

S&P Dow Jones Indices

A Division of **S&P Global**

S&P Paris-Aligned & Climate Transition (PACT™) Index Family *Benchmark Statement*

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Introduction

S&P DJI Netherlands B.V. (S&P DJI), a wholly owned subsidiary of S&P Dow Jones Indices LLC, is the administrator of the family of benchmarks that intend to meet the minimum standards for EU Climate Transition Benchmarks (EU CTB) and EU Paris-aligned Benchmarks (EU PAB), under the EU Benchmark Regulation¹, including the S&P Paris-Aligned and Climate Transition Index Family (“the Indices”).

This document is a ‘Benchmark Statement’, created in accordance with Article 27 of Regulation (EU) 2016/1011 and the supplementary delegated regulation (EU) 2018/1643. This Benchmark Statement should be read in conjunction with the methodologies and supplemental documents for the indices, which can be found on our website at <https://www.spglobal.com/spdji>. The benchmarks described in this benchmark statement are non-significant benchmarks as defined by Regulation (EU) 2016/1011.

Objective of Indices

The family of indices contained in this Benchmark Statement measure the performance of eligible equity securities from an underlying parent index selected and weighted to be collectively compatible with a 1.5°C global warming climate scenario², with no or limited overshoot at the index level. S&P’s Paris-aligned Indices encompass all elements of S&P’s Climate Transition Indices but include additional restrictions (i.e. eligibility requirements) and ambition (i.e. constraints). The indices apply exclusions based on a company’s involvement in specific business activities, performance against the principles of the United Nations’ Global Compact (UNGC), and involvement in relevant ESG controversies, all outlined in the *Eligibility Criteria* section of their respective index methodology documents.

Some of the indices within this index family also incorporate additional factors that seek to manage (a) transition risk and climate change opportunities using the recommendations of the Financial Stability Board’s Task Force on Climate-related Financial Disclosures’ (TCFD) 2017 *Final Report*³; and (b) stranded asset and physical risk.

¹ Pursuant to Articles 19(a)(2) and 19(b)(1) of Regulation (EU) 2019/2089 (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R2089>) and Commission Delegated Regulation (EU) 2020/1818 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818>.

² 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/>

³ 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>.

Methodology & Index Design Guidelines and Reviews

S&P DJI's approach to index construction uses transparent and rules-based methodologies. The methodologies for the indices are documented and available on our website, <https://www.spglobal.com/spdji>.

All indices in the benchmark family are overseen by an Index Committee. The Index Committee serves as the index governance body tasked with ensuring that:

- The index objective is clearly stated, and the index is expected to achieve its objective.
- The procedures documented in the methodology are transparent and clearly described.
- The eligible universe, selection criteria and weighting method for constituents are fully detailed and described.
- All aspects of an index – data, calculation, maintenance, presentation, and governance – are consistent with S&P DJI practices and any exceptions are explicitly discussed and decided upon by the Index Committee.

S&P DJI indices are rebalanced on a regular schedule, ranging from daily to annually. Conditions specified in the relevant methodology may also trigger rebalancing.

Index methodologies are reviewed by the Index Committee as part of the regular index rebalancing process, as well as on at least an annual basis, to ensure that the methodology is being applied consistently and allows the index to achieve its stated objective. These reviews may highlight situations where changes in the methodology are necessary to reflect changes in the underlying market. Please see the section on Consultations below for more information on Index Committee reviews and the external consultation process.

Index Governance

The Index Committee meets at regular intervals. At each meeting, the Index Committee may review 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 an index, and any significant market events. In addition, the Index Committee may revise the index policy covering rules for selecting companies, treatment of dividends, share counts, or other matters.

Most Index Committees are comprised of full-time professional members of S&P DJI's staff, with the exception of some indices co-branded with a third-party organization, which may include Index Committee members from external third-party organizations. S&P DJI's voting members on Index Committees are senior individuals with no commercial responsibilities. External Index Committee members are appointed by the external third-party organization and are subject to S&P DJI's reasonable approval. Please refer to individual index methodology documents for information on Index Committees with external Index Committee members.

Questions of interpretation or possible exceptions to index rules are considered by the Index Committee.

S&P DJI considers information about changes to its indices and related matters to be potentially market-moving and material. Therefore, all Index Committee meetings are confidential.

Discretion

S&P DJI established a documented rules-based approach for the calculation and maintenance of indices which seeks to minimize the need for expert judgment and discretion. S&P DJI's Index Committees may apply discretion to make decisions that differ from the index methodology in certain circumstances, including to avoid unnecessary turnover, to limit excessive index changes or adjustments, to prevent possible market disruption, to enhance/allow for index replicability to maintain consistency with the index objective.

