

MSCI EU Taxonomy

MSCI ESG Research

November 2024



Contents

Summary
MSCI EU Taxonomy alignment criteria3
Substantial Contribution to Environmental Objectives
Do No Significant Harm5
Minimum Safeguards6
Research process overview
Data sources
Coverage universe7
Quality assurance process7
Ongoing monitoring and update cycle7
MSCI Sustainable Impact Metrics7
MSCI ESG Controversies and Global Norms
BISR (including Tobacco and Controversial Weapons Involvement)
Revenue estimation process
Taxonomy eligible revenue8
Eligible revenue data review9
Company-reported EU Taxonomy data9
Non-Financial Reporting Directive9
Exception from NFRD for subsidiaries10
Financial information10



Summary

The European Union taxonomy for sustainable activities (EU Taxonomy) is a classification system for environmentally sustainable economic activities. The purpose of the regulation is to enable sustainable investments and to implement the European green deal.¹

MSCI's EU Taxonomy Methodology has been designed by MSCI ESG Research in response to the EU Sustainable Finance Action Plan to identify companies generating revenue from business activities that are eligible and "potentially aligned" with the EU Taxonomy.² Revenue considered eligible for EU Taxonomy alignment is the portion of company revenue associated with activities described in the EU Taxonomy's delegated acts, regardless of whether the revenue meets any or all of the technical screening criteria set forth in the EU Taxonomy.³ Our screen for identifying potential EU Taxonomy alignment includes a list of companies and corresponding reported or estimated percentages of revenue from qualifying sustainable activities. Companies that fail to meet the Do No Significant Harm (DNSH) and Minimum Safeguard criteria established by the EU Taxonomy methodology are excluded from the list of entities identified for potential alignment with the EU Taxonomy.

This methodology document explains the screening process for data points listed in the following table, and for information about the data directly reported by companies to be EU Taxonomy eligible and aligned.

MSCI EU Taxonomy alignment criteria

MSCI EU Taxonomy Alignment Methodology identifies issuers that meet the minimum criteria (i.e., potential alignment) of the EU Taxonomy. The minimum criteria are: Substantial Contribution to Environmental Objectives, Do No Significant Harm, and Minimum Safeguards.

Substantial Contribution to Environmental Objectives

MSCI Sustainable Impact Metrics are designed to identify companies that derive revenue from products or services with a positive impact on society and the environment.⁴ Issuers that are

¹ European Commission, "EU Taxonomy for Sustainable Activities: What the EU is doing to create an EU-wide classification system for sustainable activities," https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en, last modified Dec. 3, 2021.

² A potentially aligned business activity is one that is considered aligned but that cannot be fully verified as aligned. The concept of potential alignment was introduced in the Sustainable Finance: Technical Expert Group (TEG) final report on the EU Taxonomy to acknowledge the gap in available reporting that is needed to determine whether a business activity is completely aligned with the EU Taxonomy. MSCI ESG Research is using the potential alignment approach to ensure the inclusion of all relevant companies in its screen. Sources: European Commission, *Communication from the commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions Action Plan: Financing Sustainable Growth, COM/2018/097 final; and EU Technical Expert Group on Sustainable Finance, Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance, European Commission, 2020.*

³ European Commission, Official Journal of the European Union L, "Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation," 443/9, December 10, 2021.

⁴ More details regarding the MSCI Sustainable Impact Metrics methodology can be found on MSCI's ESG Manager platform.



considered for inclusion in the screen must generate revenue from products and services that address one or more of the six environmental objectives within the EU Taxonomy. The environmental objectives listed below correspond with a number of MSCI ESG Research's Environmental Impact Solutions that are assessed under the MSCI Sustainable Impact Metrics.

Exhibit 1: EU Taxonomy environmental objectives versus MSCI Sustainable Impact Metrics
Environmental Impact Solutions

EU Taxonomy Environmental Objectives	MSCI Sustainable Impact Metrics Environmental Impact Solutions			
Climate Change Mitigation	Alternative Energy			
	Carbon Energy and Efficiency			
	Green Building			
	 Sustainable Agriculture (e.g., forest management, no-deforestation provisions) 			
	 Sustainable Water (e.g., smart metering) 			
	 Pollution Prevention (e.g., waste treatment) 			
Climate Change Adaptation	Carbon Energy and Efficiency (e.g., insulation solution)			
	Green Building			
	Sustainable Water			
Sustainable Use and	Sustainable Water			
Protection of Water and Marine Resources	Pollution Prevention & Control			
Transition to a Circular	Sustainable Water			
Economy	 Pollution Prevention & Control (e.g., recycling) 			
Pollution Prevention and	Pollution Prevention & Control			
Control	Sustainable Water			
Protection and Restoration of	Sustainable Water			
Biodiversity and Ecosystems	Sustainable Agriculture			
	Pollution Prevention & Control			



