

MSCI Indicative ESG Scores Methodology

MSCI ESG Research LLC

March 2025

 $\ensuremath{\textcircled{O}}$ 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.



Contents

Introduction
MSCI Indicative ESG Scores3
Key features3
Input data and processing4
Sector information4
Location information5
Size information (revenue)5
Company identifier and validation5
Indicative ESG Score calculation methodology6
Environmental and Social Pillar Exposure Scores6
Environmental and Social Pillar Management Scores and Governance Pillar scores 7
Key Issue and Pillar weights7
Score aggregation and industry adjustment7
Comparability to the ESG Ratings model7
The score inference function7
Model calibration8
Using the model to derive Indicative ESG Scores9
Coverage
Waterfall model for filtering companies10
Data, model and methodology quality assurance, updates and output reporting 11
Data quality assurance11
Data and model updates11
Review of model and/or methodology11
Output reporting12
Appendix13
List of output fields13



Introduction

MSCI Indicative ESG Scores

MSCI Indicative ESG Scores ("Indicative ESG Scores") are a quantitative assessment of companies' management of financially relevant ESG risks and opportunities based on the ESG scores of similar companies. Indicative ESG Scores are calculated as industry-relative scores and are determined at the legal-entity level. Indicative ESG Scores are based on MSCI ESG Ratings,¹ taking into consideration the company's exposure to potentially material ESG risks and the company's expected level of risk management based on the level of risk management observed in similar companies with an MSCI ESG Rating.

Indicative ESG scores reflect the general characteristics of similar companies, without accounting for company-specific factors. They are based on three key inputs: sector, location and size (as measured by revenue). As a result, the actual management of financially relevant ESG risks and opportunities for a given company may be significantly better or worse than its Indicative ESG Score states.

An Indicative ESG Score, like an MSCI ESG Rating, incorporates a forward-looking assessment of ESG risks and opportunities, typically over a five-to-seven-year horizon. This time frame reflects the expected period during which key ESG risks and opportunities for companies in each sector and location may materialize. The time horizon is based on the nature of the risks and opportunities: some, like regulatory changes, may be short-term, while others, such as shifts in consumer demand or environmental impact, may take longer to emerge. By focusing on this time horizon, the Indicative ESG Scores are intended to provide forward-looking estimates of the exposure to and management of ESG risks and opportunities for companies in similar sectors, locations, and sizes.

By focusing on sector, location, and size, the model calculates ESG scores in cases where detailed company-specific data on other specific items may be unavailable. The resulting scores provide a quantitative measure useful for comparative analysis and risk assessment.

Key features

Indicative ESG Score is based on, and uses the same structure as, the MSCI ESG Ratings model, as described in the "ESG Ratings Methodology" document. This methodology document uses the same terminology as those documents and should be read together with them.

There are several simplifications that distinguish the Indicative ESG Scores model from the ESG Ratings model:

- **Simplified Input Requirements**: The Indicative ESG Score model only requires three inputs sector, location and size to generate an Indicative ESG Score. This approach allows the model to be applied to a wider range of companies, including those for which no other company-specific data is available.
- **Numeric Output**: Unlike the MSCI ESG Ratings model, which generates both a letter rating and various component scores (ranging from 0 to 10), the Indicative ESG Score model provides only the component scores along with a single numeric score (0.0–10.0) as its

© 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

¹ MSCI ESG Ratings are described in the "ESG Ratings Methodology" methodology document, available here: <u>ESG Ratings</u> <u>Methodology - MSCI</u>.



main output. This topmost numeric score, referred to as the Indicative ESG Score, is analogous to the industry-adjusted score in the MSCI ESG Ratings model.

- **No controversy deductions**: Unlike the ESG Ratings model, controversy deductions are not included in the Indicative ESG Scores model.
- Scalability: The Indicative ESG Score model is designed to cover a significantly larger universe of rated entities as of March 2025, coverage is close to a 100 million companies compared to the roughly 12,000 covered by the MSCI ESG Ratings model. While it operates on less data per rated entity, its architecture enables efficient scaling to handle vast numbers of companies.

While the present model is focused on sector, location and size, it is designed to accommodate future enhancements, such as additional input factors or customized weightings for ESG components.

The Indicative ESG Scores model is sometimes referred to as "the model" in this document.

Input data and processing

MSCI

The model relies on three primary inputs – sector, location, and size – to calculate a company's Indicative ESG score. These inputs determine the company's exposure to ESG risks and opportunities, as well as the level of management applied to address them. Specifically, they feed into the component Exposure and Management Scores that aggregate to the final Indicative ESG Score. The model exclusively relies on input data from Moody's Orbis database, which is sourced from publicly available information mainly provided by national company databases. Some data points, such as revenues in jurisdictions where this information is not publicly available, may be a by Moody's. Estimated revenue data is published in Orbis as received from Moody's information providers and identified with a corresponding legend. The methodology of calculating estimated revenue can vary from source to source, requires a combination of quantitative techniques and expert judgment by the respective information provider, and can depend on multiple factors of underlying data availability. MSCI ESG Research does not use nonpublic information. This section outlines the sources, formats and processing steps associated with each input.

