MSCI ESG Ratings Methodology: Financing Environmental Impact Key Issue

MSCI ESG Research LLC

January 2024

Contents

Introduction

This document provides essential information on the components of the Financing Environmental Impact Key Issue to enable users of ESG Ratings to understand how our outputs are determined. Financing Environmental Impact is a Key Issue in the Environmental Pillar of the MSCI ESG Ratings model. Financial institutions are evaluated on the environmental risks of their lending and underwriting activities and their ability to capitalize on opportunities related to green finance.

For additional details on the MSCI ESG Ratings Model, refer to Section 2, Data, ratings and scores, of "ESG Ratings Methodology."

Exhibit 1: MSCI ESG Key Issue Hierarchy

3 Pillars	10 Themes	33 ESG Key Issues
Environmental	Climate Change	Carbon Emissions
		Climate Change Vulnerability
		Financing Environmental Impact
		Product Carbon Footprint
	Natural Capital	Biodiversity & Land Use
		Raw Material Sourcing
		Water Stress
	Pollution & Waste	Electronic Waste
		Packaging Material & Waste
		Toxic Emissions & Waste
	Environmental Opportunities	Opportunities in Clean Tech
		Opportunities in Green Building
		Opportunities in Renewable Energy
Social	Human Capital	Health & Safety
		Human Capital Development
		Labor Management
		Supply Chain Labor Standards
	Product Liability	Chemical Safety
		Consumer Financial Protection
		Privacy & Data Security
		Product Safety & Quality
		Responsible Investment

3 Pillars	10 Themes	33 ESG Key Issues
	Stakeholder Opposition	Community Relations
		Controversial Sourcing
	Social Opportunities	Access to Finance
		Access to Health Care
		Opportunities in Nutrition & Health
Governance	Corporate Governance	Board
		Pay
		Ownership & Control
		Accounting
	Corporate Behavior	Business Ethics
		Tax Transparency

Risks associated with this Key Issue

- Increased credit defaults from borrowers that suffer losses related to a range of environmental concerns, including operational disruption, loss of market access, liabilities and asset impairment.
- Damage to corporate reputation from financing environmentally harmful projects.

Financing Environmental Impact Key Issue Score

The Financing Environmental Impact Key Issue Score evaluates the company's level of exposure to, and management of risks on this Key Issue. The Key Issue Score on this Key Issue is based on the Exposure Score and the Management Score using the formula below. The Exposure Score and the Management Score are combined such that a higher level of exposure requires a higher level of demonstrated management capability in order to achieve the same overall Key Issue Score.

$$KI_i = 7 - (\max(EXP_i, 2) - MGMT_i)$$

Where:

- KI_i is the Key Issue Score for company i.
- EXP_i is the Exposure Score for company i.
- $MGMT_i$ is the Management Score for company i.

Financing Environmental Impact Management Score

The Management Score evaluates the company's ability to manage its exposure to risks on this Key Issue. It is based on an average of the scores associated with each of the Management Score categories listed below, modified by Controversies. These scores are derived from data points that are scored on a 0-10 scale, with 10 corresponding to best practice and 0 corresponding to lack of management. Refer to Section 3.3, Analyzing risk management, of "ESG Ratings Methodology" for additional details. Sources are company disclosures except where otherwise indicated. The following formula is used to calculate the Financing Environmental Impact Management Score - Excluding Controversies:

$$MGMT_{FEI,i} = \frac{ERMS_{FEI,i} + ECP_{FEI,i} + ERMI_{FEI,i} + ERMO_{FEI,i} + EFO_{FEI,i}}{5}$$

Where:

- $MGMT_{FEI,i}$ is the Financing Environmental Impact Management Score - Excluding Controversies for company i.
- $ERMS_{FEI,i}$ is the ESG Risk Management (ESRM) Systems Score for company i.
- $ECP_{FEI,i}$ is the Environmental Credit Policy Score for company i.
- $ERMI_{FEI,i}$ is the ESRM Integration Score for company i.
- $ERMO_{FEI,i}$ is the ESRM Oversight Score for company i.
- $EFO_{FEI,i}$ is the Environmental Finance Opportunities Score for company i.

The following data points, without constituting an exhaustive list, are representative of the inputs to the Management Score and are used in the Management Score calculation:

Management Score category: ESG Risk Management (ESRM) Systems Score

- **Formal management systems to assess ESG risks in financing activities.**

Definition: Describes management systems to assess ESG risks in financing activities. Best practice includes consideration of ESG factors in credit assessments and risk appetite statement.

- **Scope of management system to assess ESG risks in financing activities.**

Definition: The scope of a company’s formal management systems to assess ESG risks in financing activities. Best practice is to include all credit and investment banking operations.

