

ESG Ratings Process

MSCI ESG Research LLC

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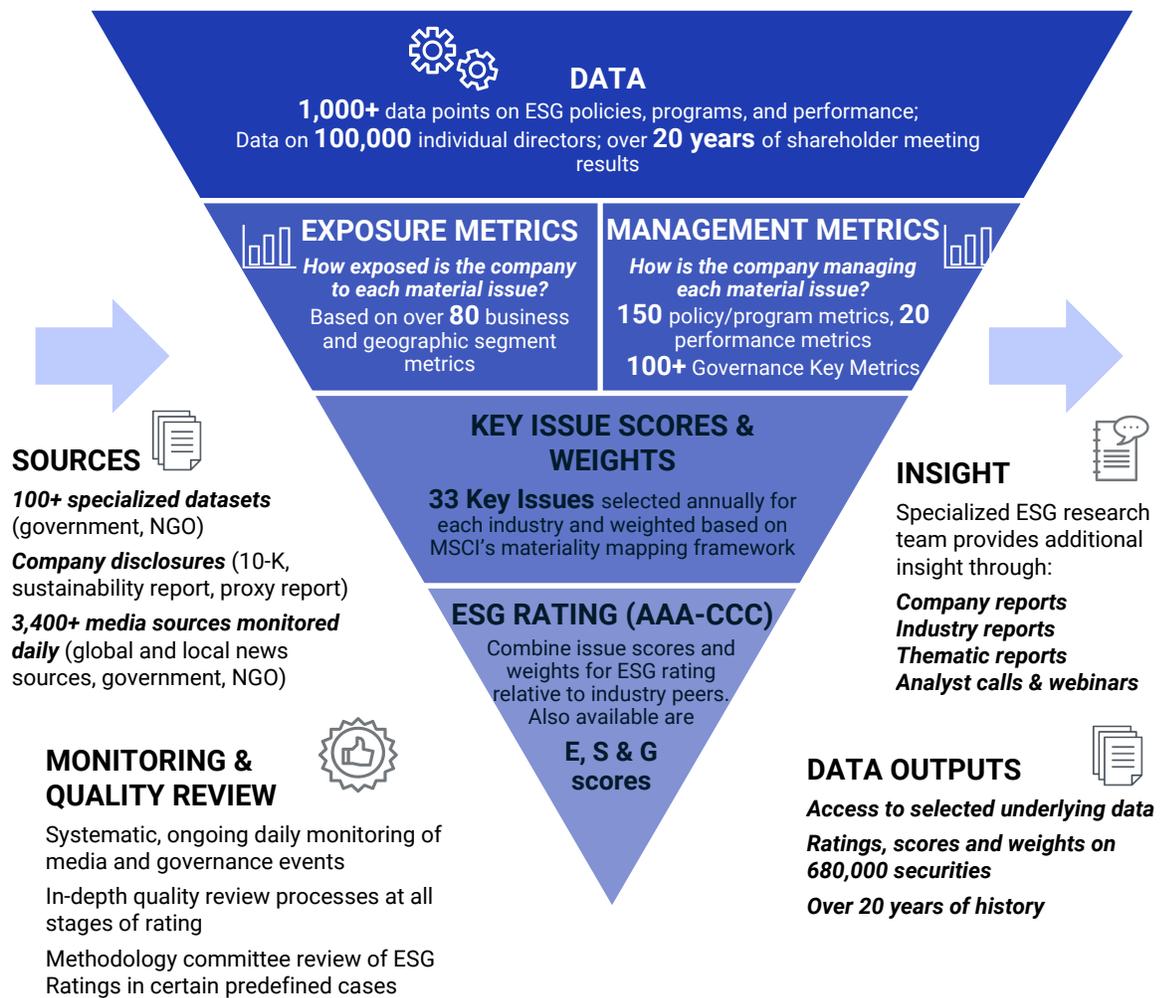
1 Rating, score and data updates

1.1 Obtaining ESG data

MSCI ESG Research 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 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 nongovernmental 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 for exposure metrics

- 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)
 - 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

Data sources for management metrics

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 CDP (formerly known as the Carbon Disclosure Project) responses.
- **Government data:** central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), Resource Conservation and Recovery Act (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.

1.2 Entity selection & data mapping

We provide ESG Ratings on corporate entities (usually companies) that raise capital by the sale of securities. The capital raised may fund either the issuer itself or another related entity or entities. We select the optimal entities to evaluate for ESG Ratings, known as the data entities.