Sector information

The sector information is a critical component of the Indicative ESG Score, as it determines the Environmental and Social Key Issue Exposure Scores for each company. The model primarily uses the North American Industry Classification System (NAICS) to categorize companies' sectors. Input data is used in the following sequence:

- **Primary Sector Source**: MSCI ESG Research uses the NAICS sector system as the model's primary internal classification standard. If the NAICS code is available in the input data, it is used directly.
- NACE and SIC Sector Conversion: If the NAICS code is not available, the model accepts *Nomenclature statistique des activités économiques dans la Communauté européenne* (NACE, Statistical Nomenclature of Economic Activities in the European Community) and Standard Industrial Classification (SIC)² industry classification codes as alternatives. The NACE and SIC codes are converted to NAICS codes using a mapping predefined by MSCI

² The industry classification system used internally by the Indicative ESG Score model for sector data.



ESG Research. This ensures consistency and compatibility with the model's scoring algorithms.

• Score Eligibility: If there is no NAICS, NACE or SIC sector information available for a company, MSCI ESG Research does not provide an Indicative ESG Score for that company.

Location information

Location data is another key input, influencing both the Exposure and Management Scores by reflecting regional risks and opportunities.

- **Primary Location Source**: The model uses the International Organization for Standardization (ISO)³ country code provided in the *contact_info* table of the Orbis database as the standard location identifier.⁴
- **Score Eligibility**: If the ISO country code for a company is not available, MSCI ESG Research does not provide an Indicative ESG Score for that company.

Size information (revenue)

Size, proxied by revenue, is a key input in determining a company's management scores.

- **Primary Size Source**: MSCI ESG Research uses operating revenue data from the *key_financials_usd* table in the Orbis database as a proxy for the size of the company. This data is used to assess the company's capacity to manage ESG risks and opportunities, given its scale and financial resources.
- **Revenue Threshold**: Companies with revenue below the threshold of USD 1,000 are not eligible for Indicative ESG Scores because they lack sufficient scale for meaningful ESG assessments.
- **Currency Considerations**: The revenue data sourced from the Orbis database is in USD, eliminating the need for currency conversion and simplifying the input processing stage.
- **Revenue as-of-date eligibility**: If the revenue information is missing or is more than **three years** old at the time of Indicative ESG Score calculation, MSCI ESG Research does not provide an Indicative ESG Score for that company.

Company identifier and validation

To ensure consistency and accuracy in scoring, each company must be uniquely identifiable.

- **Primary Key**: MSCI ESG Research uses the Orbis ID (*bvd_id*) as the primary key to uniquely identify each company. This identifier is used throughout the data processing and scoring stages to ensure that inputs are accurately matched to the correct entities.
- Validation: The *bvd_id* is validated to ensure it is unique and present for each company. Any records without a valid *bvd_id* are flagged, and MSCI ESG Research does not provide Indicative ESG Scores for those companies.

³ The ISO 3166 standard for country codes, used for location data in the Indicative ESG Score model.

⁴ Moody's internal documentation on the Orbis database, detailing the structure and content of the *contact_info* and *key_financials_usd* tables used as input sources for the Indicative ESG Score.

^{© 2025} MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.



model (right)

Indicative ESG Score calculation methodology

Indicative ESG Scores use a simplified approach to accommodate the constraints of available input data but retain the essential elements of MSCI ESG Ratings. This section outlines the methodology used to calculate Indicative ESG Scores, focusing on the key components: Exposure Scores, Management Scores, Governance Scores, and the final aggregation of these into Indicative ESG Scores.

To provide a clearer understanding of the differences between the MSCI ESG Ratings model and the Indicative ESG Scores model, Exhibit 1: compares the two methodologies side by side. This exhibit highlights how the Indicative ESG Score model simplifies certain elements, such as the direct use of Industry Adjusted Score (IAS) as the final score, the replacement of detailed Management Scores with an inference function, and the fixed sector-based weights for Key Issues and Pillars.

core-to-Letter-Rating matri Pres (0-10)sted Score (0-10) Adjusted relative to industry peers, no analyst review is applied Adjusted relative to industry peers, committee review process in certain predefined cases ited Average Ke ie Score (0-10) Average Ke ore (0-10) Weighted average of underlying Pillar Scores Weighted average of underlying Pillar Scores ocial Pillar Sco (0-10) Social Pillar Score (0-Score (0-10) re (0-10) ore (0-10) 10) Each Pillar is organized into underlying Themes Each Pillar is organized into underlying Themes Environmental and Social Pillar and Theme Scores derive from Environmental and Social Pillar and Theme Scores derive from model app the weighted average of underlying Key Issue Score the weighted average of underlying Key Issue Scores ntal Key Issue ocial Key I ental Key Issue es (0-10) Social Key Issue Scores (0-10) ince Key Issi es (0-10) (0-10) Scores (0-10 Mgm Indicators Raw Data: Raw Data: Company financial and sustainability dis ent and academic data sets, media

Exhibit 1: Hierarchy of ESG Scores in the ESG Ratings model (left) and Indicative ESG Scores

Environmental and Social Pillar Exposure Scores

The calculation of Exposure Scores in the Indicative ESG Score closely follows the methodology of the MSCI ESG Ratings model. The Exposure Scores are determined based on the company's sector and location, reflecting the risks and opportunities associated with these factors assessed in the MSCI ESG Ratings model. However, unlike the MSCI ESG Ratings model, the Indicative ESG Scores model does not allow for company-specific adjustments to Exposure Scores. This simplification ensures consistency across the large dataset and maintains the integrity of the scoring process.

