SOLACTIVE
German Index Engineering

Index Guideline

Solactive J.P. Morgan Asset Management China Carbon Transition Index

Version 1.1

29 January 2024

TABLE OF CONTENTS

Introduction 3
1. Index Specifications 4
1.1. Scope of the Index 4
1.2. Identifiers and Publication 4
1.3. Initial Level of the Index 5
1.4. Prices and calculation frequency 5
1.5. Licensing 5
2. Index Selection 6
2.1. Index Universe Requirements 6
2.2. Selection of the Index Components 6
2.3. Weighting of the Index Components 7
3. Rebalance 17
3.1. Ordinary Rebalance 17
3.2. Extraordinary Rebalance 17
4. Calculation of the Index 18
4.1. Index formula 18
4.2. Accuracy 18
4.3. Adjustments 18
4.4. Corporate actions 19
4.5. Recalculation 20
4.6. Market Disruption 20
5. Miscellaneous 21
5.1. Discretion 21
5.2. Methodology Review 21
5.3. Changes in calculation method 21
5.4. Termination 22
5.5. Oversight 22
6. Definitions 23
7. History of Index Changes 27
Contact 28

INTRODUCTION

This document (the "**Guideline**") is to be used as a guideline with regard to the composition, calculation and maintenance of the Solactive J.P. Morgan Asset Management China Carbon Transition Index (the "**Index**"). Any amendments to the rules made to the Guideline are approved by the Oversight Committee specified in Section 5.5. The Index is calculated, administered and published by Solactive AG ("**Solactive**") assuming the role as administrator (the "**Index Administrator**") under the Regulation (EU) 2016/1011 (the "**Benchmark Regulation**" or "**BMR**"). The name "Solactive" is trademarked.

The text uses defined terms which are formatted with "SMALL CAPS". Such Terms shall have the meaning assigned to them as specified in Section 6 (Definitions).

The GUIDELINE and the policies and methodology documents referenced herein contain the underlying principles and rules regarding the structure and operation of the INDEX. SOLACTIVE does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the INDEX nor the level of the INDEX at any certain point in time nor in any other respect. SOLACTIVE strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for SOLACTIVE – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the INDEX. The publication of the INDEX by SOLACTIVE does not constitute a recommendation for capital investment and does not contain any assurance or opinion of SOLACTIVE regarding a possible investment in a financial instrument based on this INDEX.

1. INDEX SPECIFICATIONS

1.1. SCOPE OF THE INDEX

Category	Description
Asset Class	Equity
Strategy	The Index is a rules-based, proprietary index designed to reflect the performance of a subset of the Solactive GBS China Large & Mid Cap USD Index PR that, based on the Index rules, are determined to be best positioned to benefit from a transition to a low-carbon economy.
Regional Allocation	China
Rebalancing Frequency	Quarterly

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive J.P. Morgan Asset Management China Carbon Transition Index PR	DE000SL0GMQ2	USD	PR*	.SJPMCCTP	SJPMCCTP Index
Solactive J.P. Morgan Asset Management China Carbon Transition Index NTR	DE000SL0GMR0	USD	NTR*	.SJPMCCTN	SJPMCCTN Index
Solactive J.P. Morgan Asset Management China Carbon Transition Index GTR	DE000SL0GMS8	USD	GTR*	.SJPMCCTT	SJPMCCTT Index

*PR, NTR, GTR means that the Index is calculated as price return, net total return and gross total return Index as described in the Equity Index Methodology, which is available on the Solactive website: https://www.solactive.com/documents/equity-index-methodology/

The INDEX is published on the website of the INDEX ADMINISTRATOR (www.solactive.com) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display the INDEX via its information systems.

Any publication in relation to the INDEX (e.g. notices, amendments to the GUIDELINE) will be available at the website of the INDEX ADMINISTRATOR: https://www.solactive.com/news/announcements/.

1.3. INITIAL LEVEL OF THE INDEX

The initial level of the Index on the 07/05/2019, the Start Date, is 1000. Historical values from the 25/08/2022, the Live Date, will be recorded in accordance with Article 8 of the BMR. Levels of the Index published for a period prior to the Live Date have been back-tested

1.4. PRICES AND CALCULATION FREQUENCY

The level of the INDEX is calculated on each CALCULATION DAY from 9:00 a.m. to 10:50 p.m. CET based on the TRADING PRICES on the EXCHANGES on which the INDEX COMPONENTS are listed. TRADING PRICES of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the current Intercontinental Exchange (ICE) spot foreign exchange rate. Should there be no current TRADING PRICE for an INDEX COMPONENT, the later of: (i) the most recent CLOSING PRICE; or (ii) the last available TRADING PRICE for the preceding TRADING DAY is used in the calculation.

In addition to the intraday calculation a closing level of the INDEX for each CALCULATION DAY is also calculated. This closing level is based on the CLOSING PRICES for the INDEX COMPONENTS on the respective EXCHANGES on which the INDEX COMPONENTS are listed. The CLOSING PRICES of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the 04:00 p.m. London time rates provided by WM/ Refinitiv (the "WM/ Refinitiv Rate"). If there is no 04:00 p.m. London time WM/ Refinitiv Rate for the relevant CALCULATION DAY, the last available 04:00 p.m. London time WM/ Refinitiv Rate will be used for the closing level calculation.

1.5. LICENSING

Licenses to use the INDEX as the underlying value for financial instruments, investment funds and financial contracts may be issued to stock exchanges, banks, financial services providers and investment houses by CLIENT.

2. INDEX SELECTION

On each Selection Day, the INDEX ADMINISTRATOR will revise the composition of the Index.

