S&P Dow Jones Indices

A Division of S&P Global

S&P DJI Environmental, Social and Governance Metrics
Reference Guide

October 2022

Table of Contents

Introduction

The reference guide is designed to aid the understanding of the environmental, social, and governance (ESG) metrics used by S&P Dow Jones Indices (S&P DJI), including how the metrics are calculated and disclosed. The guide contains information on a range of commonly disclosed ESG metrics, definitions, formulas (where relevant), and the data sources used to calculate them.

The first section (**S&P DJI ESG Metrics**) provides information on a range of commonly disclosed ESG metrics: *ESG Scores, ESG Standards Violations and Controversies, Business Activities Exposures,* and *Environmental and Climate* datasets.

The second section (**EU Low Carbon Benchmark Regulation Metrics**) provides an overview of the key disclosure requirements applicable to benchmark administrators in the European Union, including specific index-level ESG metrics required by [Regulation (EU) 2016/1011](#) (EU Benchmark Regulation or EU BMR).

S&P DJI's disclosures under the EU Benchmark Regulation can be accessed from the following link: [EU Low Carbon Benchmark Regulation Disclosure Report](#).

For more information on the EU Benchmark Regulation, please refer to the '*ESG Disclosures – EU Low Carbon Benchmark Regulation'* section of the S&P DJI [Regulatory Information](#) web page.

First published December 23rd, 2020 and supports S&P DJI's EU Benchmark Regulation disclosure requirements. Updated on July 19th 2021.

Dataset Coverage

The following approach is taken to calculate coverage for all datasets discussed in this document.

i. '*Dataset Coverage: "[DATASET]" (Index Weight, %)'* is calculated as the sum of index constituent weights with a "[DATASET]", and ranges between 0% and 100%.

ii. '*Dataset Coverage: "[DATASET]" (Constituent Count)'* is calculated as the count of index constituents with a "[DATASET]", and ranges between 0 and the total count of index constituents.

<u>**Equations: Dataset Coverage:**</u>

$$Dataset\ Coverage: "[DATASET]"\ (Index\ Weight, \%) = \sum w_i * Coverage_i \begin{cases} is\ covered & 1 \\ else & 0 \end{cases}$$

$$Dataset\ Coverage: "[DATASET]"\ (Constituent\ Count) = \sum Coverage_i \begin{cases} is\ covered & 1 \\ else & 0 \end{cases}$$

Where:

w_i = The index weight of constituent, *i,* as at the metric calculation date*.*

$Coverage_i$ = The coverage status of constituent, *i*, in the specific dataset.

For example, the *'Dataset Coverage: S&P DJI ESG Scores (Index Weight, %)'* metric is calculated as the sum of index constituent weights with an S&P DJI ESG Score, and ranges between 0% and 100%, and the *'Dataset Coverage: Environmental (Constituent Count)'* is calculated as the count of index constituents covered by Trucost's Environmental dataset, and ranges between 0 and the total count of index constituents.

I. ESG Scores Metrics

S&P DJI ESG Scores Dataset

S&P DJI ESG Scores are derived from the S&P Global 'Corporate Sustainability Assessment' (CSA). The CSA is a questionnaire-based sustainability assessment operated by S&P Global. Companies are encouraged to actively participate in the CSA. Participating companies are assessed on a combination of private and public data. Companies that do not actively participate are assessed solely on publicly available data.

The S&P DJI ESG scores contain a company-level [total] ESG score for a given financial year, and individual Environmental, Social, and Governance dimension scores. The S&P DJI ESG scores are constructed from approximately 21 industry-specific criteria scores that can be used as specific E, S, and G signals. The S&P DJI ESG Scores are subject to normalizations, and are converted to probability scores and multiplied by 100, as described in the *S&P DJI ESG Scores Methodology*. Final scores range from 0-100, with 100 representing the best performance. The company level S&P DJI ESG scores are used to calculate the relevant metrics.

Supporting Documents

Supporting Document	URL
S&P DJI ESG Scores Methodology	S&P DJI ESG Scores Methodology
Frequently Asked Questions: S&P DJI ESG Scores	FAQ: S&P DJI ESG Scores
S&P DJI ESG Scores Website	Website
S&P Global Corporate Sustainability Assessment (CSA) Website	Website

Data Dissemination

S&P DJI ESG Score data is available via subscription.

For product information, please contact S&P DJI, www.spdji.com/contact-us.

Table 1: ESG Scores Metrics

S&P DJI ESG Metric ID	S&P DJI ESG Metric Name	EU BMR ESG Factor/Metric
SP-ESG-1	**Index-Level S&P DJI ESG Score**	**Yes**
	Dataset Coverage: S&P DJI ESG Scores	Yes
SP-ESG-2E	**Index-Level S&P DJI Environmental Score**	**Yes**
	Dataset Coverage: S&P DJI Environmental Scores	Yes
SP-ESG-2S	**Index-Level S&P DJI Social Score**	**Yes**
	Dataset Coverage: S&P DJI Social Scores	Yes
SP-ESG-2G	**Index-Level S&P DJI Governance Score**	**Yes**
	Dataset Coverage: S&P DJI Governance Scores	Yes

Several of the S&P DJI ESG Scores metrics above are calculated in the equivalent way to those expressed below for *[SP-ESG-1]* by swapping the specific E, S or G scores in place of the S&P DJI ESG Scores. For example, the S&P DJI Environmental Scores are used in place of the total S&P DJI ESG Scores to calculate the *Index*-Level *S&P DJI Environmental Score [SP-ESG-2E]*. For more information on each metric, see the *'Other metrics using this calculation'*.

[SP-ESG-1] – Index-Level S&P DJI ESG Score

EU BMR ESG Factor/Metric: "EU-Weighted average ESG rating of the benchmark (voluntary)."[1]

An 'Index-level S&P DJI ESG Score' is a weighted average of the ESG score of index constituents. Scores range between 0 (worst) and 100 (best).

Index-level S&P DJI ESG Scores are calculated as a weighted average of S&P DJI ESG normalized Total ESG Scores and index weights, adjusted for ESG score coverage, then transformed into a normal distribution probability score, and multiplied by 100 so that the index-level score ranges between 0 and 100.