© 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.



Environmental and Social Pillar Management Scores and Governance Pillar scores

The Management Scores for Environmental and Social Key Issues, which in the ESG Rating model are calculated from a detailed analysis of company-specific data, are replaced in the Indicative ESG Scores model by a simplified inference function. MSCI ESG Research infers the Governance Pillar Score directly using input data. This means that Governance Key Issue Scores are not assessed in the Indicative ESG Scores model. All inferred scores are calculated using a "random forest" model calibrated to the coverage universe of the MSCI ESG Rating model. The model is described in detail in the next section.

Key Issue and Pillar weights

While the MSCI ESG Ratings model determines Key Issue and Pillar weights through a combination of industry-level externalities, geographic location, and company-specific characteristics, the Indicative ESG Scores model simplifies this process by setting weights solely based on a company's primary sector classification. This means that the Indicative ESG Score eliminates variability introduced by factors like geographic exposure or company-specific risks and opportunities.

Score aggregation and industry adjustment

The Weighted Average Key Issue Score (WAKIS) is transformed to an industry adjusted score (IAS) in the Indicative ESG Scores model using the same methodology as used in the MSCI ESG Rating model. The parameters of the adjustment (the industry level min and max scores) are also shared with the MSCI ESG Rating model.

Comparability to the ESG Ratings model

The Indicative ESG Scores calculated by the Indicative ESG Scores model use the same model structure as the MSCI ESG Rating model and are thus comparable to the Industry Adjusted Scores (IAS) of the MSCI ESG Rating model. However, it is important to note that while the Indicative ESG Scores may offer a valuable indication of companies' management of financially relevant ESG risks and opportunities, they are inherently less precise than IAS from the MSCI ESG Rating model. This is because the MSCI ESG Rating model incorporates a comprehensive set of company-specific data, including detailed risk exposure assessments based on business and geographic segment information and other company-specific factors; detailed management practices; controversy history; and potential analyst adjustments; which are not used in the Indicative ESG Scores model. As a result, while the Indicative ESG Scores are more accurate and reliable for making nuanced evaluations and comparisons between companies.

The score inference function

Management Scores of Environmental and Social Key Issues and Governance Pillar Scores are assessed using a random forest inference model, a type of ensemble learning that constructs multiple decision trees and averages their predictions to derive a final inferred score. An inference model refers to a machine learning model that applies learned patterns from a trained dataset to generate outputs for new data. In this context, the random forest model has been trained on the MSCI ESG Ratings universe and then infers scores for smaller companies by



recognizing similar patterns in their available data. This method is effective for handling both numerical and categorical variables, making it well-suited for the Indicative ESG Scores model.

Model calibration

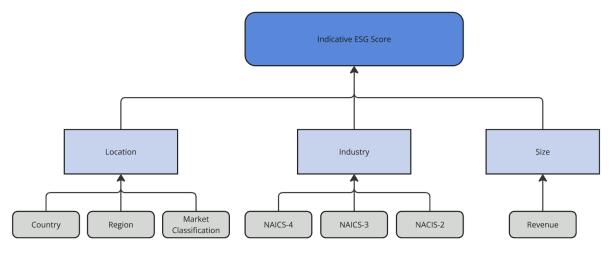
The model training process involves fitting the random forest model separately for all Environmental and Social Management Scores and Governance Pillar Scores, using data from the 10,000+ companies in the MSCI ESG Rating model coverage universe. Each of the Management Scores and Governance Pillar Scores is treated as a unique target variable, and a separate random forest inference model is trained to assess each score. By doing so, the model can better capture the specific characteristics and risk factors relevant to each Key Issue and the Governance Pillar.

The random forest model is trained using cross-validation. Cross-validation involves splitting the data into several subsets and training the model on different combinations of these subsets, while evaluating performance on the remaining data. This helps prevent overfitting, ensuring that the random forest model generalizes well to new, unseen data. During training, in-sample evaluation metrics, such as root mean squared error (RMSE), are calculated to assess how well the random forest model fits the training data. The RMSE provides an indication of the average difference between the predicted and actual ESG scores, allowing for an assessment of random forest model accuracy.

For each modeled score, the random forest model learns the relationship between the input features and the relevant ESG score (e.g., Management Score, Governance Pillar Score, etc.) based on historical data. For example, a company's environmental management practices might be influenced by its industry, regional regulations, market classification, and company size. By analyzing these relationships, the random forest model can produce a score that reflects how well a company manages environmental, social or governance risks relative to its peers.

A key challenge in training the random forest model is dealing with less prominent industries or smaller countries that may have very few or no observations in the training dataset. To address this issue, MSCI ESG Research incorporates higher-level (2-, 3-, and 4-digit) NAICS sector codes and broader market classifications (such as developed, emerging and frontier markets and other high-income markets) into the random forest model's input data, where necessary. This is illustrated in Exhibit 2 (below).





