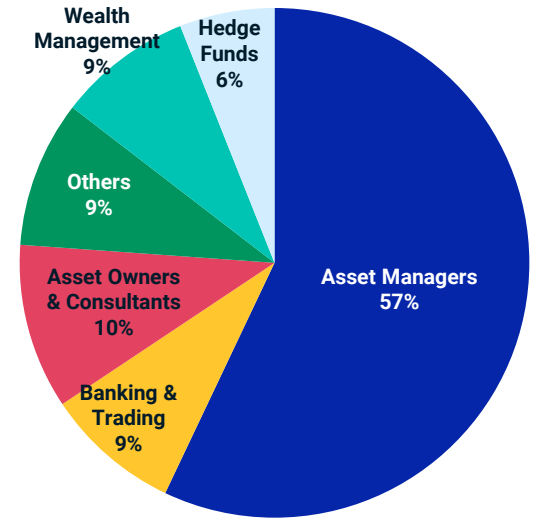
(US\$ in millions)



ESG & Climate Run Rate as of 09/30/2022 by Geography



ESG & Climate Run Rate as of 09/30/2022 by Client base



Our Real Assets Solutions

Market Data Products

Timely and reliable source of truth for CRE pricing, capital flows, investment trends and broker ranking

- SaaS-based platform integrated into daily workflow of brokers & agents, investors & owners and lenders & originators
- Measuring \$40T+ of capital transactions covering property transactions, Mortgage Debt Intelligence® and Construction Starts Data
- Profiles on over 200,000+ investors, lenders, brokers and deal participants
- MSCI Real Capital Analytics CPPI™ Commercial Property Prices Indexes
- Leasing details in selected countries

Portfolio Services Products

Analytics and reporting solutions for private portfolio & market benchmark fundamentals and investment metrics spanning:

- Headline Performance & Risk compared with industry standard or custom benchmarks
- Attribution of Property Portfolio, Fund, Asset and Tenancy performance
- Real Estate Climate Value-at-Risk (Climate VaR), providing forward-looking return-based valuation assessment and systematic disclosure tools
- Forward-looking Income Risk Monitoring and Property or Tenant Due Diligence assessment (INCANS)

MSCI Property Indexes and Property Fund Indexes

Enable investors to measure performance and risk of direct real estate investments from \$2T of underlying assets

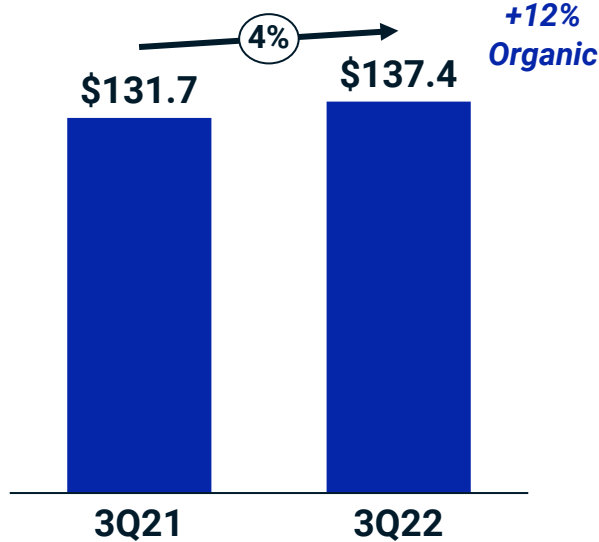
- MSCI Global Property Index (GPI)
- Asia Pacific, North America, EMEA regional indexes plus sub-regional composites
- MSCI Property Indexes for 30+ countries

60+ headlined indexes • 2000+ clients • 170+ countries • 600+ data contributors

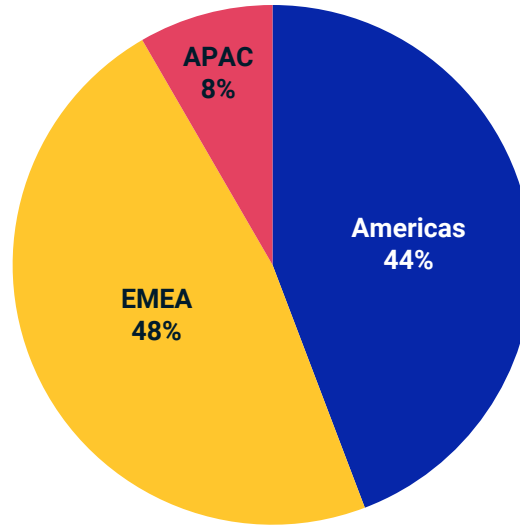
All Other– Private Assets Segment at a Glance