1.2.1 Selection of data entities

The data entities for ESG Ratings are determined having regard to:

- The governance and operational reference entities and proxy reference entities,
- The ESG and financial characteristics of the issuer and related entities,

and subject to the minimum data availability criteria being met.

ESG Ratings apply two types of data entities:

- **Operational:** The entity used for the evaluation of the Environment and Social Pillars and the Corporate Behavior Theme, and
- **Governance:** The entity used for the evaluation of the Corporate Governance Theme.

Reference Entities

Reference entities and proxy reference entities are identified by a set of proprietary rules and represent the first and second choice of entity for selection as data entities, respectively.

They are identified by considering the issuer’s entity classification and its relationships with other entities in the financing structure. The first entity identified by these rules is designated as the reference entity, and the second entity identified (if any) is designated as the proxy reference entity.

Proxy reference entities may be considered for use as data entities in some circumstances, including where:

- A reference entity fails to meet the minimum data availability criteria; or
- The proxy entity is already directly evaluated and the reference entity is determined to have similar ESG and financial characteristics to the proxy entity.

ESG and financial characteristics

Entities may have similar ESG and financial characteristics where they have the same **geographic profile** (based on where their operations are located) and where they have the same **business activity profile** (based on the SIC code classifications of their activities).

Minimum data availability criteria

The minimum financial and ESG data required for an ESG Rating to be undertaken are as follows:

- A list of the names of the members of the board of directors or equivalent governance body; and
- An income statement or equivalent.

Evaluation boundary

The evaluation boundary represents the entities whose activities and reporting are within the scope of the ESG Rating.

For an equity issuer, the evaluation boundary is all entities within the scope of the consolidated reporting of the group.

Note that where an equity issuer has a direct evaluation for ESG Ratings (as opposed to an evaluation based on data mapping, as detailed below) and a discrete part of its business is also directly evaluated for ESG Ratings, the evaluation boundary for the latter will sit inside the evaluation boundary for the former.

Certain bond issuers may finance only a discrete part of the group (e.g., a single business line or division, a specific operating company, the captive finance activities, etc.). In such cases, the scope of the ESG Rating for the operational data entity will extend only to that discrete part of the group.

1.2.2 Data Mapping

Data Mapping is the process whereby ESG evaluations for a company (a data entity) are attributed to related companies. ESG evaluations are mapped based on observed parent-subsidary relationships, subject to certain company and data point requirements.

- Certain companies (such as those classified as financing companies) included in the coverage universe may be covered by data mapping from the relevant data entity.
- Bond issuers outside the ESG Ratings coverage universe may also have their evaluations mapped from parent entities that are included in the ESG Ratings coverage universe.

Note that ESG evaluations are not mapped to:

- Equity issuers, or
- Companies that have already been evaluated by MSCI ESG Research.

1.3 Data and score updates

1.3.1 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 media and governance events. Updates to underlying data and scores by MSCI ESG Research do not in all cases lead to an analytical review of the ESG Rating. The Industry Adjusted Score and ESG Rating are only recalculated at the time of an MSCI ESG Research rating action.

Certain data point updates are reflected in the associated relevant scores on a weekly basis. As noted above, updates to scores may not trigger a rating action. See Section 1.3.2 regarding ad hoc 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 or disseminated through MSCI ESG Research distribution channels.
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 due 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 indicates the date of the last comprehensive review of a company and consequent assignment of the associated ESG Rating.

1.3.2 Timing of analytical review

Companies’ ESG Ratings are reviewed by analytical staff, typically annually. The timing of analytical review is determined solely by MSCI ESG Research. At the time of review, analytical staff assess and incorporate relevant data updates. MSCI ESG Ratings aim to incorporate data from all corporate disclosures published up to three calendar months prior to the ESG Rating action date.

Ad hoc 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 implement an imminent methodology change before a contemplated ESG Ratings update.
- To accommodate more complex reviews.

2 Quality of the ratings process

The ESG Ratings process includes multiple steps to review the quality of data, 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 ESG 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 Assessment Committee reviews escalations from the ESG Ratings Methodology Committee. The ESG Methodology Committee reviews and approves proposed changes to the ESG Ratings model and methodologies.

2.1 Key steps in quality review process

The following quality assurance and oversight processes are observed:

- **Data quality assurance:** Data quality checks are conducted on all companies prior to the publication of their ESG Rating. The quality assurance process for data used in ESG Ratings includes a combination of system and manual checks, such as system-driven validation rules, exception-based checks, and processes to identify outliers and outdated data. Certain inputs into ESG Ratings, such as ESG Controversies and business activity classifications, may also undergo a peer and/or committee review.
- **Analytical review:** ESG Ratings are subject to review by MSCI ESG Research analytical staff. In cases where an analyst review results in a proposal for a change to an ESG Rating, and for defined other circumstances, the Rating is subject to further review by a senior analyst.
- **ESG 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 ESG Ratings Methodology Committee and other critical methodology application cases, such as cases resulting from a significant market event.

