

S&P Paris-Aligned & Climate Transition (PACT) ESG Select Indices *Methodology*

September 2023

Table of Contents

Introduction	3
Index Objective	3
Highlights	3
Climate-Related Data	4
Supporting Documents	4
Eligibility Criteria	5
Index Universe	5
Eligibility Factors	5
Index Exclusions	6
Exclusions Based on Business Activities	6
Exclusions Based on Sustainalytics' Global Standards Screening	6
Exclusions Based on Revenue Thresholds in Fossil Fuel Operations and Power Generation	7
Controversies Monitoring: Media and Stakeholder Analysis Overlay	8
Multiple Classes of Stock	8
Index Construction	9
Constituent Selection	9
Constituent Weightings	11
Index Calculations	12
Index Maintenance	13
Rebalancing	13
Additions and Deletions	13
Ongoing Maintenance	13
Corporate Actions	13
Currency of Calculation and Additional Index Return Series	13
Base Dates and History Availability	14
Index Data	15
Calculation Return Types	15
Index Governance	16
Index Committee	16
Index Policy	17
Announcements	17
Pro-forma Files	17

	Holiday Schedule	17
	Rebalancing	17
	Unexpected Exchange Closures	17
	Recalculation Policy	17
	Contact Information	17
Index Dissemination		18
	Tickers	18
	Index Data	18
	Website	18
Appendix I		19
	Indices in this Methodology Employing Backward Data Assumption	19
	Backward Data Assumption	19
	Designated Datasets Subject to Backward Data Assumption	19
	Exclusions Based on Missing Coverage	19
	Historical Coverage Assessment per Designated Dataset	20
Appendix II		21
	Index Anchor Date of Decarbonization Trajectory	21
Appendix III		22
	Methodology Changes	22
Appendix IV		23
	ESG Disclosures	23
Disclaimer		26
	Performance Disclosure/Back-Tested Data	26
	Intellectual Property Notices/Disclaimer	27

Introduction

Index Objective

The S&P Net Zero 2050 Climate Transition ESG Select Index Series and S&P Net Zero 2050 Paris-Aligned ESG Select Index Series measure the performance of a targeted number of eligible equity securities, drawn from the underlying index, that are selected from some of the highest S&P DJI ESG score ranked companies to be collectively compatible with a 1.5°C global warming climate scenario¹ 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, as defined in *Eligibility Criteria*.

Highlights

The indices aim to meet the minimum standards for EU Climate Transition Benchmarks (EU CTBs) and 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 Climate Transition' and 'EU Paris-Aligned' benchmark indices that would be aligned with the objectives of the Paris Agreement³, and addresses the risk of greenwashing.

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 CTBs and/or 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 index has the following key features:

- companies are selected based on S&P DJI ESG Scores;
- reduced overall greenhouse gas (GHG, expressed in CO₂ equivalents) emissions intensity compared to its respective underlying parent index by at least 30% for CTB indices and 50% for PAB indices;
- minimum self-decarbonization rate of GHG emissions intensity in accordance with the trajectory implied by Intergovernmental Panel on Climate Change's (IPCC) most ambitious 1.5°C scenario, equating to at least 7% GHG intensity reduction on average per annum;
- exposure to sectors with high impact on climate change at least equivalent to its underlying index (to mitigate greenwashing).

The S&P DJI ESG Scores are built from the S&P Global 'Corporate Sustainability Assessment' (CSA). A company's S&P DJI ESG score may either be calculated from data received directly by a company completing the comprehensive assessment (together with supporting documents), or – in the absence of this – by using publicly available information. S&P Global uses the CSA results to then calculate the S&P DJI ESG Scores that are used in the index methodology.

¹ A climate scenario of 1.5°C 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>.

For more information on the CSA process, please refer to <https://www.spglobal.com/esg/csa/>.

For more information on S&P DJI ESG Scores, please refer to the S&P DJI ESG Score Methodology.