In a first step, the INDEX ADMINISTRATOR determines the INDEX UNIVERSE in accordance with Section 2.1. The INDEX UNIVERSE comprises all those financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS (as specified in Section 2.1) and will constitute a starting pool from which the components of the INDEX will be selected. Based on this INDEX UNIVERSE, the new composition of the INDEX will be determined by applying the rules outlined in Section 2.2.

Each new INDEX COMPONENT will be assigned a weight as described in Section 2.3.

2.1. INDEX UNIVERSE REQUIREMENTS

The INDEX UNIVERSE is comprised of all financial instruments which fulfill the below requirements

(the "**INDEX UNIVERSE REQUIREMENTS**"):

Part/ Component of the **Gbs Index Universe** of the *Solactive GBS China Large & Mid Cap USD Index PR (ISIN: DE000SLA4WM4,* on a Selection Day

The determination of the INDEX UNIVERSE is fully rule-based and the INDEX ADMINISTRATOR cannot make any discretionary decisions.

2.2. SELECTION OF THE INDEX COMPONENTS

Based on the INDEX UNIVERSE, the initial composition of the INDEX as well as any selection for an ordinary rebalance is determined on the SELECTION DAY in accordance with the following rules:

Exclusion lists

The security must not be issued by a company which is excluded by the Data Provider due the minimum exclusion standards for EU Climate Transition Benchmarks. Also companies are excluded that may significantly cause harm to the environmental objectives referred to in Article 9 of the EU Taxonomy Regulation

Dual Listings

There are instances where multiple listings of the same company may exist in the Index Universe. When this happens, the primary listing is determined as the listing with the highest MDV. The primary listing will take on the full Market Value and MDV for a company and the other listing will be excluded from further calculations.

(the "**INDEX COMPONENT REQUIREMENTS**")

The selection of the INDEX COMPONENTS is fully rule-based and the INDEX ADMINISTRATOR cannot make any discretionary decision.

2.3. WEIGHTING OF THE INDEX COMPONENTS

On each SELECTION DAY each INDEX COMPONENT is assigned a weight based on a multi-stage process which takes into consideration relative market capitalization weights, constraints on individual stock liquidity, CARBON TRANSITION PERCENTILES and concentration risks while trying to minimize turnover and meet EU Climate Transition Benchmark rules.

2.3.1. Establish Cut Weights

On the Selection Date, the current effective weights of the securities in the INDEX, referred to as the "Cut Weights" are determined.

2.3.2. Initialize Standard Weights, Caps and Floors

x_1 is the cap on the pre-adjustment weight in any security (first standard weight), it is defined as a function of the free float adjusted market capitalization weights of each constituent I, $w_{cap,i}$

$$x_1 = f\left(w_{cap}^i\right) = \min\left(4 * w_{cap}^i, 50\ bps + w_{cap}^i\right)$$

x_2 is the maximum adjusted weight per security (second standard weight)

$$x_2 = f\left(w_{cap}^i\right) = \min\left(3.5 * w_{cap}^i, 40\ bps + w_{cap}^i\right)$$

w_{max-c}^i is the maximum position size at rebalance for stock i

$$w_{max-c}^i = f\left(w_{cap}^i\right) = \min\left(4.5 * w_{cap}^i, 60\ bps + w_{cap}^i\right)$$

w_{min}^i is the minimum holding constraint in stock i

$$w_{min}^i = \begin{cases} 0, if\ w_{cap}^i - 40\ bps < minw \\ w_{cap}^i - 40\ bps, otherwise \end{cases}$$

$$where:$$

$$w_{cap}^i\ is\ the\ market\ cap\ weight\ of\ equity\ i\ in\ the\ index\ universe$$

$$minnw\ is\ the\ minimum\ new\ weight\ of\ a\ security\ 0.02\ bps$$

Note for all exclusions, all the weights above are set to 0.

2.3.3. Liquidity Constraints

The goal is to ensure the liquidity and capacity of any fund that might track the INDEX. There are liquidity needs of a tracking fund during both rebalancing and creation / redemption process. These constraints act respectively to limit the minimum liquidity of the INDEX as a whole, to limit the liquidity usage on rebalance days, and to limit the concentration risk in any given Equity. The methodology then applies the tightest of these constraints.

The MDV v_i is computed for each security by taking the median trading volume (adjusted for corporate actions) over the past 22 days preceding and including the SELECTION DAY and then multiplying it by the price on the SELECTION DAY and the FX Rate if applicable.

$\delta_{\max}$ the maximum trade in days of median daily volume at hypothetical NAV – 1 day

$l_{\max}$ the maximum position size in days of median daily volume at hypothetical NAV – 4 days

τ the fraction of universe total market capitalization represented by the hypothetical NAV – 1bps

V the total market capitalization of the universe

$w_{\mathrm{L,i}}$ the maximum weight constrained by liquidity

$\Delta_{\mathrm{L,i}}$ the maximum weight change of an Equity

$$w_{\mathrm{L}}^{i} = \frac{l_{\max} v_i}{\tau V}$$

$$\Delta_{\mathrm{L}}^{i} = \frac{\delta_{\max} v_i}{\tau V}$$

Note: For the inception date, the maximum trade in days of MDV was set to 4 days.

