S&P Dow Jones Indices

A Division of S&P Global

S&P Paris-Aligned Transition ESG Indices *Methodology*

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Introduction

Index Objective

The S&P Paris-Aligned Transition ESG Indices measure the performance of eligible equity securities from an underlying index selected and weighted to be collectively compatible with a 1.5ºC global warming climate scenario[1] at the index level. The indices apply exclusions based on companies' involvement in specific business activities, performance against the principles of the United Nations' Global Compact (UNGC), and involvement in relevant ESG controversies, all defined in *Eligibility Criteria*.

Highlights

The indices aim to meet the minimum standards for EU Paris-aligned Benchmarks (EU PABs) under Regulation (EU) 2019/2089 amending Regulation (EU) 2016/1011.[2] The law proposes the definitions of minimum standards for the methodology of any 'EU Paris-Aligned' benchmark indices that would be aligned with the objectives of the Paris Agreement[3], and addresses the risk of greenwashing. The indices also incorporate factors that seek to manage transition risk and climate change opportunities in a way that aligns them with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures' (TCFD) 2017 *Final Report*[4], covering transition risk, climate change opportunities, and stranded asset.

Should a material change to the methodology be required as a consequence of any change made by the EU to the minimum standards for EU PABs, S&P Dow Jones Indices will issue an announcement before the change is implemented (and in these circumstances, S&P Dow Jones Indices would not conduct a formal consultation). For clarity, any other methodology change will follow S&P Dow Jones Indices' standard processes, which may include a consultation.

The indices' weighting strategy aim to minimize the difference in constituent weights to the underlying parent index. In addition, the indices incorporate a variety of specified decarbonization targets and align with certain specified criteria through the use of optimization with multiple model constraints, including:

- alignment to a 1.5ºC climate scenario using the S&P Trucost Limited (Trucost) Transition Pathway Model
- reduced overall greenhouse gas (GHG expressed in CO_2 equivalents) emissions intensity compared to their respective underlying parent index by at least 50%
- minimum self-decarbonization rate of GHG emissions intensity in accordance with the trajectory implied by Intergovernmental Panel on Climate Change's (IPCC) most ambitious 1.5ºC scenario, equating to at least 7% GHG intensity reduction on average per annum
- improved Sustainalytics ESG Risk Rating (further defined below) compared to the parent index
- exposure to sectors with high impact on climate change at least equivalent to the parent index

1 A climate scenario of 1.5ºC above preindustrial levels has been deemed important by the IPCC: Masson-Delmotte, V., Zhai, P., Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R. Waterfield, T. (2018). Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C. IPCC, available at https://www.ipcc.ch/sr15/.

2 Pursuant to Articles 19(a)(2) and 19(b)(1) of Regulation (EU) 2019/2089, Commission Delegated Regulation (EU) 2020/1818 lays down the minimum standards for EU CTBs and EU PABs *https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818*.

3 UNFCCC. (2015). The Paris Agreement: *https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement*.

4 Financial Stability Board's Task Force on Climate-related Financial Disclosures' (TCFD). (2017). *Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures,* available at *https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf*.

- constituent-level weight capping to address liquidity and diversification
- improved exposure to potential climate change opportunities through substantially higher green-to-brown revenue share compared to the parent index
- reduced exposure to fossil fuel reserves compared to the parent index

The indices feature the exclusion of companies from the underlying index with:

- involvement in controversial weapons, tobacco, thermal coal, oil sands, shale energy, and arctic energy
- non-compliant UNGC principle violations
- involvement in relevant ESG controversies

In addition to those listed above, the indices incorporate the exclusion of companies whose revenues from coal, oil, or natural gas exploration or processing activities exceed defined thresholds, and electricity generation companies that exceed a stated revenues threshold.

Climate-Related Data

Trucost's Transition Pathway Model

The Trucost Transition Pathway approach is based on two models: the Sectoral Decarbonization Approach ("SDA") (Krabbe, et al., 2015)[5], and the Greenhouse Gas Emissions per unit of Value Added Approach ("GEVA") (Randers, 2012)[6], which are both recommended by the Science Based Targets Initiative (Science Based Targets Initiative, 2019).[7]

The approach allows for a forward-looking perspective on likely future greenhouse gas emissions and uses a carbon budget allocation method to allocate each company a total amount of carbon emissions per year. These allocations allow companies, as a collective, to be 1.5°C aligned provided their emissions remain within the allocation budgets.

The SDA approach is sector specific and is used for high emitting sectors.[8] The SDA uses carbon intensity based on sector specific measures of output. For example, the unit of output for iron and steel companies is "tCO_2 per ton crude steel". This allows an understanding of how carbon efficient companies are per unit of output. The SDA approach also sets carbon budgets for specific sectors as a whole, which allows some sectors to decarbonize more slowly where the opportunities for decarbonization are far lower. This is allowed by setting more aggressive targets for sectors with greater scope for decarbonization.

GEVA is applied to lower emitting or heterogeneous business activities. For GEVA, the unit of output used is gross profit. Companies have diverse business activities, most of which do not have distinct transition pathways defined in climate scenarios. For these companies, the methodology applies a contraction in carbon intensity principle under which a company should make emissions reductions. This is consistent with rates required for the overall economy, but from each company's unique base year emissions intensity.

Other Trucost Data Used: GHG Emissions, Green-to-Brown Share, Fossil Fuel Reserves, and Sector Revenues.