Internal Oversight

The S&P DJI Internal Oversight Committee ("IOC") comprises of representatives from the Compliance, Legal, and Risk oversight functions, and other key stakeholders from the S&P DJI index business. The Committee's mission is to oversee S&P DJI's compliance with its Benchmark governance, quality, and operational standards. Among other responsibilities, the Committee reviews S&P DJI's adherence to its policies, monitors applicable regulatory developments, and serves as an escalation body for the Index Governance function.

Index Calculation

Input Data

All indices in the benchmark family are calculated using official prices sourced via vendors from eligible stock exchanges. The indices do not use contributed input data.

Index Varieties

S&P DJI's index calculation and corporate action treatments vary according to the indices' categorization. At a broad level, indices are defined into two categories: Market Capitalization-Weighted and Non-Market Capitalization-Weighted Indices.

A majority of S&P DJI's equity indices are market capitalization-weighted and float-adjusted, where each stock's weight in the index is proportional to its float-adjusted market value. S&P DJI also offers capped versions of a market capitalization-weighted index where single index constituents or defined groups of index constituents, such as sector or geographical groups, are confined to a maximum weight.

Non-market capitalization-weighted indices include those that are not weighted by float-adjusted market capitalization. Examples include indices that apply equal weighting, factor weighting such as dividend yield or volatility, strategic tilts, thematic weighting, or other alternative weighting schemes.

Index Divisor

To ensure that an index's value, or level, does not change when stocks are added or deleted, a divisor is adjusted to offset the change in the market value of the index. Thus, the divisor plays a critical role in the index's ability to provide a continuous measure of market valuation when faced with changes to the stocks included in the index. Similarly, some corporate actions that cause changes in the market value of the stocks in an index should not be reflected in the index level. Adjustments are made to the divisor to eliminate the impact of these corporate actions.

As an example, increasing a company's shares outstanding increases the market capitalization of a market capitalization-weighted index. The change to the index market capitalization causes a divisor adjustment to maintain the index's level. However, a share change made in an equal-weighted index has no divisor adjustment because the shares' outstanding changes are offset by an adjustment factor, meaning that there is no change to the index market capitalization.

Special Index Variations

S&P DJI may calculate separate versions of S&P or Dow Jones-branded indices that may be tailored in various ways, such as the exclusion of certain constituents or sectors, different rebalancing schedules, weighting schemes, calculation currencies, or tax rates. In such cases, the index follows the methodology of the parent index except where otherwise noted in the methodology.

Unexpected Exchange Closures

An unexpected market/exchange closure is when a market/exchange fully or partially fails to open, or trading is temporarily halted. This can apply to a single exchange or to a market as a whole when all of the primary exchanges are closed and/or not trading. Unexpected market/exchange closures are usually due to unforeseen circumstances, such as natural disasters, inclement weather, outages, or other events.

In the event of an unexpected exchange closure, S&P DJI uses the following guidelines:

- (i) If an unexpected exchange closure occurs prior to the open of trading and it is indicated that trading will not open for a given day, S&P DJI will treat the day as an unscheduled market holiday.
- (ii) If a market disruption occurs intraday, S&P DJI will wait for the impacted exchange to publish a list of closing prices, which will then be used to calculate the closing index values. If no list is published, the last trade for each security before the interruption is used to calculate the index closing value. If no trades were reported for a security, the previous closing price, adjusted for corporate actions, is used for index calculation.

Index Corrections

S&P DJI reserves the right to recalculate an index at its discretion in the event one of the following issues occur:

1. Incorrect or revised closing price of one or more constituent securities;
2. Missed or misapplied corporate action;
3. Incorrect application of an index methodology;
4. Late announcement of a corporate event;
5. Incorrect calculation or data entry error.

A general description of how these events are handled can be found in the *Recalculation Policy* section of the *S&P Equity Indices Policies and Practices* document, located on our website, <https://www.spglobal.com/spdji>.

Consultations

Communication with Stakeholders and Consultations

S&P DJI communicates and consults with market participants through various channels such as press releases, index announcements, emails, and the distribution of data files. In addition, S&P DJI has a designated client experience team available to respond to inquiries.

When a material change to the index methodology is considered, S&P DJI publishes a consultation inviting comments from external parties. A material change alters the index objective or changes the methodology in a way that affects the likelihood that the index will achieve its objective. Examples of methodology changes that could impact the index objective include altering rules determining the index universe, the selection of its constituents, or the weighting of its constituents. Consultations are announced through a number of channels, including the S&P DJI website, and by email directly to S&P DJI clients. Feedback is accepted only during the posted timeframe. Under normal circumstances, the consultation period is open for a minimum of 30 days from publication. In instances where a material change is deemed to be time-sensitive, the Index Committee may determine that a shorter consultation period is required. Time-sensitive changes are those that may require consideration or implementation within a shorter timeframe, and where the full consultation time period is not possible. Prior to finalizing its decision, the Index Committee will consider the issues and may request clarifications from respondents as part of this process. All feedback from consultations is reviewed and considered before a final decision is made by the Index Committee. Any changes to an index methodology are announced on the website together with the effective date of the change. A summary of the consultation feedback is made available upon request after the announcement of the results, with the exception of responses requesting confidentiality. Individual and company names are not provided.

