

ESG Ratings Process

MSCI ESG Research LLC

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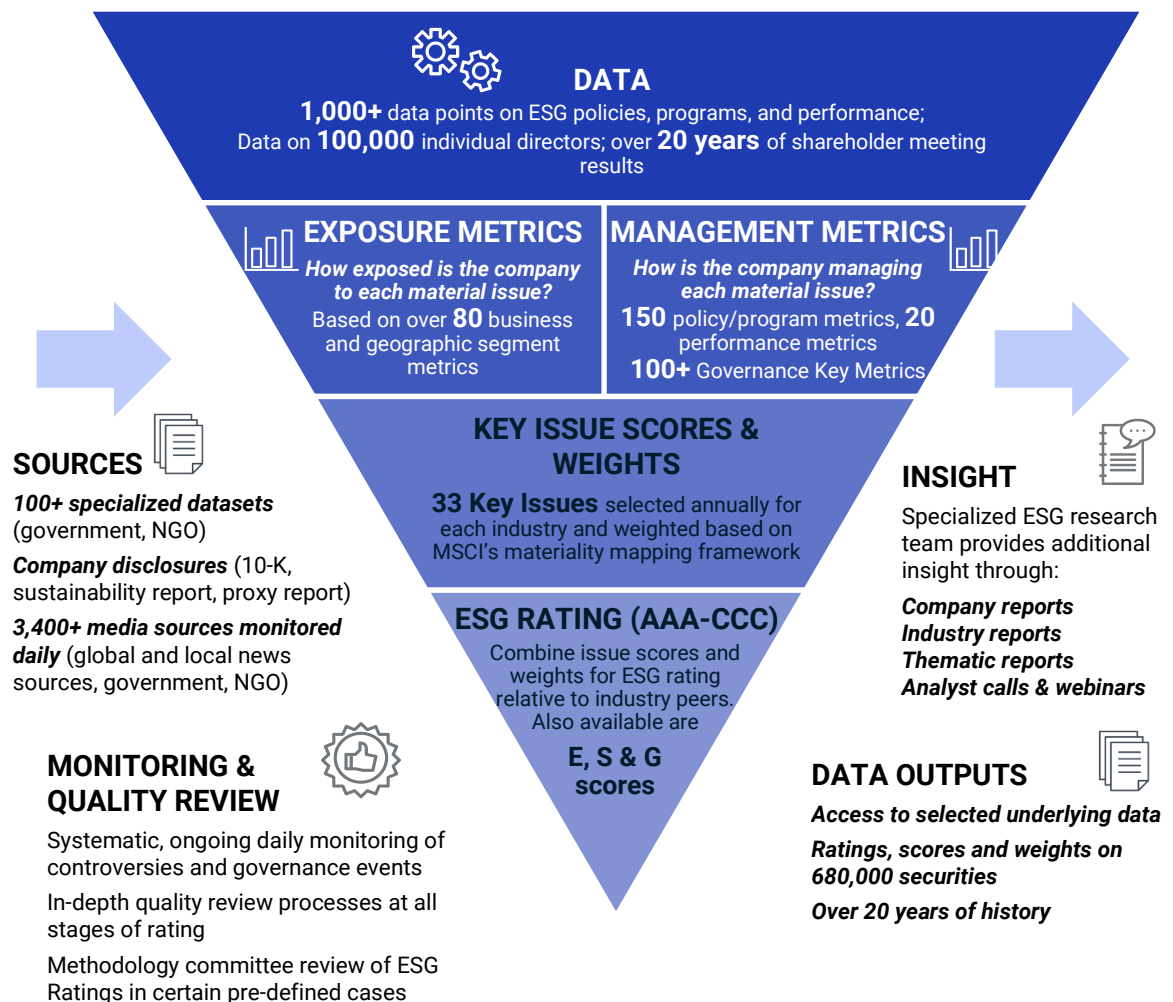
1 Rating, score and data updates

1.1 Obtaining ESG data

Our analytical staff assess thousands of data points across 33 ESG Key Issues, focusing on the intersection between a company's core business and the industry issues that can create significant risks and opportunities for the company.

On each Key Issue, we collect and standardize a wide range of publicly available data from both company-reported and alternative sources. Alternative data is not reported by companies and is sourced from external public data sources, such as from government agencies and non-governmental organizations (NGOs).

Exhibit 1: ESG Rating framework and process overview



1.1.1 Data sources

In the Environmental and Social Pillars and in the Corporate Behavior Theme, we assess the level of risk exposure each company faces by combining company-specific data on a company's operations with macro-level data relevant to each Key Issue.

