INDEX GUIDELINE

SOLACTIVE CIMALGO SUSTAINABLE EQUITY SELECTION INDEX

Version 1.1

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INTRODUCTION

This document (the "**GUIDELINE**") is to be used as a guideline with regard to the composition, calculation and maintenance of the SOLACTIVE CIMALGO SUSTAINABLE EQUITY SELECTION 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 owned, 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 SOLACTIVE CIMALGO SUSTAINABLE EQUITY SELECTION INDEX aims to provide exposure to a global low volatility portfolio of 100 stocks. It is based on a large universe of approximately 2000 stocks, from which companies which violate certain ESG criteria are excluded. It applies a unique binary differential evolution algorithm and try to reduce turn over.
Regional Allocation	Global Markets
Rebalancing Fee	-
Rebalancing Frequency	Semi-annually

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive CIMalgo Sustainable Global Equity Selection Index	DE000SL0CXS4	USD	GTR*	.SOCIMESG	SOCIMESG Index

* GTR means that the Index is calculated as 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 08/01/2014, the START DATE, is 1000. Historical values from the LIVE DATE 13/04/2021 will be recorded in accordance with Article 8 of the BMR. The LIVE DATE of the Index is indicated in the table below:

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 8:00 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 WM Fixing quoted by Reuters. If there is no 04:00 p.m. London time WM Fixing for the relevant CALCULATION DAY, the last available 04:00 p.m. London time WM Fixing 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 SOLACTIVE.

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 on each UNIVERSE DETERMINATION DAY. 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 as of the UNIVERSE DETERMINATION DAY

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

Index	Index Universe
Solactive CIMalgo Sustainable Global Equity Selection Index	The Index Universe consists of the 2000 larges companies listed in one of the ELIGIBLE COUNTRIES. If a company has several listings, the listing with the highest 1-year median Daily Traded Value (in USD) is considered

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

In a second step, SOLACTIVE evaluates all companies in the respective INDEX UNIVERSE based on the criteria outlined in the table below. The evaluation is based on data provided by ISS ESG:

Theme		Exclusion criterion
Animal Experiments		Verified ongoing involvement in either Pharmaceutical or Non-Pharmaceutical
Controversial Weapons Research	Controversial Weapons	Verified ongoing involvement
Sector-Based Screening	Thermal Coal (extraction)	0% Services <OR> 0% Production <OR> 0% Distribution
	Nucelar Energy	0% Production
	For Profit-Prisons Correctional Facility	0% Services <OR> 0% Production <OR> 0% Distribution
	Nuclear weapons	0% Production
	Conventional Weapons	0% Services <OR> 0% Production <OR> 0% Distribution
	Tobacco	0% Production
	Gambling	0% Services <OR> 0% Production <OR> 0% Distribution
	Alcohol	0% Services <OR> 0% Production <OR> 0% Distribution
	Cannabis	0% Services <OR> 0% Production <OR> 0% Distribution
Explanation: % figures refer to revenue threshold (for degree of involvement) above which criterion is breached;		

All companies violating any of the exclusion criteria above are excluded. All companies for which an evaluation of these exclusion criteria is not possible due to insufficient and/or missing information or data are excluded.

Those companies which do not violate any of these restrictions constitute the INDEX UNIVERSE as of the UNIVERSE DETERMINATION DAY

2.2. SELECTION OF THE INDEX COMPONENTS

On each SELECTION DAY, based on the latest INDEX UNIVERSE, the following stocks are excluded:

1) Companies which are part of the latest INDEX UNIVERSE but are not actively traded anymore/have been delisted since the last UNIVERSE DETERMINATION DAY (for the avoidance of doubt, this rule only applies in the end of June rebalancing)

2) Companies which are scheduled to be delisted between the SELECTION DAY and the REBALANCE DAY

3) Companies with a median Average Daily Traded Value of less than 1 million USD in the period starting 90 calendar days (three months) prior to the SELECTION DAY up to and including the SELECTION DAY

The set of companies from the INDEX UNIVERSE which are not excluded based on either of the three criteria above constitute the set of eligible companies.

The following paragraph describes the steps taken to identify the final 100 constituents of the index, which will be described in more detail in the following sections.

In a first step, CHANGE POINTS are calculated for each eligible company (according to Section 2.2.1). These change points are used to identify the 400 least volatile stocks. Those stocks which are part for the current index composition are added to these 400 least volatile stocks (to ensure turnover will not be too high)

The variance covariance matrix is calculated for the set of 400 eligible companies. This is performed over the period which starts on the latest detected change point of a company (for entries on the main diagonal), or the longest available period (with the earliest start date being the date which falls 3600 calendar days prior to the Selection Day, see below) for company i and j for entries off the main diagonal. We will refer to the previous defined time period as the "latest relevant change-point. For the avoidance of doubt, if either company i or company j does not have a price history going back to the day which falls 3600 calendar days prior to the Selection Day, then the covariance between company i and company j will use fewer returns.