[5] Krabbe, O., Linthorst, G., Blok, K., Crijns-Graus, W., van Vuuren, D., Höhne, N., Pineda, A. C. (2015). Aligning Corporate Greenhouse-Gas Emissions Targets with Climate Goals. Nature Climate Change.
[6] Randers, J. (2012). Greenhouse gas emissions per unit of value added ("GEVA") – A corporate guide to voluntary climate action. Journal Energy Policy.
[7] Science Based Targets Initiative. (2019, April). Science-Based Target Setting Manual, available *here*.
[8] As referenced in section 5.7.2. of The EU Technical Expert Group on Sustainable Finance. (2019). *TEG Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures,* available here.

For information on Trucost's methodology, please refer here.

Science Base Target Initiative (SBTI)

The Science Based Targets initiative champions science-based target setting as a powerful way of boosting companies' competitive advantage in the transition to a low-carbon economy. The initiative is a collaboration between CDP, World Resources Institute (WRI), the World-Wide Fund for Nature (WWF), and the United Nations Global Compact (UNGC). Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered "science based" if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement—to limit global warming to well-below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C.

For more information on the initiative, please refer to https://sciencebasedtargets.org/.

Sustainalytics ESG Risk Ratings

Sustainalytics, a Morningstar Company, produces ESG and corporate governance research, ratings, and analytics. Sustainalytics' ESG Risk Ratings are designed to measure the degree to which a company's unmanaged ESG risks may impact their enterprise value. The ESG Risk Rating measures an absolute measure of risk.

For more information, please refer to https://www.sustainalytics.com/esg-ratings.

Sustainalytics Controversies Research

Sustainalytics assesses companies' involvement in incidents with negative environmental, social and governance (ESG) implications. The Controversy Rating reflects a company's level of involvement in issues and how it manages these issues. A controversy is defined as an event or aggregation of events relating to an ESG topic.

For more information, please refer here.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology	Equity Indices Policies & Practices
S&P Dow Jones Indices' Index Mathematics Methodology	Index Mathematics Methodology
S&P Dow Jones Indices' Float Adjustment Methodology	Float Adjustment Methodology
S&P Dow Jones Indices' Global Industry Classification Standard (GICS) Methodology	GICS Methodology

The methodology is created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of each index governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the index continues to achieve its objective.

The Benchmark Administrator for the indices under this methodology is S&P DJI Netherlands B.V.

Eligibility Criteria

Index Universe

At each rebalancing reference date, the index universe for each index is all constituents of the underlying index, as defined below:

Index	Underlying Index
S&P France 40 Paris-Aligned Transition ESG Index	S&P France BMI
S&P Core Eurozone 50 Paris-Aligned Transition ESG Index	S&P Core Eurozone BMI

Eligibility Factors

As of each rebalancing reference date, stocks must satisfy the following to be eligible for index inclusion:

- **Listing:**
  - **S&P France 40 Paris-Aligned Transition ESG Index**: be listed in France.
  - **S&P Core Eurozone 50 Paris-Aligned Transition ESG Index**: be listed in France, Germany, Belgium, the Netherlands, or Luxembourg.
- **Market Capitalization:** have a float-adjusted market capitalization (FMC) of at least EUR €2 billion.
- **Liquidity:** have a three-month Average Daily Value Traded (ADVT) of at least EUR €5 million.
- **Coverage[9]:**
  - Must be covered by all relevant Sustainalytics data sets.
  - Must be covered by all relevant Trucost data sets.

Index Exclusions

As of each rebalancing reference date, companies are excluded from the eligible universe based on the following:

- Exclusions Based on Business Activities
- UNGC Principle Violation
- Fossil Fuel Operations and Power Generation
- Controversies Rating
- Science Based Targets

Exclusions Based on Business Activities

Companies with the following specific business activities, as determined by Sustainalytics, are excluded:

[9] Coverage requirement is only applied to the S&P Core Eurozone 50 Paris-Aligned Transition ESG Index

Sustainalytics Product Involvement	Sustainalytics Category of Involvement and Description	Sustainalytics Involvement Proxy	S&P DJI Level of Involvement Threshold	S&P DJI Significant Ownership Threshold
Controversial Weapons	**Tailor Made and Essential**: 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.	NA	>0%	≥25%
	Non-Tailor made or Non-Essential[10]: 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	NA	>0%	≥25%
Tobacco	**Production**: The company manufactures tobacco products.	Revenue	>0%	≥25%
	Retail: The company derives revenues from the distribution and/or retail sale of tobacco products.		≥5%[11]	N/A
Shale Energy	**Extraction**: The company is involved in shale energy exploration and/or production.	Revenue	≥5%	N/A
Oil Sands	**Extraction**: The company extracts oil sands.	Revenue	≥5%	N/A
Arctic Oil & Gas Exploration	**Extraction**: The company is involved in oil and gas exploration in Arctic regions.	Revenue	≥5%	N/A
Small Arms[12]	**Civilian Customers (Assault Weapons)**: The company manufactures and sells assault weapons to civilian customers.	Revenue	>0%	≥25%
	Civilian Customers (Non-Assault weapons): The company manufactures and sells small arms (non-assault weapons) to civilian customers	Revenue	>0%	≥25%
	Key Components: The company manufactures and sells key components of small arms.	Revenue	>0%	≥25%
	Retail/distribution (Assault weapons): The company is involved in the retail and/or distribution of assault weapons.	Revenue	>0%	≥25%
	Retail/distribution (Non-Assault weapons): The company is involved in the retail and/or distribution of small arms (Non-assault weapons).	Revenue	>0%	≥25%
	Military/Law Enforcement Customers: The company manufactures and sells small arms to military/law enforcement.	Revenue	>0%	≥25%
	Weapons: The company manufactures military weapon	Revenue	>0%	≥25%