Management Score category: ESRM Integration Score

- **Involvement of group credit risk in ESG due diligence.**

Definition: The extent to which the group responsible for credit risk management is directly involved in ESG due diligence.

- **ESG due diligence triggers and risk-escalation process clearly defined.**

Definition: The level of transparency provided around the escalation process for triggering credit evaluations based on ESG risks. Best practices are to clearly define the ESG risk escalation process, provide details on thresholds for triggering escalation, and provide examples of extra due diligence where necessary.

Management Score category: ESRM Oversight Score

- **Oversight of ESG risk management in financing activities.**

  Definition: The group or individual that has ultimate responsibility over the integration of ESG considerations in financing and investment activities.

- **Evidence of board-level engagement on climate-related risk.**

  Definition: The extent of engagement from the board of directors on climate risk.

- **Conducts climate-related risk analysis.**

  Definition: The company's initiatives to assess the business risks associated with climate change. Best practice is to conduct group-wide assessments of business risks using scenario analysis.

Management Score category: Environmental Credit Policy Score

- **Credit policy related to agriculture.**

  Definition: Indicates whether the company has developed binding or non-binding environmental credit policies, or has adopted voluntary standards, related to agriculture industry financing.

- **Credit policy related to power utilities.**

  Definition: Indicates whether the company has developed binding or non-binding environmental credit policies, or has adopted voluntary standards, related to power industry financing.

- **Credit policy related to mining.**

  Definition: Indicates whether the company has developed binding or non-binding environmental credit policies, or has adopted voluntary standards, related to mining industry financing.

- **Credit policy related to oil and gas.**

Definition: Indicates whether the company has developed binding or non-binding environmental credit policies, or has adopted voluntary standards, related to oil and gas industry financing.

- **Credit policy related to biodiversity.**

Definition: Indicates whether the company has developed binding or non-binding environmental credit policies, or has adopted voluntary standards, related to biodiversity.

Management Score category: Environmental Finance Opportunities Score

- **Involvement in green financing and securities.**

Definition: The extent to which a company invests in green securities or is involved in the structuring of green financing.

- **Sustainability-related financial product development.**

Definition: The extent to which a company has integrated sustainability factors into its financial products, either through pricing mechanisms or other related green financing methods.

Treatment of covered bonds

For institutions that are exclusively refinancing vehicles for multiple loan originators via the issuance of covered bonds, the Financing Environmental Impact Management Score is calculated through a "market standard" approach. It is computed as the average Financing Environmental Impact Management Score of relevant loan-originating credit institutions with an MSCI ESG Rating in the same domicile country. For refinancing vehicles with a single loan originator, ESG assessments are mapped to the originator.

Controversies

A controversy deduction ranging from 0 to 5 points is subtracted from the overall Management Score, based on the severity and type of controversies facing the company on this Key Issue. The following categories of controversies are used in the assessment.

- Controversial investment controversies.

For more details on how controversies are included in the MSCI ESG Ratings model, refer to Section 3.3.2, Controversies cases, of "ESG Ratings Methodology."

Financing Environmental Impact Exposure Score

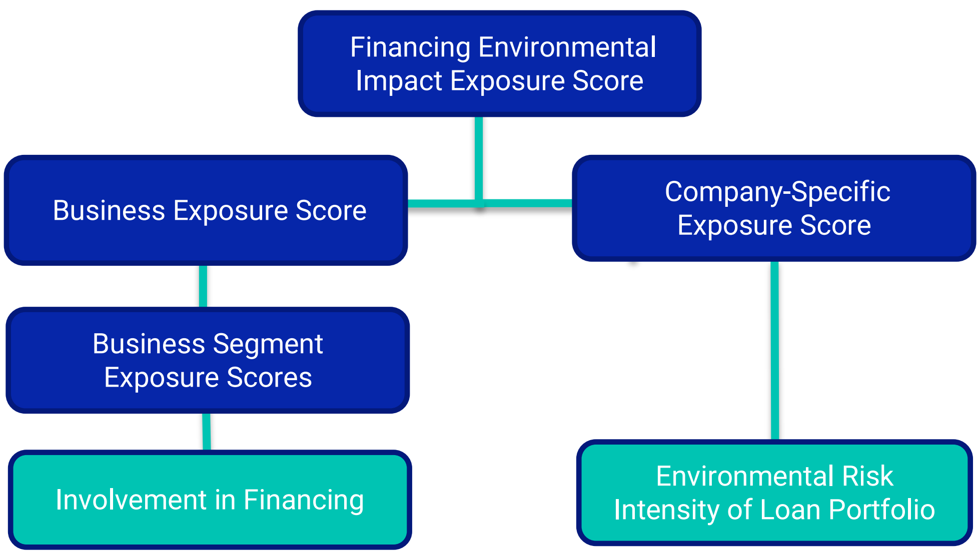
The Financing Environmental Impact Exposure Score evaluates the company's exposure to risks on this Key Issue. It is based on the Business and Company-Specific Exposure Scores. The Business Exposure Score and Company-Specific Exposure Score are scored on a 0-10 scale, with 10 corresponding to the highest risk and 0 corresponding to the lowest risk. Refer to Section 3.2, Analyzing Risk Exposure, of "ESG Ratings Methodology" for additional details. The following formula is used in the Financing Environmental Impact Exposure Score calculation:

$$EXP_{FEI,i} = BUS_{FEI,i}(1 + 0.1(\,COM_{FEI,i} - 5))$$

Where:

- $EXP_{FEI,i}$ is the Financing Environmental Impact Exposure Score of company i.
- $BUS_{FEI,i}$ is the Business Exposure Score of company i.
- $COM_{FEI,i}$ is the Company-Specific Exposure Score of company i.

Exhibit 2: Exposure Score components



Business Exposure Score

The Business Exposure Score is a weighted average of the Business Segment Exposure Scores of a company's business segments. Scores are weighted by the proportion of a company's total assets in each business segment,[1] using the following formula to calculate the Business Exposure Score:

[1] The percentage of assets is typically calculated as the company-reported asset value of the segment divided by the total asset value. In certain cases, industry-specific metrics are used to calculate the percentage of assets, such as power generation, production volume or reserve value. In cases where neither segment assets nor a relevant industry-specific proxy is available, the percentage is calculated based on segment revenue.

$$BUS_{FEI,i} = \sum_{j=1}^{n_i} w_{Asset,i,j} BSE_{FEI,j}$$

Where:

- $BSE_{FEI,j}$ is the Business Segment Exposure Score for business segment j.
- $w_{Asset,i,j}$ is the weight of business segment j for company i based on the contribution to total company assets.
- n_i is the number of business segments of company i.

Business Segment Exposure Scores

The Business Segment Exposure Score of a business segment is based on a mapping of the business segment as disclosed by the company to a corresponding business activity. MSCI ESG Research uses the Standard Industrial Classification (SIC) system along with industry-specific adjustments to define business activities. The score associated with a business activity is used to calculate a Business Segment Exposure Score. Each business activity score is determined by a qualitative assessment of whether a business activity has a core involvement in lending or underwriting activities. A higher involvement will result in a higher Business Segment Exposure Score for the business segment.

Company-Specific Exposure Score

The Company-Specific Exposure Score is determined by the weighted average of environmental risk associated with the industry exposures of a loan portfolio.

$$COM_{FEI,i} = \left(Z_{ERI,i} * 2\right) + 3$$

Where:

- $COM_{FEI,i}$ is the Company-Specific Exposure Score for company i.
- $Z_{ERI,i}$ is the standardized Environmental Risk Intensity of company i's loan portfolio.

The standardized Environmental Risk Intensity of company i's loan portfolio is calculated using the following formula:

$$Z_{ERI,i} = \frac{AVG_{ERI,i} - \mu_{ACWI}}{\mu_{ACWI}}$$

Where:

- $AVG_{ERI,i}$ is the weighted average environmental risk intensity of company i based on its loan portfolio.
- μ_{ACWI} is the average of weighted average environmental risk intensities of companies in the MSCI ACWI Index.

- σ_{ACWI} is the standard deviation of weighted average environmental risk intensities of companies in the MSCI ACWI Index.

The weighted average environmental risk intensity of the company is the weighted average of environmental risk associated with the industry exposures of the loan portfolio, calculated using the following formula:

$$AVG_{ERI,i} = \sum_{k=1}^{n_i} lpc_{k,i} ERI_k$$

Where:

- $lpc_{k,i}$ is the value of loans to industry k as a proportion of the total loan book of company i.
- ERI_k is the environmental risk intensity score of industry k based on the industry's average risk exposure to environmental issues.
- n_i is the number of industry loan segments disclosed by company i

Data Sources

The following sources are used to determine the Financing Environmental Impact Exposure Score:

MSCI ESG Research, Refinitiv, company disclosures.

Model update history

- In December 2022, the Financing Environmental Impact Key Issue was updated to score a covered bond issuer's risk exposure and risk management based on the cover pool composition and the average Financing Environmental Impact Management Score of all loan-originating credit institutions with an MSCI ESG Rating in the relevant country, respectively.
- In November 2020, the Financing Environmental Impact Key Issue was updated with a new methodology to assess the environmental risk of bank loan portfolios based on their industry credit exposures.

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 research-enhanced 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 governance-related business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research LLC. are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc.

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

Notice and disclaimer

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research may constitute investment advice. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK).

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