Internal Reviews of Methodology

Annual Review Process. In addition to its daily governance of indices and maintenance of index methodologies, the Index Committee reviews, at least once within any 12-month period, the index methodologies to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In the case that an index methodology is reviewed off-cycle from the annual review, the Index Committee reserves the right to cancel the annual review if the requested review covers all the relevant issues.

Index Cessations

S&P DJI may determine that an index should be discontinued. Reasons for an index cessation could include:

- Fewer than the required number of securities are available for inclusion in an index, such as with size or GICS market segment-based indices
- An index duplicates other S&P DJI indices
- Data required for an index is no longer available or no longer reliable
- Market conditions, regulations, or potential index constituents have changed, making it unlikely that the index can achieve its objective
- Declining investor use or interest

All proposals to discontinue an index are assessed to determine any potential impact on the market. S&P DJI may, at its option, consult with market participants regarding the index cessation.

If the data on a discontinued index is provided to clients at the time of cessation, S&P DJI may suggest possible appropriate alternative S&P DJI indices.

Index cessations will be announced in advance, and vendors will be notified. Index levels and related data on a discontinued index are retained by S&P DJI.

For further information on index cessations, refer to the [S&P Dow Jones Indices Cessations Policy](#).

Index Usage

S&P DJI is a provider of market indices used worldwide by asset managers, investment consultants, exchanges, investment banks, and various other financial institutions. S&P DJI licenses indices and data for use as:

- The basis of an index-linked financial product or investment fund
- Portfolio construction and asset allocation decisions
- Research and analysis, such as performance attribution
- Benchmarking the performance of actively managed funds and institutional portfolios for reporting to regulators, clients, and pension plan participants

S&P DJI is not an investment advisor. Not all uses of an index are appropriate for all users. Market participants should make their own assessment and judgment when selecting an index for their purpose.

An S&P DJI index can be impacted by a number of factors, some of which are beyond S&P DJI's control. These may include, but are not limited to, structural changes to the underlying market including decreases in the size and liquidity of the relevant market segment, infrastructure changes, geo-political events, and regulatory changes. These circumstances may result in a material change to the methodology, or in exceptional circumstances, the cessation of an index.

S&P DJI assumes no responsibility for the potential use of its indices, regardless of index family, for a particular purpose by users, whether that use is for research, benchmarking, the basis for an index-linked financial product or investment fund, or some other use. The effective representation of a market or strategy is the primary aim of S&P DJI.

S&P DJI also licenses real-time values of indices to the media for display on television, websites, and mobile apps.

Additional Information

Updates to this Benchmark Statement

This Benchmark Statement will be reviewed at least once every two years or whenever there are material changes to the information provided.

Further information

Information regarding rebalancing and other relevant details for the S&P Paris-Aligned & Climate Transition Index Family can be found in the methodology documents available on <https://www.spglobal.com/spdji>.

The index methodologies should be read in conjunction with supporting documents, which detail corporate action treatment, policies and procedures, float adjustment methodology, index calculations, and other pertinent information. These documents can be found on the Governance page of <https://www.spglobal.com/spdji>.

Index ISINs, if available, can be obtained [here](#).

Appendix – EU ESG Disclosure

EU-Required ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT ⁴		
SECTION 1 – CONSIDERATION OF ESG FACTORS		
1.	Name of the benchmark administrator	S&P DJI Netherlands B.V.
2.	Type of benchmark or family of benchmarks ⁵	Equity
3.	Name of the benchmark or family of benchmarks covered by this Benchmark Statement:	For a list of the benchmarks within this family, please refer to the S&P DJI Methodology & Regulatory Database .
4.	Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned benchmarks, benchmarks that pursue ESG objectives, or benchmarks that take into account ESG factors?	Yes This Benchmark Statement is in respect of EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks. For a list of the benchmarks that take into account ESG factors, please refer to the S&P DJI Methodology & Regulatory Database .
5.	Does this benchmark or family of benchmarks pursue ESG objective?	Yes
6.	Where the response to (5) is 'Yes', the section below provides information for each EU Climate Transition Benchmark and/or EU Paris-aligned Benchmark in relation to the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816 for Equity benchmarks:	
7.	List of combined ESG factors	Please refer to the EU Low Carbon Benchmark Regulation Disclosure Report for the index-level ESG metrics and the S&P DJI Environmental, Social and Governance Metrics Reference Guide for information relating to corresponding index-level ESG metrics and governance factor in Annex II to Delegated Regulation (EU) 2020/1816 for Equity benchmarks. For more information on how the S&P DJI ESG metrics are calculated, and the data sets used to do so, please refer to the 'EU Low Carbon Benchmark Regulation Metrics' section in the S&P DJI ESG Metrics Reference Guide .
	List of environmental factors	
	List of social factors	
	List of governance factors	
8.	Data and standards used	
a.	Description of data sources used to provide information on the ESG factors in the benchmark statement:	Please refer to the S&P DJI ESG Metrics Reference Guide for more information on the metrics and the data sets used to calculate them.
b.	Reference standards and index methodology:	While 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

⁴ The information contained in this Appendix is intended to meet the requirements of the 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.

