

MSCI ESG Ratings Methodology: Opportunities in Nutrition & Health Key Issue

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Introduction

This document provides essential information on the components of the Opportunities in Nutrition & Health Key Issue to enable users of ESG Ratings to understand how our outputs are determined. Opportunities in Nutrition & Health is a Key Issue in the Social Pillar of the MSCI ESG Ratings model. Companies are evaluated on their positioning to meet market demand for products with improved nutritional or health profiles.

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 Environmental Pollution & Waste	Biodiversity & Land Use
		Raw Material Sourcing
		Water Stress
		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
	Product Liability	Chemical Safety
		Consumer Financial Protection
Social		Privacy & Data Security
		Product Safety & Quality
		Responsible Investment
	Stakeholder Opposition	Community Relations
		Controversial Sourcing
	Social Opportunities	Access to Finance
		Access to Health Care
		Opportunities in Nutrition & Health
Governance	Corporate Governance	Board
23.0	corporate covernance	Pay



3 Pillars	10 Themes	33 ESG Key Issues
		Ownership & Control
		Accounting
	Corporate Behavior	Business Ethics
		Tax Transparency

Opportunities associated with this Key Issue

- Increased revenue from growing demand for nutritional and healthier products.
- Reputational damage and fines resulting from controversies related to false marketing claims.

Opportunities in Nutrition & Health Key Issue Score

The Opportunities in Nutrition & Health Key Issue Score evaluates the company's level of exposure to, and management of, opportunities on this Key Issue. The Key Issue Score is based on the Exposure Score and the Management Score using the formula below. The Exposure Score and the Management Score are combined such the Exposure Score determines the weight placed on the Management Score, ranging from 50% (when the Exposure Score is equal to zero) to 100% (when the Exposure Score is equal to 10).

$$KI_i = \left(\left(\frac{EXP_i}{20} + .5 \right) \times MGMT_i \right) + \left(\left(.5 - \frac{EXP_i}{20} \right) \times 5 \right)$$

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.

Opportunities in Nutrition & Health Management Score

The Opportunities in Nutrition & Health Management Score evaluates the company's ability to manage its exposure to opportunities 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 Opportunities in Nutrition & Health Management Score - Excluding Controversies:

$$MGMT_{ONH,i} = MAN_{ONH,i}$$

Where:

- MGMT_{ONH,i} is the Opportunities in Nutrition & Health Management Score -Excluding Controversies for company i.
- MAN_{ONH.i} is the Management (Practices) 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: Management (Practices) Score

In-house innovation capacity to develop healthier products.

Definition: Indicates whether the company has resources dedicated to developing healthier and more natural products. Leading practice is to have dedicated research centers and staff to develop healthier products.

Strategy to develop natural and healthy products.

Definition: Indicates whether the company has a strategy to further develop natural and healthy products

Extent of programs to reduce artificial ingredients in food products.

Definition: The estimated share of revenues generated from food and beverage products that contain less or no artificial ingredients (e.g., preservatives, colorings, aspartame) or less or no controversial ingredients (e.g., antibiotics).

Extent of programs to reduce portion size.



Definition: The estimated share of revenues generated from products reformulated with reduced portions.

Extent of programs to reduce sugar in food products.

Definition: The estimated share of revenues generated from food and beverage products reformulated with less sugar.

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:

False marketing 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."

Opportunities in Nutrition & Health Exposure Score

The Opportunities in Nutrition & Health Exposure Score evaluates the company's exposure to opportunities on this Key Issue. It is based on the Business and Geographic Exposure Scores. The Geographic Exposure Score functions as a multiplier on the Business Exposure Score, with an impact ranging from -50% to +50%. The Business and Geographic Exposure Scores are scored on a 0-10 scale, with 10 corresponding to the highest opportunity and 0 corresponding to the lowest opportunity. 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:

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

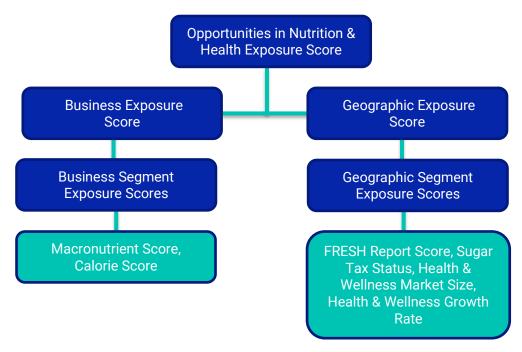
Where:

- EXP_{ONH,i} is the Opportunities in Nutrition & Health Exposure Score of company i.
- BUS_{ONH,i} is the Business Exposure Score of company i.



• *GEO*_{ONH.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 Segment 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:

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

Where:

- $BSE_{ONH,j}$ 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 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 following formula:

$$BSE_{ONH,j} = Max\{CAL_{ONH,j}, MAC_{ONH,j}\}$$

Where:

- *CAL*_{ONH,j} is the Calorie Score for business activity *j*.
- *MAC_{ONH,j}* is the Macronutrient Score for business activity *j*.

The Calorie Score is based on the recommended calorie intake (in kilocalories per day) for a given food category from the EAT-Lancet Commission Summary Report. The higher the number of calories recommended, the higher the Calorie Score for a given food category, varying from 0 to 10.

The Macronutrient Score is based on the recommended macronutrient intake (in grams per day) for a given food category from the EAT-Lancet Commission Summary Report. The higher the amount of macronutrients recommended, the higher the Macronutrient Score for a given food category, varying from 0 to 10.

Business activities are mapped to food categories to which they cater. A higher score reflects a higher opportunity, given the higher intake recommendations.

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 revenues in each geographic segment using the following equation:

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



Where:

- $GSE_{ONH,r}$ 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 reported as regions (example: Asia Pacific), a nominal GDP-weighted country aggregation is used to calculate region-level scores, using the following equation:

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

Where:

- $GSE_{ONH,c}$ 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 the following formula:

$$GSE_{ONH,c} = FRH_{ONH,c} \left(SUG_{ONH,c} + HWS_{ONH,c} + HWR_{ONH,c} + 1 \right)$$

Where:

- FRH_{ONH.c} is the FReSH Report Score of country c.
- $SUG_{ONH,c}$ is the sugar tax multiplier of country c.
- HWS_{ONH,c} is the health and wellness market size by population multiplier of country c.
- HWR_{ONH,c} is the health and wellness market size growth rate multiplier of country c.

The FReSH Report Score is derived from a qualitative assessment of the relevance of consumption behaviors, trends and food preferences by region, taken from the World Business Council for Sustainable Development's Food Reform for Sustainability and Health [FReSH] insights report on "Consumption Behavior and Trends."

The sugar tax multiplier, equal to 5%, is applied if a country has a sugar tax.



The health and wellness market size by population multiplier is variable (2%-10%) and is determined by the health and wellness market size in a given country relative to its total population.

The health and wellness market size growth rate multiplier is variable (2%-10%) and is determined by the annual growth rate of the health and wellness market size in a given country.

Data Sources

The following sources are used to determine the Opportunities in Nutrition & Health **Exposure Score:**

The EAT-Lancet Commission on Food, Planet, Health, Sustainable Food Systems: Summary Report; World Business Council for Sustainable Development's FReSH insights report on "Consumption Behavior and Trends;" Obesity Evidence Hub; the Organic Trade Association's consumption estimates data for organic packaged foods and beverages; Refinitiv; MSCI ESG Research; company disclosures.



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