If the latest relevant change point is detected on date t-L (such that the relevant period consists of L+1 weekdays), the variance covariance matrix entry (i,j) as of Selection Day t is calculated as follows:

$$Q_t^{i,j} = \frac{1}{L} * \sum_{k=0}^{L} \left(r_{t-k}^i - \bar{r}^i\right)\left(r_{t-k}^j - \bar{r}^j\right)$$

where r_{t-k}^i is the log return (converted to USD) of company i and $\bar{r}^i$ the average return over the period from t to t-L (and analogously for company j).

Based on the calculated variance covariance matrix as described above, the following optimization problem is solved applying a Binary Differential Evolution algorithm as further specified in section 2.2.2

$$\min x^T Q x$$
$$s.t\ x\ \in \{0,1\},$$
$$\|x\|_{L_0} = 100$$
$$\sum_i \left|x_i^0 - {}^{x_i}/_{100}\right| \leq T_{max}$$

where $\|x\|_0$ denotes the number of non-zero elements in x (such that exactly 100 companies are selected for inclusion in the index). x_i^0 is the i-th entry of the vector of current index components x^0 , and T_{max} is the turnover threshold.

2.2.1. CHANGE POINT DETECTION

Let $\{x_1, x_2, \dots, x_T\}$ be a stream of returns (converted to USD) over the period starting on the day which is 3600 calendar days prior to the Selection Day (excluded). In case the instrument has not been trading on the day which falls 3600 calendar days prior to the Selection Day, then the maximal number of available returns is taken.

The following steps are performed on this stream:

For n = 20, ..., T, take the first n observations from the above stream, $S_n = \{x_1, x_2, \dots, x_n\}$.

Calculate the Mood Statistic for each i from 2 to n according to:

$$M_i = \left| \frac{M' - \mu_{M'}}{\sigma_{M'}} \right|$$

where

$$M' = \sum_{x_k \in \{x_1, x_2, \dots, x_i\}} \left(r(x_k) - {}^{(n+1)}/_{2} \right)^2$$

with

$r(x_k)$ the rank of x_k in the stream S_n

$\mu_{M'} = n_i * (n^2 - 1)/12$

$n_i = n - i$

$\sigma_{M'} = \sqrt{n_i * n_T * (n+1) * (n^2 - 4)/180}$

$n_T = n - n_i$

Check if the maximum over these calculated Mood Statistics is larger than a dynamic threshold. If the maximum is larger than the threshold, then the respective observation for which the maximum is larger than the threshold is assumed to be the change point. If not, then the above steps are repeated for the next n (i.e. the Mood Statistic is calculated for each i from 2 to n and it is checked if the maximum over this set is larger than the threshold)

If $\max M_i > h(n)$ then a change point is detected.

Assume that for some n between 20 and T, the maximum of the calculated Mood Statistics is larger than the respective threshold. Assume that happens for index j. Then the first j observations are discarded from all further calculations, and all the above steps are repeated on the stream $\{x_{j+1}, x_{j+2}, \dots, x_T\}$.

$h(n)$ is a dynamic threshold and is calculated according to the following formula:

$$h(n) = \beta_0 + \beta_1 * n^{-1} + \beta_2 * n^{-3} + \beta_3 * n^{-5} + \beta_4 * n^{-7} + \beta_5 * n^{-9}$$

where:

$$\beta_0 = 4.645237$$
$$\beta_1 = -1.543796 \times 10$$
$$\beta_2 = 1.457643 \times 10\text{^}4$$
$$\beta_3 = -2.684447 \times 10\text{^}7$$
$$\beta_4 = 1.575656 \times 10\text{^}10$$
$$\beta_5 = -2.971387 \times 10\text{^}12$$

2.2.2. BINARY DIFFERENTIAL EVOLUTION ALGORITHM

The following notations are used in the following paragraph

x^0: the initial vector of weights of the current index components.

n: number of eligible companies

x: Binary vector of length n

Q: symmetric n by n variance covariance matrix

$f(x)$: $\{0,1\}^n \to \mathbb{R}$ objective function, $f(x) = x^T Q x$

δ_g: scalar distance to convergence tolerance at generation g

τ: convergence tolerance, set to 0.0000000001

pop: An n by NP matrix containing the populations as columns

NP: population size, determined according to max(50, 0.2*n)

f_{pop}: vector $(f(x_1), f(x_2), \dots, f(x_{NP}))$ where $x_1, x_2, \dots, x_{NP}$ are population vectors (columns of pop)

$\mathcal{U}[0,1]$: continuous uniform distribution over the interval $[0,1]$

$\neg$: Negation operator over a vector. E.g. $\neg(0,1,0) = (1,0,1)$

$\wedge$: conjunction operator between two vectors. E.g. $(0,1,1) \wedge (1,0,1) = (0,0,1)$

N: Maximum number of generations, set to 5000

CR: Crossover rate, set to 0.1 at initialization

$which(x)$: function which returns the indices of x which are equal to 1

v_p: mutation vector of population member p, calculated based on the mutation rule defined below.

c_i: vector of column indices potentially to be changed to 1 (sub i stands for "in")

c_o: vector of column indices potentially to be changed to 1 (sub o stands for "out")