⁵ The "type of benchmark" refers to the type of 'underlying asset', as selected from the list provided in Annex II to 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.

		Stability Board’s Task Force for Climate-related Financial Disclosures as published in the 2017 Final Report.
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SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION AND EU PARIS-ALIGNED BENCHMARKS

This Benchmark Statement covers EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks. The following information shall apply to: (a) the indices that use the label ‘EU Climate Transition Benchmark’; and (b) the indices that use the label ‘EU Paris-aligned Benchmark’:

1.	Forward looking year-on-year decarbonization trajectory	<p>For indices using the labels EU CTBs and EU PABs, an index-specific year-on-year decarbonization trajectory is calculated and disclosed in the EU Low Carbon Benchmark Regulation Disclosure Report.</p> <p>The calculation of each decarbonization trajectory is based on:</p> <ul style="list-style-type: none"> • The carbon intensity (scopes 1+2+3 / EVIC) of the underlying index at the Index Anchor Date⁶; • The required rate of carbon intensity reduction relative to the underlying index⁷, and; • The 7% annually compounding rate of self-decarbonization required for ‘EU CTB’ and ‘EU PAB’ labeling, as set out in Commission Delegated Regulation (EU) 2020/1818.⁸ <p>S&P DJI calculates each decarbonization trajectory as follows:</p> <ol style="list-style-type: none"> 1. As of the Index Anchor Date, the index-level carbon intensity of the underlying index is calculated. 2. As of the Index Anchor Date, the underlying index-level carbon intensity is then reduced by 30% for EU CTBs, or 50% for EU PABs, to calculate the required carbon intensity for the relevant index as at the Index Anchor Date (Exhibit 1). The Index Anchor Date carbon intensity serves as the starting point for the index’s forward-looking year-on-year decarbonization trajectory. <p><u>Exhibit 1: Defining the Index Anchor Date Carbon Intensity</u></p> $EU\ CTB\ Carbon\ Intensity_A = Underlying\ Carbon\ Intensity_A \times 0.7$ $EU\ PAB\ Carbon\ Intensity_A = Underlying\ Carbon\ Intensity_A \times 0.5$ <p>Where:</p> <p><i>EU CTB/EU PAB Carbon Intensity_A</i> = The required index-level carbon intensity (scopes 1+2+3 / EVIC) as at the Index Anchor Date, A.</p> <p><i>Underlying Carbon Intensity_A</i> = The index-level carbon intensity (scopes 1+2+3 / EVIC) of the underlying index as at the Index Anchor Date, A.</p> <ol style="list-style-type: none"> 3. The decarbonization trajectory is then calculated at the interval of index rebalances (most often quarterly, as in this example) using the approach shown in Exhibit 2. The EU CTB/EU
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⁶ The ‘Index Anchor Date’ is the date of the reference index compositions and base carbon intensity calculation used to determine the index’s decarbonization trajectory. It is usually the rebalance reference date for the most recent index rebalance prior to the index’s launch date, but they can be found in all relevant index methodologies.

⁷ EU Climate Transition Benchmarks (‘EU CTB’) are required to have a carbon intensity at least 30% lower than their underlying index, while for EU Paris-Aligned Benchmarks (‘EU PAB’) their carbon intensity should be at least 50% lower.

⁸ Commission Delegated Regulation (EU) 2020/1818 is available via <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1816&from=EN>