[10] This exclusion is only applied to the S&P Core Eurozone 50 Paris-Aligned Transition ESG Index
[11] ≥10% for the S&P France 40 Paris-Aligned Transition ESG Index
[12] This exclusion is only applied to the S&P Core Eurozone 50 Paris-Aligned Transition ESG Index

Sustainalytics Product Involvement	Sustainalytics Category of Involvement and Description	Sustainalytics Involvement Proxy	S&P DJI Level of Involvement Threshold	S&P DJI Significant Ownership Threshold
Military Contracting[13]	systems and/or integral, tailor-made components of these weapons.			
	Weapon Related Products and/or Services: The company provides tailormade products and/or services that support military weapons.	Revenue	≥5%	N/A

S&P DJI Level of Involvement refers to the company's direct exposure to such products, while Significant Ownership indicates where the company has indirect involvement via some specified level of ownership of a subsidiary company with involvement.

Companies without Sustainalytics coverage are ineligible for index inclusion until they receive such coverage.

Please refer to http://www.sustainalytics.com/ for more information.

Exclusions Based on Sustainalytics' Global Standards Screening

Sustainalytics' Global Standards Screening (GSS) provides an assessment of a company's impact on stakeholders and the extent to which a company causes, contributes, or is linked to violations of international norms and standards. The basis of the GSS assessments is the UNGC Principles. Information regarding related standards is also provided in the screening, including the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, as well as their underlying conventions. Sustainalytics classifies companies into the following three statuses:

- **Non-Compliant.** Classification given to companies that do not act in accordance with the UNGC principles and its associated standards, conventions, and treaties.
- **Watchlist.** Classification given to companies that are at risk of violating one or more principles, for which all dimensions for Non-Compliant status could not be established or confirmed.
- **Compliant.** Classification given to companies that act in accordance with the UNGC principles and its associated standards, conventions, and treaties.

As of each rebalancing reference date, companies classified as Non-Compliant, according to Sustainalytics, are ineligible for index inclusion. Companies without Sustainalytics coverage are ineligible for until receiving coverage.

Exclusions Based on Sustainalytics' Controversy Rating

Companies with a Sustainalytics Controversy Rating equal to or greater than four are excluded.

Companies without Sustainalytics coverage are ineligible for index inclusion until they receive such coverage.

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

Exclusions Based on Revenue Thresholds in Fossil Fuel Operations and Power Generation

As of each rebalancing reference date, companies whose sum of revenues derived from the relevant Trucost sectors breach the below revenue thresholds are excluded:

[13] This exclusion is only applied to the S&P Core Eurozone 50 Paris-Aligned Transition ESG Index

Exclusion Type	Trucost Revenue Sectors	Revenue Threshold
Coal Exploration or Processing	Bituminous Coal and Lignite Surface Mining Bituminous Coal Underground Mining All Other Petroleum and Coal Products Manufacturing Pipeline Transportation	> 0%
Oil Exploration or Processing	All Other Petroleum and Coal Products Manufacturing Crude Petroleum and Natural Gas Extraction Drilling Oil and Gas Wells Support Activities for Oil and Gas Operations Petroleum Lubricating Oil and Grease Manufacturing Mining and Oil and Gas Field Machinery Manufacturing Tar Sands Extraction Petroleum Refineries Petrochemical Manufacturing Pipeline Transportation	≥ 10%
Natural Gas Exploration or Processing	Crude Petroleum and Natural Gas Extraction Drilling Oil and Gas Wells Support Activities for Oil and Gas Operations Mining and Oil and Gas Field Machinery Manufacturing Natural Gas Liquid Extraction Natural Gas Distribution Industrial Gas Manufacturing Pipeline Transportation	≥ 50%
Coal Power Generation	Coal Power Generation	≥ 5%
Power Generation	Coal Power Generation Petroleum Power Generation Natural Gas Power Generation Biomass Power Generation	≥ 50%

Exclusions based on Science Based Target Companies

Companies classified as part of the below GICS Industries/Subindustries without an SBTi[14] target set at "well-below 2°C or 1.5°C", or an SBTi 'Business Ambition for 1.5°C' commitment, are excluded:

GICS Code	Industry/Subindustry Name
101010	Energy Equipment & Services
101020	Oil, Gas & Consumable Fuels
551010	Electric Utilities
551020	Gas Utilities
551030	Multi-Utilities
55105010	Independent Power Producers & Energy Traders

For more information, please refer to https://sciencebasedtargets.org/companies-taking-action.

Multiple Classes of Stock

Each company is represented once by the most liquid share class, as determined by three-month ADVT as of the rebalancing reference date.

[14] For history prior to the index "Anchor Date" the SBTi rule was not applied. The SBTi exclusion rule is applied beginning from the index "Anchor Date". The index 'Anchor Date' is the date of the reference index composition and base carbon intensity calculation used to determine the index's decarbonization trajectory. For more information on Anchor Dates, please see *Appendix I*.

Index Construction

Constituent Selection

At each rebalancing, the eligible constituents of each underlying index are selected and subjected to the optimization constraints below.

