

# Accelerating insight and discovery through data

# Featuring:

Sanjay Nagamangalam, Program Management Lead for Data Technologies and OneMSCI platform, MSCI

Q:

Where is the industry currently headed with technology?

### Sanjay Nagamangalam:

William Edwards Deming famously said: "In God we trust. All others must bring data."

The financial industry is being disrupted at a rapid pace – it's abuzz with innovations. Companies that succeed are those that put data and functionality in clients' hands quickly. Data is increasingly becoming a part of an investor's daily life. We live amid a data deluge and an information drought. Investors still struggle to bring in the relevant bits of timely, accurate and actionable information out of very large and disparate data sets, to help drive better, more informed and more sustainability-oriented decisions.

The gold standard for our industry is delivering accurate data and the tools to help investors understand their portfolios through that data, at speed. Our industry's being disrupted, like every other, and MSCI is at the forefront of this disruption. We help our clients harness a deluge of data to create intelligent, actionable insights, and turbocharge discovery.

Q:

How is MSCI delivering on where the industry is headed?

#### Sanjay Nagamangalam:

My dad in India recently asked me: what is it that we do at MSCI? Here's what I said: MSCI uses the latest technology to enrich vast amounts of data that the investment community depends on, to help humans invest more profitably, responsibly and sustainably for our planet. He loved that answer!

Nearly every domain and every industry is undergoing a digital transformation, and data and technology are playing a foundational role in this transformation. Data and machine learning are rapidly changing the world of finance, and MSCI is leading the charge. Data is the key ingredient for everything we do at MSCI. We take raw, commoditized data, from many disparate sources, and transform this data into cohesive, high-quality content, that our clients can use for actionable insights at every stage in their investment journey.

Our expertise in research, data and technology helps power better investment decisions by enabling our clients to understand and analyse key drivers of risk and return, and confidently build more effective portfolios. We create industry-leading research enhanced solutions that our clients use to gain insights and improve transparency across the investment process.



Q:

What should clients know about MSCI's technologies?

# Sanjay Nagamangalam:

We have a principle for technology at MSCI: client success comes first, and the technology follows. Any technology we use exists to serve our clients use cases. We optimize our technology for scope, scale, speed and competitive differentiation. We constantly push to envelope to embrace technologies that help us maintain our clients' competitive edge. We extensively use the cloud, cutting-edge natural language processing, machine learning, and are investing deeply in large data lakes and .... Solutions in the cloud, together with a variety of other technologies, to manage the life-cycle of our data.

We collect data across a vast domain, while ensuring the highest levels of precision and relevance in a very timely fashion. We put data into context and derive rich insights. Our clients can easily consume our data and insights in a manner that suits them. Clients can easily integrate our solutions into their world, on their terms and at their pace.

Q:

How is MSCI's approach to Data different from the competition?

#### Sanjay Nagamangalam:

Our key differentiators include our technology, our intellectual property, and high-quality datasets, deep insights into our data and models, and transparency into our methodologies. This gives our clients the freedom to integrate and consume our data on their terms.

While data forms the core of our daily lives, we are also thought leaders in a larger financial ecosystem where great ideas and great data can be assembled in new ways to create network effects and create value that can produce change for our society. MSCI is as much a data company as we are a technology, financial content and intellectual property company. We power better investment decisions for a better world



## About MSCI

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.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABLITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or dients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investment swill accurately track index performance or provide positive investment returns. MSCI lnc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable productsor services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute invest ment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI ESG Research LLC collects and uses personal data concerning officers and directors, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.