The EU has defined activities that contribute to climate change mitigation and climate change adaptation within the European Commission's Delegated Regulation 2021/2139 (the Climate Delegated Act), while details of the remaining four environmental objectives were published in June 2023 within the European Commission's Delegated Regulation 2023/2485.⁵

Revenue generated from contributing to climate mitigation focuses on products and services that reduce greenhouse gas emissions. Such activities include solar power generation, battery storage and smart metering. Revenue generated from contributing to climate adaptation includes revenue from products and services that reduce the risk of impact from climate change. Insulation products, a subcategory captured by Sustainable Impact Metrics, are an example of revenue-generating activities that reduce the impact of severe weather events and temperature changes.

Insulation products also provide energy efficiency for homes and businesses resulting in a reduction in energy demand and greenhouse gas emissions. This highlights how a Sustainable Impact Metric subcategory can apply to multiple environmental objectives, a principle put forth by the EU Taxonomy regulation.

Do No Significant Harm

As outlined in the final report on the EU Taxonomy of the European Commission's Technical Expert Group on Sustainable Finance (TEG report),⁶ an economic activity which contributes to one environmental objective should not be made at the expense of the other five environmental objectives. At a minimum, companies are expected to comply with applicable environmental standards and regulations and avoid significant adverse impact on the environment. The EU Taxonomy Delegated Acts have developed, in aggregate, 121 broad technical screening criteria selectively applied to each economic activity and environmental objective that need to be met to prevent harm.

MSCI ESG Research is enhancing its DNSH estimation model by adding an "**ESG practice**" screen to its existing "**ESG controversy**" screen with the aim of providing a more precise assessment of companies' alignment with the EU Taxonomy DNSH technical screening criteria beyond a simple entity-level controversy screen.⁷

We **reviewed and analyzed** each DNSH criterion published in the EU Taxonomy Delegated Acts,⁸ and mapped them to existing **MSCI ESG policy, program and process indicators**.

⁵ European Commission, *Official Journal of the European Union L*, "Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives," 442/1, Dec. 9, 2021.

⁶ EU Technical Expert Group on Sustainable Finance, *Taxonomy: Final Report of the Technical Expert Group on Sustainable Finance*, European Commission, 2020.

⁷ In the current model, MSCI ESG Research excludes issuers with MSCI ESG Controversies Red & Orange Flags for environmental controversies (Environmental Controversy Score of 0 or 1) which identifies companies involved in specific events or practices with severe and very severe adverse impacts on the environment as a proxy to estimate significant harm.

⁸ As of February 2023. All Sustainable Impact Metrics categories used to estimate substantial contribution to the EU Taxonomy are linked to the Climate Change Mitigation objective and, thus, such economic activities would need to meet the DNSH criteria of the remaining five environmental objectives. Thus, we limited this review to Climate Change Adaptation, Sustainable Water, Pollution Prevention, Circular Economy and Biodiversity DNSH technical screening criteria.



As of September 2023, we found relevant ESG indicators for **44** DNSH technical screening criteria. This represents **over a third** of the DNSH technical screening criteria published in the EU Taxonomy Delegated Acts for the economic activities contributing to climate change mitigation (n=121), as of February 2023. Where there is lack of available data or mapping is not possible to the relevant ESG Practices indicators, the ESG Controversies screen continues to be applied to identify alleged adverse environmental impacts based on third-party data.