The metric is calculated as the weighted average of each constituent's adjusted index weight and normalized Total S&P DJI ESG Score:

Equations [SP-ESG-1]:

$$Weighted\ Average\ \tilde{T}_{i,t} = \sum w'_{i,t} \times \tilde{T}_{i,t}$$

Where:

w'_i = Adjusted index weight[2] of the constituent, i, in the index as at the metric calculation date.

$\tilde{T}_{i,t}$ = Normalized Total S&P DJI ESG Score of the constituent, i

The Probability Score of the weighted average normalized Total S&P DJI ESG Scores is then derived using a normal cumulative density function, F (with a mean of zero and standard deviation of 1). This provides a decimal value ranging between 0 and 1.

$$Index\ level\ ESG\ Score_t = F_t\big(Weighted\ Average\ \tilde{T}_{i,t}\big) \times 100$$

Multiplying the Probability Score by 100 provides the 'Index-level S&P DJI ESG Score'.

Other metrics using this calculation:

[SP-ESG-2E] – Index-Level S&P DJI Environmental Score

EU BMR ESG Factor/Metric: "Weighted average environmental rating of the benchmark (voluntary)."

[SP-ESG-2S] – Index-Level S&P DJI Social Score

EU BMR ESG Factor/Metric: "Weighted average social rating of the benchmark (voluntary)."

[SP-ESG-2G] – Index-Level S&P DJI Governance Score

EU BMR ESG Factor/Metric: "Weighted average governance rating of the benchmark (voluntary)."

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[1] Annex II Section 1 Regulation (EU) 2020/1816.
[2] 'Adjusted index weights' for the index constituents are calculated by dividing the constituent weights of companies covered by the specific ESG dataset used to calculate the metric (here the S&P DJI ESG Scores) by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.

An 'Index-level S&P DJI Environmental, Social or Governance Score' is a weighted average of the environmental, social or governance scores of index constituents. Scores range between 0 (worst) and 100 (best).

Related Metrics:

Dataset Coverage: S&P DJI ESG Scores

The index weight and count of index constituents covered by the S&P DJI ESG Scores dataset.

Other metrics using this calculation:

Dataset Coverage: S&P DJI Environmental Scores

Dataset Coverage: S&P DJI Social Scores

Dataset Coverage: S&P DJI Governance Scores

II. ESG Standards Violations and Controversies Metrics

S&P Global Media & Stakeholder Analysis (MSA) Dataset

The MSA forms an integral part of the S&P Global Corporate Sustainability Assessment (CSA) and enables S&P Global to monitor a companies' sustainability performance on an ongoing basis by assessing current controversies with potentially negative reputational or financial impacts.

The main objective of the MSA process is to gain insight into the ability of the management of an assessed company to mitigate reputational risks and protect shareholder value. An MSA 'case' is created if an assessed company has been involved in a specific negative event for which it is considered to be responsible, and if the incident reveals that the company's actions are inconsistent with its stated policies and goals and exposes either a failure of management or of company systems and processes. In order to determine whether an MSA case should be created for a company, S&P Global considers the extent of the company's responsibility in the specific case, its financial materiality and timeframe of the potential case. Cases may result in a score adjustment and for specific major cases, possible exclusion of the company from an index, subject to Index Committee review. Companies excluded via this process are highlighted by this metric. For more information on S&P Global's MSA, please refer to the MSA Methodology Guidebook 2021 via: https://portal.csa.spglobal.com/survey/documents/MSA_Methodology_Guidebook.pdf.

Supporting Documents

Supporting Document	URL
S&P Global Media & Stakeholder Analysis Methodology Guidebook 2021	MSA Methodology Guidebook 2021
S&P Global Corporate Sustainability Assessment (CSA) Website	Website

For more information on MSA, please refer to https://www.spglobal.com/esg/csa/csa-resources/csa-methodology.

To contact S&P Global or ask a question about MSA, please visit https://www.spglobal.com/esg/csa/contact/.

Global Standards Screening Dataset (External)

Sustainalytics' Global Standards Screening dataset assesses the extent to which a company causes, contributes or is linked to violations of internal norms and standards, covering the UNGC, International Labour Organisation's (ILO) Conventions, the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.

For more information on Sustainalytics' Global Standards Screening dataset please refer to http://www.sustainalytics.com/.

Table 2: ESG Standards Violations and Controversies Metrics

S&P DJI ESG Metric ID	S&P DJI ESG Metric Name	EU BMR ESG Factor/Metric
SP-SVC-1	**S&P Global Media & Stakeholder Analysis (MSA): Active Index Exclusions**	**Yes**
	Dataset Coverage: S&P Global Media & Stakeholder Analysis (MSA)	Yes
SP-SVC-2	**Global Standards Screening: Non-Compliant Companies**	**Yes**
	Dataset Coverage: Global Standards Screening	Yes

[SP-SVC-1] – S&P Global Media and Stakeholder Analysis (MSA): Active Index Exclusions Exposure

EU BMR ESG Factor/Metric: "Number of benchmark constituents subject to social violations (absolute number and relative divided by all benchmark constituents), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law."

The count and index weight of index constituents in the index that are otherwise currently excluded in any of S&P DJI's ESG indices due to S&P Global's MSA.

i)   **'S&P Global Media and Stakeholder Analysis (MSA): Active Index Exclusions Exposure (Index Weight, %)'** is calculated as the sum of index constituent weights for any constituents in the index that are otherwise currently excluded in any of S&P DJI's ESG indices based on their active MSA cases, and ranges between 0% and 100%.

ii) **'S&P Global Media and Stakeholder Analysis (MSA): Active Index Exclusions Exposure (Constituent Count)'** is calculated as the count of index constituents in the index that are otherwise currently excluded in any of S&P DJI's ESG indices based on their active MSA cases, and ranges between 0 and the total count of index constituents.

Equations [SP-SVC-1]:

$$MSA\ Exclusion\ (Index\ Weight, \%) = \sum w_i * MSA\ Exclusion_i \begin{cases} active\ exclusion & 1 \\ else & 0 \end{cases}$$

$$MSA\ Exclusion\ (Constituent\ Count) = \sum MSA\ Exclusion_i \begin{cases} active\ exclusion & 1 \\ else & 0 \end{cases}$$

Where:

w_i = The index weight of constituent, *i*, as at the metric calculation date.

$MSA\ Exclusion_i$ = The exclusion status of constituent, *i*, considering whether it is currently excluded in any of S&P DJI's ESG indices due to MSA.