2.3.4. Set Maximum Weight

The maximum weight of a security is set to the minimum of Maximum Weight $w_{\mathrm{max-c}}^{i}$ and the Maximum Liquidity weight $w_{\mathrm{L,i}}$.

$$w_{\max}^{i} = \min\left(w_{\mathrm{max-c}}^{i}, w_{\mathrm{L}}^{i}\right)$$

2.3.5. Trim concentrated holding and apply minimums

Positions larger than the first standard should be adjusted downward by the minimum of the cut weight w_{cut}^{i} – the maximum trade size $\Delta_{\mathrm{L,i}}$ or first standard weight x_1. Adjust position upward to the minimum position size $x_{\min}^{i}$ if it's smaller.

$$w_0^i = \begin{cases} w_{\text{cut}}^i - \Delta_{\text{L}}^i > x_1, w_{\text{cut}}^i - \Delta_{\text{L}}^i \\ w_{\text{cut}}^i > x_1, x_1 \\ w_{\text{cut}}^i < \ x_{\text{min}}^i, x_{\text{min}}^i \\ otherwise\ , w_{\text{cut}}^i \end{cases}$$

2.3.6. Bucket Weights

The Index tries to remain market cap neutral to Sectors. Within each Sector S, the Bucket Weights are capped by a liquidity limit. The liquidity limit for Bucket $S_{cap,i}$ is defined as the sum of the constituent liquidity weighting limits.

$$S_{cap,i} = \sum_{i \in S_k} \min\left(w_{\text{L}}^i, x_2\right)$$

Compute the Market Capitalization weights, and current weights of the Buckets.

$$mcw_k = \sum_{i \in S_k} mcw_i$$

$$w_0^k = \sum_{S_k}^{N} w_0^i$$

Bucket Market Capitalization weights mcw_k that are above the liquidity limit have their weight set to the liquidity limit and the excess weight is redistributed to the rest of the uncapped industries in proportion to their weights. This process is repeated until all Bucket Target Weights btw_k satisfy their liquidity limit or a maximum of 10 iterations has been reached.

2.3.7. Populate Buckets

In this step, the Index begins by measuring the difference in Market Cap Weight mcw_k of each Bucket against its current weight w_0^k.

For Buckets that are underweight, the Index increases the weight of Equities with the highest Carbon Transition Percentile that have trading capacity. These Equities must have a Carbon Transition Factor Percentile higher than or equal to the Investable Threshold Percentile z_{min}. For Equities where the Index currently has no weight allocated $w_0^i = 0$, the Index also ensures that the weight increase is above the Minimum New Investment Threshold w_{min}.

If the Index is overweight within a Bucket, it lowers the weight of the Equities that have current weight within that Bucket with the lowest Carbon Transition Percentiles that have trading capacity. The change in regional-sector weight at this stage means that turnover is able to serve a double purpose: to ensure sector targets are met and to improve the average Carbon Transition Percentile.

$z_{\min}$ is the Investable Threshold Percentile – 20th percentile

Initialize w_1^i to w_0^i

2.3.7.1. Buckets that are underweight

For Buckets which are underweight, the INDEX increases the weight of securities until the target weight is reached, starting with the companies with the highest CARBON TRANSITION PERCENTILE (in case two securities have the same CARBON TRANSITION PERCENTILE the secondary and tertiary ranking criteria are: MDV and market value.

2.3.7.2. Buckets that are overweight

For each Bucket which is overweight lower the weight of the Equities until the target is reached, starting with those with lowest Carbon Transition Percentile.

2.3.8. Constrained Reallocation

Where constraints prevent the INDEX from reaching 100% investment, the INDEX uses additional allocation rules. Most of the INDEX weight comprises allocations made from the previous step. In all but very extraordinary circumstances, these rules will only top up the allocation and ensure 100% investment.

In case the INDEX weights up to this point are less than 100%, increase the weight of every security which is already held in proportion to their weight in a capitalization weighted index, until full investment is reached or every stock is constrained. Do not lower the weight of Equities which are breaching constraints at this stage.

2.3.9. Increase Factor Exposure

Since the turnover from weight reallocation in previous steps may be low, additional turnover may be required to ensure that securities whose CARBON TRANSITION PERCENTILE has been reduced are removed from the INDEX.[1]

$\gamma_{\min}$ is the Minimum Turnover Threshold = 6%

γ is the Two Way Turnover. It is computed as the absolute difference in current weights vs the cut weights plus 1 – the sum of the cut weights. This accounts for any securities that are removed from the INDEX UNIVERSE that the INDEX had an allocation in.

z_{turn} is the best CARBON TRANSITION PERCENTILE at which the Index will reduce the weight of securities – 40th percentile

Initialize $w_3^i = w_2^i$

$$\gamma = \sum_i \left| w_3^i - w_{\text{cut}}^i \right| + \left(1 - \sum w_{\text{cut}}^i\right)$$

If the turnover up to this point is below the Minimum Turnover Threshold $\gamma_{\min}$, reduce the weight in the least attractive securities (in order of their CARBON TRANSITION PERCENTILE) and increase the weight of the most attractive Equities until Minimum Turnover Threshold $\gamma_{\min}$ is reached. This step is subject to the same liquidity constraints. The final weights are also subject to the maximum underweight constraints.

Iterate until the Minimum Turnover threshold is met or there are no securities left to reduce the weight of.

$$\text{while} \sum_i \left| w_3^i - w_{\text{cut}}^i \right| < \gamma_{\min} \qquad \text{and} \qquad z_n < z_{\text{turn}}$$

2.3.9.1. Find securities to reduce weight

Find the security with the lowest CARBON TRANSITION PERCENTILE that has capacity to reduce its allocation. The CARBON TRANSITION PERCENTILE must be lower than z_{turn}. Its current weight must be greater than its minimum weight and it must not be in a Bucket that has another security with a higher CARBON TRANSITION PERCENTILE that has capacity to increase the weight. For this security, compute its possible weight reduction.

2.3.9.2. Find securities to increase weight in the same Bucket

[1] Turnover due to listing changes is not considered for this step.

Find the security in the same Bucket as the security to reduce the weight that has the highest CARBON TRANSITION PERCENTILE and still has capacity to increase the weight. The CARBON TRANSITION PERCENTILE must be higher than the score of the security being reduced in weight. For this security, compute its possible increase in weight. The Equity must also be able pass the minimum new weight threshold if it currently has a weight of 0.