All indices in the series feature the exclusion of companies from the underlying parent index with:

- involvement in specific business activities
- non-compliant United Nations Global Compact (UNGC) principle violations
- involvement in relevant ESG controversies

In addition to those listed above, the S&P Net Zero 2050 Paris-Aligned ESG Select Index Series incorporates the further 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

S&P Trucost Limited (Trucost) Data Used: GHG Emissions and Sector Revenues.

For more information on Trucost's methodology, 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
S&P DJI ESG Score Methodology	S&P DJI ESG Score 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 following indices are constructed from an Eligible Universe consisting of the constituents of an underlying index, as defined below:

S&P Climate Transition ESG Select Index Series	Underlying Index
S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index	S&P Eurozone LargeMidCap
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	S&P 500 + S&P Eurozone LargeMidCap Index

S&P Paris-Aligned ESG Select Index Series	Underlying Index
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index	S&P Eurozone LargeMidCap
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	S&P 500 + S&P Eurozone LargeMidCap Index

For information on an underlying index, please refer to the respective index methodology, available at www.spglobal.com/spdji/.

Eligibility Factors

Companies in a respective underlying index must satisfy the following to be eligible for index inclusion:

Listing.

- **S&P Eurozone 50 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices:** must be EUR-denominated.
- **S&P Transatlantic 100 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices:** must be U.S.-domiciled and USD-denominated, or Eurozone-domiciled and EUR-denominated.

Liquidity.

- **S&P Eurozone 50 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices and S&P Transatlantic 100 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices:** must have a three-month Median Daily Value Traded (MDVT) of EUR €10 million.

Carbon Emissions Coverage.

- Have GHG Emissions data, as provided by Trucost.⁴

S&P DJI ESG Score Coverage.

- Have an S&P DJI ESG Score.

⁴ The data should include all Scope 1, Scope 2, and Scope 3 (upstream and downstream) emissions.

Index Exclusions

At each rebalancing reference date, companies are excluded from the eligible universe as described below:

Exclusion Type	S&P Climate Transition ESG Select Index Series	S&P Paris-Aligned ESG Select Index Series
Exclusions Based on Business Activities	Applicable	Applicable
UNGC Principles Violation	Applicable	Applicable
Fossil Fuel Operations and Power Generation	Not Applicable	Applicable
Controversies: Media and Stakeholder Analysis	Applicable	Applicable

Exclusions Based on Business Activities

As of each rebalancing reference date, companies with the following specific business activities are excluded from the eligible universe:

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%
Military Contracting	Weapons: The company manufactures military weapon systems and/or integral, tailor-made components or these weapons.	Revenue	≥10%	N/A
	Weapon-related products and/or services: The company provides tailor-made products and/or services that support military weapons.		≥10%	N/A
Tobacco	Production: The company manufactures tobacco products.	Revenue	>0%	N/A
	Related Products/Services: The company supplies tobacco-related products/services.		≥5%	N/A
	Retail: The company derives revenues from the distribution and/or retail sale of tobacco products.		≥5%	N/A

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.

These exclusions use business involvement datasets from Sustainalytics. Companies not covered by Sustainalytics are excluded from index inclusion.

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 United Nations (UN) Global Compact 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 not covered by Sustainalytics are excluded from index inclusion.

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

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

As of each rebalancing reference date, companies considered for the PAB indices are excluded from the eligible universe if the sum of their revenues derived from the relevant Trucost sectors breach the following revenue thresholds:

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	≥ 1%
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%
Power Generation	Coal Power Generation Petroleum Power Generation Natural Gas Power Generation Biomass Power Generation	≥ 50%

These exclusions use a sector revenues dataset from Trucost.

Controversies Monitoring: Media and Stakeholder Analysis Overlay

In addition to the above, S&P Global uses RepRisk for daily filtering, screening, and analysis of ESG risk incidents and controversial activities related to companies within the indices.⁵

In cases where risks are presented, S&P Global releases a Media and Stakeholder Analysis (MSA), which includes a range of issues such as economic crime and corruption, fraud, illegal commercial practices, human rights issues, labor disputes, workplace safety, catastrophic accidents, and environmental disasters.