Related Metrics:

Dataset Coverage: S&P Global Media & Stakeholder Analysis (MSA)

The index weight and count of index constituents covered by S&P Global's Media & Stakeholder Analysis dataset.

[SP-SVC-2] – Global Standards Screening: Non-Compliant Companies Exposure

**EU BMR ESG Factor/Metric**: "Number of benchmark constituents subject to social violations (absolute number and relative divided by all benchmark constituents), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law."

The index weight and count of index constituents non-compliant with, or in violation of, any of the ten principles of the UNGC, ILO's Conventions, the UN Guiding Principles on Business and Human Rights, and Chapters of the OECD Guidelines for Multinational Enterprises.

Sustainalytics data is used to identify non-compliant constituents or constituents in violation of UNGC principles, ILO Conventions and OECD Guidelines for Multinational Enterprises.

i) **'Global Standards Screening: Non-Compliant Companies (Index Weight, %)'** is calculated as the sum of index constituent weights that are determined to be non-compliant by Sustainalytics, and ranges between 0% and 100%.

ii) **'Global Standards Screening: Non-Compliant Companies (Constituent Count)'** is calculated as the count of index constituents that are determined to be non-compliant by Sustainalytics, and ranges between 0 and the total count of index constituents.

Equations [SP-SVC-2]:

$$UNGC_{Sust.} (Index\ Weight, \%) = \sum w_i * UNGC\ Exclusion_i \begin{cases} Non - Compliant & 1 \\ else & 0 \end{cases}$$

$$UNGC_{Sust.} (Constituent\ Count) = \sum UNGC\ Exclusion_i \begin{cases} Non - Compliant & 1 \\ else & 0 \end{cases}$$

Where:

w_i = The index weight of constituent, _i_, as at the metric calculation date.

$UNGC\ Exclusion_i$ = The exclusion status of constituent, _i_, considering whether its Sustainalytics Global Standards Screening designation is 'non-compliant'.

Related Metrics:

Dataset Coverage: Global Standards Screening

The index weight and count of index constituents covered by Sustainalytics' Global Standards Screening dataset.

III. Business Activities Exposures Metrics

The index-level metrics described in this section are calculated using the following datasets:

Product Involvement Dataset (External)

Sustainalytics' Product Involvement dataset helps identify companies involved in, or with exposure to, a variety of specific products, services and business activities for screening purposes.

For more information please refer to http://www.sustainalytics.com/.

Table 3: Business Activities Exposures Metrics

S&P DJI ESG Metric ID	S&P DJI ESG Metric Name	EU BMR ESG Factor/Metric
SP-BAC-1	**Controversial Weapons Exposure**	**Yes**
	Controversial Weapons Definition	Yes
SP-BAC-2	**Tobacco Exposure**	**Yes**
	Dataset Coverage: Product Involvement	Yes

Several of the Business Activities Exposures metrics above are calculated in the equivalent way to those expressed below for [SP-BAC-1] by swapping the specific product involvement area dataset in place of the controversial weapons product involvement dataset. For more information for each metric, see the 'Other metrics using this calculation' sections for each relevant metric.

[SP-BAC-1] – Controversial Weapons Exposure

EU BMR ESG Factor/Metric: "Weighted average percentage of benchmark constituents in the controversial weapons sector."

The index weight and count of constituents involved in controversial weapons-related activities, as identified by Sustainalytics. S&P DJI uses Sustainalytics' Product Involvement dataset to calculate this metric.

i) **'Controversial Weapons Exposure (Index Weight, %)'** is derived by summing the constituent weights of companies identified to have exposure to controversial weapons, as defined in Table [SP-SCR]. This metric ranges between 0% and 100%.

ii) **'Controversial Weapons Exposure (Constituent Count)'** is derived by counting the number of constituents identified to have exposure to controversial weapons, as defined in Table [SP-SCR]. This metric ranges between 0 and the total count of index constituents.

Equations [SP-BAC-1]:

$$CW\ Exposure\ (Index\ Weight, \%) = \sum w_i * exposure_i \begin{cases} is\ involved & 1 \\ else & 0 \end{cases}$$

$$CW\ Exposure\ (Constituent\ Count) = \sum exposure_i \begin{cases} is\ involved & 1 \\ else & 0 \end{cases}$$

Where:

w_i = The index weight of constituent, *i*, as at the metric calculation date.

$exposure_i$ = The exposure status assigned to constituent, *i,* for controversial weapons.

Other metrics using this calculation:

[SP-BAC-2] – Tobacco Exposure

EU BMR ESG Factor/Metric: "Weighted average percentage of benchmark constituents in the tobacco sector."

For each of the Business Activities Exposures metrics, 'exposure' is defined as shown in Table [SP-BAC].

Table [SP-BAC]: Business Activity Metrics Exposure Definitions

S&P DJI ESG Metric ID	S&P DJI ESG Metric Name	Business Activity Exposure Definition
SP-BAC-1	Controversial Weapons Exposure	The company has direct involvement in core weapon systems that are considered tailor made and essential, and non-tailor made and non-essential, for the lethal use of weapons.
SP-BAC-2	Tobacco Exposure	The company derives any (>0%) revenue from manufacturing tobacco products, 5% or more of their revenues from supplying tobacco-related products and services, 5% or more of their revenues from the distribution and/or retail sale of tobacco products.

Related Information/Metrics:

Controversial Weapons Definition

<u>EU BMR ESG Factor/Metric</u>: "International treaties and conventions, United Nations principles or, where applicable, national law used in order to determine what constitutes a 'controversial weapon'.

This indicator is provided by Sustainalytics and provides an assessment of whether companies are involved in the manufacturing of controversial weapons or components or services thereof.

The indicator covers two involvement categories:

- <u>Tailor-made and essential:</u> The company is involved in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon.

- <u>Non tailor-made or non essential:</u> The company provides components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon.

Controversial weapons are classified by Sustainalytics as any of the following:
- Anti-Personnel mines
- Biological and chemical weapons
- Cluster weapons
- Depleted Uranium
- Nuclear weapons
- White Phosphorus

International treaties and conventions used to define Controversial Weapons include: Non-proliferation Treaty (1968), Biological and Toxin Weapons Convention (1972), Chemical Weapons Convention (1997), Anti-Personnel Mine Ban Convention (1999), Convention on Cluster Munitions (2008), United Nations Convention on Certain Conventional Weapons (1980), and Convention on the Physical Protection of Nuclear Material (1980).