All Other – Private Assets Run Rate

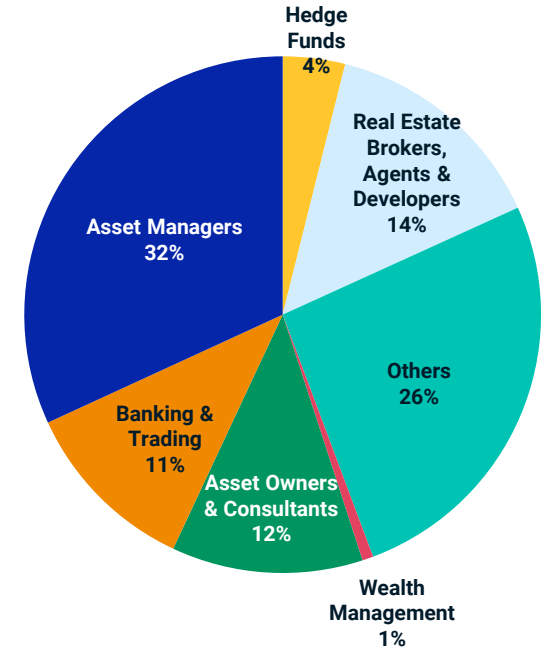
(US\$ in millions)



All other- Private Assets Run Rate as of 09/30/2022 by Geography



All other- Private Assets Run Rate as of 09/30/2022 by Client base

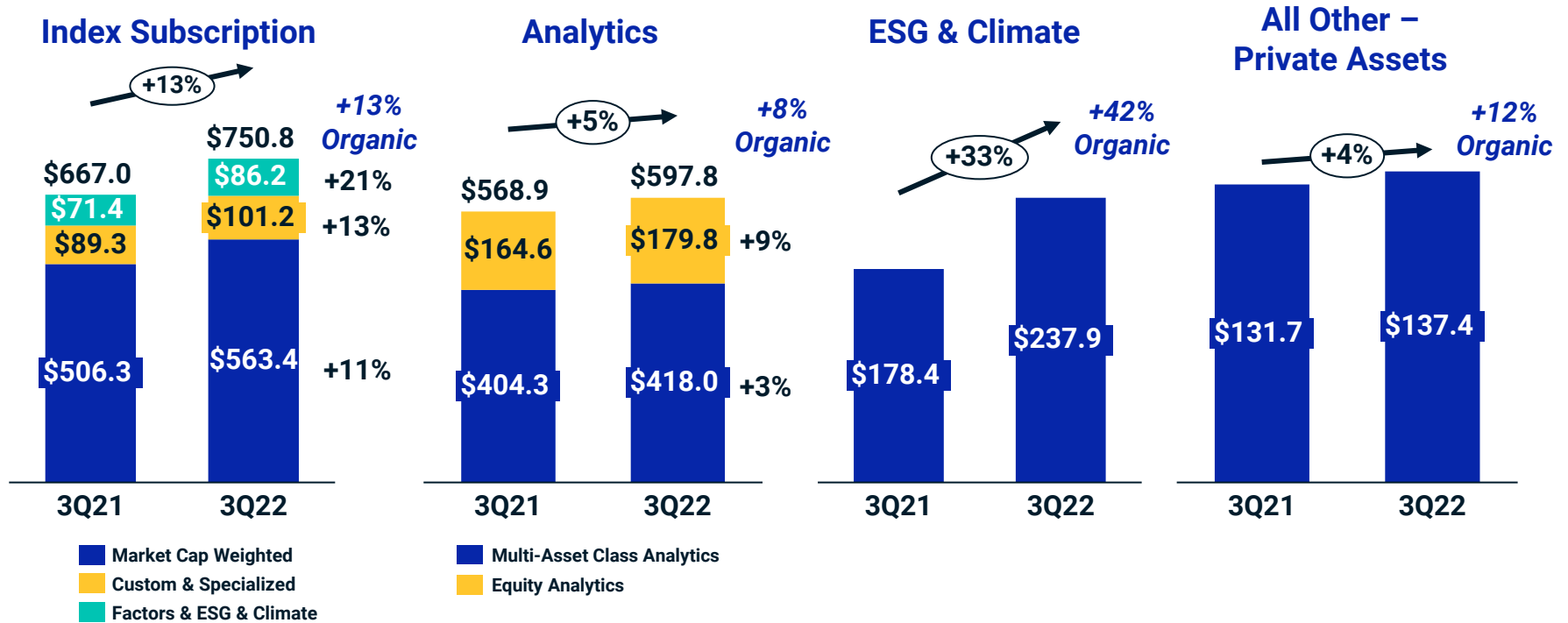


Appendix



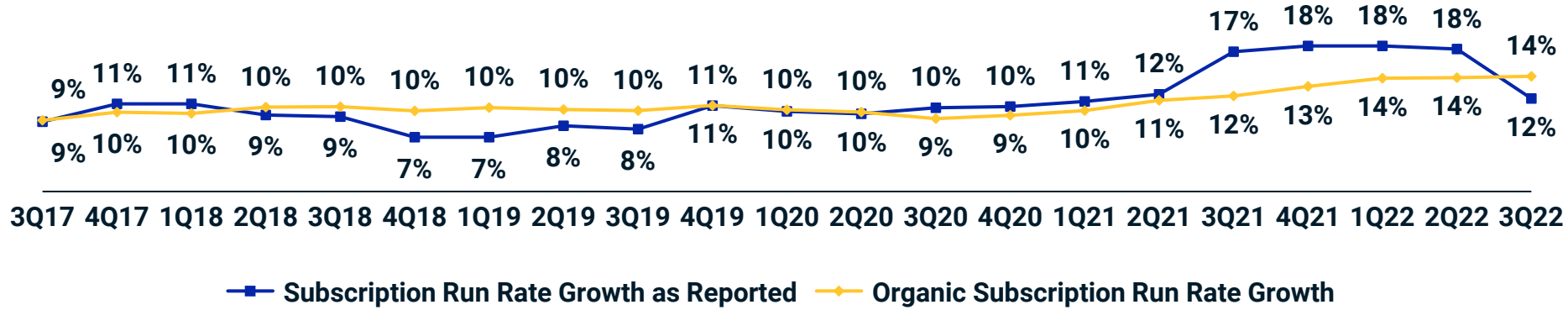
3Q22: Organic Subscription Run Rate Growth of 14%