The Index Committee reviews constituents flagged by S&P Global's MSA to evaluate the potential impact of controversial company activities on the composition of the indices. If the Index Committee decides to remove a company in question, that company is ineligible for re-entry into the index for at least one full calendar year, beginning with the subsequent rebalancing.

For more information on RepRisk, please refer to www.reprisk.com. This service is not considered a direct contribution to the index construction process.

Multiple Classes of Stock

Each company is represented once by the Designated Listing. For more information regarding the treatment of multiple share classes, please refer to Approach B within the Multiple Share Classes section of the S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology. All publicly listed multiple share class lines of a company are assigned and assessed using the same S&P DJI ESG score.

⁵ RepRisk, an ESG data science company, leverages the combination of AI and machine learning with human intelligence to systematically analyze public information in 23 languages and identify material ESG risks. With daily data updates across 100+ ESG risk factors, RepRisk provides consistent, timely, and actionable data for risk management and ESG integration across a company's operations, business relationships, and investments.

Index Construction

Constituent Selection

Target Count. The target number of constituents selected from the underlying index are described in the following table:

Index	Region	Target Count
S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index	N/A	50
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index	N/A	50
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	U.S.	50
	Eurozone	50
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	U.S.	50
	Eurozone	50

Carbon Intensity Target. The Carbon Intensity (CI) of company i , as of the rebalancing reference date t , is defined by:

$$CI_{i,t} = \frac{GHG1_i + GHG2_i + GHG3_i}{EVIC_{i,t}}$$

where:

$GHG1_i$ = Scope 1 GHG emissions in tCO₂e for the company i

$GHG2_i$ = Scope 2 GHG emissions in tCO₂e for the company i

$GHG3_i$ = Scope 3 (upstream and downstream) GHG emissions⁶ in tCO₂e for the company i

$EVIC_{i,t}$ = enterprise value including cash of the company i (in millions of US dollars) as at the rebalancing reference date, t

The Weighted Average Carbon Intensity (WACI) of an index is defined by:

$$WACI = \sum w_{i,t} \times \frac{GHG1_i + GHG2_i + GHG3_i}{EVIC_{i,t}}$$

where:

$w_{i,t}$ = weight of the company i in the index as of the rebalancing reference date t

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

At each rebalancing date, each index's WACI must:

- Be 30% lower than the underlying index's weighted-average carbon intensity⁷ for CTB indices; and 50% lower than the underlying index's weighted-average carbon intensity for PAB indices – these are the 'Relative WACI Targets'

⁶ Scope 3 GHG emissions have been included in the calculation of Carbon Intensity since the 'Anchor Date' of the indices. Prior to the 'Anchor Date' of the indices, carbon intensity has been calculated using only scope 1 and scope 2 GHG. Please see *Appendix II* for details on the 'Anchor Date' of the indices.

⁷ Defined as 'Underlying WACI'.

- Be self-decarbonized to at least the level defined by its decarbonization trajectory target for the current rebalancing date, which is calculated using a 7% annual reduction rate (adjusted for EVIC inflation) from the Index Anchor Date⁸ – the ‘Decarbonization Trajectory WACI Target.’⁹

Relative WACI Target	Decarbonization Trajectory WACI Target
$\leq \text{UnderlyingWACI} \times 70\% \times \text{Buffer}^*$ (CTB) $\leq \text{UnderlyingWACI} \times 50\% \times \text{Buffer}^*$ (PAB)	$\leq \text{AnchorWACI}^{**} \times \frac{(1-7\%)^{(q/4)}}{1+Inf} \times \text{Buffer}^*$ where: q = number of quarterly rebalancings since index launch date Inf = Enterprise Value Including Cash (EVIC) growth of underlying index since index Anchor Date.

* The buffer is a constant, set at 95%.

** The ‘AnchorWACI’ is defined as, and imposed to be, the *UnderlyingWACI* x 70% at the Index Anchor Date for CTB indices, and the *UnderlyingWACI* x 50% at the Index Anchor Date for PAB indices.