- Data sources used to determine characteristics of a company's operations include its corporate reporting (annual reports, investor presentations and financial and regulatory filings).
- Data sources used to assign macro-level risk exposure to companies' geographies of operation and business segments (by Standard Industrial Classification [SIC]) include:
 - Comprehensive Environmental Data Archive (CEDA)
 - Eurostat
 - US Department of Energy
 - International Council on Clean Transportation
 - Lamont-Doherty Earth Observatory, Columbia University
 - Organisation for Economic Co-operation and Development (OECD)
 - World Development Indicators (WDI)
 - United Nations Development Programme (UNDP)
 - International Telecommunication Union
 - US EPA's Energy Star
 - US EPA's Toxics Release Inventory (TRI)
 - Risk-Screening Environmental Indicators (RSEI)
 - US Bureau of Labor Statistics (BLS)
 - International Labour Organization (ILO)
 - US Occupational Safety & Health Administration (OSHA)
 - National Highway Traffic Safety Administration
 - US Consumer Product Safety Commission
 - UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
 - International Chemical Secretariat (ChemSec)
 - Danish Working Environment Authority
 - International Monetary Fund (IMF)
 - World Health Organization (WHO)
 - World Resource Institute (WRI)
 - US Census Bureau Current Population Survey Supplement
 - United Nations (UN) Population Division
 - US Department of Agriculture (USDA)
 - Food and Drug Administration (FDA)
 - World Bank Governance Indicators (WGI)
 - Transparency International (TI)
 - UNESCO Institute of Statistics
 - World Bank (WB)
 - Refinitiv

To assess companies' risk management approach, we obtain information from the following sources:

- **Corporate documents:** annual reports (including 10-Ks), proxy filings, environmental and social reports, annual general meeting voting results, securities filings, corporate websites and Carbon Disclosure Project (CDP) responses.
- **Government data:** central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc. We continue to assess the value of other similar information sources, particularly for European companies.
- **Popular, trade and academic journals:** accessed through websites, subscriptions and searches of online databases.
- **News media:** major news publications globally, including local-language sources across a range of markets.

To assess companies' governance, we also obtain information from the following:

- **Regulatory sources and stock exchanges:** Company-level and director-level information from regulatory databases including company registries and national securities-regulator databases, and from stock exchange websites. Relevant provisions of company and securities laws (including listing-related and takeover regulation) from government/state websites and databases.

1.1.2 Assessment of private/unlisted issuers

For private/unlisted issuers, we focus our assessments on:

- The operations of the group that are financed in whole or in part by the bondholders (including its supply chain and products and services); and
- For corporate governance, on the corporate entity that includes the board of directors, where the key strategic and capital allocation decisions are made. The assessment of a company's ownership structure focuses on the identification of the ultimate owners.

1.2 Data and score updates

1.2.1 Ongoing updates of data and scores

Generally, data is obtained by MSCI ESG Research on an ongoing basis. Companies are monitored by MSCI ESG Research on a systematic and ongoing basis, including daily monitoring of controversies and governance events. Updates to underlying data and scores by MSCI ESG Research do not in all cases lead to an analyst review of the

ESG Rating. The Industry Adjusted Score and ESG Rating are only recalculated at the time of a MSCI ESG Research rating action and analyst review.

If certain datapoints are updated by MSCI ESG Research, the relevant scores will be automatically updated within a week. As noted above, updates to scores may not trigger a rating action. See Section 1.2.2 regarding mid-cycle ratings updates.

The following types of scores are updated on a weekly basis if there are updates to underlying inputs:¹

ESG Rating model scores that may be updated on a weekly basis	Possible data updates to MSCI ESG Research data that result in a score change
Corporate Governance Key Issue Scores	<ul style="list-style-type: none"> • New corporate governance data disclosed in a proxy filing • Update to peer set data that impacts the peer rankings used in certain Corporate Governance Key Metric calculations • Relevant data submitted by an issuer is published by MSCI ESG Research
Key Issue Controversy Deductions	<ul style="list-style-type: none"> • New controversy is mapped to a weighted Key Issue • Upgrade or downgrade to the most severe controversy
Key Issue Management Scores	<ul style="list-style-type: none"> • Update to Carbon Emissions Management Score due to new carbon emissions disclosure • Update to Key Issue Controversy Deduction • Relevant data submitted by an issuer is published by MSCI ESG Research
Key Issue Exposure Scores	<ul style="list-style-type: none"> • New business segment data disclosure • New geographic segment data disclosure
Key Issue Scores	<ul style="list-style-type: none"> • Update to Key Issue Exposure Score • Update to Key Issue Management Score
Theme Scores and Pillar Scores	<ul style="list-style-type: none"> • Update to any of the weighted Key Issue Scores
Weighted Average Key Issue Score	<ul style="list-style-type: none"> • Update to any of the weighted Key Issue Scores