	<p>PAB Index Anchor Date carbon intensity is reduced at (quarterly) intervals at an annualized compounding rate of 7% to define the index's decarbonization trajectory as at each index rebalancing.</p> <p>Exhibit 2: Calculating the Decarbonization Trajectory (DT)</p> $DT_q = EU\ CTB\ or\ EU\ PAB\ Carbon\ Intensity_A \times 0.93^{q/4}$ <p>Where:</p> <p>DT_q = The specific index-level carbon intensity of the index trajectory as of any specified index rebalancing date.</p> <p>q = The number of rebalances (quarters in this instance shown as divided by 4) after the Index Anchor Date, and the interval relating to the calculation of the index-level carbon intensity or decarbonization trajectory.</p> <p>S&P DJI is able to disclose the forward-looking decarbonization trajectories for its EU CTB and EU PAB because the trajectories are disclosed in Index Anchor Date prices. Therefore, instead of republishing the decarbonization trajectories for the indices in current prices at the time of any future measures, for comparison, and 'EU CTB' and 'EU PAB' labeling assessment purposes, future index-level carbon intensity measures achieved by the indices will be adjusted to Index Anchor Date-equivalent prices. This measure is the "Paris-Aligned Index (EVIC Inflation-Adjusted WACI)" or "Climate Transition Index (EVIC Inflation-Adjusted WACI)" data column in the "II. CTB & PAB Report" tab of the S&P DJI EU Low Carbon Benchmark Regulation Disclosure Report.</p> <p>The forward-looking decarbonization trajectories for indices are calculated using the same sources of data as the weighted-average carbon intensity metrics calculated and disclosed elsewhere in the S&P DJI EU Low Carbon Benchmark Disclosure Report: The S&P Global Sustainable1 Environmental and Scope 3 datasets, and FactSet EVIC data.</p> <p>For more information on calculating the decarbonization trajectory, please refer to the 'Inflation Adjustment' section in <i>Section 3.4: 'The methodology used for the measurement of the alignment with the temperature scenario'</i> below.</p>
<p>2. Degree to which the IPCC decarbonization trajectory (1.5°C with no or limited overshoot) has been achieved on average per year since creation.</p>	<p>Reporting against the decarbonization trajectory is provided in the EU Low Carbon Benchmark Regulation Disclosure Report, specifically in the "II. CTB & PAB Report" tab of the Report.</p> <p>The achievement of the indices' decarbonization objectives, and therefore the index's adherence to its decarbonization trajectory can be seen in whether it has been deemed to have "MET" or "NOT MET" its two decarbonization objectives, shown in the "≥% WACI Reduction Relative-to-Underlying Constraint Met" and "Decarbonization Trajectory Constraint Met?" columns in the "II. CTB & PAB Report" tab of the S&P DJI EU Low Carbon Benchmark Regulation Disclosure Report.</p>
<p>3. Overlap between the benchmark and their investable universe, as defined in Article 1, point (e), of Commission Delegated Regulation (EU) 2020/1818, using the active</p>	<p>For the purposes of the Indices, active share is a measure of the extent to which an index differs to its underlying index. Active share is calculated as half of the sum of all absolute value differences in each constituents' weights between the index and its underlying index, as shown in Exhibit 3.</p> <p>Exhibit 3: Index Active Share Formula</p> $Active\ Share = \frac{\sum_i^n w_{i,Index} - w_{i,Underlying\ Index} }{2}$ <p>Where:</p> <p>$w_{i,Index}$ = The weight of constituent, i, in the index on the calculation date</p>

share at asset level.	$W_{i,Underlying}$ = The weight of constituent, i , in the underlying index on the calculation date n = The total count of constituents in the underlying index on the calculation date The index active share is provided in the EU Low Carbon Benchmark Regulation Disclosure Report .
SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVE OF THE PARIS AGREEMENT	
This benchmark statement does cover EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks.	
1. Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement?	<p>Yes</p> <p>Information regarding the performance of the benchmarks against their decarbonization objectives is disclosed in the EU Low Carbon Benchmark Regulation Disclosure Report.</p> <p>The Indices are measured as at each rebalancing, providing a measure of the indices' weighted-average scopes 1, 2 and 3 carbon intensity (divided by EVIC) as of the rebalance reference date. The data is provided from the rebalancing production process and represent the actual attainment of the indices from the rebalancing models used. The indices achieve the requirements for EU CTB or EU PABs, and by doing so align with the target of reducing greenhouse gas emissions to levels aligned to the Paris Agreement.</p> <p>For information on the assessment of the decarbonization trajectory for EU CTB and EU PAB labeling purposes, please see <i>Section 3.4: 'The methodology used for the measurement of the alignment with the temperature scenario'</i> below.</p>
2. The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	<p>The Intergovernmental Panel on Climate Change's (IPCC) '1.5°C with no or limited overshoot temperature scenario'.⁹</p> <p>The global economy in the IPCC's 'No or limited overshoot' climate scenarios acknowledges the existence of residual emissions, especially at the 2050-year time horizon. For example, in the IPCC AR6 Synthesis Report (2023), the report acknowledged that the average of the 5 GFDL models used shows that 84% of global emissions relative to 2019 levels should have been abated (see C1 in Table 3.1 – Pg. 84).</p> <p>S&P Paris-Aligned and Climate Transition Indices will see some deviations in the rates of decarbonization in 2050 relative to the measures for their Index Anchor Dates because these dates differ in some cases, and some are EU CTB and other EU PABs. However, the rates that would have been achieved by 2050 are all in line with the ranges of the scenario's climate models (i.e., the minimum and maximum rates required from different climate scenarios used in the IPCC's '1.5°C with no or limited overshoot temperature scenario'). Like the IPCC's scenario, the indices will not decarbonize to zero in 2050, but their rate of decarbonization is sufficient given the climate science forecasts as currently understood.</p>
3. The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the	<p>In order to align with the objectives of the Paris Agreement, the indices target the reduction of greenhouse gas emissions at the index-level using the Intergovernmental Panel on Climate Change's (IPCC) '1.5°C with no or limited overshoot temperature scenario' – a scenario "with at least a 50% probability of limiting warming in 2100 to 1.5°C, as well as a 50% chance of limiting peak warming to 1.5°C".¹⁰</p>