(US\$ in millions)

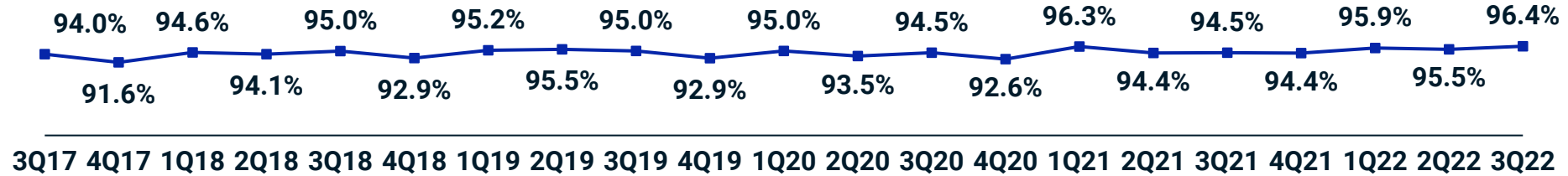


Continued Resilient Key Operating Metrics

YoY Subscription Run Rate Growth (as Reported and Organic)

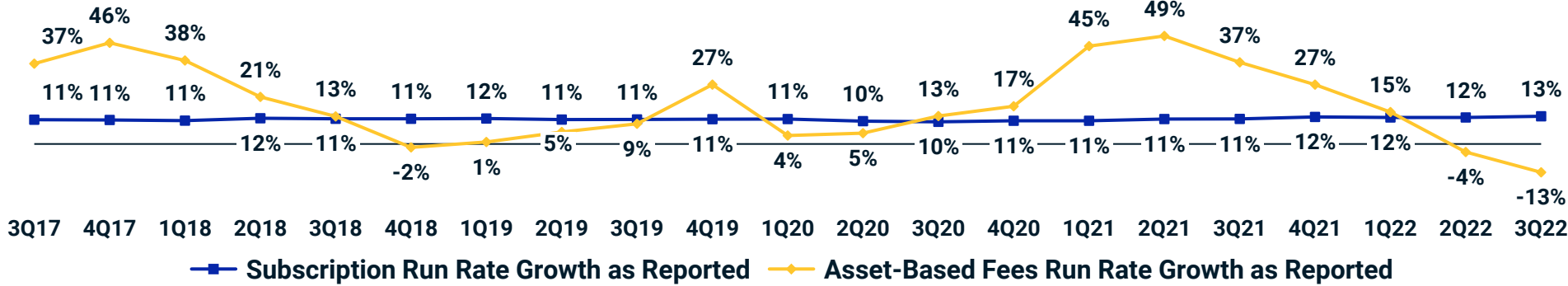


Quarterly Retention Rate Trends

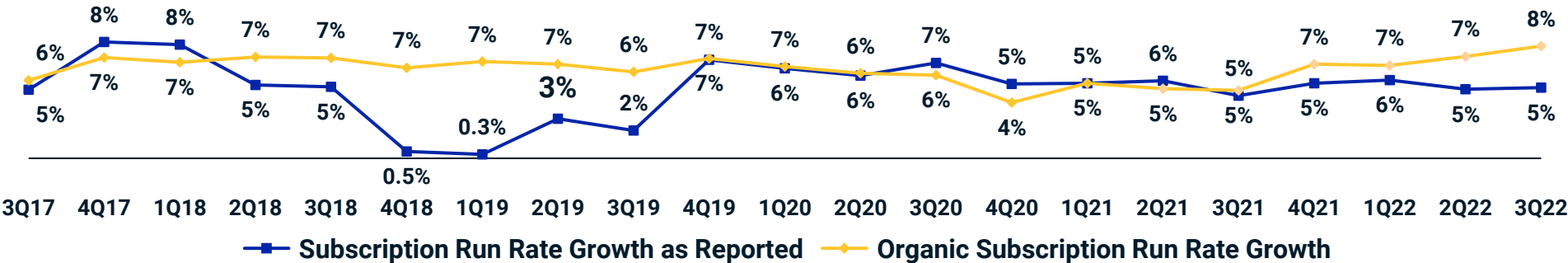


3Q17 to 3Q22 YoY Segment Run Rate Growth

Index

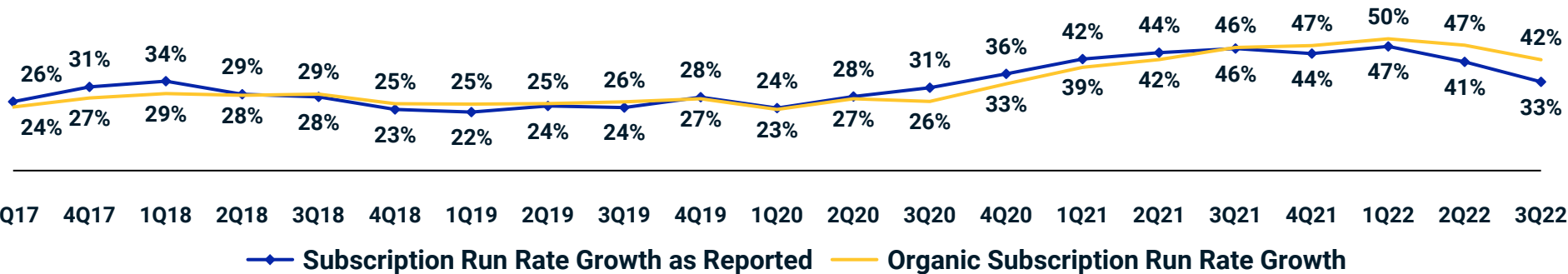


Analytics

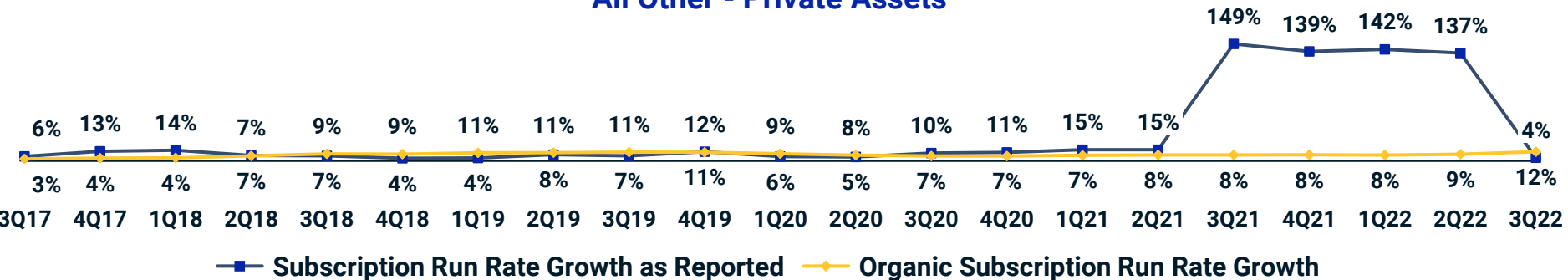


3Q17 to 3Q22 YoY Segment Run Rate Growth