To ensure that the WACI of the indices satisfies both constraints, the ‘TargetWACI’ is defined as the minimum between the Relative WACI Target and the Decarbonization Trajectory WACI Target.

Constituent Selection. At each rebalancing, the target number of constituents are selected from the eligible constituents of the underlying universe by the following steps:

- 1) The constituents of the underlying index are assigned a status of either ‘High’ or ‘Low Climate Impact’ based on their GICS Sub-Industry Group.

For more information on high/low climate impact, please see [here](#).

- 2) Calculate the total weight of the constituents of the underlying index that belong to High Climate Impact Sectors (*HIW*):

$$UniverseHIW = \sum weight_i * Climate Impact_i \begin{cases} High & 1 \\ Low & 0 \end{cases}$$

where:

UniverseHIW = The total weight of constituents in the underlying index designated as belonging to a High Climate Impact Sector.

weight_i = The index weight of constituent *i* in the underlying index.

Climate Impact_i = The climate impact designation of constituent *i*.

- 3) Calculate the High Impact Target (HIT) number of stocks by:

- a. For single target count indices:

$$HIT = \text{roundup}(UniverseHIW * TargetCount)$$

where:

HIT = The count of constituents with a High Climate Impact designation the index will target in its selection process.

TargetCount = The target count of the index, as specified in the *Target Count* section.

- b. **S&P Transatlantic 100 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices:** The indices include specific target constituent counts for each region represented

⁸ 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. Please see *Appendix II* for details on the ‘Anchor Date’ of the indices.

⁹ For more information on how the indices’ decarbonization trajectories are calculated, please refer to Section 3.4 of the *S&P Paris-Aligned & Climate Transition (PACT™) Index Family Benchmark Statement*, available [here](#).

by the indices. Stocks are initially grouped into two groups according to country of domicile: U.S. and Eurozone. The *HIT* for each individual group is calculated separately by:

$$HIT(U.S.) = \text{roundup}(\text{UniverseHIW} * \text{TargetCount}(U.S.))$$

$$HIT(\text{Eurozone}) = \text{roundup}(\text{UniverseHIW} * \text{TargetCount}(\text{Eurozone}))$$

- 4) Select the *HIT* count, by highest S&P DJI ESG Scores, among the eligible companies with “High Climate Impact” designation. For the indices with Multiple Target Counts, this is done for each individual group.
- 5) Select the rest of the of the constituents until the target count is reached by including the constituents with the highest S&P DJI ESG Scores from the eligible companies not selected in step 4 (irrespective of their impact sector classification). For the indices with Multiple Target Counts, this is done for each individual group.

If the last selected company shares the same S&P DJI ESG score as another company already selected in step 4 or 5, the company with the larger FMC is included in the index.

- 6) Calculate the weighted average carbon intensity of the selected constituents (*SelectedWACI*). For the indices with Multiple Target Counts, this is performed on the selection as a whole and not at an individual group level.
 - If $SelectedWACI > TargetWACI$, drop the stock with the largest CI among the selected stocks, then repeat steps 4, 5, and 6 until the $SelectedWACI \leq TargetWACI$. The process repeats iteratively until $SelectedWACI \leq TargetWACI$.
 - If $SelectedWACI \leq TargetWACI$, the stocks selected in step 5 become the constituents of each respective index.
- 7) **Single Target Count indices:** If in step 6, after excluding the stock with the largest CI, the number of eligible stocks drops below the Target Count, the Target Count for this rebalancing is decreased by one and the process resets and starts again from step 3. The process repeats iteratively until the constraints in step 6 are satisfied, provided the Target Count remains greater than or equal to the Minimum Count in the table below. If, after the minimum count is reached, the step 6 constraints still cannot be satisfied, no further relaxations take place and the TargetWACI constraint remains unmet.