 $\ensuremath{\textcircled{\sc 0}}$ 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.



This hierarchical approach enables, when specific country-industry combinations lack sufficient observations in the MSCI ESG Ratings coverage universe, the random forest model, to use higher-level, less granular sector codes and broader regional classifications to calculate scores. By using these aggregated inputs, the model can effectively draw on similar data points to fill gaps in training data where direct observations are insufficient.

For example, if there are very few companies operating in a niche manufacturing industry in a small country, the model uses the aggregated data from the broader manufacturing sector (at the 2- or 3-digit-NAICS sector code level) and combine it with data from a larger region that includes similar countries. This allows the model to produce an indicative score for companies in that niche industry even if specific, direct data is unavailable.

The random forest model is designed to handle hierarchical categorical structures effectively, learning from different levels of granularity without overfitting to the most specific data available.

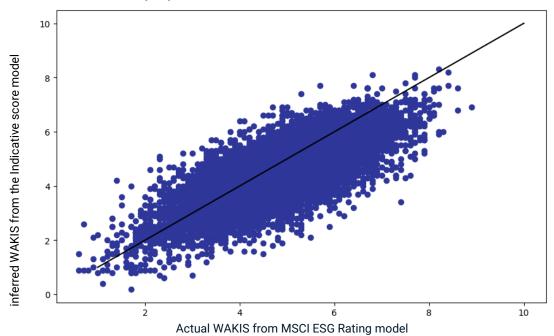


Exhibit 3: Overall in-sample performance of the inference function

Source: MSCI Research, June 2024

Exhibit 3 illustrates the relationship between the WAKIS calculated from ESG Ratings Model and the corresponding scores calculated by the calibrated random forest model score inference functions for the same set of companies. The x-axis plots the WAKIS calculated from the MSCI ESG Ratings Model, while the y-axis plots the inferred WAKIS calculated by the random forest model score inference functions in the Indicative ESG Scores model. The exhibit highlights the model's ability to approximate ESG performance well for both low- and high-scoring companies, demonstrating its effectiveness in differentiating between companies with varying levels of ESG management and exposure.

Using the model to derive Indicative ESG Scores

Once the random forest models are calibrated, the resulting parameters for each Key Issue Management Score and Governance Pillar Score are stored. These calibrated models are then used to calculate scores for any company within the Indicative ESG Scores model universe (see the next section on the coverage universe). When a new company is evaluated, the saved models are applied to calculate the scores for each Environmental and Social Key Issue Management Score and the Governance Pillar Score.

The predicted scores from these models are subsequently aggregated according to the method used in the ESG Rating model to derive component scores and, ultimately, an overall ESG score. This aggregation follows a structured process that considers the importance and weight of each Key Issue and Governance Pillar, ensuring that the final Indicative ESG Score is reflective of the company's performance across all relevant dimensions.

For example, a company's Environmental Score may be calculated from several Key Issues, such as Carbon Emissions, Water Stress, and Toxic Emissions & Waste, each of which is assessed by a separate random forest model. These Key Issue Scores are then combined, based on their respective weights, to form the overall Environmental Pillar Score. The final Indicative ESG Score is calculated by combining the Environmental, Social, And Governance Pillar Scores according to the methodology used in the MSCI ESG Rating model.

Coverage

MSCI

Indicative ESG Scores are applied to the entire Orbis database universe. However, not all companies in this database are eligible for scoring. To ensure the quality and relevance of the output, a waterfall model is used to systematically exclude companies that do not meet specific criteria.

Waterfall model for filtering companies

- Company Eligibility:
 - Companies must have an active status (Orbis status field beginning with "Active").
 - Entities classified in Orbis as "Public authority/State/Government" or "Mutual and pension fund/Nominee/Trust/Trustee" are excluded.
- Revenue Data Requirements:
 - Only companies with a non-null value in Orbis for Operating Revenue/Turnover are considered. The revenue is converted to an annual equivalent (*revenue_usd*) by adjusting for the duration of the reported period (*number_of_months*). If the reporting period is not available or is zero, the revenue is assumed to be for a 12month period.
- Financial Reporting Selection:
 - For each company identifier (*bvd_id_number*), the most recent financial data is selected. The selection is based on the closing date of the financial report, prioritizing more recent data.
 - If the most recent data is more than three years old at the time of the calculation, the company is excluded from the universe. In cases where multiple reports have the same closing date, preference is given first to annual reports and then to different types of consolidation codes, with the order reflecting decreasing levels of consolidation (i.e., "C1" as the highest level, followed by "C2", etc.).
- Industry Classification Availability:



- To be included, a company must have at least one primary industry classification available in the NACE, SIC, or NAICS systems.
- Country Information:
 - Only companies with a known country of operation (*country_iso_code*) are considered.
- Minimum Revenue Threshold:
 - To be included, a company must have an annual revenue (revenue_usd) of at least 1,000 USD.

Data, model and methodology quality assurance, updates and output reporting

Data quality assurance

To ensure an appropriate quality of the rating process, the ESG Indicative Score model incorporates input validation processes. Companies with missing or incorrect input data, such as nonexistent sector codes or invalid country codes, are automatically rejected during the validation process.