For more information please refer to http://www.sustainalytics.com/.

Dataset Coverage: Product Involvement

The count and index weight of index constituents covered by the Sustainalytics Product Involvement dataset.

IV. Environmental and Climate Metrics

The index-level metrics described in this section are calculated using the following datasets:

Trucost Environmental Dataset

Trucost (part of S&P Global) has analyzed the environmental performance of over 15,000 companies worldwide. Trucost's standardized greenhouse gas ("GHG") emissions data provides a proxy for carbon performance. To calculate the carbon intensity of any company included within an index, Trucost reviews company annual reports and accounts, environmental/sustainability reports, public disclosures and corporate Web sites.

However, many companies do not disclose their environmental or carbon impacts. Where there is no public disclosure, Trucost employs its environmental profiling system. This proprietary Input-Output model maps a company's business activities to any number of Trucost's 464 sectors. Trucost's broad coverage seeks to ensure that all non-disclosing companies are considered for index eligibility, not just those that disclose environmental information.

For more information on greenhouse gas emissions data please refer to
https://www.marketplace.spglobal.com/en/datasets/trucost-environmental-(46).

Physical Risk Scores Dataset

Trucost's Physical Risk Scores dataset assesses company exposure to physical risk at the asset-level based on a database of over 500,000 assets mapped to 15,000+ listed companies in the S&P Global Market Intelligence database. The dataset includes:

- Seven climate change physical risk indicators including heatwaves, cold waves, water stress, hurricanes, wildfires, flood and sea level rise

- Low, moderate and high future climate change scenarios based on the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP)

- Estimates of climate change physical impacts in 2030 and 2050

For more information on the physical risk scores provided by Trucost, please refer to
https://www.marketplace.spglobal.com/en/datasets/trucost-physical-risk-(148).

Trucost Sector Revenues Dataset

Trucost employs an environmental profiling system as an input to its proprietary Input-Output model used to map environmental impacts of business activities to any of Trucost's 464 sectors. This sector revenue data is used by S&P DJI to calculate several exposure metrics.

For more information on the dataset, please refer to https://www.trucost.com/.

Table 4: Environmental and Climate Metrics

S&P DJI ESG Metric ID	S&P DJI ESG Metric Name	EU BMR ESG Factor/Metric
SP-ENV-1	**Carbon-to-Value Footprint (tCO₂e / USDmn Invested)**	**Yes**
SP-ENV-2(a)	**Greenhouse Gas Emissions Disclosed**	**Yes**
SP-ENV 2(b)	**Greenhouse Gas Emissions Not Disclosed**	**Yes**
SP-ENV-2(c)	**Greenhouse Gas Emissions Not Covered**	**Yes**
SP-ENV-4	**Index-level Physical Risk Score**	**Yes**
	Dataset Coverage: Physical Risk Scores	Yes
SP-ENV-5	**Green Sectors Exposure (Weighted Revenues, %)**	**Yes**
SP-ENV-5(a)	Green Sectors Exposure (Constituent Count)	Yes
	Dataset Coverage: Trucost Sector Revenues	Yes
SP-ENV-7	**High Climate Impact NACE Sections Exposure (Weighted Revenues, %)**	**Yes**
SP-ENV-7(a)	High Climate Impact NACE Sections Exposure (Constituent Count)	Yes
	Dataset Coverage: Trucost Sector Revenues	Yes
SP-ENV-8	**NACE Divisions 05-09, 19 and 20 Exposure (Weighted Revenues, %)**	**Yes**
SP-ENV-8(a)	NACE Divisions 05-09, 19 and 20 Exposure (Constituent Count)	Yes
	Dataset Coverage: Trucost Sector Revenues	Yes

Several of the Environmental and Climate metrics above are calculated in the equivalent ways to one another by swapping one data point in place of another. For example, the *Carbon-to-Value Footprint (Scopes 1+2+3 Emissions / USDmn Invested) [SP-ENV-1]* metric is calculated in the same way as *the Carbon-to-Value Footprint (Scopes 1+2 Emissions / USDmn Invested) [SP-ENV-1]* metric by using a different emissions scope. Likewise, alternative apportionment variables can be used to derive apportionment factors used in some of the metrics. For more information on each metric, see the *'Other metrics using this calculation'* sections for each relevant metric.

[SP-ENV-1] – Carbon-to-Value Footprint (tCO2e / USDmn Invested)

<u>EU BMR ESG Factor/Metric</u>: "Greenhouse gas (GHG) intensity of the benchmark."

The metric tons of greenhouse gas emissions apportioned to the index per USD 1 million invested.

Each constituent's greenhouse gas emissions data are divided by an apportionment variable to derive an emissions intensity. The Carbon-to-Value Footprint is calculated as the weighted-average of dataset coverage-adjusted index weights and this emissions intensity. This metric is used to calculate the quantity of greenhouse gas emissions associated with each US$ 1 million investment in an index by calculating the quantity of emissions the index is responsible for on an ownership, financing or other basis.

Equation [SP-ENV-1]:

$$Carbon\ to\ Value = \sum w'_i \times \frac{Emissions_i}{Apportionment_i}$$

Where:

w'_i = Adjusted index weight[3] of the company i in the index as at the metric calculation date

$Emissions_i$ = GHG emissions (of any scope) in tCO$_2$e for the company, i

$Apportionment_i$ = The chosen apportionment variable for the company, i, in USDmn

The metric disclosed in the <u>EU Low Carbon Benchmark Regulation Disclosure Report</u> is *[SP-ENV-1] Carbon-to-Value Footprint (Scopes 1+2 Emissions / USDmn Invested),* using scope 1 and 2 emissions and Enterprise Value Including Cash (EVIC)[4] as the apportionment variable.

<u>Other metrics using this calculation:</u>

The index-level Carbon-to-Value Footprint can be calculated in a number of ways by changing the scope of greenhouse gas emissions data used in the calculation, and/or by using a different variable to apportion the emissions to the index. Table [SP-ENV-1] shows some common choices for emissions scopes and apportionment variables.