2.3.9.3. Re-computer turnover

$$y = \sum_i \left| w_3^i - w_{\text{cut}}^i \right| + (1 - \sum w_{\text{cut}}^i)$$

Notes:

In these reductions and increases in weight, all of the constraints in section 2.3.9 are active for both the security being increased and the security being decreased (in addition to a minimum size for new allocations in the INDEX). The total amount increased (decreased) is the first binding constraint of these. Then move on to the following company (either being increased or reduced). In this way for as long as there are names below the turnover score threshold z_{turn} *available to reduce and there is sufficient liquidity in securities with score above this threshold to increase, continue adding trades increasing the average CARBON TRANSITION PERCENTILE of the INDEX until the minimum turnover is reached.*

Sometimes constraints may mean that after cycling through every company the target turnover is not reached. In this case the Index's Carbon Transition exposure is maximal subject to constraints and this step is complete even at the lower level of turnover.

2.3.10. Remove Small Allocations

Remove allocations so small as to be deemed unlikely to be essential to meeting the aims of the Index strategy. Note that this final step can lead to small violations in other constraints.

w_{rem} is the Removal Threshold - .1bps

a) Set to zero any security weights smaller than the minimum threshold.
b) Rescale pro-rata all other allocations to achieve 100% investment.

2.3.11. Re-allocate to High Impact Sectors

To prevent greenwashing, the EU Climate Benchmarks Final Report requires keeping the exposure to sectors that have a high impact on Climate Change in line with those of the Investable Universe. It defines high impact sectors using the NACE sector scheme[2] which has been mapped to the sector scheme of the INDEX UNIVERSE. In this step the Index measures the Total Market Cap Weight of the High Impact Sub-Sectors within the Investable Universe and the Total Current Weight of the High Impact Sub-Sectors of the Index. If the allocation to high impact sub-sectors is lower than the INDEX UNIVERSE, scale up all the weights in the Index to match the high impact and reduce the weights of the low impact sub-sectors pro-rata.

a) S_H is the set of securities in high carbon intensity sub-sectors

b) $gap = \sum_{i \in S_H} w_4^i - \sum_{i \in S_H} w_{cap}^i$

c) If $gap < 0$ then scale the allocations for companies in high carbon intensity sub-sectors and low carbon intensity sub-sectors respectively:

a. For $i \in S_H$, $w_5^i = w_4^i * (\frac{\sum_{i \in S_H} w_4^i - gap}{\sum_{i \in S_H} w_4^i})$

b. For $i \notin S_H$, $w_5^i = w_4^i * (\frac{\sum_{i \notin S_H} w_4^i + gap}{\sum_{i \notin S_H} w_4^i})$

Else if $gap \geq 0$: $w_5^i = w_4^i$

2.3.12. Re-allocate to Low Carbon Intensity Securities

The TARGET WACI for the Rebalance period $WACI_P$ is the maximum WACI of the Index. If $WACI_5 > WACI_P$, then the INDEX re-allocates from securities with high Carbon Intensity to Equities with lower Carbon Intensity until the INDEX WACI matches the TARGET WACI or the Maximum Turnover Threshold γ_{max} is breached. [3]

To achieve this goal, the Index attempts to minimize the number of transactions by finding the pair trade that will yield the largest impact on Index WACI given all trading constraints from previous steps. In addition to isolating the trades to a particular bucket so previously implemented constraints are not breached, the index also ensures the allocation to high impact sub-sectors is always higher than or equal to the Investable Universe throughout the iteration.

γ_{max} is the Maximum Turnover Threshold = 20%

Initialize $w_6^i = w_5^i$

For each iteration *j*, measure the Index WACI.

[2] List of NACE codes https://ec.europa.eu/competition/mergers/cases/index/nace_all.html

[3] Turnover due to listing changes is not considered for this step.

$$WACI_j = \sum CI_i * w_{6,j}^i$$

For each iteration, compute each security's capacity to increase weight cb_i and capacity to reduce weight cs_i.

$$\mathrm{cb}_i = \max\left(\min\left(w_{\mathrm{cut}}^i + \Delta_{\mathrm{L}}^i - w_{6,j}^i, x_1 - w_{6,j}^i, w_{\mathrm{L}}^i - w_{6,j}^i\right), 0\right)$$

$$\mathrm{cs}_i = \max\left(\min\left(w_{6,j}^i - \left(w_{\mathrm{cut}}^i - \Delta_{\mathrm{L}}^i\right), w_{6,j}^i - x_{\mathrm{min}}^i\right), 0\right)$$

Additionally, for securities where the Index currently has no allocation, $w_6^i = 0$, it must also ensure that new allocations are above the Minimum New Investment Threshold w_{min}.

Next, compute the top pair in each combination of Bucket and high/low impact by finding the Equity with the highest Carbon Intensity that has capacity to reduce weight and the security with the lowest Carbon Intensity with capacity to increase weight. The difference in Carbon Intensity between the security with the highest Carbon Intensity and the security with the lowest Carbon Intensity is noted as $\mathrm{cd}_{B_{khl}}$. The trade size $\mathrm{ts}_{B_{khl}}$ is the lower of the capacity to increase weight cb_i and capacity to reduce weight cs_i.

$$\mathrm{cd}_{B_{khl}} = \mathrm{ci}_{i,h} - \mathrm{ci}_{i,l}$$

$$\mathrm{ts}_{B_{khl}} = \min\left(\mathrm{cb}_i, \mathrm{cs}_i\right)$$

Compute the Carbon Intensity Change per Trade $\mathrm{cis}_{B_{khl}}$ to measure the impact the trade will have on INDEX WACI $WACI_j$.