Constituent Weighting

At each rebalancing reference date, constituents' weights are determined to minimize the below objective function for each index. Parent Weights are considered at the company level.

S&P France 40 Paris-Aligned Transition ESG Index:

$$\textbf{Objective Function} = \left(\left(\frac{1}{n} * \sum \frac{(Parent\ Weight_i - Optimized\ Weight_i)^2}{Parent\ Weight_i}\right) + \left(\frac{1}{k} * \sum \frac{(Parent\ Sector\ Weight_j - Optimized\ Sector\ Weight_j)^2}{Parent\ Sector\ Weight_j}\right)\right)$$

S&P Core Eurozone 50 Paris-Aligned Transition ESG Index:

$$\textbf{Objective Function} = \left(\begin{array}{c} \left(\frac{1}{n} * \sum \frac{(Parent\ Weight_i - Optimized\ Weight_i)^2}{Parent\ Weight_i}\right) \\ + \left(\frac{1}{k} * \sum \frac{(Parent\ Sector\ Weight_j - Optimized\ Sector\ Weight_j)^2}{Parent\ Sector\ Weight_j}\right) \\ + \left(\frac{1}{m} * \sum \frac{(Parent\ Country\ Weight_l - Optimized\ Country\ Weight_l)^2}{Parent\ Country\ Weight_l}\right) \end{array}\right)$$

)

where:

n = the number of companies selected

k = the number of sectors in the universe

m = the number of countries in the universe

Optimization Constraints

As of each rebalancing reference date, the optimizer seeks to minimize the above objective function for while satisfying all applicable combinations of the below transition risk, climate opportunities, and index construction constraints.

Transition Risk Constraints

Constraint*	Index	Data Source
1.5ºC Climate Scenario Transition Pathway Budget Index Alignment	≤0	Trucost

Constraint*	Index	Data Source
Weighted-average Carbon Intensity (WACI) Target	≤ underlying WACI × 50% × Buffer**	Trucost
7% Decarbonization Trajectory WACI Target	≤ AnchorWACI*** × $\frac{(1-7\%)^\wedge(q/4)}{1+Inf}$ × Buffer** where: *q* = number of rebalances since index launch date *Inf* = Enterprise Value Including Cash (EVIC) growth of parent index since index Anchor Date	Trucost
Weighted-average Sustainalytics ESG Risk Rating (waESG)****	≤ underlying index waESG after 20% of the worst stocks by count based on their ESG Risk Rating are removed and their weight redistributed*****	Sustainalytics
High Climate Impact Sectors Revenue Proportion (HCISRP)	≥ HCISRP of underlying index	Trucost
Fossil Fuel Reserves (FFR)	≤ 20% × FFR of underlying index	Trucost

* Constraints are defined in *Constraint-Related Definitions* below.
** Where Buffer = 95% to represent a 5% margin to allow for drift between targeted and realized WACI.
*** WACI of index on the index's Anchor Date. Prior to launch date, the 7% Decarbonization Trajectory WACI Target was reset to the index Anchor Date. Prior to launch, the 7% decarbonization Trajectory WACI Target was calculated based on the index Inception Date.
**** Stocks without an Sustainalytics ESG Risk Rating are excluded from the waESG calculation.
***** For the S&P France 40 Paris-Aligned Transition ESG Index only: if a company does not have an Sustainalytics ESG Risk Rating, it is assigned the underlying index waESG.

Climate Opportunities Constraint

Constraint	Index	Data Source
Green-to-Brown Revenue Share (GBR)	≥ 4 × GBR of underlying index	Trucost

Index Construction Constraints

Constraint	Index
Diversification Relative Company Weight	± 5% from underlying index company weight
Diversification Absolute Max Company Weight	**S&P France 40 Paris-Aligned Transition ESG Index** ≤ max(15%, underlying company weight)
	S&P Core Eurozone 50 Paris-Aligned Transition ESG Index ≤ max(10%, underlying company weight)
Diversification Absolute Min Company Weight	≥ 0.1%
Liquidity Max Stock Weight	$\leq \frac{\text{Hypothetical Days to Buy/Sell} \times \text{Daily Participation} \times \text{Liquidity}_i}{\text{Notional Portfolio Size}}$ where: Hypothetical Days to Buy/Sell = 5 Daily Participation = 20% Liquidity = 3-month ADVT Nominal Portfolio Size = 500 million EUR.

Companies Selected Per Index

Index	Constituent Count
S&P France 40 Paris-Aligned Transition ESG Index	40
S&P Core Eurozone 50 Paris-Aligned Transition ESG Index	50

Constraint Relaxation Hierarchy

If the optimization does not achieve a solution, each constraint in the hierarchy is relaxed in the order listed below and repeated, if necessary, until a solution is found.

- Weighted-average Sustainalytics ESG Risk Rating
- Diversification Absolute Max Stock Weight
- Diversification Relative Stock Weight
- Liquidity Max Stock Weight
- Fossil Fuel Reserves
- Green-to-Brown Revenue Share
- 1.5ºC Climate Scenario Transition Pathway Budget Index Alignment

If the optimization is not solved after relaxing all the above constraints, the following constraint is relaxed:

- Number of Stocks Selected

The following constraints are considered hard constraints and are not relaxed:

- Weighted-average Carbon Intensity (WACI) Target
- 7% Decarbonization Trajectory WACI Target
- High Climate Impact Sectors Revenue Proportion

Liquidity Related Constraints

The optimization process is first performed using only the stocks with an ADVT at least 10 million euros. If the optimization successfully achieves a result without requiring any relaxations the selected stocks are the final index constituents.