Data and model updates

The Indicative ESG Scores are updated monthly, to incorporate the most current available data. However, in practice, these scores often remain unchanged from month to month. This is because the underlying input data, such as sector and country of operation, is generally stable, while available company revenue data tends to be updated annually. As a result, only a small number of ESG Indicative Scores change each month.

The model used for calculating these scores is built upon training data from the MSCI ESG Rating Model universe. To maintain the relevance and accuracy of the assessment, we recalibrate the model, generally every year, using the latest available MSCI ESG Ratings data in our training set. Once this recalibration is complete, it is typically applied to the next monthly update of Indicative ESG Scores, often resulting in changes to all scores across the universe.

Following the annual recalibration, MSCI ESG Research may determine that the updated model is not substantially different from the previous version. In the interest of maintaining stability in Indicative ESG Scores, we may then choose to retain the existing parameters for an additional year.

Review of model and/or methodology

The Indicative ESG Score calculation process includes multiple steps to review the soundness of the model (refer to Exhibit 3). Material discrepancies or unexpected patterns in the outputs are further investigated to determine whether adjustments to the model or data sources are required.

Furthermore, if a material issue is detected during routine monitoring or through stakeholder feedback, MSCI ESG Research internal methodology committee reviews the matter and determines the appropriate course of action.



Output reporting

For each rated company, the model outputs the:

- IAS
- WAKIS
- Pillar scores
- For the Environmental and Social Pillars:
 - Key Issue Scores
 - The relevant Exposure and Management Scores.

No sub-scores are given for the Governance Pillar score. All scores are presented on a 0.0-10.0 scale. A detailed list of all model outputs can be found in the Appendix. Not all model outputs are calculated for each company.

In addition to the ESG Indicative Score for rated companies, the model also generates a list of companies that were rejected during the validation phase along with the specific reason for rejection.



Appendix

List of output fields

Output field name	Display name	Description
indicative_model_version	Indicative Score Model Version	Model version represented by a string integer.
indicative_model_calibration	Indicative Score Model Calibration Date	Date-string of the form "YYYYMM" indicating the month and year when the model was calibrated.
revenue_usd_annualized	Annualized Revenue in USD	Most recent estimated/published annualized fiscal year revenue in USD
naics_industry_code_mapped	NAICS Industry Code Mapped	6-digit NAICS Industry Code. Same as input or mapped from SIC/NACE code.
country_name	Country Name	Country name based on ISO-2 country code
region_mapped	Geo Region Mapped	Geographic region mapped based on the ISO-2 country code
gov_region_mapped	Geo Region Mapped for Governance pillar	Geographic region mapped based for Governance pillar on the ISO-2 country code
market_classification_mapped	Market Classification Mapped	Market classification mapped based on the ISO-2 country code
carbon_emissions_indicative_exp_score	Carbon Emissions Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Carbon Emissions Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
carbon_emissions_indicative_mgmt_score	Carbon Emissions Indicative Management Score	Assesses a company's management practices with regards to the Carbon Emissions Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
carbon_emissions_indicative_weight	Carbon Emissions Indicative Weight	Represents the contribution of the Carbon Emissions Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
carbon_emissions_indicative_score	Carbon Emissions Indicative Score	Indicative Key Issue score of a company with regards to the Carbon Emissions Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
financing_env_imp_indicative_exp_score	Financing Environmental Impact Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Financing Environmental Impact Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
financing_env_imp_indicative_mgmt_score	Financing Environmental Impact Indicative Management Score	Assesses a company's management practices with regards to the Financing Environmental Impact Key Issue. Inferred based on management proxies.



		Expressed as a 0 to 10 score, where 10 indicates best management practices.
financing_env_imp_indicative_weight	Financing Environmental Impact Indicative Weight	Represents the contribution of the Financing Environmental Impact Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
financing_env_imp_indicative_score	Financing Environmental Impact Indicative Score	Indicative Key Issue score of a company with regards to the Financing Environmental Impact Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
ins_climate_chg_risk_indicative_exp_score	Climate Change Vulnerability Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Climate Change Vulnerability Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
ins_climate_chg_risk_indicative_mgmt_score	Climate Change Vulnerability Indicative Management Score	Assesses a company's management practices with regards to the Climate Change Vulnerability Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
ins_climate_chg_risk_indicative_weight	Climate Change Vulnerability Indicative Weight	Represents the contribution of the Climate Change Vulnerability Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
ins_climate_chg_risk_indicative_score	Climate Change Vulnerability Indicative Score	Indicative Key Issue score of a company with regards to the Climate Change Vulnerability Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
responsible_invest_indicative_exp_score	Responsible Investment Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Responsible Investment Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
responsible_invest_indicative_mgmt_score	Responsible Investment Indicative Management Score	Assesses a company's management practices with regards to the Responsible Investment Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
responsible_invest_indicative_weight	Responsible Investment Indicative Weight	Represents the contribution of the Responsible Investment Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
responsible_invest_indicative_score	Responsible Investment Indicative Score	Indicative Key Issue score of a company with regards to the Responsible Investment Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.