Table [SP-ENV-1]: Common Emissions Intensity Variables

Emissions Scopes
Scopes 1 and 2
Scopes 1, 2 and 3
Direct and First-Tier Indirect

Apportionment Variables
Market Capitalization
Enterprise Value (EV)
Enterprise Value Including Cash (EVIC)

For descriptions of these variables, please refer to *Appendix I - Glossary of Terms.*

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[3] Adjusted index weights for the index constituents are calculated by dividing the constituent weights of companies covered by the Trucost Environmental dataset by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.
[4] Enterprise value including cash (EVIC) is defined in Article 1(d) Regulation (EU) 2020/1818 as the sum at fiscal year-end, of the market capitalization of ordinary shares, the market capitalization of preferred shares, and the book value of total debt and non-controlling interests, without deduction of cash or cash-equivalents..

Related Metrics:

Dataset Coverage: Environmental

The count and index weight of index constituents covered by Trucost's environmental dataset.

[SP-ENV-2(a)] – Greenhouse Gas Emissions Disclosed

EU BMR ESG Factor/Metric: "Percentage of GHG emissions reported versus estimated."

The index weight of constituents that sufficiently disclose their greenhouse gas emissions, as determined by Trucost.

Companies are divided into those that have been identified by Trucost as having sufficiently disclosed their GHG emissions ("Disclosed") and those that have not ("Not Disclosed"). The "Disclosed" status is achieved when Trucost identifies companies as having full or partial disclosure in its GHG emissions scope (between scope 1 and 2) that is its largest in absolute terms.

Trucost reviews company annual reports and accounts, environmental/sustainability reports, public disclosures and corporate websites for a wide range of environmental key performance indicators. However, many companies do not disclose their environmental or carbon impacts. Where there is no public disclosure, Trucost employs its environmental profiling system. This proprietary Input-Output model maps the company's business activities to any number of Trucost's 464 sectors. Where Trucost are able to take any publicly disclosed information in its determination of the greenhouse gas emissions, Trucost deem the company to have disclosed it emissions. Where Trucost have to model the greenhouse gas emissions of companies, Trucost deem the company to have not sufficiently disclosed their emissions.

Equations [SP-ENV-2]:

$$GHG\ Disclosure\ (Index\ Weight, \%) = \sum w_i * Disclosure_i \begin{cases} is\ disclosed & 1 \\ else & 0 \end{cases}$$

$$GHG\ Disclosure\ (Constituent\ Count) = \sum Disclosure_i \begin{cases} is\ disclosed & 1 \\ else & 0 \end{cases}$$

Where:

w_i = The index weight of constituent, *i*, as at the metric calculation date.

$Disclosure_i$ = The greenhouse gas emissions data disclosure status assigned to constituent, *i*.

Other metrics using this calculation:

[SP-ENV-2(b)] – Greenhouse Gas Emissions Not Disclosed

EU BMR ESG Factor/Metric: "Percentage of GHG emissions reported versus estimated."

The index weight of constituents, and count of constituents, whose greenhouse gas emissions are modelled by Trucost.

[SP-ENV-2(c)] – Greenhouse Gas Emissions Not Covered

The index weight of constituents, and count of constituents, that were not covered by Trucost as of the Index Effective Date.

[SP-ENV-4] – Index-level Physical Risk Score

_EU BMR ESG Factor/Metric__: "Exposure of the benchmark portfolio to climate-related physical risks, measuring the effects of extreme weather events on companies' operations and production or on the different stages of the supply chain (based on issuer exposure) (voluntary)."_

An Index-level Physical Risk Score is a weighted average index constituent Composite Physical Risk Scores and their index weight, allowing for the comparison of one index's composite level of exposure to physical risks versus another. Trucost's 'High' 2050 climate scenario Composite Physical Risk Score is used to calculate this metric. High Physical Risk Scores signal that companies are relatively more exposed to physical risks.

Index-level Physical Risk Scores are a weighted average of constituent Composite Physical Risk Scores and dataset coverage-adjusted index weights (to ensure that the measure is comparable to other indices). The Composite Physical Risk Scores are provided by Trucost and range between 1 and 100, where lower scores represent lower levels of physical risk.

Equation [SP-ENV-4]:

$$Physical\ Risk\ Score = \sum w'_i * PR\ Score_i$$

Where:

w'_i = Adjusted index weight[5] of the company i in the index as at the metric calculation date

$PR\ Score_i$ = Trucost's Sensitivity Weight-adjusted Composite High 2050 scenario Physical Risk Score for company i

Related Metrics:

Dataset Coverage: Physical Risk Scores

The count and index weight of index constituents covered by Trucost's physical risk dataset.

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[5] Adjusted index weights for the index constituents are calculated by dividing the constituent weights of companies covered by the Trucost Physical Risk Score dataset by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.

[SP-ENV-5] – Green Sectors Exposure (Weighted Revenues, %)

EU BMR ESG Factor/Metric: "Exposure of the benchmark portfolio to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011 of the European Parliament and of the Council."

The index's 'Green Sectors Exposure (Weighted Revenues, %)' is a measure of the index's average percentage of constituent revenues that are derived from green business activities, defined by the following Trucost revenue sectors:

- Nuclear Electric Power Generation
- Geothermal Power Generation
- Hydroelectric Power Generation
- Solar Power Generation
- Wave & Tidal Power Generation
- Wind Power Generation

S&P DJI uses the Trucost Sector Revenues dataset to calculate this metric. This metric, is calculated as the ratio of:

i. The weighted average of the dataset coverage adjusted-constituent index weights, and their revenues derived from green business activities divided by Enterprise Value Including Cash (EVIC), and;

ii. The weighted average of dataset coverage adjusted-constituent index weights, and their total revenues divided by EVIC.

Equation [SP-ENV-5]:

$$Green\ Sectors\ Exposure = \frac{\sum w'_i \times \dfrac{Green\ Rev_i}{EVIC_i}}{\sum w'_i \times \dfrac{Rev_i}{EVIC_i}}$$

Where:

w'_i = Adjusted index weight[6] of the company i in the index as at the metric calculation date

$Green\ Rev_i$ = Annual revenues in USDmn of the company, $i,$ derived from Green Sectors

Rev_i = Annual revenues in USDmn of the company, i

$EVIC_i$ = Enterprise value including cash of the company, i

Related Metrics:

[SP-ENV-5(a)] – Green Sectors Exposure (Constituent Count)

The count of index constituents with any involvement revenues derived from green business activities.