If any relaxations are necessary the optimization is performed with ADVT thresholds of nine, eight, seven, six and five million euros (five million is the minimum threshold for eligibility). The final constituents are those selected with the highest possible ADVT threshold and the least number of relaxed constraints.

Constraint-Related Definitions

1.5ºC Climate Scenario Transition Pathway Budget Index Alignment

The alignment of the index[15] is calculated as follows:

$$\sum \mathrm{w_i} \times \frac{\mathrm{Winsorized\ TPBA}_i}{\mathrm{EVIC_i}}$$

where:

w_i	= weight of the company i in the index
$Winsorized\ TPBA_i$	= $\max\,(2.5\text{ percentile of the TPBA of underlying index}, \mathrm{TPBA}_i)$
$EVIC_i$	= enterprise value including cash of the company i

The Transition Pathway Budget Alignment (TPBA) of each company i is calculated as the sum of the difference between a company's carbon budget and emissions (either realized or predicted) both using history and future projections. A TPBA of 0 would be compatible with a 1.5ºC climate scenario, a budget below 0 would be compatible with better than a 1.5ºC climate scenario and a budget above 0 would not be compatible with a 1.5ºC climate scenario.

[15] For history prior to June 2020, only the realized GHG data available at that point-in-time was used in the calculation of the Transition Pathway Budget Alignment (i.e., Predicted GHG was included from July 2020 onwards).

This metric is calculated using the GHG emissions dataset and the 1.5ºC Climate Transition Pathway Model Scenario dataset provided by Trucost.

Weighted-Average Carbon Intensity (WACI)

$$\sum \mathrm{w_i} \times \frac{\mathrm{GHG1_i + GHG2_i + GHG3_i}}{\mathrm{EVIC_i}}$$

where:

w_i	= weight of the company i in the index
$GHG1_i$	= Scope 1 GHG emissions in tCO_2e for the company i
$GHG2_i$	= Scope 2 GHG emissions in tCO_2e for the company i
$GHG3_i$	= Scope 3 (upstream and downstream) GHG emissions[16] in tCO_2e for the company i
$EVIC_i$	= enterprise value including cash of the company i

This metric is calculated using the GHG emissions dataset provided by Trucost.

High Climate Impact Sectors Revenue Proportion (HCISRP)

$$\frac{\sum w_i \times \frac{HCISR_i}{EVIC_i}}{\sum w_i \times \frac{TR_i}{EVIC_i}}$$

where:

w_i	= weight of the company i in the index
$HCISR_i$	= revenue of the company i derived from High Climate Impact Sectors
TR_i	= total revenue of the company i
$EVIC_i$	= enterprise value including cash of the company i

High Climate Impact Sectors are defined by the follow NACE sections:

- Agriculture, Forestry and Fishing
- Mining and Quarrying
- Manufacturing
- Electricity, Gas, Steam and Air Conditioning Supply
- Water Supply; Sewerage, Waste Management and Remediation Activities
- Construction
- Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles
- Transportation and Storage
- Real Estate Activities

NACE sections have been mapped to Trucost Sectors. This metric is calculated using the sector revenues dataset provided by Trucost.

*For more information on High Climate Impact Sectors, including the classification of Trucost revenue sectors as either 'high' or 'low' climate impact sectors, please refer to the [Trucost Climate Impact Sectors Classification](). *

[16] Scope 3 GHG emissions are included in the calculation of Carbon Intensity beginning with the indices' Anchor Date. Prior to the indices' Anchor Date carbon intensity was calculated using only scope 1 and scope 2 GHG emissions.

Fossil Fuel Reserves (FFR)

$$\sum \mathrm{w_i} \times \frac{\text{Fossil Fuel Reserves}_\mathrm{i}}{\mathrm{EVIC_i}}$$

where:

w_i	= weight of the company i in the index
$Fossil\ Fuel\ Reserves_i$	= the embedded emissions (tCO_2) within the fossil fuel reserves owned by company i
$EVIC_i$	= enterprise value including cash of the company i

This metric is calculated using the fossil fuel reserves dataset provided by Trucost.

Green-to-Brown Revenue Share (GBR)

$$\frac{\sum w_i \times \frac{GR_i}{EVIC_i}}{\sum w_i \times \frac{BR_i}{EVIC_i}}$$

where:

w_i	= weight of the company i in the index
GR_i	= revenue of the company i derived from Green Sectors
BR_i	= revenue of the company i derived from Brown Sectors
$EVIC_i$	= enterprise value including cash of the company i

S&P DJI defines Green Sectors as the following Trucost Sectors:

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

S&P DJI defines Brown Sectors as the following Trucost Sectors:

- Coal Power Generation
- Petroleum Power Generation
- Natural Gas Power Generation

This metric is calculated using the sector revenues dataset provided by Trucost.
Please refer to http://www.trucost.com/ for more information.

Index Calculations

The indices calculate by means of the divisor methodology used in all S&P Dow Jones Indices' equity indices.

For more information on the index calculation methodology, please refer to the Non-Market Capitalization Weighted Indices section of S&P Dow Jones Indices' Index Mathematics Methodology.