Minimum Safeguards

As referenced in Article 18 of the EU Taxonomy Regulation, undertakings are required to comply with the Organisation for Economic Co-operation and Development (OECD) Guidelines on Multinational Enterprises (MNEs) and the UN Guiding Principles on Business and Human Rights, with specific reference to the International Labour Organization's (ILO's) Core Labour Conventions. Also, the principle of "Do No Significant Harm" referred to in the EU Sustainable Finance Disclosure Regulation (SFDR) shall be taken into consideration.⁹

The Platform on Sustainable Finance put forward the "Final Report on Minimum Safeguards,"¹⁰ where it recommends assessing minimum safeguards, with the evaluation of human rights due diligence processes, corruption, taxation, and fair competition. The EU Commission also published a Commission Notice referencing SFDR principal adverse impact (PAI) indicators for social and employee matters "as a minimum" for the EU Taxonomy minimum safeguards assessment.¹¹

MSCI ESG Research enhanced its Minimum Safeguards estimation model by adding an "**ESG practice**" screen to its existing "**ESG controversy**" screen to provide a more precise assessment of companies' alignment with the EU Taxonomy minimum safeguards criteria beyond a controversy-based screen.

The enhanced Minimum Safeguards estimation model consists of six different screening criteria, combining social policy indicators (with a special focus on human rights due diligence), social principal adverse impact indicators from SFDR, as well as ESG controversies for certain aspects. Companies must meet the six criteria individually to pass the Minimum Safeguards screen.

Research process overview

The MSCI EU Taxonomy Methodology builds on the underlying methodologies of MSCI Sustainable Impact Metrics, MSCI ESG Business Involvement Screening Research and MSCI ESG Controversies and Global Norms.

Data sources

We use a wide range of information derived from various tools and sources, including:

⁹ European Commission, *Official Journal of the European Union L*, "Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088," 198/13, June 18, 2021.

¹⁰ Final Report on Minimum Safeguards, Platform on Sustainable Finance, October 2022.

¹¹ Commission Notice on the interpretation and implementation of certain legal provisions of the EU Taxonomy Regulation and links to the Sustainable Finance Disclosure Regulation (2023/C 211/01), June 2023.



- Company websites.
- Company annual reports and regulatory filings.
- Government financial agencies and disclosures.
- Financial data providers.
- Media and periodicals.
- NGO reports and websites.

Coverage universe

MSCI Sustainable Impact Metrics, as of December 2023, cover more than 15,000 corporate equity and fixed income issuers including constituents of the MSCI ACWI Investable Market Index (IMI).

MSCI ESG Business Involvement Screening Research (including tobacco and controversial weapons involvement) covers global equity issuers, selected bond-issuing subsidiaries, selected corporate bond issuers and selected government-owned entities that operate as corporations.

The MSCI EU Taxonomy coverage universe, as of December 2023, for data disclosed directly by companies includes approximately 12,581 equity and fixed income issuers, including constituents of the MSCI ACWI IMI.

Quality assurance process

Our initial company research and analysis is followed by a quality assurance process. Data accuracy and company profiles are peer-reviewed by ESG analytical personnel, then sent to ESG reviewers for final approval. In specific cases in which a company's business activity is not clearly defined by MSCI ESG Research's methodology and there is no precedent, the case is escalated to the Head of Screening Research. Cases that require further interpretation or an update to the methodology are brought to the MSCI ESG Impact Screening and Methodology Committee.

Ongoing monitoring and update cycle

Updates to the MSCI EU Taxonomy alignment screen are based on updates to the MSCI Sustainable Impact Metrics, MSCI ESG Controversies and Global Norms and MSCI ESG Business Involvement Screening Research (BISR) assessments.

The frequency of updates for each are listed below:

MSCI Sustainable Impact Metrics

Companies are reviewed throughout the year, based on fiscal-year reporting cycles.

- Constituents of the MSCI ACWI Index are reviewed within one quarter of their annual filings. New constituents are processed within one quarter of their index inclusion.
- The rest of the coverage universe is reviewed on a rolling schedule, within 12 months of an issuer's filings. New issuers are processed within two quarters of when they enter the index or coverage.



MSCI ESG Controversies and Global Norms

 Companies within the ESG Controversies coverage universe are reviewed, updated and published on an ongoing basis. Controversy assessments, scores and flags can change as part of two separate research and updates processes: daily monitoring and targeted reviews of very severe and severe cases, typically on either a quarterly or annual basis, depending on the severity.¹²

BISR (including Tobacco and Controversial Weapons Involvement)

- MSCI ESG Research regularly reviews all companies in the BISR coverage universe. Companies are reviewed throughout the year, based on fiscal-year reporting cycles.
- Constituents of the MSCI ACWI Index are reviewed within one quarter of their annual filings.
- The rest of the coverage universe is reviewed on a rolling schedule, within 12 months of the issuers' annual filings.
- New constituents to the MSCI ACWI Index, MSCI US IMI or MSCI China Indexes are processed within one quarter of their index inclusion. All other additions are processed within two quarters of when they enter an index or brought under MSCI ESG Research's coverage.