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[6] Adjusted index weights for the index constituents are calculated by dividing the constituent weights of companies covered by the Trucost Sector Revenues dataset by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.

Equation [SP-ENV-5(a)]:

$$Green\ Sectors\ Exposure\ (Constituent\ Count) = \sum exposure_i \begin{cases} is\ green & 1 \\ else & 0 \end{cases}$$

Where:

$exposure_i$ = The exposure status assigned to constituent, *i,* for deriving any revenues from Green Sectors.

Dataset Coverage: Trucost Sector Revenues

The count and index weight of index constituents covered by the Trucost Sector Revenues dataset.

[SP-ENV-7] – High Climate Impact NACE Sections Exposure (Weighted Revenues, %)

EU BMR ESG Factor/Metric*: "Degree of exposure of the portfolio to the sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 of the European Parliament and of the Council as a percentage of the total weight in the portfolio."*

The index's 'High Climate Impact NACE Section Exposure (Weighted Revenues, %)' is a measure of the index's average percentage of constituent revenues that are derived from High Climate Impact NACE Sections. NACE Sections are a classification of economic activities used within the European Community.

S&P DJI uses the Trucost Sector Revenues dataset to calculate this metric. Each Trucost revenue sector is mapped to a NACE Section, and then determined to be either a High or non-High ("Low") Climate Impact Sectors based on the mapping of NACE sections to the designation of High Climate Impact Sections, as per the EU Technical Expert Group on Sustainable Finance's 2019 "*TEG Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures"*.[7]

The designation of each Trucost revenue sector as either High' or 'Low' is available via *https://www.spglobal.com/spdji/en/documents/additional-material/trucost-climate-impact-sectors-classification.pdf*.

The 'High Climate Impact NACE Sections Exposure (Weighted Revenues, %)' metric is calculated as the ratio of:

  i.   The weighted average of the constituent index weights and their High Climate Impact Sector Revenues divided by Enterprise Value Including Cash (EVIC), and;

  ii. The weighted average of constituent index weights and their total revenues divided by EVIC.

Equation [SP-ENV-7]:

$$\frac{\sum w'_i \times \frac{HCISR_i}{EVIC_i}}{\sum w'_i \times \frac{Rev_i}{EVIC_i}}$$

Where:

w'_i = Adjusted weight[8] of the company, i, in the index as at the metric calculation date

$HCISR_i$ = Annual revenues in USDmn of the company, i, derived from High Climate Impact Sectors

Rev_i = Annual revenues in USDmn of the company, i

$EVIC_i$ = Enterprise value including cash of the company, i

Related Metrics:

[SP-ENV-7(a)] – High Climate Impact NACE Sections Exposure (Constituent Count)

The index's 'High Climate Impact NACE Section Exposure (Constituent Count)' is the total number of index constituents that derive any revenues from sectors mapped to NACE Sections designated to be 'High Climate Impact'.

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[7] The EU Technical Expert Group on Sustainable Finance. (2019). *TEG Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures,* available at *https://ec.europa.eu/info/files/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en*.

[8] Adjusted index weights for the index constituents are calculated by dividing the constituent weights of companies covered by the Trucost Sector Revenues dataset by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.

The count of index constituents with any revenues derived from Trucost revenue sectors that have been classified as High Climate Impact, as per the approach described above.

Equation [SP-ENV-7(a)]:

$$High\ Climate\ Impact\ Exposure\ (Constituent\ Count) = \sum exposure_i \begin{cases} is\ HCI & 1 \\ else & 0 \end{cases}$$

Where:

$exposure_i$ = The climate impact designation made for constituent, i

Dataset Coverage: Trucost Sector Revenues

The count and index weight of index constituents covered by the Trucost Sector Revenues dataset.

[SP-ENV-8] – NACE Divisions 05-09, 19 and 20 Exposure (Weighted Revenues, %)

EU BMR ESG Factor/Metric: "Exposure of the benchmark portfolio to companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006."

The index's 'NACE Divisions 05-09, 19 and 20 Exposure (Weighted Revenues, %)' is a measure of the index's average percentage of constituent revenues that are derived from business activities that fall under NACE Divisions 05 to 09, 19 and 20. NACE Divisions are a classification of economic activities used within the European Community.

S&P DJI uses the Trucost Sector Revenues dataset to calculate this metric. Each Trucost revenue sector is mapped to a NACE Division. The 'NACE Divisions 05-09, 19 and 20 Exposure (Weighted Revenues, %)' metric is calculated as the ratio of:

 i.   The weighted average of the constituent index weights and their revenues derived from activities falling under NACE Divisions 05, 06, 07, 08, 09, 19 and 20 divided by Enterprise Value Including Cash (EVIC), and;

 ii. The weighted average of constituent index weights and their total revenues divided by EVIC.

Equation [SP-ENV-8]:

$$\frac{\sum w'_i \times \frac{NACE_i}{EVIC_i}}{\sum w'_i \times \frac{Rev_i}{EVIC_i}}$$

Where:

w'_i = Adjusted weight[9] of the company i in the index as at the metric calculation date

$NACE_i$ = Annual revenues in USDmn of the company i derived from NACE Divisions 05-09, 19 and 20

Rev_i = Annual revenues in USDmn of the company i

$EVIC_i$ = Enterprise value including cash of the company i as at the metric calculation date

Related Metrics:

[SP-ENV-8(a)] – NACE Divisions 05-09, 19 and 20 Exposure (Constituent Count)

The count of index constituents with any involvement in business activities defined by NACE Divisions 05 to 09, 19 or 20.

Equation [SP-ENV-8(a)]:

$NACE\ 05\ to\ 09, 19\ and\ 20\ Exposure$
$$(Constituent\ Count)\ =\ \sum exposure_i \begin{cases} is\ 05\ to\ 09, 19\ and\ 20\ NACE & 1 \\ else & 0 \end{cases}$$

Where:

$exposure_i$ = The exposure status assigned to constituent, i, for deriving any revenues from any Trucost revenue sectors mapped to NACE Divisions 05, 06, 07, 08, 09, 19 or 20.

Dataset Coverage: Trucost Sector Revenues

The count and index weight of index constituents covered by the Trucost Sector Revenues dataset.

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[9] Adjusted index weights for the index constituents are calculated by dividing the constituent weights of companies covered by the Trucost Sector Revenues dataset by the sum of all companies covered. The sum of the resulting adjusted index weights equal 100%.