Index Maintenance

Rebalancing

The indices rebalance quarterly, effective after the close of the last business day of March, June, September, and December. The rebalancing reference date is the last trading day of the prior month. As part of the rebalancing process, constituent stock weights are updated. Weights calculated as a result of the reference date data are implemented in the indices using closing prices seven business days prior to the rebalancing effective date. Since index shares are assigned based on prices prior to the rebalancing effective date, the actual weight of each stock at the rebalancing differs from these weights due to market movements.

Additions and Deletions

Additions. Except for spin-offs, no additions occur intra-rebalancing. Spinoffs are added to the index where the parent security is a constituent at a zero price at the market close of the day before the ex-date (with no divisor adjustment) and are removed after at least one day of regular way trading (with a divisor adjustment).

Deletions. If a stock is dropped from the underlying index, the stock is removed from the index simultaneously. Between rebalancings, a stock can be deleted from an index due to corporate events such as mergers, takeovers, delistings, suspensions, spin-offs/demergers, or bankruptcies.

Ongoing Maintenance

Index constituents are drawn from the underlying index. Specific changes to index constituents, such as share changes, Investable Weight Factor (IWF) changes, dividend distributions, and price adjustments, follow the policies of the underlying index.

For more information on Share Updates, Float Adjustment, and IWFs, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology and S&P Dow Jones Indices' Float Adjustment Methodology.

The indices are reviewed on an ongoing basis to account for corporate events such as mergers, takeovers, delistings, suspensions, spin-offs/demergers, or bankruptcies. Changes to index composition and related weight adjustments are made as soon as they are effective. These changes are typically announced prior to the implementation date.

Quarterly Updates

Changes to a constituent's shares and IWF due to the quarterly updates are effective after the close on the third Friday in March, June, September, and December.

Corporate Actions

For more information on Corporate Actions, please refer to the Non-Market Capitalization Indices section of S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Currency of Calculation and Additional Index Return Series

The indices calculate in euros.

WM/Refinitiv foreign exchange rates are taken daily at 04:00 PM London Time and used in the end-of-day calculation of the indices. These mid-market fixings are calculated by The WM Company based on Refinitiv data and appear on Refinitiv pages WMRA.

In addition to the indices detailed in this methodology, additional return series versions of the indices may be available, including, but not limited to the following: currency, currency hedged, decrement, fair value, inverse, leveraged, and risk control versions. For a list of available indices, please refer to the *S&P DJI Methodology & Regulatory Status Database*.

For information on various index calculations, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

For the inputs necessary to calculate certain types of indices, including decrement, dynamic hedged, fair value, and risk control indices, please refer to the Parameters documents available at www.spglobal.com/spdji/.

Base Dates and History Availability

Index history availability, base date, and base value are:

Index	Launch Date	First Value Date	Base Date	Base Value
S&P France 40 Paris-Aligned Transition ESG Index	05/30/2022	12/31/2016	12/31/2016	1000
S&P Core Eurozone 50 Paris-Aligned Transition ESG Index[17]	08/29/2022	12/31/2016	12/31/2016	1000

[17] This index was relaunched effective 28-Nov-22 and all history restated. For more details, please refer to the announcement, available here.

Index Data

Calculation Return Types

S&P Dow Jones Indices calculates multiple return types which vary based on the treatment of regular cash dividends. The classification of regular cash dividends is determined by S&P Dow Jones Indices.

- Price Return (PR) versions are calculated without adjustments for regular cash dividends.
- Gross Total Return (TR) versions reinvest regular cash dividends at the close on the ex-date without consideration for withholding taxes.
- Net Total Return (NTR) versions, if available, reinvest regular cash dividends at the close on the ex-date after the deduction of applicable withholding taxes.

In the event there are no regular cash dividends on the ex-date, the daily performance of all three indices will be identical.

For a complete list of indices available, please refer to the daily index levels file (".SDL").

For more information on the classification of regular versus special cash dividends as well as the tax rates used in the calculation of net return, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

For more information on the calculation of return types, please refer to S&P Dow Jones Indices' Index Mathematics Methodology.

Index Governance

Index Committee

An S&P Dow Jones Indices Index Committee maintains the indices. The Index Committee meets regularly. At each meeting, the Index Committee reviews pending corporate actions that may affect index constituents, statistics comparing the composition of the index to the market, companies that are being considered as candidates for addition to the index, and any significant market events. In addition, the Index Committee may revise index policy covering rules for selecting companies, treatment of dividends, share counts or other matters.

S&P Dow Jones Indices considers information about changes to its indices and related matters to be potentially market moving and material. Therefore, all Index Committee discussions are confidential.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Index Policy

Announcements

All index constituents are evaluated daily for data needed to calculate index levels and returns. All events affecting the daily index calculation are typically announced in advance via the Index Corporate Events report (.SDE), delivered daily to all clients. Any unusual treatment of a corporate action or short notice of an event may be communicated via email to clients.

Pro-forma Files

In addition to the corporate events file (.SDE), S&P Dow Jones Indices provides constituent pro-forma files each time the indices rebalance. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents as well as their corresponding weights and index shares effective for the upcoming rebalancing.

Please visit www.spglobal.com/spdji/ for a complete schedule of rebalancing timelines and pro-forma delivery times.

Holiday Schedule

The indices calculate daily, throughout the calendar year. The only days an index is not calculated are on days when all exchanges where an index's constituents are listed are officially closed or if WM/Refinitiv exchange rates services are not published.