ESG & Climate



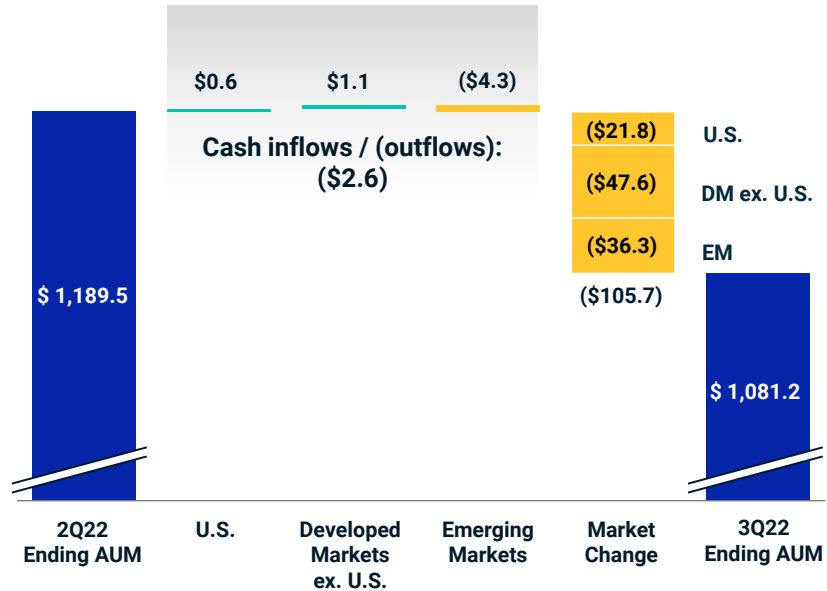
All Other - Private Assets



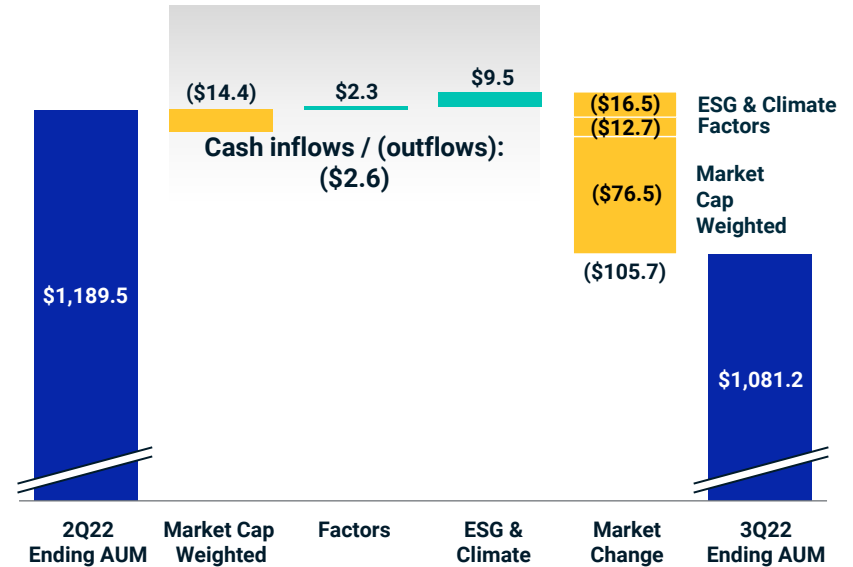
3Q22 QoQ AUM Drivers: MSCI-Linked Equity ETFs

(US\$ in billions)

By Geographic Exposure



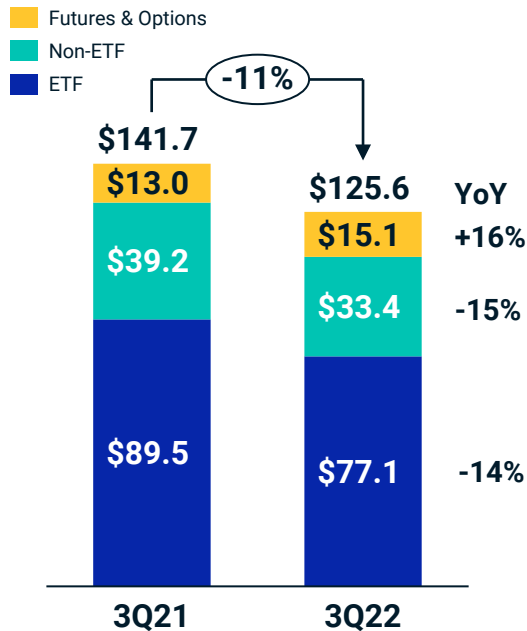
By Product



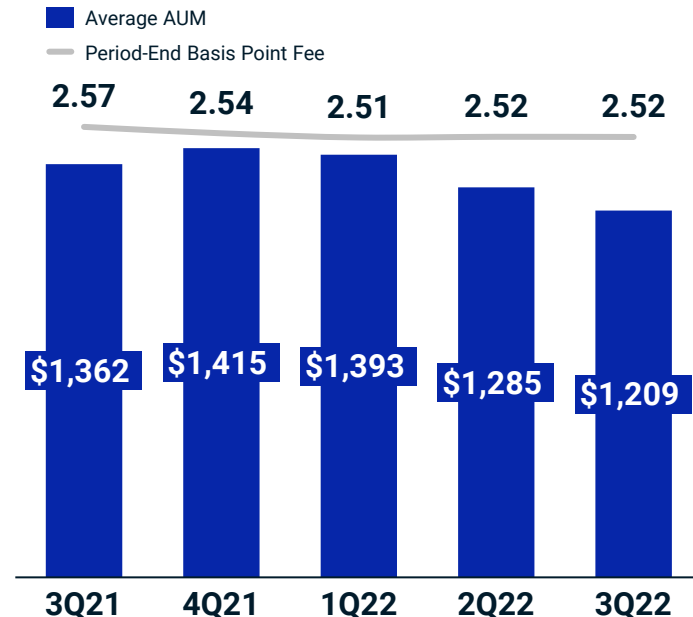
Index Segment: Asset-Based Fees Details

(US\$ in millions, except AUM in billions and Average BPS)

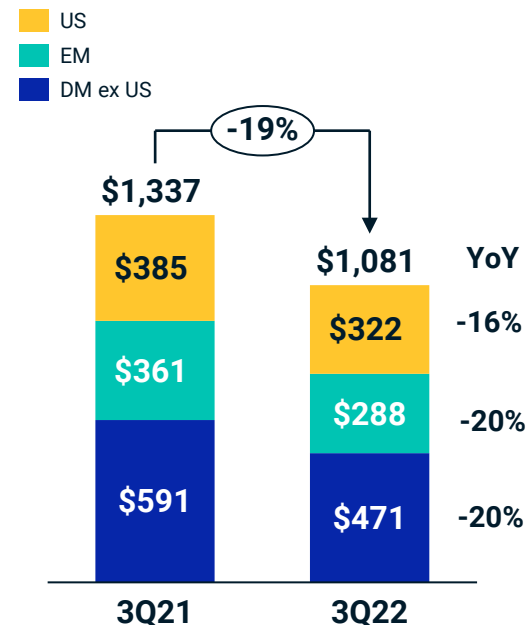
Asset-based Fees (ABF) Revenue



Quarterly Average AUM and Period-End Basis Point Fee¹ of ETFs linked to MSCI Equity Indexes



Quarter-End AUM by Market Exposure² of ETFs linked to MSCI Equity Indexes



¹Based on period-end Run Rate for ETFs linked to MSCI equity indexes using period-end AUM. Please refer to Table 7: AUM in ETFs Linked to MSCI equity Indexes (unaudited) of the press release reporting MSCI's financial results for third quarter 2022.