$$\mathrm{cis}_{B_{khl}} = \mathrm{cd}_{B_{khl}} * \mathrm{ts}_{B_{khl}}$$

Reduce the Trade Size $\mathrm{ts}_{B_{khl}}$ if the INDEX WACI minus the TARGET WACI is less than the Carbon Intensity Change $WACI_j - WACI_p < \mathrm{cis}_{B_{khl}}$. Compute the new trade size by dividing the gap in Carbon Intensity by the Carbon Difference of the trade $\mathrm{cd}_{B_{khl}}$.

$$\mathrm{ts}_{B_{khl}} = (WACI_j - WACI_p)/\mathrm{cd}_{B_{khl}}$$

For security to reduce weight. $w_6^i = w_6^i - \mathrm{ts}_{B_{khl}}$

For security to increase weight. $w_6^i = w_6^i + \mathrm{ts}_{B_{khl}}$

2.3.12.1. Relax Holding and Liquidity Constraints

In case the TARGET WACI can't be reached within the maximum turnover budget. The holding and liquidity constraints are relaxed. By the following formulae:

$$x_{1_new} = f\left(w_{\mathrm{cap}}^i\right) = \min\left(4 * (1 + j) * w_{\mathrm{cap}}^i, 50\ bps + j * 20\ bps + w_{\mathrm{cap}}^i\right)$$

$$x^{i}_{\min_\text{new}} = \begin{cases} 0, if\ w^{i}_{\text{cap}} - (1+j) * 40\ bps < minnw \\ w^{i}_{\text{cap}} - (1+j) * 40\ bps, otherwise \end{cases}$$

Iterate through 2.3.12 (begin with j = 1,2,3…10) until $WACI_6 \leq WACI_P$.

2.3.13. Re-allocate to Sustainable Equities

Sustainable equities are defined as those that fulfill either Carbon Transition Percentile $z_{i,CT} \geq 50\%$ or Carbon Intensity Percentile $z_{i,CI} \geq 50\%$. If the weight of sustainable equities in the index is below the threshold β_{min}, weight will be reallocated from unsustainable equities to sustainable equities so the weight of sustainable equities is equal to the threshold β_{min}. This is done in way that the allocation to high impact sub-sectors is higher than or equal to the investable Universe and the portfolio WACI does not get increased.

β_{min} is the minimum sustainable threshold and is set to 80%

The reallocation is done in the following way:

Initialize $w^{i}_{7} = w^{i}_{6}$

For each iteration j, measure the index sustainable weight SW_j

$$SW_j = \sum w^{i \in SS}_{7,j}$$

Where SS is the set of all sustainable equities.

While $WS_j < \beta_{min}$, iteration j continues

For each iteration, compute each Equity's capacity to increase weight cb_i and capacity to reduce weight cs_i.

Additionally, for Equities where the Index currently has no allocation, $w^{i}_{7} = 0$, it must also ensure that if new allocations $w^{i\prime}_{7} > 0$ and $\text{cb}_i < minnw$, $w^{i\prime}_{7} = minnw$ = .2bps

Next, find the equity pairs X and Y that satisfy the conditions:

(1) Both equity X and Y are in the same bucket
(2) X is sustainable equity and Y is unsustainable equity
(3) $CI_X \leq CI_Y$ (Carbon Intensity of X is less than or equal to the one of Y)
(4) $\text{cb}_X > 0$ and $\text{cs}_Y > 0$ (Capacity to increase/reduce weight is greater than 0)

Among all the valid equity pairs, choose the pair with the largest difference in Carbon Transition Percentiles $\mathrm{ct}_{\max\ _spread}$ and then replace equity Y with equity X by the trade size $\mathrm{ts}_{sustainable}$, which is the lower of the capacity to increase weight cb_X in equity X and capacity to reduce weight cs_Y in equity Y.

$$\mathrm{ct}_{\max\ _spread} = z_{i_CT_X} - z_{i_CT_Y}$$

$$\mathrm{ts}_{sustainable} = \min\ (\mathrm{cb}_i, \mathrm{cs}_i)$$

If the Index Sustainable Weight SW_j minus the Minimum Sustainable Threshold is less than the Trade Size $WS_j - \beta_{min}$ < $\mathrm{ts}_{sustainable}$, the trade size is reduced to $WS_j - \beta_{min}$

For security to reduce weight. $w_7^i = w_7^i - \mathrm{ts}_{sustainable}$

For security to increase weight. $w_7^i = w_7^i + \mathrm{ts}_{sustainable}$

2.3.13.1. Relax Holding and Liquidity Constraints

If $WACI_7 > WACI_P$ or $WS_j < \beta_{min}$, the constraints in the index

For sustainable security X to increase trade size, the maximum weight is reset to $w^i_{\max\ _\mathrm{new}}$ and the maximum weight change is reset to $\Delta^i_{\mathrm{L_new}}$

$$w^i_{\max\ _\mathrm{new}} = w^i_{\max} + j * 2bps$$

$$\Delta^i_{\mathrm{L_{new}}} = (1 + 0.1)^j * \Delta^i_{\mathrm{L}}$$

For unsustainable security Y to reduce trade size, the minimum holding constraints is reset to

$$x^i_{\mathrm{min_new}} = \begin{cases} 0, if\ (1 - j * 0.1) * w^i_{\mathrm{cap}} - (1 - j * 0.1) * 40\ bps < minnw \\ (1 - j * 0.1) * w^i_{\mathrm{cap}} - (1 - j * 0.1) * 40\ bps, otherwise \end{cases}$$

The maximum turnover limit is increased by:

$$\gamma_{\max\ _new} = \gamma_{max} + j * 0.01$$

Iterate through 2.3.13 (begin with j = 1,2,3…) until both $WACI_7 \leq WACI_P$ and $WS_j \geq \beta_{min}$

3. REBALANCE

3.1. ORDINARY REBALANCE

In order to reflect the new selection of the INDEX COMPONENTS determined on the SELECTION DAY (in accordance with Section 2.1 and 2.2) the INDEX is adjusted on the REBALANCE DAY after CLOSE OF BUSINESS.