A complete holiday schedule for the year is available at *www.spglobal.com/spdji/*.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

Unexpected Exchange Closures

For information on Unexpected Exchange Closures, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Recalculation Policy

For information on the recalculation policy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

Contact Information

For any questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/, major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All versions of the below indices that may exist are also covered by this document. Please refer to the S&P DJI Methodology & Regulatory Status Database for a complete list of indices covered by this document.

Index	Return Type	Bloomberg	RIC
S&P France 40 Paris-Aligned Transition ESG Index (EUR)	Price Return Total Return Net Total Return	SPFRPAEP SPFRPAET SPFRPAEN	.SPFRPAEP .SPFRPAET .SPFRPAEN
S&P Core Eurozone 50 Paris-Aligned Transition ESG Index (EUR)	Price Return Total Return Net Total Return	SPCEPAEP SPCEPAET SPCEPAEN	,SPCEPAEP .SPCEPAET .SPCEPAEN

Index Data

Daily constituent and index level data are available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spglobal.com/spdji/en/contact-us.

Website

For further information, please refer to S&P Dow Jones Indices' Web site at www.spglobal.com/spdji/.

Appendix I

Index Anchor Date of Decarbonization Trajectory

The index ‘Anchor Date’ is the date of the reference index composition and base carbon intensity calculation used to determine the index’s decarbonization trajectory. It is the rebalancing reference date for the most recent index rebalancing prior to the index's launch date. Prior to the index ‘Anchor Date’ the index ‘First Value Date’ is used to determine the index’s decarbonization trajectory.

Index	First Value Date	Anchor Date	Launch Date
S&P France 40 Paris-Aligned Transition ESG Index	12/31/2016	02/28/2022	05/30/2022
S&P Core Eurozone 50 Paris-Aligned Transition ESG Index	12/31/2016	02/28/2022	08/29/2022

Appendix II

Methodology changes are as follows:

Change	Effective Date (After Close)	Methodology Previous	Methodology Updated
S&P France 40 Paris-Aligned Transition ESG Index: Multiple Classes of Stock	08/26/2022	All publicly listed multiple share class lines are eligible for index inclusion subject to meeting the eligibility criteria. For more information regarding the treatment of multiple share classes, please refer to Approach A within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.	Each company is represented once by the most liquid share class, as determined by three-month ADVT as of the rebalancing reference date.

Appendix III

Backward Data Assumption

The indices employ a "Backward Data Assumption" method for some datapoints used in the derivation of historical index membership prior to the Live Data Effective Date (defined below). The "Backward Data Assumption" method involves applying the earliest available actual live data point for an index constituent to all prior, historical instances of that constituent in the index universe.

Backward Data Assumption affects only the historical, hypothetical constituents of any index back-test. Only actual live data is ever used in live index rebalancings and in the historical rebalancing calculation of an index after its Live Data Effective Date.

For more information on S&P DJI's principles and processes for using Backward Data Assumption, please refer to the [FAQ](FAQ).

Designated Datasets Subject to Backward Data Assumption

The Backward Data Assumption within the historical back-test, with respect to the indices identified above, applies only to designated datasets and associated time horizons as defined below. For each designated dataset, all historical rebalancing events prior to the Live Data Reference Date listed below are subject to use of the Backward Data Assumption.

Data Provider	Designated Dataset	Live Data Reference Date	Live Data Effective Date
Sustainalytics	ESG Risk Ratings	2/28/2019	4/1/2019

The Live Data Reference Date refers to the first rebalancing reference date from which only actual live data is used.

The Live Data Effective Date refers to the first date from which index constituents are determined solely on actual live data for each respective dataset.

Historical Coverage Assessment per Designated Dataset

S&P France 40 Paris-Aligned Transition ESG Index

Rebalancing Date	Underlying Index Stock Count	Point-in-Time Data		After Using the Data Assumption	
		Stock Count	Index Weight	Stock Count	Index Weight
2016	205	0	0%	160	97.9%
2017	189	0	0%	157	98.8%
2018	185	0	0%	157	99.7%
2019	163	147	99.8%	150	99.9%
2020	170	148	99.2%	155	99.7%
2021	191	147	99.0%	147	99.0%
2022	191	145	97.8%	n/a	n/a

S&P Core Eurozone 50 Paris-Aligned Transition ESG Index

Rebalancing Date	Underlying Index Stock Count	Point-in-Time Data		After Using the Data Assumption	
		Stock Count	Index Weight	Stock Count	Index Weight
2016	559	0	0%	449	97.6%
2017	531	0	0%	443	98.1%
2018	526	0	0%	449	99.1%
2019	477	429	99.4%	442	99.5%
2020	504	439	98.8%	466	99.7%

Rebalancing Date	Underlying Index Stock Count	Point-in-Time Data		After Using the Data Assumption	
		Stock Count	Index Weight	Stock Count	Index Weight
2021	549	447	98.0%	458	98.7%
2022	559	452	98.5%	n/a	n/a

Appendix IV

EU Required ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY[18]				
1.	**Name of the benchmark administrator.**	S&P DJI Netherlands B.V.		
2.	**Underlying asset class of the ESG benchmark.**[19]	Equity		
3.	**Name of the S&P Dow Jones Indices benchmark or family of benchmarks.**	S&P Paris-Aligned & Climate Transition (PACT) Index Family Benchmark Statement		
4.	**Do any of the indices maintained by this methodology take into account ESG factors?**	Yes		
5.	**If the response to (4) is "Yes," the indices stated here take into account ESG factors.**	For a list of the benchmarks within this family that take in account ESG factors, please refer to the S&P DJI Methodology & Regulatory Database.		
6.	**Where the response to (4) is 'Yes', the section below lists those ESG factors that are taken into account by the ESG indices governed by the methodology, including those ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816.**			
6.a List of environmental factors considered		**ESG Factor**[20]	**S&P DJI ESG Factor**	**Comment**
		Weighted average ESG rating of the benchmark (voluntary).	Transition Risk Constraints: *Weighted-average Sustainalytics ESG Risk Rating*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
		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	Transition Risk Constraints: *High Climate Impact Sectors Revenue Proportion (HCISRP)*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.