EU Low Carbon Benchmark Regulation Metrics

The information in this section relates to the disclosure of ESG factors in the benchmark statement, as specified under Commission Delegated Regulation (EU) 2020/1816.[10]

The disclosure requirements under Delegated Regulation 2020/1816 are twofold:

Consideration of ESG factors (for ESG benchmarks)[11]
- *Annex I Section 1: Consideration of ESG Factors*

Additional disclosure requirements for EU CTB and EU PAB (only)[12]
- *Annex I Section 2: Additional Disclosure Requirements for EU Climate Transition and EU Paris-aligned Benchmarks*
- *Annex I Section 3: Disclosure of the Alignment with the Objectives of the Paris Agreement*

This document should be read in conjunction with S&P DJI's [EU Low Carbon Benchmark Regulation Disclosure Report](#).

Supporting Documents

Supporting Document	URL
Frequently Asked Questions: EU Low Carbon Benchmark Regulation	FAQ: EU Low Carbon Benchmark Regulation
Frequently Asked Questions: S&P DJI's Approach to the EU Low Carbon Benchmark Regulation Disclosure Requirements	FAQ: S&P DJI's Approach to the Regulation
S&P DJI EU Low Carbon Benchmark Regulation Disclosure Report	Report
S&P Paris-Aligned & Climate Transition (PACT™) Index Family Benchmark Statement	Benchmark Statement
ESG Disclosure – EU Low Carbon Benchmark Regulation S&P DJI Regulatory Website	Website

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[10] Commission Delegated Regulation (EU) 2020/1816 is available via https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1816&from=EN

[11] Section 1 Annex I of Commission Delegated Regulation (EU) 2020/1816.

[12] Sections 2 and 3 Annex I of Commission Delegated Regulation (EU) 2020/1816.

Annex I Section 1: Consideration of ESG Factors

Delegated Regulation 2020/1816 specifies ESG metrics to be disclosed for 'equity', 'fixed income', 'sovereign debt', 'commodity' and 'other' asset class indices.[13]

The metrics required for 'equity' benchmarks are outlined in Annex II of Delegated Regulation 2020/1816, and shown in the table below, alongside the metric used by S&P DJI.

All 'S&P DJI ESG Metrics' and 'S&P DJI ESG Metric IDs' are defined and explained in *Appendix I* of this document.

Table 5: 'Equity' EU BMR Annex II 'ESG Factors'/S&P DJI ESG Metrics

ESG Factors	(EU BMR Annex II) 'ESG Factors'/Metric	(S&P DJI) ESG Factor/Metric
Combined ESG Factors	Weighted average ESG rating of the benchmark (voluntary).	**[SP-ESG-1] – Index-Level S&P DJI ESG Score**
	Overall ESG rating of top ten benchmark constituents by weighting in the benchmark (voluntary).	*Constituent-level ESG Scores for the top 10 largest benchmark constituents are not currently disclosed.*
Environmental	Weighted average environmental rating of the benchmark (voluntary).	**[SP-ESG-2E] – Index-Level S&P DJI Environmental Score**
	Exposure of the benchmark portfolio to renewable energy as measured by capital expenditures (CapEx) in those activities (as a share of total CapEx by energy companies included in the portfolio) (voluntary).	*
	Exposure of the benchmark portfolio to climate-related physical risks, measuring the effects of extreme weather events on companies' operations and production or on the different stages of the supply chain (based on issuer exposure) (voluntary).	**[SP-ENV-4] – Index-level Physical Risk Score**
	Degree of exposure of the portfolio to the sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 of the European Parliament and of the Council as a percentage of the total weight in the portfolio.	**[SP-ENV-7] – High Climate Impact NACE Sections Exposure**
	Greenhouse gas (GHG) intensity of the benchmark.	**[SP-ENV-1] – Carbon-to-Value Footprint (tCO$_2$e / USDmn Invested)**
	Percentage of GHG emissions reported versus estimated.	**[SP-ENV-2(a)] – GHG Emissions Disclosed; [SP-ENV-2(b)] – GHG Emissions Not Disclosed; [SP-ENV-2(c)] – GHG Emissions Not Covered;**
	Exposure of the benchmark portfolio to companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006.	**[SP-ENV-8] – NACE Divisions 05-09, 19 and 20 Exposure**

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[13] The 'underlying assets' are defined in Annex II of European Union Commission Delegated Regulation (EU) 2020/1816.

ESG Factors	(EU BMR Annex II) 'ESG Factors'/Metric	(S&P DJI) ESG Factor/Metric
	Exposure of the benchmark portfolio to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011 of the European Parliament and of the Council.	**[SP-ENV-5] – Green Sectors Exposure**
Social	Weighted average social rating of the benchmark (voluntary).	**[SP-ESG-2S] – Index-Level S&P DJI Social Score**
	International treaties and conventions, United Nations principles or, where applicable, national law used in order to determine what constitutes a 'controversial weapon'.	**Controversial Weapons Definition**
	Weighted average percentage of benchmark constituents in the controversial weapons sector.	**[SP-BAC-1] Controversial Weapons Exposure**
	Weighted average percentage of benchmark constituents in the tobacco sector.	**[SP-BAC-2] – Tobacco Exposure**
	Number of benchmark constituents subject to social violations (absolute number and relative divided by all benchmark constituents), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law.	**[SP-SVC-1] – S&P Global Media & Stakeholder Analysis (MSA): Active Index Exclusions Exposure; [SP-SVC-2] – Global Standards Screening: Non-Compliant Companies Exposure**
	Exposure of the benchmark portfolio to companies without due diligence policies on issues addressed by the fundamental International Labor Organisation Conventions 1 to 8.	*
	Weighted average gender pay gap.	*
	Weighted average ratio of female to male board members.	*
	Weighted average ratio of accidents, injuries, fatalities.	*
	Numbers of convictions and amount of fines for violations of anti-corruption and anti-bribery laws.	*
Governance	Weighted average governance rating of the benchmark (voluntary).	**[SP-ESG-2G] – Index-Level S&P DJI Governance Score**
	Weighted average percentage of board members who are independent.	*
	Weighted average percentage of female board members.	*

* Not all metrics have been disclosed either because they are voluntary or because S&P DJI does not
currently have a dataset or suitable proxy for use to calculate the relevant metric.