²US = ETFs linked to MSCI equity indexes, the majority of whose weight is comprised of securities in MSCI Developed Market (DM) countries, primarily or exclusively in the US; DM ex US = ETFs linked to MSCI equity indexes, the majority of whose weight is comprised of securities in MSCI DM countries other than the US; EM = ETFs linked to MSCI equity indexes, the majority of whose weight is comprised of securities that are not in MSCI DM countries. Note: The AUM in equity ETFs also includes AUM in Exchange Traded Notes, the value of which is less than 1.0% of the AUM amounts presented.

Use of Non-GAAP Financial Measures

- MSCI has presented supplemental non-GAAP financial measures as part of this earnings release. Reconciliations are provided in Slides 54 through 61 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 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 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 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 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.

Use of Operating Metrics

- MSCI has presented supplemental key operating metrics as part of this earnings presentation, 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 cancel. 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 Estate 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-sale 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, including the acquisition of RCA completed on September 13, 2021. 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.

Reconciliation of Adjusted EBITDA to Net Income (Unaudited)

In thousands	Year Ended				
	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017
Consolidated adjusted EBITDA	1,196,790	971,510	850,499	772,433	659,757
Amortization of intangible assets	80,592	56,941	49,410	54,189	44,547
Depreciation and amortization of property, equipment and leasehold improvements	28,901	29,805	29,999	31,346	35,440
Impairment related to sublease of leased property	7,702				
Acquisition-related integration and transaction costs ⁽¹⁾	6,870	—	—	—	—
Multi-Year PSU payroll tax expense	-	—	15,389	—	—
Operating income	1,072,725	884,764	755,701	686,898	579,770
Other expense (income), net	214,589	198,539	152,383	57,002	112,871
Provision for income taxes	132,153	84,403	39,670	122,011	162,927
Net income	\$ 725,983	\$ 601,822	\$ 563,648	\$ 507,885	\$ 303,972

⁽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.

Reconciliation of Adjusted EBITDA to Net Income (cont'd) (Unaudited)

In thousands	Three Months Ended		Nine Months Ended		TTM
	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022
Consolidated adjusted EBITDA	340,961	306,595	990,649	878,130	1,309,309
Amortization of intangible assets	23,375	14,105	67,274	59,569	88,297
Depreciation and amortization of property, equipment and leasehold improvements	7,127	6,809	20,426	20,972	28,355
Impairment related to sublease of leased property	—	—	—	—	7,702
Acquisition-related integration and transaction costs ⁽¹⁾	928	5,451	4,059	5,451	5,478
Operating income	309,531	280,230	898,890	792,138	1,179,477
Other expense (income), net	40,327	79,580	120,711	179,765	155,535
Provision for income taxes	52,612	30,774	122,577	80,255	174,475
Net income	\$ 216,592	\$ 169,876	\$ 655,602	\$ 532,118	\$ 849,467

⁽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.

Reconciliation of Adjusted EBITDA Expenses to Operating Expenses (Unaudited)

In thousands	Three Months Ended		Nine Months Ended		Full-Year
	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022	Sep. 30 2021	2022 Outlook(1)
Index adjusted EBITDA expenses	\$ 76,273	\$ 75,916	\$ 236,936	\$ 221,023	
Analytics adjusted EBITDA expenses	77,281	86,007	244,912	260,381	
ESG and Climate adjusted EBITDA expenses	41,685	33,871	122,418	97,164	
All Other - Private Assets adjusted EBITDA expenses	24,439	14,710	77,475	37,004	
Consolidated adjusted EBITDA expenses	219,678	210,504	681,741	615,572	\$910,000 - \$940,000
Amortization of intangible assets	23,375	14,105	67,274	59,569	
Depreciation and amortization of property, equipment and leasehold improvements	7,127	6,809	20,426	20,972	\$110,000 - \$120,000
Acquisition-related integration and transaction costs(2)	928	5,451	4,059	5,451	
Total operating expenses	\$ 251,108	\$ 236,869	\$ 773,500	\$ 701,564	\$1,030,000 - \$1,060,000

(1) We have not provided a full line-item reconciliation for adjusted EBITDA expenses to total operating expenses for this future period because we are not able to guidance on the individual reconciling items between total operating expenses and adjusted EBITDA expenses. We believe the impact and timing of these potential future items are inherently uncertain and difficult to predict and are unavailable without unreasonable efforts.

(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.

