

MSCI ESG Ratings Methodology: Privacy & Data Security Key Issue

MSCI ESG Research LLC

October 2023



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Introduction

This document provides essential information on the components of the Privacy & Data Security Key Issue to enable users of ESG Ratings to understand how our outputs are determined. Privacy & Data Security is a Key Issue in the Social Pillar of the MSCI ESG Ratings model. Companies are evaluated on the amount of personal data they collect, their exposure to evolving or increasing privacy regulations, their vulnerability to potential data breaches, and their systems for protecting personal data.

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
	Climate Change	Carbon Emissions
		Climate Change Vulnerability
		Financing Environmental Impact
		Product Carbon Footprint
	Natural Capital	Biodiversity & Land Use
		Raw Material Sourcing
Environmental		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
	Human Capital	Health & Safety
		Human Capital Development
		Labor Management
		Supply Chain Labor Standards
Social	Product Liability	Chemical Safety
		Consumer Financial Protection
		Privacy & Data Security
		Product Safety & Quality
		Responsible Investment
Stakeholder Opposition Social Opportunities	Stakeholder Opposition	Community Relations
		Controversial Sourcing
	Access to Finance	
	Social Opportunities	Access to Health Care



3 Pillars	10 Themes	33 ESG Key Issues
		Opportunities in Nutrition & Health
Cayamanaa	Corporate Governance	Board
		Pay
		Ownership & Control
Governance		Accounting
	Corporate Behavior	Business Ethics
		Tax Transparency

Risks associated with this Key Issue

- Loss of revenue or unanticipated remediation and litigation costs in the event of a data breach or misuse.
- Damage to reputation in the event of a breach or controversy over how data is used.
- Loss of significant market or forced change in business model if regulatory action restricts how companies may use data.
- Increased costs to comply with new or evolving regulations.

Privacy & Data Security Key Issue Score

The Privacy & Data Security 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*.



Privacy & Data Security Management Score

The Privacy & Data Security Management Score evaluates the company's ability to manage its exposure to risks on this Key Issue. It is based on the Management Score category 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 Privacy & Data Security Management Score - Excluding Controversies:

$$MGMT_{PDS,i} = PRA_{PDS,i}$$

Where:

- MGMT_{PDS,i} is the Privacy & Data Security Management Score Excluding Controversies for company i.
- *PRA_{PDS,i}* is the Performance 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: Practices Score

• Scope of information security management system certifications.

Definition: The scope of the company's information security management system certification to widely recognized standards. Best practice is for most (over 80%) of owned operations to be certified to widely recognized standards, such as ISO 27001, TRUSTe, Privacy Mark and SSAE16 soc2.

Type of information security management system certification.

Definition: The type of information security management system certification obtained by the company (e.g., ISO 27001, TRUSTe, Privacy Mark, SSAE16 soc2 or another standard).

Scope of employee training on privacy and data security.



Definition: The scope of the training employees receive on data security or privacy-related risks and procedures. Best practice is for training to be provided to all employees, including contractors.

Responsibility for privacy and data security.

Definition: The group (board-level committee, C-suite or executive committee, or special task force or risk officer) responsible for the company's privacy and data security strategy and performance.

Measures to address data breaches.

Definition: The scope of the data breach or incident response plan the company has in place, including whether the plan is proactive, reactive or limited in scope.

• Frequency of audits of information security system.

Definition: The frequency with which the company audits its information security policies and systems.

Collection, usage and retention of customer information.

Definition: Indicates whether the company commits to the principle of minimizing the amount of data handled on its customers and other individuals and does not collect personal data from third parties (except when required by law).

Consent policy for use of consumer data for secondary purposes.

Definition: The company's policy on obtaining consent before it rents, sells or provides personal data to third parties for purposes other than completing transactions/services.

Rights provided to consumers regarding the control of their data.

Definition: The extent of the rights provided by the company to individuals regarding the access, rectification and deletion of individuals' data.



Scope of data protection policy.

Definition: Indicates whether the company's data protection policy governs all or select business lines. A data protection policy must contain at least the following basic provisions: (1) clarifying collection purposes, (2) clarifying the means by which the company collects data, and (3) clarifying whether third parties have access to data and for what purposes.

• Data protection programs covering suppliers and business partners.

Definition: The extent of the company's data protection or privacy programs covering suppliers and business partners that handle the company's data or have access to the company's network. Best practice is for them to be required to have data protection policies or abide by the company's policy and for inspections to be conducted to verify their compliance.

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:

Privacy and data security 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."

Privacy & Data Security Exposure Score

The Privacy & Data Security Exposure Score evaluates the company's exposure to risks on this Key Issue. It is based on the product of the Business and Company-Specific Exposure Scores, combined with the Geographic Exposure Score. The Geographic Exposure Score functions as a multiplier on the Business Exposure Score and Company Specific Exposure Score, with an impact ranging from -50% to +50%. The Business Exposure Score and Geographic 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"



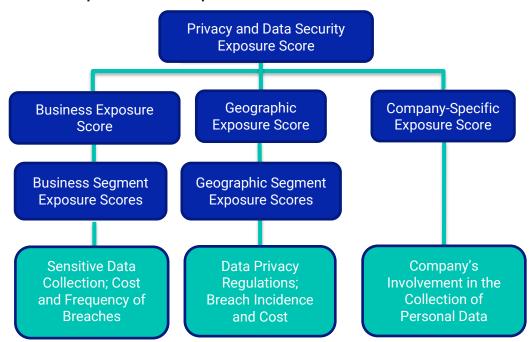
Methodology" for additional details. The following formula is used in the Exposure Score calculation:

$$EXP_{PDS,i} = (BUS_{PDS,i} * COM_{PDS,i})(1 + 0.1(GEO_{PDS,i} - 5))$$

Where:

- *EXP_{PDS,i}* is the Privacy & Data Security Exposure Score of company *i*.
- BUS_{PDS,i} is the Business Exposure Score of company i.
- $COM_{PDS,i}$ is the Company-Specific Exposure Score of company i.
- $GEO_{PDS,i}$ is the Geographic Exposure Score of company i.