water stress indicative sum arrest	Motor Stress Indiastics Fire	
water_stress_indicative_exp_score	Water Stress Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Water Stress Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
water_stress_indicative_mgmt_score	Water Stress Indicative Management Score	Assesses a company's management practices with regards to the Water Stress Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
water_stress_indicative_weight	Water Stress Indicative Weight	Represents the contribution of the Water Stress Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
water_stress_indicative_score	Water Stress Indicative Score	Indicative Key Issue score of a company with regards to the Water Stress Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
biodiv_land_use_indicative_exp_score	Biodiversity & Land Use Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Biodiversity & Land Use Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
biodiv_land_use_indicative_mgmt_score	Biodiversity & Land Use Indicative Management Score	Assesses a company's management practices with regards to the Biodiversity & Land Use Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
biodiv_land_use_indicative_weight	Biodiversity and Land Use Indicative Weight	Represents the contribution of the Biodiversity and Land Use Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
biodiv_land_use_indicative_score	Biodiversity & Land Use Indicative Score	Indicative Key Issue score of a company with regards to the Biodiversity & Land Use Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
e_waste_indicative_exp_score	Electronic Waste Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Electronic Waste Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
e_waste_indicative_mgmt_score	Electronic Waste Indicative Management Score	Assesses a company's management practices with regards to the Electronic Waste Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
e_waste_indicative_weight	Electronic Waste Indicative Weight	Represents the contribution of the Electronic Waste Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
e_waste_indicative_score	Electronic Waste Indicative Score	Indicative Key Issue score of a company with regards to the Electronic Waste Key

 $\ensuremath{\textcircled{O}}$ 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

MSCI.COM | PAGE 15 OF 27



		Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
opps_cln_tech_indicative_exp_score	Opportunities in Clean Tech Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Opportunities in Clean Tech Key Issue. Expressed as a 0 to 10 score, where 10 indicates the highest exposure.
opps_cln_tech_indicative_mgmt_score	Opportunities in Clean Tech Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Opportunities in Clean Tech Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
opps_cln_tech_indicative_weight	Opportunities in Clean Tech Indicative Weight	Represents the contribution of the Opportunities in Clean Tech Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
opps_cln_tech_indicative_score	Opportunities in Clean Tech Indicative Score	Indicative Key Issue score of a company with regards to the Opportunities in Clean Tech Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
opps_green_building_indicative_exp_score	Opportunities in Green Building Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Opportunities in Green Building Key Issue. Expressed as a 0 to 10 score, where 10 indicates the highest exposure.
opps_green_building_indicative_mgmt_score	Opportunities in Green Building Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Opportunities in Green Building Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
opps_green_building_indicative_weight	Opportunities in Green Building Indicative Weight	Represents the contribution of the Opportunities in Green Building Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
opps_green_building_indicative_score	Opportunities in Green Building Indicative Score	Indicative Key Issue score of a company with regards to the Opportunities in Green Building Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
opps_renew_energy_indicative_exp_score	Opportunities in Renewable Energy Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Opportunities in Renewable Energy Key Issue. Expressed as a 0 to 10 score, where 10 indicates the highest exposure.
opps_renew_energy_indicative_mgmt_score	Opportunities in Renewable Energy Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Opportunities in Renewable Energy Key Issue. Inferred based on management proxies.

© 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

MSCI.COM | PAGE 16 OF 27



		Expressed as a 0 to 10 score, where 10 indicates best management practices.
opps_renew_energy_indicative_weight	Opportunities in Renewable Energy Indicative Weight	Represents the contribution of the Opportunities in Renewable Energy Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
opps_renew_energy_indicative_score	Opportunities in Renewable Energy Indicative Score	Indicative Key Issue score of a company with regards to the Opportunities in Renewable Energy Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
raw_mat_src_indicative_exp_score	Raw Material Sourcing Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Raw Material Sourcing Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
raw_mat_src_indicative_mgmt_score	Raw Material Sourcing Indicative Management Score	Assesses a company's management practices with regards to the Raw Material Sourcing Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
raw_mat_src_indicative_weight	Raw Material Sourcing Indicative Weight	Represents the contribution of the Raw Material Sourcing Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
raw_mat_src_indicative_score	Raw Material Sourcing Indicative Score	Indicative Key Issue score of a company with regards to the Raw Material Sourcing Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
toxic_emiss_wste_indicative_exp_score	Toxic Emissions & Waste Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Toxic Emissions & Waste Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
toxic_emiss_wste_indicative_mgmt_score	Toxic Emissions & Waste Indicative Management Score	Assesses a company's management practices with regards to the Toxic Emissions & Waste Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
toxic_emiss_wste_indicative_weight	Toxic Emissions and Waste Indicative Weight	Represents the contribution of the Toxic Emissions and Waste Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
toxic_emiss_wste_indicative_score	Toxic Emissions and Waste Indicative Score	Indicative Key Issue score of a company with regards to the Toxic Emissions and Waste Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
pack_mat_waste_indicative_exp_score	Packaging Material & Waste Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Packaging Material & Waste Key Issue. Expressed as

 $\ensuremath{\textcircled{O}}$ 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