Revenue estimation process

When companies do not report exact revenue figures for a business activity covered within MSCI Sustainable Impact Solutions, MSCI ESG Research estimates revenue from the business activity based on available disclosed or publicly available data, including segment revenue, product lines, and product specifications.

Taxonomy eligible revenue

In addition to screening EU Taxonomy aligned revenue, we provide data for company's EU Taxonomy eligible revenue and non-eligible revenue. Eligible revenue is an important component of the EU Taxonomy framework because it defines a company's level of involvement in activities that have the ability to positively contribute to an environmental objective, regardless of whether those activities meet any or all of the EU Taxonomy's technical criteria.

The EU defines economic activities based on the *Nomenclature Statistique des Activités Economiques dans la Communauté Européenne* (NACE) classification system. For each economic activity that has been defined by the EU Taxonomy, there are several NACE codes that may apply. A list of eligible NACE codes is available in the technical annex of the TEG report on EU Taxonomy regulation.

We collect issuer-reported revenue segment data based on SIC codes. In some cases, where further data granularity is needed, we make further distinctions within SIC codes to break down the revenue

© 2024 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document. Information Classification: GENERAL

¹² Additional details can be found in: MSCI ESG Research, MSCI ESG Controversies and Global Norms Methodology – Process, 2023.



category more precisely. As an example, revenue data from the electric services SIC code is further broken down by us based on fuel source.

To estimate the percentage of revenue eligible for EU Taxonomy alignment, we map SIC codes to the EU Taxonomy activities and their respective NACE codes for climate change mitigation and adaptation. Through this process, we categorize eligible SIC codes and non-eligible SIC codes.

We estimate total eligible revenue as the sum of revenue percentages from SIC codes that we have classified as eligible. Estimated non-eligible revenue is 100% of estimated revenue minus estimated eligible revenue.

We also separately estimate the percentage of total revenue eligible for climate change mitigation and for climate change adaptation. In most cases, revenue is eligible for both mitigation and adaptation because the activities and eligible NACE codes overlap significantly. For this reason, revenue eligible for climate mitigation and revenue eligible for climate adaptation cannot be added together; to do so would mean double counting revenue. The revenue estimate for total eligible revenue takes this into consideration to ensure no double counting occurs.

Eligible revenue data review

Review by SIC code undergoes a complete quality review process. SIC-based revenue data is provided to us from a third-party data vendor and confirmed for accuracy by a second third-party data vendor.

Our Segment Data Platform (SDP) team further differentiates revenue segments into more-granular categories and completes its own quality checks before the data is used by MSCI ESG Research.

Company-reported EU Taxonomy data

In addition to the screening methodology for EU Taxonomy aligned and eligible revenue, MSCI's EU Taxonomy data set includes company-reported EU Taxonomy key performance indicators (KPIs).

For nonfinancial companies, the indicators are based on total revenue, total capital expenditures, and total operating expenditures. For financial companies, aligned and eligible assets are collected as a proportion of covered assets, in addition to underwriting activities for (re)insurance companies and commission fees for investment managers. Additionally, MSCI provides data on eligible assets and total assets.

Non-Financial Reporting Directive

The Non-Financial Reporting Directive (NFRD) aims to provide transparency of social and environmental information and to improve non-financial disclosure for large companies including banks and insurance entities.¹³ The European Commission considers non-financial information "vital for managing change towards a sustainable global economy" and companies required to disclose EU Taxonomy key performance indicators are also subject to the NFRD regulation.¹⁴ MSCI partnered

© 2024 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document. Information Classification: GENERAL

¹³ European Commission, Official Journal of the European Union L, "Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups," 330/1, November 15, 2014.

¹⁴ Nora Hahnkamper-Vandenbulcke, Non-financial Reporting Directive. European Parliamentary Research Service, January 2021.



with a third-party vendor to provide an indicator designating companies which are in scope for the NFRD regulation. The methodology for flagging issuers subject to the regulation is based on company-disclosed data and eligibility thresholds set by the NFRD regulatory text.

To be in scope for the NFRD, a public interest entity (PIE) must have more than 500 employees on average throughout the year as well as either (a) total assets of more than EUR 20 million and/or (b) a net turnover of more than EUR 40 million.¹⁵ A PIE is an EU limited liability company which either has securities listed on an EU-regulated exchange, is a bank, and/or is an insurance company as specified in article 2(f) of the NFRD regulation. Only companies with listed securities within MSCI's EU Taxonomy coverage are considered for review of NFRD eligibility.