This is carried out by implementing the shares as determined on the FIXING DAY based on the weights calculated on the SELECTION DAY.

For more information on the rebalance procedure please refer to the Equity Index Methodology, which is incorporated by reference and available on the Solactive website: https://www.solactive.com/documents/equity-index-methodology/.]

SOLACTIVE will publish any changes made to the INDEX COMPONENTS with sufficient notice before the REBALANCE DAY on the SOLACTIVE website available at https://www.solactive.com/news/announcements/

3.2. EXTRAORDINARY REBALANCE

The INDEX is not rebalanced extraordinarily.

4. CALCULATION OF THE INDEX

4.1. INDEX FORMULA

The INDEX is calculated as a price return, net total return and gross total return Index.

The calculation is performed according to the Equity Index Methodology, which is available on the SOLACTIVE website: https://www.solactive.com/documents/equity-index-methodology/. The divisor index formula stipulates that the level of the INDEX changes based on the change of the prices of its INDEX COMPONENTS taking into account their weight in the INDEX and any currency conversion in case the price of an INDEX COMPONENT is quoted in a currency other than the INDEX CURRENCY.

Any dividends or other distributions are reinvested across the entire basket of INDEX COMPONENTS by means of a divisor at the opening of the effective date (the so-called ex-date) of the payment of such dividend or other distribution.

A more detailed description of the mechanics of the index calculation formula can be found in the Equity Index Methodology under Section 1.2.

4.2. ACCURACY

The level of the INDEX will be rounded to 2 decimal places. Divisors will be rounded to six decimal places.] TRADING PRICES and foreign exchange rates will be rounded to six decimal places.

4.3. ADJUSTMENTS

Under certain circumstances, an adjustment of the INDEX may be necessary between two regular REBALANCE DAYS. Such adjustment has to be made if a corporate action (as specified in Section 4.4 below) in relation of an INDEX COMPONENT occurs. Such adjustment may have to be done in relation to an INDEX COMPONENT and/or may also affect the number of INDEX COMPONENTS and/or the weighting of certain INDEX COMPONENTS and will be made in compliance with the Solactive Equity Index Methodology, which is incorporated by reference and available on the SOLACTIVE website: https://www.solactive.com/documents/equity-index-methodology/.

SOLACTIVE will announce the INDEX adjustment giving a notice period of at least two TRADING DAYS (with respect to the affected INDEX COMPONENT) on the SOLACTIVE website under the Section "Announcements", which is available at https://www.solactive.com/news/announcements/. The INDEX adjustments will be implemented on the effective day specified in the respective notice.

4.4. CORPORATE ACTIONS

As part of the INDEX maintenance SOLACTIVE will consider various events – also referred to as corporate actions – which result in an adjustment to the INDEX between two regular REBALANCE DAYS. Such events have a material impact on the price, weighting or overall integrity of INDEX COMPONENTS. Therefore, they need to be accounted for in the calculation of the INDEX. Corporate actions will be implemented from the cum-day to the ex-day of the corporate action, so that the adjustment to the INDEX coincides with the occurrence of the price effect of the respective corporate action.

Adjustments to the INDEX to account for corporate actions will be made in compliance with the Equity Index Methodology, which is available on the SOLACTIVE website: https://www.solactive.com/documents/equity-index-methodology/. This document contains for each corporate action a brief definition and specifies the relevant adjustment to the INDEX variables.

While SOLACTIVE aims at creating and maintaining its methodology for treatment of corporate actions as generic and transparent as possible and in line with regulatory requirements, it retains the right in accordance with the Equity Index Methodology to deviate from these standard procedures in case of any unusual or complex corporate action or if such a deviation is made to preserve the comparability and representativeness of the INDEX over time.

SOLACTIVE considers following, but not conclusive, list of corporate actions as relevant for INDEX maintenance:

- Cash Distributions (e.g. payment of a dividend)
- Stock distributions (e.g. payment of a dividend in form of additional shares)
- Stock distributions of another company (e.g. payment of a dividend in form of additional shares of another company (e.g. of a subsidiary))
- Share splits (company's present shares are divided and therefore multiplied by a given factor)
- Reverse splits (company's present shares are effectively merged)
- Capital increases (such as issuing additional shares)
- Share repurchases (a company offer its shareholders the option to sell their shares to a fixed price)
- Spin-offs (the company splits its business activities into two or more entities and distributes new equity shares in the created entities to the shareholders of the former entity)
- Mergers & Acquisitions (transaction in which the ownership of a company (or other business organizations) are transferred or consolidated with other entities, e.g. fusion of two or more separate companies into one entity)
- Delistings (company's shares are no longer publicly traded at a stock exchange)
- Nationalization of a company (effective control of a legal entity is taken over by a state)

> Insolvency

4.5. RECALCULATION

SOLACTIVE makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. SOLACTIVE endeavors to correct all errors that have been identified within a reasonable period of time. The understanding of "a reasonable period of time" as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive Correction Policy, which is incorporated by reference and available on the SOLACTIVE website: https://www.solactive.com/documents/correction-policy/.

4.6. MARKET DISRUPTION

In periods of market stress SOLACTIVE calculates its indices following predefined and exhaustive arrangements as described in the Solactive Disruption Policy, which is incorporated by reference and available on the SOLACTIVE website: https://www.solactive.com/documents/disruption-policy/. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more INDEX COMPONENTS. The determination of the INDEX may be limited or impaired at times of illiquid or fragmented markets and market stress.