MSCI.COM | PAGE 17 OF 27



		a 0 to 10 score, where 10 indicates highest exposure.
pack_mat_waste_indicative_mgmt_score	Packaging Material & Waste Indicative Management Score	Assesses a company's management practices with regards to the Packaging Material & Waste Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
pack_mat_waste_indicative_weight	Packaging Material and Waste Indicative Weight	Represents the contribution of the Packaging Material and Waste Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
pack_mat_waste_indicative_score	Packaging Material & Waste Indicative Score	Indicative Key Issue score of a company with regards to the Packaging Material & Waste Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
prod_carb_ftprnt_indicative_exp_score	Product Carbon Footprint Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Product Carbon Footprint Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
prod_carb_ftprnt_indicative_mgmt_score	Product Carbon Footprint Indicative Management Score	Assesses a company's management practices with regards to the Product Carbon Footprint Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
prod_carb_ftprnt_indicative_weight	Product Carbon Footprint Indicative Weight	Represents the contribution of the Product Carbon Footprint Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
prod_carb_ftprnt_indicative_score	Product Carbon Footprint Indicative Score	Indicative Key Issue score of a company with regards to the Product Carbon Footprint Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
hlth_safety_indicative_exp_score	Health & Safety Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Health & Safety Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
hlth_safety_indicative_mgmt_score	Health & Safety Indicative Management Score	Assesses a company's management practices with regards to the Health & Safety Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
hlth_safety_indicative_weight	Health and Safety Indicative Weight	Represents the contribution of the Health and Safety Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].



hlth_safety_indicative_score	Health & Safety Indicative Score	Indicative Key Issue score of a company with regards to the Health & Safety Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
human_capital_dev_indicative_exp_score	Human Capital Development Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Human Capital Development Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
human_capital_dev_indicative_mgmt_score	Human Capital Development Indicative Management Score	Assesses a company's management practices with regards to the Human Capital Development Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
human_capital_dev_indicative_weight	Human Capital Development Indicative Weight	Represents the contribution of the Human Capital Development Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
human_capital_dev_indicative_score	Human Capital Development Indicative Score	Indicative Key Issue score of a company with regards to the Human Capital Development Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
labor_mgmt_indicative_exp_score	Labor Management Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Labor Management Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
labor_mgmt_indicative_mgmt_score	Labor Management Indicative Management Score	Assesses a company's management practices with regards to the Labor Management Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
labor_mgmt_indicative_weight	Labor Management Indicative Weight	Represents the contribution of the Labor Management Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
labor_mgmt_indicative_score	Labor Indicative Management Score	Assesses a company's management practices with regards to the Labor Management Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
supply_chain_lab_indicative_exp_score	Supply Chain Labor Standards Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Supply Chain Labor Standards Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
supply_chain_lab_indicative_mgmt_score	Supply Chain Labor Standards Indicative Management Score	Assesses a company's management practices with regards to the Supply Chain Labor Standards Key Issue. Inferred based on management proxies.



		Expressed as a 0 to 10 score, where 10 indicates best management practices.
supply_chain_lab_indicative_weight	Supply Chain Labor Standards Indicative Weight	Represents the contribution of the Supply Chain Labor Standards Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
supply_chain_lab_indicative_score	Supply Chain Labor Standards Indicative Score	Indicative Key Issue score of a company with regards to the Supply Chain Labor Standards Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
privacy_data_sec_indicative_exp_score	Privacy & Data Security Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Privacy & Data Security Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
privacy_data_sec_indicative_mgmt_score	Privacy & Data Security Indicative Management Score	Assesses a company's management practices with regards to the Privacy & Data Security Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
privacy_data_sec_indicative_weight	Privacy and Data Security Indicative Weight	Represents the contribution of the Privacy and Data Security Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
privacy_data_sec_indicative_score	Privacy & Data Security Indicative Score	Indicative Key Issue score of a company with regards to the Privacy & Data Security Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
access_to_fin_indicative_exp_score	Access to Finance Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Access to Finance Key Issue. Expressed as a 0 to 10 score, where 10 indicates the highest exposure.
access_to_fin_indicative_mgmt_score	Access to Finance Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Access to Finance Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
access_to_fin_indicative_weight	Access to Finance Indicative Weight	Represents the contribution of the Access to Finance Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
access_to_fin_indicative_score	Access to Finance Indicative Score	Indicative Key Issue score of a company with regards to the Access to Finance Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
access_to_hlthcre_indicative_exp_score	Access to Healthcare Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Access to Healthcare Key Issue. Expressed as a 0

 $\ensuremath{\textcircled{O}}$ 2025 MSCI Inc. All rights reserved. Please refer to the disclaimer at the end of this document.

MSCI.COM | PAGE 20 OF 27



		to 10 score, where 10 indicates the highest exposure.
access_to_hlthcre_indicative_mgmt_score	Access to Healthcare Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Access to Healthcare Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
access_to_hlthcre_indicative_weight	Access to Healthcare Indicative Weight	Represents the contribution of the Access to Healthcare Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
access_to_hlthcre_indicative_score	Access to Healthcare Indicative Score	Indicative Key Issue score of a company with regards to the Access to Healthcare Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
opps_nutri_hlth_indicative_exp_score	Opportunities in Nutrition and Health Indicative Exposure Score	Assesses a company's exposure to the opportunities associated with the Opportunities in Nutrition and Health Key Issue. Expressed as a 0 to 10 score, where 10 indicates the highest exposure.
opps_nutri_hlth_indicative_mgmt_score	Opportunities in Nutrition and Health Indicative Management Score	Assesses a company's management practices with regards to opportunities associated with the Opportunities in Nutrition and Health Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
opps_nutri_hlth_indicative_weight	Opportunities in Nutrition and Health Indicative Weight	Represents the contribution of the Opportunities in Nutrition and Health Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
opps_nutri_hlth_indicative_score	Opportunities in Nutrition and Health Indicative Score	Indicative Key Issue score of a company with regards to the Opportunities in Nutrition and Health Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
chem_safety_indicative_exp_score	Chemical Safety Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Chemical Safety Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
chem_safety_indicative_mgmt_score	Chemical Safety Indicative Management Score	Assesses a company's management practices with regards to the Chemical Safety Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
chem_safety_indicative_weight	Chemical Safety Indicative Weight	Represents the contribution of the Chemical Safety Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].