Exception from NFRD for subsidiaries

An exemption for NFRD reporting applies to companies which are part of a corporate group that at some level of majority ownership is required to publish a non-financial statement under the NFRD.¹⁶ This means that subsidiaries of PIEs are, in principle, excluded from the requirement to publish a non-financial statement under the NFRD. The EU Taxonomy KPIs are collected and displayed for entities included in our defined coverage universe. Subsidiaries of those entities are eligible for data mapping, subject to the requirements set out in the Entity Selection and Data Mapping Methodology Document.

Financial information

Financial information (i.e., net turnover, total assets and number of employees) necessary to determine the reporting obligation was retrieved from each company's annual report covering the consolidated figures for the relevant financial year:

- Net turnover means the amount of revenue derived from the core business activity i.e., sale of products and the provision of services – after deducting sales rebates and value added tax and other taxes directly linked to turnover.¹⁷
- **Total assets** means the balance sheet total at the closing date of the financial year stated in the profit and loss account included in the consolidated financial statements.

Company-reported average number of employees can be presented using several definitions, such as employee headcount, full-time equivalents (FTEs), or number of employees at year end and average number of employees during the year. When both headcount and FTEs are provided, headcount is used. Moreover, when only end-of-year figures are provided, the average is estimated

¹⁵ European Commission, *Official Journal of the European Union L*, "Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups," 330/1, November 15, 2014.

¹⁶ An undertaking is a majority shareholder if it exercises significant influence over another undertaking through the control of the majority of its capital (more than 50%).

¹⁷ As defined in Article 2(5) of: European Commission, *Official Journal of the European Union L*, "Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC," 182/19, June 29, 2013.



using the current and previous year-end employee numbers. Any company which meets the outlined requirements is flagged as subject to the NFRD regulation.



Contact us

msci.com/contact-us

AMERICAS

United States	+ 1 888 588 4567 *
Canada	+ 1 416 687 6270
Brazil	+ 55 11 4040 7830
Mexico	+ 52 81 1253 4020

EUROPE, MIDDLE EAST & AFRICA

South Africa	+	27	21	673	0103	}
Germany	+	49	69	133	859 (00
Switzerland	+	41	22	817	9777	,
United Kingdom	+	44	20	7618	3 222	2
Italy	+	39	02	5849	9 041	5
France	+	33	17	6769	9 810)

ASIA PACIFIC

China	+ 86 21 61326611
Hong Kong	+ 852 2844 9333
India	+ 91 22 6784 9160
Malaysia	1800818185 *
South Korea	+ 82 70 4769 4231
Singapore	+ 65 67011177
Australia	+ 612 9033 9333
Taiwan	008 0112 7513 *
Thailand	0018 0015 6207 7181
Japan	+ 81 3 4579 0333
* toll-free	

*

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 researchenhanced solutions that clients use to gain insight into and improve transparency across the investment process.

About MSCI ESG Research Products and Services

MSCI ESG Research products and services are provided by MSCI ESG Research LLC, and are designed to provide in-depth research, ratings and analysis of environmental, social and governancerelated business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research LLC. are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc.

To learn more, please visit www.msci.com.



Notice and disclaimer

This document is research for informational purposes only and is intended for institutional professionals with the analytical resources and tools necessary to interpret any performance information. Nothing herein is intended to promote or recommend any product, tool or service.

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. All rights in the Information are reserved by MSCI and/or its Information Providers.

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, MERCHANTABILITY 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 may include "Signals," defined as quantitative attributes or the product of methods or formulas that describe or are derived from calculations using historical data. Neither these Signals nor any description of historical data are intended to provide investment advice or a recommendation to make (or refrain from making) any investment decision or asset allocation and should not be relied upon as such. Signals are inherently backward-looking because of their use of historical data, and they are not intended to predict the future. The relevance, correlations and accuracy of Signals frequently will change materially.

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 clients 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 Investments will accurately track index performance or provide positive investment returns. MSCI Inc. 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. The calculation of indexes and index returns may deviate from the stated methodology. 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 msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. 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 a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. 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. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK) and MSCI Deutschland GmbH.

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its



research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at https://adviserinfo.sec.gov/firm/summary/169222.

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 S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

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.

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