Index	Minimum Count
S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index	40
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index	40

S&P Transatlantic 100 Net Zero 2050 Climate Transition and Paris-Aligned ESG Select Indices:

If in step 6, after excluding the stock with the largest CI, the number of eligible stocks of any region drops below its corresponding Target Count. The Target Counts for both regions for this rebalancing are decreased by one. The process resets and starts again from step 3. The process repeats iteratively until the constraints in step 6 are satisfied, provided the Target Count remains greater than or equal to than the Regional Minimum Count in the table below. If, after the minimum count is reached, the step 6 constraints still cannot be satisfied, no further relaxations take place and the TargetWACI constraint remains unmet.

Index	Region	Min Count
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	U.S.	40
	Eurozone	40
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	U.S.	40
	Eurozone	40

Constituent Weightings

At each rebalancing, constituents are equal weighted.

Index Calculations

The indices are calculated 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 and Capped Market Capitalization Weighted Indices sections, respectively, of S&P Dow Jones Indices' Index Mathematics Methodology.

Index Maintenance

Rebalancing

The indices rebalance quarterly, effective after the close of the third Friday of March, June, September, and December. The rebalancing reference date for each rebalance is the third Friday 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, the actual weight of each stock at the rebalancing will differ from these weights due to market movements.

Additions and Deletions

Additions. Except for spin-offs, no stocks are added to the indices between rebalancing dates. Spinoffs are added to all indices 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 the weight of the spin-off re-invested back into the parent company (with no divisor adjustment).

Deletions. If a stock is dropped from an underlying index, it is also removed from the respective S&P PACT ESG Select 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.

In addition, at the discretion of the Index Committee, a deletion may occur if an MSA is raised.

Ongoing Maintenance

Index constituents are drawn from the underlying index or component indices. 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.

Corporate Actions

For information on Corporate Actions, please refer to the Equal Weighted 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 and U.S. dollars.

WM/Refinitiv foreign exchange rates are taken daily at 4:00 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 dates, and base values are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index	11/22/2021	12/31/2010	12/31/2010	1000
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index	11/22/2021	12/31/2010	12/31/2010	1000
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	01/17/2022	12/31/2010	12/31/2010	1000
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	01/17/2022	12/31/2010	12/31/2010	1000

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.

For more information on Announcements, please refer to S&P Dow Jones Indices' Equity Indices Policies & Practices Methodology.

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, 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 Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index (EUR)	Price Return	SPZXCEEP	.SPZXCEEP
	Total Return	SPZXCEET	.SPZXCEET
	Net Total Return	SPZXCEEN	.SPZXCEEN
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index (EUR)	Price Return	SPZXPEEP	.SPZXPEEP
	Total Return	SPZXPEET	.SPZXPEET
	Net Total Return	SPZXPEEN	.SPZXPEEN
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	Price Return	SPTCTEEP	.SPTCTEEP
	Total Return	SPTCTEET	.SPTCTEET
	Net Total Return	SPTCTEEN	.SPTCTEEN
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	Price Return	SPTPAEEN	.SPTPAEEN
	Total Return	SPTPAEET	.SPTPAEET
	Net Total Return	SPTPAEEN	.SPTPAEEN

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/contact-us.

Website

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

Appendix I

Indices in this Methodology Employing Backward Data Assumption

S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index

Backward Data Assumption

The index employs 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](#).

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	Business Activity Exclusions	02/28/2020	04/01/2020

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.

Exclusions Based on Missing Coverage

This index excludes companies based on missing coverage with respect to the designated datasets above. However, for rebalancing dates prior to each respective Live Data Reference Date, the eligibility of companies is determined based on the coverage after applying the Backward Data Assumption and is not dictated by actual live data coverage.