Reconciliation of Net Income and Diluted EPS to Adjusted Net Income and Adjusted EPS (Unaudited)

In thousands, except per share data	Year Ended				
	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017
Net income	\$ 725,983	\$ 601,822	\$ 563,648	\$ 507,885	\$ 303,972
Plus: Amortization of acquired intangible assets and equity method investment basis difference	47,001	37,413	34,773	43,981	39,157
Plus: Multi-Year PSU payroll tax expense	—	—	15,389	—	—
Less: Discrete excess tax benefit related to Multi-Year PSU vesting	—	—	(66,581)	—	—
Plus: Debt extinguishment costs associated with the 2024, 2025, 2026 and 2027 Senior Notes Redemptions	59,104	44,930	16,794	—	—
Plus: Write-off of internally developed capitalized software	16,013	—	—	—	—
Plus: Impairment related to sublease of leased property(1)	8,702	—	—	—	—
Plus: Acquisition-related integration and transaction costs(2)(3)	7,041	—	—	—	—
Less: Gain from changes in ownership interest of equity method investee	(6,972)	—	—	—	—
Less: Gain on sale of Alacra (not tax effected)	—	—	—	—	(771)
Less: Gain on sale of FEA (not tax effected)	—	—	—	(10,646)	—
Less: Gain on sale of InvestorForce	—	—	—	(46,595)	—
Less: Valuation Allowance released related to InvestorForce disposition	—	—	—	(7,758)	—
Less: Tax Reform adjustments	—	(6,256)	—	(8,272)	34,500
Less: Income tax effect	(26,462)	(16,490)	(13,226)	1,678	(10,772)
Adjusted net income	\$ 830,410	\$ 661,419	\$ 550,797	\$ 480,273	\$ 366,086
Diluted EPS	\$ 8.70	\$ 7.12	\$ 6.59	\$ 5.66	\$ 3.31
Plus: Amortization of acquired intangible assets and equity method investment basis difference	0.56	0.44	0.41	0.49	0.43
Plus: Multi-Year PSU payroll tax expense	—	—	0.18	—	—
Less: Discrete excess tax benefit related to Multi-Year PSU vesting	—	—	(0.78)	—	—
Plus: Debt extinguishment costs associated with the 2024, 2025, 2026 and 2027 Senior Notes Redemptions	0.71	0.53	0.20	—	—
Plus: Write-off of internally developed capitalized software	0.19	—	—	—	—
Plus: Impairment related to sublease of leased property(1)	0.10	—	—	—	—
Plus: Acquisition-related integration and transaction costs(2)(3)	0.08	—	—	—	—
Less: Gain from changes in ownership interest of equity method investee	(0.08)	—	—	—	—
Less: Gain on sale of Alacra (not tax effected)	—	—	—	—	(0.01)
Less: Gain on sale of FEA (not tax effected)	—	—	—	(0.12)	—
Less: Gain on sale of InvestorForce	—	—	—	(0.52)	—
Less: Valuation Allowance released related to InvestorForce disposition	—	—	—	(0.09)	—
Plus: Tax Reform adjustments	—	(0.07)	—	(0.09)	0.38
Less: Income tax effect	(0.31)	(0.19)	(0.16)	0.02	(0.13)
Adjusted EPS	\$ 9.95	\$ 7.83	\$ 6.44	\$ 5.35	\$ 3.98

Reconciliation of Net Income and Diluted EPS to Adjusted Net Income and Adjusted EPS (cont'd) (Unaudited)

	Three Months Ended		Nine Months Ended		TTM
	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022
In thousands, except per share data					
Net income	\$ 216,592	\$ 169,876	\$ 655,602	\$ 532,118	\$ 849,467
Plus: Amortization of acquired intangible assets and equity method investment basis difference	16,811	10,792	50,564	29,915	67,650
Plus: Acquisition-related integration and transaction costs (1)(2)	928	5,451	4,220	5,451	5,810
Plus: Debt extinguishment costs associated with the 2025 and 2026 Senior Notes Redemptions	—	37,312	—	59,104	—
Plus: Write-off of internally developed capitalized software	—	—	—	16,013	—
Plus: Impairment related to sublease of leased property	—	—	—	—	8,702
Less: Gain from changes in ownership interest of equity method investee	—	—	—	—	(6,972)
Less: Income tax effect	(3,537)	(12,143)	(8,630)	(21,966)	(13,126)
Adjusted net income	\$ 230,794	\$ 211,288	\$ 701,756	\$ 620,635	\$ 911,531
Diluted EPS	\$ 2.68	\$ 2.03	\$ 8.05	\$ 6.38	\$ 10.37
Plus: Amortization of acquired intangible assets and equity method investment basis difference	0.21	0.13	0.62	0.36	0.82
Plus: Acquisition-related integration and transaction costs(1)(2)	0.01	0.07	0.05	0.07	0.06
Plus: Debt extinguishment costs associated with the 2025 and 2026 Senior Notes Redemptions	—	0.45	—	0.71	—
Plus: Write-off of internally developed capitalized software	—	—	—	0.19	—
Plus: Impairment related to sublease of leased property	—	—	—	—	0.10
Less: Gain from changes in ownership interest of equity method investee	—	—	—	—	(0.08)
Less: Income tax effect	(0.05)	(0.15)	(0.11)	(0.27)	(0.15)
Adjusted EPS	\$ 2.85	\$ 2.53	\$ 8.61	\$ 7.44	\$ 11.12

(1) Acquisition-related integration and transaction costs of \$0.9 million and \$4.1 million are presented within "General and administrative" expenses and \$0 million and \$0.2 million are presented within "Depreciation and amortization of property, equipment and leasehold improvements" expenses for the three and nine months ended September 30, 2022, respectively.

(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.