5. MISCELLANEOUS

5.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the INDEX (for example the determination of the INDEX UNIVERSE (if applicable), the selection of the INDEX COMPONENTS (if applicable) or any other relevant decisions in relation to the INDEX) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.

5.2. METHODOLOGY REVIEW

The methodology of the INDEX is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the INDEX, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the Solactive Methodology Policy, which is incorporated by reference and available on the SOLACTIVE website: https://www.solactive.com/documents/methodology-policy/.

Such change in the methodology will be announced on the SOLACTIVE website under the Section "Announcement", which is available at https://www.solactive.com/news/announcements/. The date of the last amendment of this INDEX is contained in this GUIDELINE.

5.3. CHANGES IN CALCULATION METHOD

The application by the INDEX ADMINISTRATOR of the method described in this document is final and binding. The INDEX ADMINISTRATOR shall apply the method described above for the composition and calculation of the INDEX. However, it cannot be excluded that the market environment, supervisory, legal and financial or tax reasons may require changes to be made to this method. The INDEX ADMINISTRATOR may also make changes to the terms and conditions of the INDEX and the method applied to calculate the INDEX that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The INDEX ADMINISTRATOR is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the INDEX ADMINISTRATOR will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

5.4. TERMINATION

SOLACTIVE makes the greatest possible efforts to ensure the resilience and continued integrity of its indices over time. Where necessary, SOLACTIVE follows a clearly defined and transparent procedure to adapt Index methodologies to changing underlying markets (see Section 5.2 "Methodology Review") in order to maintain continued reliability and comparability of the indices. Nevertheless, if no other options are available the orderly cessation of the INDEX may be indicated. This is usually the case when the underlying market or economic reality, which an index is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the index, the index rules, and particularly the selection criteria, can no longer be applied coherently or the index is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

SOLACTIVE has established and maintains clear guidelines on how to identify situations in which the cessation of an index is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Solactive Termination Policy, which is incorporated by reference and available on the SOLACTIVE website: https://www.solactive.com/documents/termination-policy/.

5.5. OVERSIGHT

An oversight committee composed of staff from SOLACTIVE and its subsidiaries (the "**OVERSIGHT COMMITTEE**") is responsible for decisions regarding any amendments to the rules of the INDEX. Any such amendment, which may result in an amendment of the GUIDELINE, must be submitted to the OVERSIGHT COMMITTEE for prior approval and will be made in compliance with the Methodology Policy, which is available on the SOLACTIVE website: https://www.solactive.com/documents/methodology-policy/.

6. DEFINITIONS

"BENCHMARK REGULATION" shall have the meaning as defined in Section "Introduction".

"BMR" shall have the meaning as defined in Section "Introduction".

"BUSINESS DAY" is any weekday from Monday through Friday.

"CALCULATION DAY" is every weekday from Monday to Friday.

"CARBON INTENSITY" IS defined as $Carbon\ Intensity_{i,t} = \frac{GHG\ Scope\ 1_{i,t} + GHG\ Scope\ 2_{i,t} + 0.5 * GHG\ Scope\ 3_{i,t}}{EVIC_{i,t}}$ and is delivered by the DATA PROVIDER.

"CARBON TRANSITION PERCENTILES" CARBON TRANSITION SCORES are ranked in each sector bucket. The ranks are then used to create the final CARBON TRANSITION PERCENTILE.

$$z_i = 1 - \left(\frac{1 + \#(y_n > y_i, n \in S_k) + 0.5\ x\ (\#(y_n = y_i, n \in S_k) - 1)}{1 + \#(n \in S_k)}\right)$$

$$where:$$

$$y_i = rank\ of\ security\ i\ in\ sector\ bucket$$

$$S_k = Sector\ bucket\ k$$

Securities with a higher CARBON TRANSITION PERCENTILE are more attractive than those with a lower CARBON TRANSITION PERCENTILE

"CARBON TRANSITION SCORES" are scores provided by the DATA PROVIDER.

"CLIENT" is J.P. Morgan Asset Management

"CLOSE OF BUSINESS" is the calculation time of the closing level of the INDEX as outlined in Section 1.4.

The **"CLOSING PRICE"** in respect of an INDEX COMPONENT and a TRADING DAY is a security's final regular-hours TRADING PRICE published by the EXCHANGE and determined in accordance with the EXCHANGE regulations. If the EXCHANGE has no or has not published a CLOSING PRICE in accordance with the EXCHANGE rules for an INDEX COMPONENT, the last TRADING PRICE will be used.

"DAILY VALUE TRADED" means, in respect of an INDEX COMPONENT and a TRADING DAY, the product of (i) the CLOSING PRICE of such INDEX COMPONENT and (ii) the volume traded (measured as a number of shares) of such INDEX COMPONENT on the EXCHANGE during such TRADING DAY.

"DATA PROVIDER" is J.P. Morgan Asset Management.

"ELIGIBLE REBALANCE DAY" is each day that is a TRADING DAY at the New York Stock Exchange, the London Stock Exchange, the EUREX Exchange and the Tokyo Stock Exchange.

"EVIC" Enterprise Value including Cash is calculated as follows:$EVIC_i = EQMktVal_i + TotalDebt_i + MinorityInteret_i$

$$where:$$

$$EQMktVal_i \text{ is the full market value of the company unadjusted for Free Float in USD}$$
$$TotalDebt_i \text{ is the last reported Quarterly, Semiannual, or Annual Total Debt reported by the company on their last published filing. The number is computed to USD.}$$

$$MinoristyInteret_i \text{ is the last reported Quarterly, Semiannual, or Annual Accumulated Minority Interestreported by the company on their last published filing. The number is computed to USD}$$

"EXCHANGE" is with respect to the INDEX and every INDEX COMPONENT, the respective exchange where the INDEX COMPONENT has its listing as determined in accordance with the rules in Section 2.