Historical Coverage Assessment per Designated Dataset

Sustainalytics Business Activity Exclusions Coverage (with respect to underlying index universe):

S&P Eurozone LargeMidCap Index

Rebalancing Date	Underlying Index Stock Count	Point-in-Time Data Stock Count	Point-in-Time Data Index Weight	After Using the Data Assumption Stock Count	After Using the Data Assumption Index Weight
2010	243	0	0.0%	230	99.1%
2011	252	0	0.0%	242	99.0%
2012	231	0	0.0%	224	98.8%
2013	245	213	95.9%	240	99.2%
2014	262	233	96.6%	259	99.4%
2015	274	251	98.9%	273	99.9%
2016	271	255	99.2%	271	100.0%
2017	267	256	99.5%	267	100.0%
2018	271	267	99.7%	271	100.0%
2019	254	252	99.8%	254	100.0%
2020	245	241	99.9%	n/a	n/a
2021	246	244	99.9%	n/a	n/a

S&P 500 + S&P Eurozone LargeMidCap Index

Rebalancing Date	Underlying Index Stock Count	Point-in-Time Data Stock Count	Point-in-Time Data Index Weight	After Using the Data Assumption Stock Count	After Using the Data Assumption Index Weight
2010	743	0	0.0%	729	99.8%
2011	752	0	0.0%	742	99.8%
2012	731	0	0.0%	724	99.8%
2013	745	708	98.7%	740	99.8%
2014	764	731	98.9%	761	99.9%
2015	780	751	99.4%	779	100.0%
2016	776	758	99.8%	776	100.0%
2017	772	759	99.9%	772	100.0%
2018	776	771	99.9%	776	100.0%
2019	759	753	99.7%	759	100.0%
2020	751	745	100.0%	n/a	n/a
2021	751	749	100.0%	n/a	n/a

Coverage for each Sustainalytics Category of Involvement may differ due to the initiation of coverage for each sub-dataset. Actual live data coverage for each sub-dataset is therefore zero before its respective Coverage Initiation Date provided below:

Sustainalytics Category of Involvement	Coverage Initiation Date
Controversial Weapons: Tailor-made and Essential	12/31/2012
Controversial Weapons: Significant ownership (Tailor-made and Essential)	12/31/2018
Military Contracting: Weapons	12/31/2012
Military Contracting: Weapon-related products and/or services	12/31/2012
Tobacco: Production	12/31/2012
Tobacco: Related Products/Services	12/31/2012
Tobacco: Retail	12/31/2012

Appendix II

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' rebalancing reference date for the first index is used to determine the index's decarbonization trajectory.

Index	First Value Date	Anchor Date	Launch Date
S&P Eurozone 50 Net Zero 2050 Climate Transition ESG Select Index	01/01/2011	08/31/2021	11/22/2021
S&P Eurozone 50 Net Zero 2050 Paris-Aligned ESG Select Index	01/01/2011	08/31/2021	11/22/2021
S&P Transatlantic 100 Net Zero 2050 Climate Transition ESG Select Index	01/01/2011	11/30/2021	01/17/2022
S&P Transatlantic 100 Net Zero 2050 Paris-Aligned ESG Select Index	01/01/2011	11/30/2021	01/17/2022

Appendix III

Methodology Changes

Methodology changes since November 22, 2021, are as follows:

Change	Effective Date (After Close)	Methodology	
		Previous	Updated
All Indices: Rebalancing	09/15/2023	The indices rebalance quarterly, effective after the close of the last business day of March, June, September, and December. The rebalancing reference date for each rebalance is the last trading day of the prior month.	The indices rebalance quarterly, effective after the close of the third Friday of March, June, September, and December. The rebalancing reference date for each rebalance is the third Friday of the prior month.

Appendix IV

ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY ¹⁰			
1.	Name of the benchmark administrator.	S&P DJI Netherlands B.V.	
2.	Underlying asset class of the ESG benchmark. ¹¹	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 Factor¹²	S&P DJI ESG Factor
		Greenhouse gas (GHG) intensity of the benchmark.	Carbon Intensity Target: <i>Relative WACI Target; 7% Decarbonization Trajectory WACI Target</i>
		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	<i>‘High Climate Impact’ designations.</i>
			Selection. For more information, please refer to the ‘ <i>Index Construction</i> ’ section of the methodology.
			Selection. For more information, please refer to the ‘ <i>Index Construction</i> ’ section of the methodology.