Reconciliation of Net Cash Provided by Operating Activities to Free Cash Flow (Unaudited)

In thousands	Year Ended				
	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017
Net cash provided by operating activities	\$ 936,069	\$ 811,109	\$ 709,523	\$ 612,762	\$ 404,158
Capital expenditures	(13,509)	(21,826)	(29,116)	(30,257)	(33,177)
Capitalized software development costs	(39,285)	(29,149)	(24,654)	(18,704)	(15,640)
Capex	(52,794)	(50,975)	(53,770)	(48,961)	(48,817)
Free cash flow	\$ 883,275	\$ 760,134	\$ 655,753	\$ 563,801	\$ 355,341

In thousands	Three Months Ended		Nine Months Ended		TTM	Full-Year
	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022	Sep. 30 2021	Sep. 30 2022	2022 Outlook(1)
Net cash provided by operating activities	\$ 323,069	\$ 215,891	\$ 779,942	\$ 656,405	\$ 1,059,606	\$1,100,000 - \$1,140,000
Capital expenditures	(3,275)	(4,646)	(8,012)	(7,119)	(14,402)	
Capitalized software development costs	(14,726)	(10,141)	(44,425)	(29,078)	(54,632)	
Capex	(18,001)	(14,787)	(52,437)	(36,197)	(69,034)	(\$75,000 - \$65,000)
Free cash flow	\$ 305,068	\$ 201,104	\$ 727,505	\$ 620,208	\$ 990,572	\$1,025,000 - \$1,075,000

(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 do not provide guidance on the individual reconciling items between net cash from operating activities and free cash flow. We believe the impact and timing of these potential future items are inherently uncertain and difficult to predict and are unavailable without unreasonable efforts.

Third Quarter 2022 Reconciliation of Operating Revenue Growth to Organic Operating Revenue Growth (UNAUDITED)

Comparison of the Three Months Ended September 30, 2022 and 2021				
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
Index	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	0.2 %	12.2 %	(11.4)%	(23.2)%
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	0.5 %	0.7 %	0.2 %	(0.2)%
Organic operating revenue growth	0.7 %	12.9 %	(11.2)%	(23.4)%
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Analytics				
Operating revenue growth	6.3 %	6.3 %	— %	9.4 %
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	1.2 %	1.1 %	— %	6.4 %
Organic operating revenue growth	7.5 %	7.4 %	— %	15.8 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
ESG and Climate				
Operating revenue growth	31.8 %	32.3 %	— %	13.0 %
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	14.4 %	14.6 %	— %	8.6 %
Organic operating revenue growth	46.2 %	46.9 %	— %	21.6 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
All Other - Private Assets				
Operating revenue growth	130.0 %	130.8 %	— %	63.0 %
Impact of acquisitions and divestitures	(116.1)%	(117.5)%	— %	— %
Impact of foreign currency exchange rate fluctuations	16.7 %	16.7 %	— %	13.7 %
Organic operating revenue growth	30.6 %	30.0 %	— %	76.7 %
	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Consolidated				
Operating revenue growth	8.4 %	17.5 %	(11.4)%	(16.4)%
Impact of acquisitions and divestitures	(3.5)%	(5.1)%	— %	— %
Impact of foreign currency exchange rate fluctuations	2.3 %	3.2 %	0.2 %	1.3 %
Organic operating revenue growth	7.2 %	15.6 %	(11.2)%	(15.1)%

Nine Months 2022 Reconciliation of Operating Revenue Growth to Organic Operating Revenue Growth (UNAUDITED)

Comparison of the Nine Months Ended September 30, 2022 and 2021

Index	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	5.9 %	12.3 %	(0.4)%	(10.2)%
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	0.3 %	0.5 %	0.2 %	— %
Organic operating revenue growth	6.2 %	12.8 %	(0.2)%	(10.2)%

Analytics	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	5.0 %	5.2 %	— %	(7.4)%
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	0.8 %	0.8 %	— %	3.7 %
Organic operating revenue growth	5.8 %	6.0 %	— %	(3.7)%

ESG and Climate	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	39.9 %	39.6 %	— %	54.7 %
Impact of acquisitions and divestitures	— %	— %	— %	— %
Impact of foreign currency exchange rate fluctuations	9.5 %	9.5 %	— %	7.6 %
Organic operating revenue growth	49.4 %	49.1 %	— %	62.3 %

All Other - Private Assets	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	115.5 %	119.8 %	— %	(28.5)%
Impact of acquisitions and divestitures	(115.8)%	(119.3)%	— %	— %
Impact of foreign currency exchange rate fluctuations	12.0 %	12.2 %	— %	4.4 %
Organic operating revenue growth	11.7 %	12.7 %	— %	(24.1)%

Consolidated	Total	Recurring Subscription	Asset-Based Fees	Non-Recurring Revenues
	Change Percentage	Change Percentage	Change Percentage	Change Percentage
Operating revenue growth	12.0 %	17.6 %	(0.4)%	(6.9)%
Impact of acquisitions and divestitures	(3.9)%	(5.5)%	— %	— %
Impact of foreign currency exchange rate fluctuations	1.6 %	2.1 %	0.2 %	1.1 %
Organic operating revenue growth	9.7 %	14.2 %	(0.2)%	(5.8)%