chem_safety_indicative_score	Chemical Safety Indicative Score	Indicative Key Issue score of a company with regards to the Chemical Safety Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
fin_prod_safety_indicative_exp_score	Consumer Financial Protection Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Consumer Financial Protection Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
fin_prod_safety_indicative_mgmt_score	Consumer Financial Protection Indicative Management Score	Assesses a company's management practices with regards to the Consumer Financial Protection Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
fin_prod_safety_indicative_weight	Consumer Financial Protection Indicative Weight	Represents the contribution of the Consumer Financial Protection Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
fin_prod_safety_indicative_score	Consumer Financial Protection Indicative Score	Indicative Key Issue score of a company with regards to the Consumer Financial Protection Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
comm_rel_indicative_exp_score	Community Relations Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Community Relations Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
comm_rel_indicative_mgmt_score	Community Relations Indicative Management Score	Assesses a company's management practices with regards to the Community Relations Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
comm_rel_indicative_weight	Community Relations Indicative Weight	Represents the contribution of the Community Relations Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
comm_rel_indicative_score	Community Relations Indicative Score	Indicative Key Issue score of a company with regards to the Community Relations Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
controv_src_indicative_exp_score	Controversial Sourcing Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Controversial Sourcing Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
controv_src_indicative_mgmt_score	Controversial Sourcing Indicative Management Score	Assesses a company's management practices with regards to the Controversial Sourcing Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.



controv_src_indicative_weight	Controversial Sourcing Indicative Weight	Represents the contribution of the Controversial Sourcing Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
controv_src_indicative_score	Controversial Sourcing Indicative Score	Indicative Key Issue score of a company with regards to the Controversial Sourcing Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
prod_sfty_quality_indicative_exp_score	Product Safety and Quality Indicative Exposure Score	Assesses a company's exposure to the risks associated with the Product Safety and Quality Key Issue. Expressed as a 0 to 10 score, where 10 indicates highest exposure.
prod_sfty_quality_indicative_mgmt_score	Product Safety and Quality Indicative Management Score	Assesses a company's management practices with regards to the Product Safety and Quality Key Issue. Inferred based on management proxies. Expressed as a 0 to 10 score, where 10 indicates best management practices.
prod_sfty_quality_indicative_weight	Product Safety and Quality Indicative Weight	Represents the contribution of the Product Safety and Quality Key Issue to the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
prod_sfty_quality_indicative_score	Product Safety and Quality Indicative Score	Indicative Key Issue score of a company with regards to the Product Safety and Quality Key Issue. Expressed as a 0 to 10 score, where 10 indicates best performance.
environmental_pillar_indicative_score	Environmental Pillar Indicative Score	Indicative Environmental Pillar Score. Expressed as a 0 to 10 score, where 10 indicates best performance.
environmental_pillar_indicative_weight	Environmental Pillar Indicative Weight	Weight of the Environmental Pillar Score in the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
social_pillar_indicative_score	Indicative Social Pillar Score	Indicative Social Pillar Score. Expressed as a 0 to 10 score, where 10 indicates best performance.
social_pillar_indicative_weight	Social Pillar Indicative Weight	Weight of the Social Pillar in the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
governance_pillar_indicative_score	Governance Pillar Indicative Score	Indicative Governance Pillar Score. Expressed as a 0 to 10 score, where 10 indicates best performance.
governance_pillar_indicative_weight	Governance Pillar Indicative Weight	Weight of the Governance Pillar in the overall Indicative ESG Score of a company. Expressed as a percentage in [0, 100].
indicative_esg_score	Indicative ESG Score	Indicative ESG Score. Expressed as a 0 to 10 score, where 10 indicates best performance.



indicative_esg_industry_adjusted_score	Indicative ESG Industry-Adjusted Score	Indicative ESG industry-adjusted Score. Expressed as a 0 to 10 score, where 10 indicates best performance.
industry_indicative_esg_score_mean	Indicative ESG Score Industry Average	Indicative ESG Score average of the company's ESG Industry
industry_indicative_esg_score_stdev	Indicative ESG Score Industry Standard Deviation	Indicative ESG Score standard deviation of the company's ESG Industry
esg_peer_industry	ESG Industry	ESG Industry Name
industry_indicative_esg_score_min	Indicative ESG Score Industry Minimum	Minimum benchmark Indicative ESG Score of the industry peer set used to convert the absolute Indicative ESG Score to the relative Indicative ESG Industry- Adjusted Score



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 2222
Italy	+ 39 02 5849 0415
France	+ 33 17 6769 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 <u>www.msci.com</u>.



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 and their target. 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 nc. 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.