¹ Timing may vary to various or unexpected circumstances

Recent developments affecting ESG scores are detailed in a dedicated section on ESG Ratings reports. ESG Ratings reports display last updates as follows:

- **Rating action date:** the date of the last ESG Rating review.
- **Last report update:** the date of the last update of any data point displayed in the ESG Rating report.
- **Last score change date:** the date of the last update of a Key Issue Score.

The “rating action” date shows when the company last received a full in-depth review and rating.

1.2.2 Timing of analyst review

Companies’ ESG Ratings are reviewed by industry analysts, typically annually. The timing of analyst reviews is determined solely by MSCI ESG Research. At the time of review, analysts incorporate the latest data disclosed by companies. MSCI ESG Ratings aim to incorporate data from all corporate disclosures published up to three months prior to the ESG Rating action date.

Mid-cycle updates may occur in certain cases determined at the sole discretion of MSCI ESG Research, such as:

- An upgrade/downgrade in controversy severity from/to Very Severe.
- Exceptional circumstances.

MSCI ESG Research may extend the rating review period beyond twelve months from the last ESG Rating action date, including due to some of the following possible reasons:

- To reduce rating volatility following major methodology changes.
- To accommodate more complex reviews.
- To align the timing of ratings updates to company reporting cycles.

2 Ratings quality assurance process

The ESG Ratings process includes multiple steps to review the quality of the analysis and consistent application of the methodology.

Formal in-depth quality review processes take place at each stage of assessment, including automated and manual quality checks of data, oversight of ratings and reports by industry leads and regional team leads. Approval by the Ratings Methodology Committee is required for any exceptions to a standard company assessment (including changes to Key Issue selections and weights), new high (AAA) or low (CCC) company ratings, or rating changes of two letter ratings. The ESG Methodology Committee reviews escalations from the Ratings Methodology Committee and proposed changes to the ESG Ratings model.

2.1 Key steps in quality review process

The following quality assurance and oversight processes are observed:

- **Quality review process:** Data quality checks are conducted on all companies prior to the publication of their ESG Rating.
- **Analytical review:** All ESG Ratings are subject to review by an analyst and a reviewer. In cases where the analyst review results in a proposal for a change to an ESG Rating, and for defined other circumstances, the Rating is subject to a review by a second senior analyst.
- **Ratings Methodology Committee:** This committee addresses the following specific cases, as well as other escalations related to methodology application:
 - Proposal to add a company-specific Key Issue in a company's assessment.
 - Ratings change of two letters or more.
 - New AAA- or CCC-rated company.
 - Requests for deviations from the weights for industry Key Issues due to significant differences in business model from the industry peer set.
 - Requests to deviate from standard methodology for including or excluding controversies cases in a company's ratings analysis.
- **ESG Assessment Committee:** This committee presides over methodology application cases escalated from the Ratings Methodology Committee and other critical methodology application cases, such as cases resulting from a significant market event.

- **ESG Methodology Committee:** This committee reviews changes to the ESG Ratings methodology, including:
 - Updates to the ESG Industry Materiality Map, which determines the relevance of ESG Key Issues to sub-industries.
 - Changes to data sources or calculations used in ESG Ratings.
 - Methodology proposals for consultation.

Prior to the commencement of the Ratings assessment, certain decisions which influence the assessment are reviewed by the following committees:

- **Business Activity Classification Methodology Committee:** Presides over the review and approval of business activity and industry classifications, including proposals to change the ESG Rating Industry assignment.
- **Entity Classification Methodology Committee:** Oversees the methodologies relating to the classification of corporate entities and identification of the reference entities (operating and governance reference entities). Approval by this committee is required for methodological overrides and where it is proposed to drop coverage for a fixed income issuer due to methodological or data availability reasons.

3 Communication with corporate issuers

MSCI ESG Research is committed to transparent communication with corporate issuers in our coverage universe. For more details, please refer to the “Procedures for Corporate Issuer Interaction” document.

4 Coverage, corporate actions and related changes

The MSCI ESG Ratings coverage universe is determined by issuers’ inclusion in certain equity and fixed income indexes. The coverage universe can change due to coverage expansions initiated by MSCI ESG Research and due to changes in index constituents, which are periodically rebalanced by the index administrator.