Benchmarks labelled 'EU Climate Transition Benchmark/EU CTB' or 'EU Paris-aligned Benchmark/EU PAB' must disclose the following information:

Annex I Section 2: Additional Disclosure Requirements for EU Climate Transition and EU Paris-aligned Benchmarks

    a. forward-looking year-on-year decarbonization trajectory;

    b. degree to which the IPCC's decarbonization trajectory (1.5°C with no or limited overshoot) has been achieved on average per year since creation;

    c. Overlap between those benchmarks and their investable universe, as defined in Article 1, point (e) of Commission Delegated Regulation (EU) 20202/1818, using the active share at asset level.

Annex I Section 3: Disclosure of the Alignment with the Objectives of the Paris Agreement

    a. Does the benchmark align with the target of reducing greenhouse gas emissions or the attainment of the objectives of the Paris Agreement;

    b. the temperature scenario used, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;

    c. The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;

    d. the methodology used for the measurement of the alignment with the temperature scenario.

    e. The hyperlink to the website of the temperature scenario used.

S&P DJI discloses this information in the [EU Low Carbon Benchmark Regulation Disclosure Report](#), and the explanatory information in *Appendix – EU ESG Disclosure* in the [S&P Paris-Aligned & Climate Transition (PACT™) Index Family Benchmark Statement](#).

Appendix I - Glossary of Terms:

Direct and First-Tier Indirect: Direct and Indirect emissions are another way to categorize greenhouse gas emissions: Scope 1 emissions are another way of defining direct emissions, and scopes 2 and 3 are both considered indirect emissions sources.

Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity. Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity.

Trucost defines direct emissions as the GHG Protocol's scope 1 emissions, plus any other direct emissions derived from a wider range of greenhouse gases relevant to a company's operations.[14]

Trucost uses its classification of 'First-Tier Indirect' emissions, defined as GHG Protocol scope 2 emissions, plus the company's first-tier upstream supply chain (upstream scope 3) – their direct suppliers.

The goal of this enhancement is to include some of the company's most relevant upstream scope 3 emissions over which a company may yield some indirect influence, while limiting the extent of the double counting of emissions by not accounting for all scope 3 emissions.

Enterprise Value ('EV'): The sum of the value of a company's market capitalization, short- and long-term debt, minus the value of all cash on the balance sheet.

Enterprise Value Including Cash ('EVIC'): The sum of the value of a company's market capitalization of ordinary shares at fiscal year end, the market capitalization of preferred shares at fiscal year-end, and the book values of total debt and minorities' interests. Unlike enterprise value, no deductions of cash or cash equivalents are made to avoid the possibility of negative enterprise values.

EU BMR ESG Factor/Metric: This indicates if the S&P DJI ESG Metric is one of those defined as an "ESG Factor" in Annex II of European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published. 'BMR' stands for 'Benchmark Regulation'. Each S&P DJI Metric that is used to respond to an EU BMR ESG Factor/Metric is indicated in its respective section of this document.

Market Capitalization: The sum of the value of a company's outstanding shares of stock, calculated by multiplying the total quantity of a company's outstanding shares by the current market price of one share.

Scope 1: Greenhouse gas emissions from directly emitting point sources that are owned or controlled by a company. For example, scope 1 includes the emissions produced by the internal combustion engines of a trucking company's trucking fleet.

Scope 2: Greenhouse gas emissions from the consumption of purchased electricity, steam, or other sources of energy generated upstream from a company's direct operations.

Scope 3: All other greenhouse gas emissions associated with a company's operations that are not directly owned or controlled by the company. Therefore, scope 3 emissions include several sources of emissions in both the company's upstream supply chain, and downstream from the company's owned or controlled operations (e.g., the emissions from the in-use phase of a company's products or services,

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[14] The Greenhouse Gas Protocol's Scope 1 emissions only consider seven gases.

such as the driving of a truck produced by an automobile manufacturer). By virtue of this definition, scope 3 emissions are often attributed the largest quantity of a company's emissions footprint.

S&P DJI Metric ID: These are defined by S&P DJI to codify the index-level ESG metrics calculated and disclosed in various S&P DJI documentation. The IDs are also used to identify the index-level metrics calculated and disclosed by S&P DJI that map to the specific metrics requested by the EU Low Carbon Benchmark Regulation, as elaborated in the *EU Low Carbon Benchmark Regulation Metrics* section of this guide.
Each S&P DJI Metric may have 'related metrics' that are calculated and disclosed in support of the calculation of each headline metric. The related metrics are denoted with "(a)", "(b)", "(c)" (etc.).

S&P DJI Metric Name: The names assigned by S&P DJI to the index-level ESG metrics calculated and disclosed by S&P DJI in various S&P DJI documentation.

Appendix II – Changes to Document:

The table below documents any changes made to components of this guide.

Document Change Date / Version	Change to Guide	Previously
October 2022	The '*SP-SVC-2: UNGC: Bottom 5% Companies Exposure*' metrics will no longer be calculated and disclosed. The '*SP-SVC-3: Global Standards Screening: Non-Compliant Companies Exposure*' metric has been reassigned the S&P SJI Metric ID of '*SP-SVC-2*'.	Both metrics was calculated and disclosed under their previous S&P DJI Metric ID.
October 2022	The Business Activity Exposure Definition for the following metrics changed to the following: - *"SP-BAC-1: Controversial Weapons Exposure":* The company has direct involvement in core weapon systems that are considered tailor-made and essential, and non-tailor made and non-essential, for the lethal use of weapons. - *"SP-BAC-2: Tobacco Exposure":* The company derives any (>0%) revenue from manufacturing tobacco products, 5% or more of their revenues from supplying tobacco-related products and services, 5% or more of their revenues from the distribution and/or retail sale of tobacco products.	Previous Business Activity Exposure Definitions: - *"SP-BAC-1: Controversial Weapons Exposure":* The company has direct involvement in core weapon systems that are considered tailor-made and essential for the lethal use of weapons, or owns at least 25% of another company with such involvement. - *"SP-BAC-2: Tobacco Exposure":* The company derives any (>0%) revenue from manufacturing tobacco products, 10% or more of their revenues from supplying tobacco-related products and services, 10% or more of their revenues from the distribution and/or retail sale of tobacco products, or companies that have 25% or more ownership of another company with such involvement.

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