¹⁰ 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 and the retained EU law in the UK [The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019].

¹¹ 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.

¹² ‘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 ¹⁰			
	the total weight in the portfolio.		
	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 Monitoring: Media and Stakeholder Analysis	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: <i>Controversial Weapons</i>	Exclusion. For more information, please refer to the 'Eligibility Criteria' section of the methodology.
	Weighted average percentage of benchmark constituents in the controversial weapons sector.	Business Activities: <i>Controversial Weapons</i>	Exclusion. For more information, please refer to the 'Eligibility Criteria' section of the methodology.
	Weighted average percentage of benchmark constituents in the tobacco sector.	Business Activities: <i>Tobacco</i>	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.
	N/A	Business Activities: <i>Military Contracting</i>	Exclusion. For more information, please refer to the 'Eligibility Criteria' section of the methodology.
	N/A	Controversies Monitoring: Media and Stakeholder Analysis	Exclusion. For more information, please refer to the 'Eligibility Criteria' section of the methodology.
6.c List of governance factors considered.	N/A	Controversies Monitoring: Media and Stakeholder Analysis	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.	<p>The datasets are defined as either:</p> <ul style="list-style-type: none"> - <u>Reported</u>: All data in the dataset are provided as disclosed by companies, or as stated in the public domain. - <u>Modeled</u>: All data are derived using a proprietary modelling process with only proxies used in the creation of the dataset. - <u>Reported and Modeled</u>: 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. <p>The index methodology uses the following ESG datasets.</p>	

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY¹⁰		
	Data Source.	Dataset.
	S&P Trucost Limited (a part of S&P Global) (external data source)	<p>This methodology uses several datasets provided by S&P Trucost Limited:</p> <ul style="list-style-type: none"> Greenhouse gas emissions and emissions disclosure dataset (Reported and Modeled) Trucost sector revenues dataset (Reported and Modeled) <p><i>For more information on Trucost, please refer to Appendix I and http://www.trucost.com/.</i></p>
	S&P Global (external data source)	<p>Media & Stakeholder Analysis (Reported and Modeled) – S&P Global uses RepRisk, a leading provider of business intelligence on environmental, social, and governance risks, for daily filtering, screening, and analysis of controversies related to companies within the indices. In cases where risks are presented, S&P Global releases a Media and Stakeholder Analysis (MSA) which includes a range of issues such as economic crime and corruption, fraud, illegal commercial practices, human rights issues, labor disputes, workplace safety, catastrophic accidents, and environmental disasters. The Index Committee will review constituents that have been flagged by S&P Global’s MSA to evaluate the potential impact of controversial company activities on the composition of the indices. If a company is removed due to an MSA, that company is not eligible for re-entry into the index for one full calendar year, beginning with the subsequent rebalancing.</p> <p><i>For more information about S&P Global’s Media and Stakeholder Analysis, please refer to the MSA Methodology Guidebook, available via https://www.spglobal.com/esg/csa/csa-resources/csa-methodology.</i></p>
	Sustainalytics (external data source)	<p>This methodology uses the following datasets provided by Sustainalytics, a global leader in sustainability research and analytics:</p> <ul style="list-style-type: none"> Business Activities (Reported and Modeled) – Product involvement dataset Global Standards Screening (Reported and Modeled) <p><i>For more information, please refer to www.sustainalytics.com.</i></p>
7.b	Verification and quality of data.	<p>The data quality process involves regular reviews of new data received, and includes comparison with previous data, outlier and error checks and escalation of suspect data to data vendors. S&P DJI also holds regular feedback sessions with data partners and vendors to share any quality concerns and to remedy any issues that are observed during data validations performed by the Global Data Management Team. In addition, all users of third-party data perform their own review of data used in the maintenance of indices. Many of the third-party data used by S&P DJI is reviewed against secondary and tertiary data sources for cross comparison and validation. Some more thematic or specific datasets may not have a comparable data source that can be used for comparison, but these datasets are still reviewed for internal consistency and self-comparison over time.</p>
7.c	Reference standards.	<p>Data is sourced from Trucost, which uses the following standards:</p> <ul style="list-style-type: none"> <i>Scopes 1 and 2:</i> the GHG Protocol Corporate Standard. <i>Scope 3 (upstream & downstream):</i> The Corporate Value Chain Standard, which is a supplement to the GHG Protocol specific to Scope 3.
	Appendix latest update:	September 2023 – Added section 7c.
	Appendix first publication:	November 2021

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).