The **"FREE FLOAT MARKET CAPITALIZATION"** is with regard to each of the securities fulfilling the INDEX COMPONENT REQUIREMENTS on a SELECTION DAY the share class-specific free float market capitalization. It is calculated as the multiplication of the shares outstanding in FREE FLOAT (as sourced from data vendors) with the CLOSING PRICE of the share class as of the respective SELECTION DAY.

"**GBS INDEX COMPONENT**" is each security reflected in the GBS Index specified in Section 2.1.

"GUIDELINE" shall have the meaning as defined in Section "Introduction".

"INDEX" shall have the meaning as defined in Section "Introduction".

"INDEX ADMINISTRATOR" shall have the meaning as defined in Section "Introduction".

"INDEX COMPONENT" is each security reflected in the INDEX.

"INDEX COMPONENT REQUIREMENTS" shall have the meaning as defined in Section 2.2.

"INDEX CURRENCY" is the currency specified in the column "Currency" in the table in Section 1.2.

"INDEX UNIVERSE REQUIREMENTS" shall have the meaning as defined in Section 2.1.

"INDEX UNIVERSE" is the sum of all financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS.

"LIVE DATE" shall have the meaning as defined in Section 1.3.

"OVERSIGHT COMMITTEE" shall have the meaning as defined in Section 5.5.

"**REBALANCE DAY**" is the first Wednesday in February, May, August and November. If that day is not a ELIGIBLE REBALANCE DAY, the REBALANCE DAY will be the immediately following ELIGIBLE REBALANCE DAY

"**SELECTION DAY**" is the BUSINESS DAY 20 BUSINESS DAYS before the scheduled Rebalance Day, disregarding any potential changes of the REBALANCE DAY.

The "**SHARE CLASS MARKET CAPITALIZATION"** is with regard to each of the securities in the INDEX on a SELECTION DAY the share class-specific market capitalization for any security in the INDEX UNIVERSE. It is

calculated as the multiplication of the shares outstanding with the CLOSING PRICE of the share class as of the respective SELECTION DAY.

"SOLACTIVE" shall have the meaning as defined in Section "Introduction".

"START DATE" shall have the meaning as defined in Section 1.3.

"Target WACI": Is the maximum WACI of the INDEX.

$$Target\ WACI = \min(1 - 30\%) * WACI_{Index\ Universe}, WACI_{B,launch} * \left(\frac{(1 - 7\%)^{\frac{q}{4}}}{Inf}\right) * buffer$$

$$where:$$

$$WACI_{B,launch} = WACI_{Investable\ Universe,inception} * (1 - 30\%)$$

$$q = number\ of\ quarterly\ rebalances\ since\ the\ Index\ inception\ date$$

$$Inf = is\ the\ benchmark\ inflation\ of\ average\ EVIC\ since\ the\ index\ inception.$$

$$This\ accounts\ for\ changes\ in\ EVIC\ of\ the\ entire\ Index\ Universe$$

$$Inf = \frac{EVIC_{Index\ Universe,t}}{Adjusted\ EVIC_{Index\ Universe,inception}}$$

$$EVIC_{Index\ Universe,t} = \frac{\sum EVIC_{i,t}}{n_t}$$

$$Adjusted\ EVIC_{Index\ Universe,inception} = EVIC_{Index\ Universe,inception} * EVIC\ Adjustment\ Factor^{4}$$

$$EVIC_{Index\ Universe,inception} = \frac{\sum EVIC_{i,index\ inception}}{n_{index\ inceoption}}$$

The $buffer$ is set to 95%

The **"TOTAL MARKET CAPITALIZATION"** is with regard to each of the securities in the INDEX on a SELECTION DAY the sum of all SHARE CLASS MARKET CAPITALIZATIONS of a company.

"TRADING DAY" is with respect to an INDEX COMPONENT included in the INDEX at the REBALANCE DAY and every INDEX COMPONENT included in the INDEX at the CALCULATION DAY immediately following the REBALANCE DAY (for clarification: this provision is intended to capture the TRADING DAYS for the securities to be included in the INDEX as new INDEX COMPONENTS with close of trading on the relevant EXCHANGE on the REBALANCE DAY) a day on which the relevant EXCHANGE is open for trading (or a day that would have been such a day if a market disruption had not occurred), excluding days on which trading may be ceased prior to the scheduled

[4] The EVIC Adjustment Factor has been set to 0.84 on 08. January 2024. This factor offsets the reduction in the EVIC due to the inclusion of a large number of mid cap stocks in the index during the November 2023 rebalance.

EXCHANGE closing time and days on which the EXCHANGE is open for a scheduled shortened period. The INDEX ADMINISTRATOR is ultimately responsible as to whether a certain day is a TRADING DAY.

The **"TRADING PRICE"** in respect of an INDEX COMPONENT and a TRADING DAY is the most recent published price at which the INDEX COMPONENT was traded on the respective EXCHANGE.

The **"INDEX WACI"** is of a company is defined as:

$$WACI_{index,t} = \sum Carbon\ Intensity_{i,t} * weight_{i,t}$$

"WM / REFINITIV RATE" shall have the meaning as defined in Section 1.4.

7. HISTORY OF INDEX CHANGES

Version	Date	Description
1.0	*25. August 2022*	Index Guideline creation (*initial version*)
1.1	08. January 2024	Index Guideline update

CONTACT

Solactive AG
German Index Engineering
Platz der Einheit 1
60327 Frankfurt am Main
Germany

Tel.: +49 (0) 69 719 160 00
Fax: +49 (0) 69 719 160 25
Email: info@solactive.com
Website: www.solactive.com

© Solactive AG