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. Corporate rated entities may contact MSCI ESG Issuer Communications at esgissuercomm@msci.com with queries.

4 Coverage, corporate actions and related changes

For ESG Ratings, the issuer universe is defined based on the inclusion of equity or bond securities in certain indexes known as “targeted indexes.” Where the issuer universe includes 100% of the constituents of a targeted index, that index is known as a “tracked index.”

4.1 Issuer universe expansions

The expansion of the issuer universe is considered periodically. Issuers are added to the issuer universe from targeted indexes based on an internal prioritization process.

4.2 Issuer universe changes

Issuer universe changes for ESG Ratings (including both additions and removals) may be triggered by changes in the constituents of tracked equity indexes.

4.2.1 Issuer universe additions

- We aim to evaluate 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 evaluate additions to any other tracked indexes within two quarters of index inclusion.
- Additions to other targeted indexes are considered as part of periodic issuer universe expansions.

4.2.2 Issuer universe removals

When an issuer is removed from a targeted index – for example, due to turnover in index constituents or due to corporate actions – it will be removed from the issuer universe if:

- The issuer is no longer included in any targeted index; and
- It does not serve as a data entity for any issuer included in a targeted index.

4.2.3 Spin-offs

- If the spun-off entity is a constituent of the MSCI ACWI Index or MSCI US IMI, we aim to evaluate it as a stand-alone entity within one quarter.
- If the spun-off entity is in the targeted issuer universe, but is not a constituent of the MSCI ACWI Index or MSCI US IMI, we aim to evaluate it as a stand-alone entity within two quarters.

4.2.4 Mergers and acquisitions

- If an acquiring company has an existing ESG Rating, the acquiring company's assessment will consider the newly acquired entity at the time of the acquiring company's next annual update.
- 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 evaluated according to the issuer universe addition approach stated above.
- If a merger creates a new entity, it will be evaluated according to the issuer universe addition approach stated above.

4.3 Changing a data entity

The classification as a data entity for an ESG Rating may be reviewed to assess its continued appropriateness. Proposals for a change in data entity are approved by the Entity Classification Methodology Committee.

The circumstances which initiate such a review include:

- A periodic review being undertaken by ESG analytical personnel for ESG Ratings;
- Following significant corporate actions; or
- Following significant changes to a financing structure.

4.4 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 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.

4.5 Name change

The name of the company as listed in MSCI ESG distribution platforms 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 reviews and approves 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:
 - Proposed changes to the ESG Ratings methodology, including:

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

- 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.
- Quarterly maintenance reviews.
- **ESG Data Definitions Committee:** Oversees MSCI ESG Research’s new and existing data points and their definitions across all ESG data sets.
- **Corporate Governance Methodology Committee:** Analytical staff may bring proposals to the Corporate Governance Methodology Committee for consideration, including the following:
 - Approval of data collection guidance .
 - 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 data points and methodologies, the latter prior to submission to the ESG Methodology Committee.

5.2 Annual consultation

MSCI ESG Research reviews the ESG Ratings methodology annually to ensure that it effectively assesses companies’ management of financially relevant ESG risks and opportunities. The results of this review may lead to proposed changes to the ESG Ratings methodology.

Prior to implementing material changes to the ESG Ratings methodology, MSCI ESG Research invites feedback from investor clients and rated corporate issuers through a consultation process, and may invite feedback from other market participants, as relevant. This process ensures that information on potential methodology changes is transparently communicated and that feedback from investor clients and rated corporate issuers is considered. Feedback received through consultations supports innovation and provides MSCI ESG Research with a range of perspectives from market participants.

In addition to consulting on material changes to the ESG Ratings methodology, which is at the discretion of the MSCI ESG Methodology Committee, the ESG Rating consultation may include regularly occurring topics, including proposed changes to the MSCI ESG Industry Materiality Map and/or to industry peer sets. In certain cases, MSCI ESG Research may solicit feedback on minor changes through consultation.

After considering the feedback received through the consultation process, the decision to approve a change lies solely with MSCI ESG Research, through the ESG Methodology Committee. The results of the consultation are communicated to all investor clients and rated corporates at the same time – typically in the first quarter of every year.

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 may 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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