Exhibit 2: Exposure Score components



Business Exposure Score

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



$$BUS_{PDS,i} = \sum_{j=1}^{n_i} w_{Revenue,i,j} BSE_{PDS,j}$$

Where:

- $BSE_{PDS,j}$ is the Business Segment Exposure Score for business segment j.
- $w_{Revenue,i,j}$ is the weight of business segment j for company i based on the the contribution to total company revenue.
- 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 the business activity's sensitivity to data breaches and certain characteristics of its data breaches, using the following formula:

$$BSE_{PDS,j} = \frac{SEN_j + DB_j}{2}$$

Where:

- $BSE_{PDS,j}$ is the Business Segment Exposure Score for business segment j.
- SEN_i is the Sensitivity Score for business activity j.
- DB_i is the Data Breach Score for business activity j.

The Sensitivity Score of a business activity is determined by a qualitative assessment of the following factors.

- Handling of sensitive data such as Social Security numbers, dates of birth, financial account information, health data or locations.
- Involvement in business activities such as selling advertising or selling access to user data.

The Data Breach Score of a business activity is calculated as the average of the Breach Frequency Score and the Breach Cost Score, as shown below:



$$DB_j = \frac{BF_j + BC_j}{2}$$

Where:

- DB_i is the Data Breach Score for business activity j.
- BF_i is the Breach Frequency Score for business activity j.
- BC_i is the Breach Cost Score for business activity j.

The Breach Frequency Score indicates the ratio of total breach incidents as a proportion of average sales in the business activity. The Breach Cost Score indicates the cost of data breaches per lost or stolen record in a business activity. Both these indicators are scored on a 0-10 scale, with 10 corresponding to the highest risk and 0 corresponding to the lowest risk.

Geographic Exposure Score

The Geographic Exposure Score is a weighted average of the Geographic Segment Exposure Scores of the countries and regions in which a company operates. Scores are weighted by the proportion of a company's total revenue in each geographic segment through the following equation:

$$GEO_{PDS,i} = \sum_{r=1}^{n_i} w_{Revenue,i,r} GSE_{PDS,r}$$

Where:

- $GSE_{PDS,r}$ is the Geographic Segment Exposure Score in region r.
- $w_{Revenue,i,r}$ is the weight of total revenue in region r for company i.
- n_i is the number of geographic segments for company i.

For geographic segments disclosed as regions (example: Asia Pacific), a nominal GDP-weighted country aggregation is used to calculate region-level scores, using the following equation:

$$GSE_{PDS,r} = \sum\nolimits_{c=1}^{n_r} w_{GDP,r,c}GSE_{PDS,c}$$



Where:

- $GSE_{PDS,c}$ is the Geographic Segment Exposure Score of country c.
- $w_{GDP,r,c}$ is the specific weight of country c within region r.

Geographic Segment Exposure Scores

The Geographic Segment Exposure Score is determined by assessing a country's privacy and data security regulation and certain characteristics of its data breaches, using the following formula:

$$GSE_{PDS,c} = \frac{REG_c + DB_c}{2}$$

Where:

- REG_c is the Regulatory Score for country c.
- DB_c is the Data Breach Score for country c.

The Regulatory Score of a country is determined by a qualitative assessment of the following factors:

- Level of restriction in national privacy and data security regulation relative to global standards.
- Likelihood of regulatory change in the next few years.

The Data Breach Score of a country is the average of the Breach Incidence Score and the Breach Cost per Company Score, as shown below.

$$DB_c = \frac{BI_c + BCC_c}{2}$$

Where:

- DB_c is the Data Breach Score for country c.
- BI_c is the Breach Incidence Score for country c.
- BCC_c is the Breach Cost per Company score for country c.



The Breach Incidence Score indicates the total number of breaches recorded in the country or region. The Breach Cost per Company Score indicates the average cost incurred per company operating in the country or region.

The Data Breach Score, Breach Incidence Score and Breach Cost per Company Score are measured on a 0-10 scale, with 10 corresponding to the highest risk and 0 corresponding to the lowest risk.

Company-Specific Exposure Score

The Company Specific Exposure Score is calculated based on whether the company is involved in the collection of personal data, as shown below:

If a company is involved in the collection of personal data, the score is calculated using the following formula:

$$COM_{PDS,k} = 1$$

Where:

 $COM_{PDS,k}$ is the Company-Specific Exposure Score of company k.

If a company is not involved in the collection of personal data, the score is calculated using the following formula:

$$COM_{PDS,k} = 0.5$$

Data Sources

The following sources are used to determine the Privacy & Data Security Exposure Score:

Ponemon Institute and IBM's Cost of a Data Breach report series, Verizon's Data Breach Investigations Report, Refinitiv, MSCI ESG Research, company disclosures.



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 1800818185 * Malaysia South Korea +827047694231 Singapore + 65 67011177 Australia +612 9033 9333 Taiwan 008 0112 7513 * Thailand 0018 0015 6207 7181 * +81345790333 Japan * toll-free

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