⁹ IPCC (2019). *Global Warming of 1.5 Degrees*. Available via <https://www.ipcc.ch/sr15/chapter/spm/>

¹⁰ Science Based Targets initiative (2019). *Foundations of Science-based Target Setting*. Available via <https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf>

objectives of the Paris Agreement;	The Indices incorporate the 'minimum standards for EU CTBs and EU PABs ¹¹ . The IPCC scenario was used by the EU Technical Expert Group on Sustainable Finance ¹² to define the 7% annual decarbonization requirements for EU CTBs and EU PABs which define the appropriate decarbonization trajectory for achieving 1.5°C alignment at the index level. This approach is also aligned with the Science Based Target initiative's 'absolute contraction' approach. ¹³
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¹¹ Commission Delegated Regulation (EU) 2020/1818 is available via <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1816&from=EN>

¹² EU Technical Expert Group on Sustainable Finance. (2019). *TEG Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures*, available at https://ec.europa.eu/info/files/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en.

¹³ Science Based Targets initiative (2019). *Foundations of Science-based Target Setting*. Available via <https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf>

4.	The methodology used for the measurement of the alignment with the temperature scenario.	<p>Across all S&P PACT Indices, they are designed to consider alignment to a temperature scenario in two¹⁴ ways:</p> <p style="text-align: center;">1) 1.5°C Alignment:</p> <p>At each index rebalance, certain indices in the benchmark family are designed to be aligned with a 1.5°C temperature scenario at the index-level. Such indices use optimization to ensure they minimize their level of active share subject to several climate-related constraints. One of the optimization constraints in the methodology is for the indices to have a 1.5°C Climate Scenario Transition Pathway Budget Index Alignment score that is equal to, or less than, zero at the index-level. This metric is calculated using the greenhouse gas emissions and 1.5°C Climate Transition Pathway Model Scenario datasets provided by Trucost.</p> <p>The Transition Pathway Budget Alignment (“TPBA”) of each company 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.¹⁵</p> <p>The use of the TPBA is not a requirement for EU CTB or EU PAB, but where it is used, each index’s TPBA score is disclosed for the indices in the EU Low Carbon Benchmark Regulation Disclosure Report. For more information on this optimization constraint and how the index-level TPBA is calculated, please refer to each relevant index’s methodology.</p> <p style="text-align: center;">2) Decarbonization Trajectory:</p> <p>Annually, the S&P PACT Indices target an index-level carbon intensity that is reduced by at least 30% (for EU CTB) and 50% (for EU PAB), and at an average annual rate of at least 7% as in-line with the index’s decarbonization trajectory. An additional 5% buffer is usually applied to these objectives too.</p> <p>S&P DJI measures and discloses the index-level carbon intensity of the indices against their index-specific year-on-year decarbonization trajectory and the required level defined as either - 30% or 50% of underlying for each index rebalancing. These are provided via the EU Low Carbon Benchmark Regulation Disclosure Report.</p> <p>Index-level carbon intensity measurements can be subject to some variation due to underlying market volatility and can be heavily skewed by short-term market events if measured on any given date alone. Similarly, if only one point-in-time measure is used to assess the Indices for the period of an entire year, benchmark administrators would not need to ensure their benchmarks adhere to the requirements for EU CTB and EU PAB throughout an entire labeling assessment period.</p> <p>The Indices have been designed to target adherence to the requirements for EU CTB and EU PAB labels throughout the entire year and they typically have a quarterly rebalance schedule to aid the attainment of those objectives. Measuring the decarbonization trajectories and decarbonization relative to their underlying indices over the year, instead of at one point-in-time, helps ensure that the Indices can meet their objectives.</p> <p>The decarbonization performance of indices that is disclosed in the Report is data taken from the index maintenance and production process and rebalancing models used to rebalance the indices. They are a point-in-time measure as of the index rebalancing reference dates.</p> <p>The index-level carbon intensity is calculated and disclosed in Index Anchor Date prices, using the approach shown in Exhibit 4:</p>
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¹⁴ The use of Transition Pathway Budget Alignment in index methodologies is not a requirement for EU CTB or EU PAB, and is an additional component for some indices. Indices that do not use this data input but that adhere to the minimum requirements for EU CTBs and EU PABs (see ‘2. Decarbonization Trajectory’) align with the temperature scenario by virtue of their adherence to the minimum requirements.