Intellectual Property Notices/Disclaimer

© 2023 S&P Dow Jones Indices. All rights reserved. S&P, S&P 500, SPX, SPY, The 500, US500, US 30, S&P 100, S&P COMPOSITE 1500, S&P 400, S&P MIDCAP 400, S&P 600, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, Select Sector, S&P MAESTRO, S&P PRISM, S&P STRIDE, GICS, SPIVA, SPDR, INDEXOLOGY, iTraxx, iBoxx, ABX, ADBI, CDX, CMBX, MBX, MCDX, PRIMEX, HHPI, and SOVX are registered trademarks of S&P Global, Inc. ("S&P Global") or its affiliates. DOW JONES, DJIA, THE DOW and DOW JONES INDUSTRIAL AVERAGE are trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P DJI does not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P DJI is impersonal and not tailored to the needs of any person, entity, or group of persons. S&P DJI receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P DJI does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P DJI makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P DJI is not an investment advisor, commodity trading advisor, fiduciary, "promoter" (as defined in the Investment Company Act of 1940, as amended) or "expert" as enumerated within 15 U.S.C. § 77k(a), and S&P DJI makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. S&P DJI is not a tax advisor. Inclusion of a security, commodity, crypto currency, or other asset within an index is not a recommendation by S&P DJI to buy, sell, or hold such security, commodity, crypto currency, or other asset, nor is it considered to be investment or trading advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse engineered, reproduced, or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P DJI. The Content shall not be used for any unlawful or unauthorized purposes. S&P DJI and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness, or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" "WHERE IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIMS ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF

MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special, or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related information and other analyses, including ratings, research and valuations are generally provided by licensors and/or affiliates of S&P Dow Jones Indices, including but not limited to S&P Global's other divisions such as S&P Global Market Intelligence. Any credit-related information and other related analyses and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. Any opinion, analyses and rating acknowledgement decisions are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Dow Jones Indices does not assume any obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P DJI does not act as a fiduciary or an investment advisor. While S&P DJI has obtained information from sources it believes to be reliable, S&P DJI does not perform an audit or undertake independent verification of any information it receives. S&P DJI reserves the right to vary or discontinue any index at any time for regulatory or other reasons. Various factors, including external factors beyond S&P DJI's control might necessitate material changes to indices.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P Global Ratings reserves the right to assign, withdraw or suspend such acknowledgement at any time and in its sole discretion. S&P Dow Jones Indices, including S&P Global Ratings, disclaim any duty whatsoever arising out of the assignment, withdrawal, or suspension of an acknowledgement as well as any liability for any damage alleged to have been suffered on account thereof. Affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, may receive compensation for its ratings and certain credit-related analyses, normally from issuers or underwriters of securities or from obligors. Such affiliates of S&P Dow Jones Indices LLC, including S&P Global Ratings, reserve the right to disseminate its opinions and analyses. Public ratings and analyses from S&P Global Ratings are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P Global Ratings publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.

S&P Global keeps certain activities of its various divisions and business units separate from each other to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions, and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate, or otherwise address.

Some indices use the Global Industry Classification Standard (GICS®), which was developed by, and is the exclusive property and a trademark of, S&P Global and MSCI. Neither MSCI, S&P DJI nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy,

completeness, merchantability, or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P DJI, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

S&P Dow Jones Indices products are governed by the terms and conditions of the agreements under which they may be provided. A license is required from S&P Dow Jones Indices to display, create derivative works of and/or distribute any product or service that uses, is based upon and/or refers to any S&P Dow Jones Indices and/or index data.