4.1 New additions to indexes in the ESG Ratings coverage universe:

- We aim to rate additions to the MSCI ACWI Index and MSCI US Investible Market Index (IMI) within one quarter of their inclusion in the relevant index.

- We aim to rate additions to any other indexes in the ESG Ratings coverage universe within two quarters of index inclusion.

4.2 Deletions to indexes in the ESG Ratings coverage universe:

- When a company is removed from the MSCI ESG Ratings coverage universe — for example, due to turnover in index constituents or due to corporate actions — the company's rating and report will no longer be updated, and its rating and report will be removed from the MSCI ESG Manager platform the following day, and from data feeds at the next scheduled data feed delivery (usually the first of the following month). If the company issues bonds, the case will be reviewed by the Entity Classification Methodology Committee for potential continuity of the ESG Rating as applied to its debt.

4.3 Spin-offs:

- If the new entity is a constituent of the MSCI ACWI Index or MSCI US IMI, we aim to research and rate it as a standalone entity within one quarter.
- If the company is in the ESG Ratings coverage universe, but not a constituent of the MSCI ACWI Index or MSCI US IMI, we aim to rate it as a standalone entity within two quarters.

4.4 Mergers and acquisitions:

- If an acquiring company has an existing ESG Rating, the acquiring company's assessment will consider the new acquired entity at the time of the next annual update for the acquiring company.
- If an acquiring company does not have an existing ESG Rating, even if the acquired entity has an ESG Rating, the company is considered a "new" entity and will be researched according to the index addition approach stated above.
- If a merger creates a new entity, it will be researched according to the index addition approach stated above.

4.5 Global Industry Classification Standard (GICS®)² sub-industry classification change:

- If a company's GICS sub-industry classification changes, its rating will be reviewed if there are any changes in its Key Issue mapping. We aim to undertake such a

² GICS, the global industry classification standard jointly developed by MSCI and Standard & Poor's

review within one quarter of the GICS sub-industry classification change taking effect.

- If a company's GICS sub-industry change is also accompanied by a change in its ESG Ratings Industry (the benchmark peer set), we reinitiate the company (i.e., with a neutral rating trend) in its new ESG Ratings Industry.

4.6 Name change:

The name of the company as listed in the MSCI ESG Manager platform will reflect the new name. However, the body of the company's report will continue to refer to its original name until the next annual rating update.

5 Methodology Governance and Methodology Changes

5.1 Methodology Governance

- **ESG Methodology Committee:** This committee considers proposals for methodological changes across the ESG Research Group, including but not limited to ESG Ratings. The ESG Ratings topics that are typically considered by the ESG Methodology Committee include the following:
 - Annual proposals of changes to industry ESG Key Issues or weights.
 - Proposed changes to the ESG Ratings methodology.
 - Quarterly maintenance reviews.
- **ESG Data Definitions Committee:** Oversees MSCI ESG Research's new and existing datapoints and their definitions across all ESG datasets.
- **Corporate Governance Methodology Committee:** Analysts may bring proposals to the Corporate Governance Methodology Committee for consideration, including the following:
 - Approval of data collection guidance for analysts.
 - Approval of Key Metric definitions and scoring.
 - Approval of guidance for the assessment of governance events and controversies.
 - Approval of changes to Home Markets.
 - Review of new datapoints and methodologies, the latter prior to submission to the ESG Methodology Committee.

5.2 Annual consultation

MSCI ESG Research typically conducts an annual review of the Key Issues assigned to each industry as well as their weights. This process may also identify emerging issues and those that have become less significant. As part of this process, MSCI ESG Research consults with clients about proposed changes to Key Issue selections for each industry as well as any proposed new Key Issues.

5.3 Changes resulting from exceptional circumstances

In addition to changes resulting from the annual consultation or other ordinary-course methodology changes and enhancements, in certain instances, such as due to an extraordinary event or unanticipated or exceptional circumstances, MSCI ESG Research may determine that it is necessary to change the ESG Ratings methodology or apply score adjustments for specific markets, industries or companies. These determinations are made by the ESG Methodology Committee or ESG Assessment Committee, as applicable, in order to better reflect the status of an affected market, industry or company when the methodology does not otherwise contemplate or capture the impact of the significant event or circumstance. For example, such events or circumstances could include, but are not limited to, significant geopolitical conflicts, market upheaval, force majeure or similar events that limit or reduce access to relevant or reliable input data. MSCI ESG Research will inform clients in the event of any such change or adjustment and communicate the planned implementation timing and method.

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