[18] The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology.

[19] The 'underlying assets' are defined in 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.

[20] 'ESG factors' are defined 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.

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY[18]			
	European Parliament and of the Council as a percentage of the total weight in the portfolio.		
	Greenhouse gas (GHG) intensity of the benchmark.	Transition Risk Constraints: *Weighted-average Carbon Intensity (WACI) Target; 7% Decarbonization Trajectory WACI Target*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
	N/A	Transition Risk Constraints: *Fossil Fuel Reserves*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
	N/A	Transition Risk Constraints: *1.5°C Climate Scenario Transition Pathway Budget Index Alignment*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
	N/A	Transition Risk Constraints: *Eligible Science Based Targets Companies*	Weighting. For more information, please refer to the *"Eligibility Criteria'* section of the methodology.
	N/A	Climate Opportunities Constraints: *Green-to-Brown Revenue Share (GBR)*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
	N/A	Fossil Fuel Operations and Power Generation	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
	N/A	Controversies Rating	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
	N/A	Business Activities: *Oil Sands*	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
	N/A	Business Activities: *Shale Energy*	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
6.b List of social factors considered.	International treaties and conventions, United Nations principles or, where applicable, national law used in order to determine what constitutes a 'controversial weapon'.	Business Activities: *Controversial Weapons*	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
	Weighted average percentage of benchmark constituents in the	Business Activities: *Controversial Weapons*	Exclusion. For more information, please refer to the *'Eligibility Criteria'*

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY[18]				
		controversial weapons sector.		section of the methodology.
		Weighted average percentage of benchmark constituents in the tobacco sector.	Business Activities: *Tobacco*	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
		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.	UNGC Non-Compliant Companies	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
		Weighted average ESG rating of the benchmark (voluntary).	Transition Risk Constraints: *Weighted-average Sustainalytics ESG Risk Rating*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
		N/A	Controversies Rating	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
6.c List of governance factors considered.		Weighted average ESG rating of the benchmark (voluntary).	Transition Risk Constraints: *Weighted-average Sustainalytics ESG Risk Rating*	Weighting. For more information, please refer to the *'Index Construction'* section of the methodology.
		N/A	Controversies Rating	Exclusion. For more information, please refer to the *'Eligibility Criteria'* section of the methodology.
7.	**Data and standards used.**			
7.a	**Data sources, verification and quality of data.**	The datasets are defined as either: - Reported: All data in the dataset are provided as disclosed by companies, or as stated in the public domain. - Modeled: All data are derived using a proprietary modelling process with only proxies used in the creation of the dataset. - Reported and Modeled: The dataset is either a mix of reported and Modeled data or is derived by the vendor using reported data/information in a proprietary scoring or determination process. The index methodology uses the following ESG datasets.		
	Data Source.	**Dataset.**		
	S&P Trucost Limited (a part of S&P Global) (external data source)	This methodology uses several datasets provided by S&P Trucost Limited: • Transition Pathway Model dataset (Reported and Modeled) • Greenhouse Gas Emissions dataset (Reported and Modeled) • Green-to-Brown Share dataset (Reported and Modeled) • Fossil Fuel Reserves dataset (Reported and Modeled) • Trucost Sector Revenues dataset (Reported and Modeled)		

<table>
<tr><th colspan="3">EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY[18]</th></tr>
<tr><td></td><td></td><td>For more information on Trucost, please refer to Appendix I and http://www.trucost.com/.</td></tr>
<tr><td></td><td>Sustainalytics (external data source)</td><td>This methodology uses the following datasets provided by Sustainalytics, a global leader in sustainability research and analytics:
• Business Activities (Reported and Modeled) – Product involvement data
• Global Standards Screening (Reported and Modeled)
• ESG Risk Ratings (Reported and Modeled)
• Controversy Ratings (Reported and Modeled)

For more information, please refer to www.sustainalytics.com.</td></tr>
<tr><td></td><td>Science Based Targets Initiative (SBTi)</td><td>This methodology uses the information provided on the Science Based Targets Initiative's website ('Companies Taking Action').

For more information on this information and the SBTi please refer to https://sciencebasedtargets.org/companies-taking-action</td></tr>
<tr><td>7.b</td><td>Reference standards and index methodology.</td><td>Whilst there are no specific reference standards that apply to the data, where possible, S&P DJI uses international sustainability disclosure frameworks such as, SASB, GRI, UN Global Compact and the recommendations of the Financial Stability Board's Task Force for Climate-related Financial Disclosures as published in the 2017 Final Report.</td></tr>
<tr><td colspan="2">Appendix latest update:</td><td>May 2022</td></tr>
<tr><td colspan="2">Appendix first publication:</td><td>May 2022</td></tr>
</table>

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used. Index returns shown do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US $10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US $1,650), the net return would be 8.35% (or US $8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US $5,375, and a cumulative net return of 27.2% (or US $27,200).

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