¹⁵ A TPBA of 0 would be compatible with a 1.5°C climate scenario, a budget below 0 would be compatible with better than a 1.5°C climate scenario and a budget above 0 would not be compatible with a 1.5°C climate scenario.

Exhibit 4: Index-level Carbon Intensity Calculation

Index level Carbon Intensity_q =

$$\sum w_{i,q} \times \left(\frac{GHG1_i + GHG2_i + GHG3_i}{EVIC_{i,q}} \right) \times \text{Inflation Adjustment Factor}_q$$

Where:

q = The rebalancing date/interval relating to the calculation of the index-level carbon intensity

$w_{i,q}$ = Index weight of company, i , in the index as at rebalance, q

$GHG1_i$ = Scope 1 greenhouse gas emissions of company, i (tCO₂e emissions)

$GHG2_i$ = Scope 2 greenhouse gas emissions of company, i (tCO₂e emissions)

$GHG3_i$ = Scope 3 (upstream and downstream) greenhouse gas emissions of company, i (tCO₂e emissions)

$EVIC_{i,q}$ = Enterprise value (including cash) of company, i , as at the rebalancing reference date, q , (in millions of USD)

$\text{Inflation Adjustment Factor}_q$ = The factor used to adjust the index-level carbon intensity calculated at rebalance, q , to the prices as at the Index Anchor Date, A , when the index's decarbonization trajectory was derived.

Index-level carbon intensities (conventionally known as weighted-average carbon intensities – “WACI’s) are calculated in metric tons of carbon dioxide-equivalent emissions per million US dollars of EVIC (tCO₂e/USDmn).

Inflation Adjustment:

To ensure a contraction in the level of absolute greenhouse gas emissions, as required by the Paris Agreement, the index-level carbon intensity measures should be adjusted for inflation in the carbon intensity's denominator – EVIC. Otherwise, inflation in enterprise values could artificially reduce the index-level carbon intensity over time, rather than actual decarbonization.

By reporting in prices (average level of EVICs) as of the Index Anchor Date, it is possible to disclose a forward-looking decarbonization trajectory for each index from its launch date. Otherwise, the decarbonization trajectory, and prior measures, would require revision at each subsequent measure based on current prices to avoid the artificial effects of EVIC inflation on the index-level carbon intensities.

The EVIC Inflation Adjustment Factor as at quarter, q , (*EVIC Inflation Adjustment Factor_q*) is defined as shown in Exhibit 5:

Exhibit 5: EVIC Inflation Adjustment Factor

$$\text{EVIC Inflation Adjustment Factor}_q = \frac{EVIC_q}{EVIC_A}$$

Where:

$EVIC_q$ = Enterprise value (including cash) of the underlying index as at the index rebalancing reference date, q , (the sum of all individual index companies' EVICs – no duplicates for dual-listed companies).

$EVIC_A$ = Enterprise value (including cash) of the underlying index as at the Index Anchor Date (the sum of all individual index companies' EVICs – no duplicates for dual-listed companies).

‘EU CTB’ and ‘EU PAB’ Labeling Assessment:

All of the concepts described above are used to measure an index’s performance against their decarbonization objectives.

Index Decarbonization Anchoring:

An ‘Index Anchor Date’ is the date used to define an index’s initial decarbonization trajectory. From the Index Anchor Date, the indices decarbonize in-line with the 7% annualized decarbonization trajectory and below the 30% or 50%, as applicable, relative-to-underlying index-level carbon intensity reductions.

Measuring EU CTB/EU PAB Decarbonization Performance

The decarbonization performance of the indices is measured and disclosed in section ‘II. CTB & PAB Report’ in the [EU Low Carbon Benchmark Regulation Disclosure Report](#). The information provided in each column of page 1 of this section of the Report are explained in the table below:

Index-level Decarbonization Metrics

Data Column Name	Data Column Description/Definition
Rebalance Reference Date	The ‘ <i>Rebalance Reference Date</i> ’ is the date relating to the calculation of the index-level carbon intensity or decarbonization trajectory and the reference date when the index methodology is applied at a rebalancing.
Index Anchor Date	The ‘ <i>Index Anchor Date</i> ’ is the date of the first rebalance reference date and the base for the carbon intensity calculation used to determine the index’s decarbonization trajectory.
Rebalance Effective Date	The ‘ <i>Rebalance Effective Date</i> ’ is the date the rebalancing of the indices is first effective. However, the measures disclosed in the report relate to the <i>Rebalance Reference Dates</i> .
Universe Index (WACI)	The weighted-average carbon intensity (WACI) of the underlying index as at the rebalance reference date, measured in current (nominal) terms (i.e., without adjustments for underlying index EVIC inflation adjustments). The index-level carbon intensity of the underlying index as at the Index Anchor Date is used to calculate the decarbonization trajectory for the S&P PACT Index.
Universe Index EVIC (USDmn)	The sum of all underlying index EVICs (in millions of USD) as measured at the index rebalance reference date.
EVIC Inflation-Adjustment Factor	The indexed measure of underlying index EVIC relative to its level on the Index Anchor Date. This factor is used to adjust the WACIs of the underlying index and S&P PACT index at rebalances for them to be compared to the index decarbonization trajectories.
Universe Index (EVIC Inflation-Adjusted WACI)	<i>Universe Index (WACI)</i> multiplied by the associated <i>EVIC Inflation-Adjustment Factor</i>
Target A: Universe Index (-30% (or) -50% EVIC Inflation-Adjusted WACI)	<i>Universe Index (EVIC Inflation-Adjusted WACI)</i> multiplied by 0.7 for EU CTB or 0.5 for EU PAB.
Target B: -7% Self-Decarbonization Trajectory	The specific index-level carbon intensity that an index aims to reduce to by at the rebalance reference date specified. It is calculated by first calculating the index’s required Index Anchor Date index-level carbon intensity, defined as either 30% or 50% less than the Index Anchor Date Underlying Index-level Carbon Intensity (i.e., <i>Target A</i> at the Index Anchor Date), for EU CTB and EU PAB, respectively. The index’s Index Anchor Date index-level carbon intensity is reduced for each subsequent rebalance reference date by an annualized compounding rate of 7% to define the index’s decarbonization trajectory at each point in time in the future.
EU CTB (or) PAB Decarbonization Target: Min(A,B)	The index-level carbon intensity that the index is required to achieve at the specific rebalance reference date, defined as the lower WACI of the WACI defined in <i>Target A</i> and <i>Target B</i> . This is the index’s WACI target for the rebalance for the purpose of the decarbonization regulatory requirements.

		<p>Index Methodology Decarbonization Target: Min(A,B) +5% Buffer</p> <p><i>EU CTB (or) PAB Decarbonization Target: Min(A,B) multiplied by 0.95. This is the index's WACI target for the rebalance that, in addition to meeting the decarbonization regulatory requirements, meets the stricter criteria of an additional 5% buffer set in the methodology.</i></p>
		<p>Climate Transition (or) Paris-Aligned Index (EVIC Inflation-Adjusted WACI)</p> <p>The WACI of the S&P PACT Index at the rebalance reference date, measured in current (nominal) terms (i.e., without adjustments for underlying index EVIC inflation adjustments), multiplied by the <i>EVIC Inflation-Adjustment Factor</i>. Note, the S&P PACT Index nominal WACI is not disclosed in the Report, but can be calculated by dividing the <i>Climate Transition (or) Paris-Aligned Index (EVIC Inflation-Adjusted WACI)</i> by the <i>EVIC Inflation-Adjustment Factor</i>.</p>
		<p>Relative-to-Underlying Index Decarbonization (%)</p> <p>The percentage index-level carbon intensity reduction achieved by the index at the rebalance reference date, relative to its underlying index. This is calculated by dividing the <i>Climate Transition (or) Paris-Aligned Index (EVIC Inflation-Adjusted WACI)</i> by the <i>Universe Index (EVIC Inflation-Adjusted WACI)</i>, minus 1.</p>
		<p>≥% WACI Reduction Relative-to-Underlying Constraint Met?</p> <p>This is an indicator of whether the S&P PACT Index has decarbonized at the specified rebalance reference date to a level that is at least the -30% (for EU CTB) or 50% (for EU PAB) required. Attainment of this objective is denoted with "MET", and "NOT MET" represents when this objective was not met.</p>
		<p>Difference between Index WACI and Trajectory (tCO₂e/EVIC USDmn)</p> <p><i>Climate Transition (or) Paris-Aligned Index (EVIC Inflation-Adjusted WACI)</i> minus the <i>Target B: -7% Self-Decarbonization Trajectory</i> as at the same rebalance reference date. This is a measure of how much more than required by the trajectory alone the S&P PACT Index has rebalanced.</p>
		<p>Decarbonization Trajectory Constraint Met?</p> <p>This is an indicator of whether the S&P PACT Index has decarbonized at the specified rebalance reference date to a level that is at least at its corresponding decarbonization trajectory or below, as required. Attainment of this objective is denoted with "MET", and "NOT MET" represents when this objective was not met.</p>
5.	The hyperlink to the website of the temperature scenario used.	https://www.ipcc.ch/sr15/
	Date on which information has last been updated:	August 2024
	Reason for the update:	Providing further information on the data used to calculate the used to calculate the forward-looking decarbonization trajectories in our Equity PACT disclosures.
	Date of first appendix publication:	April 2020

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 by 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. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. 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.

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