The idea behind handling the turnover constraint is to only create agents fulfilling the turnover constraint, so the initial population itself must only consist of agents fulfilling this constraint. Such agents are created according to the following steps:

1) Initialize agent x as a n by 1 vector with 100 random elements set to 1 and the rest to 0
2) Compute the following statistic:

$$t = \sum_{i=1}^{n} \left| x_i^0 - {}^{x_i}/_{100} \right|$$

3) If $t > T_{max}$, pick some random index $i \in \{i: x_i^0 > 0 \cap x_i = 0\}$ and pick some random index o$\in$ $\{o: x_o^0 = 0 \cap x_o = 1\}$. Set $x_i = 1$ and $x_o = 1$
4) Compute the t as above again. If still $t > T_{max}$, go to step 3. Otherwise, the agent fulfills the constraint.

When using this approach, the lowest possible turnover is:

$$T_{min} = \left(\sum_{i=1}^{n} \left| x_i^0 - \frac{\mathrm{I}(x_i^0 > 0)}{100} \right| \right) + \left(1 - \frac{1}{m} * \sum_{i=1}^{n} \mathrm{I}(x_i^0 > 0) \right)$$

Where I is the indicator function. Therefore, the algorithm must have $T_{max} \geq T_{min}$

T_{max} is calculated according to the following:

$$T_{max} = max \left\{ \frac{T}{n_{reb}} - \left(1 - \sum_{i=1}^{n} x_i^0 \right), T_{min} + M \right\}$$

Where $T = 0.5$ and $M = 0.08$.

n_{reb} is the number of rebalancing per year, which is 2.

The initialization is done as follows:

1) Initialize n by NP matrix with 100 random elements set to 1 in each column (each column represents one member of the population). Compute the turnover of each member/agent, and follow steps 1-4 from above to ensure that each agent fulfills the turnover constraint.

2) Calculate f_{pop}, the objective function of each member of the population)
3) Set $\delta_g = \delta_{g-1} = median(f_{pop}) - \min(f_{pop})$

After the initialization, the following steps are performed:

Do the following for each g in 1, 2, ..., N (so for each generation), and for each p in 1, 2, ..., NP (so for each member in the generation)

1) Calculate mutation vector v_p according to the following formula:

   Sample 3 distinct random integers r_1, r_2, r_3 from $\{1, 2, \dots, NP\} \backslash p$ and calculate

$$v_k^p = \begin{cases} x_k^{r_1} \; if \; x_k^{r_2} = x_k^{r_3} \\ x_k^{r_2} \; if \; x_k^{r_2} \neq x_k^{r_3} \end{cases}$$

2) Determining k as the minimum of 100 and $\|v_p\|_0$
3) Calculate $c_i = which(v_p \wedge \neg pop[,p])$. This creates a vector of "candidate" indices to be set to 1
4) Calculate $c_o = which(pop[,p])$. This creates a vector of "candidate" indices to be set to 0
5) Determine length of c_i and c_o, denote these n_{in} and n_{out}
6) The following steps ensure that n_{in} and n_{out} will have the same length:
   a. If $n_{in} = 0$: Continue with step 8
   b. If $n_{in} > k$: Sample k random indices from the set of c_i, and use these k indices to overwrite c_i from step 3 (this c_i will have length k, so $n_{in} = k$
   c. If $n_{in} \neq n_{out}$: Sample n_{in} indices from c_o and use these n_{in} indices to overwrite c_o from step 4. After this step $n_{in} = n_{out}$ by construction
7) Using c_o and c_i after step 6, randomize on which change to the population vector will be performed:
   a. Generate a random number u from $\mathcal{U}[0,1]$ for each element in c_i, if u < CR, then the index at the respective position of c_i will be set to 1 in x_p, and the index of the respective position in c_0 will be set to 0 in x_p.
   b. If all sampled u from step a. are larger than CR (so no change to x_p would be performed), then sample one random index from 1, 2, ..., n_{in} and perform the change on the index which is at the sampled position of c_i and c_0 respectively.
8) Calculate the objective function for the new x_p.
9) If the value of the objective function for x_p is smaller than $f_{pop}(p)$, and the resulting turnover of the new x_p is below T_{max} ,replace the p-th member of the population by x_p as constructed above.

10) After the above steps have been performed for each member in the population, update

$$\delta_g = median(f_{pop}) - \min(f_{pop})$$

If $\delta_g < \tau$ stop the algorithm (as almost all member of the population in this generation are identical).

Otherwise update the crossover rate according to

$$CR = CR * \delta_g / \delta_{g-1}$$

And set $\delta_{g-1} = \delta_g$

11) Repeat the above for the next generation g until either $\delta_g < \tau$ or the maximum number of generations is reached.

Once either the algorithm terminates according to 10 (so if $\delta_g < \tau$) or the maximum number of generations has been reached, get the member of the population of the current generation with the lowest value of the objective function. This vector constitutes the new constituents which will become effective on the close of the Adjustment Date.

2.3. WEIGHTING OF THE INDEX COMPONENTS

On each SELECTION DAY each INDEX COMPONENT is assigned an equal weight. Therefore, each selected company will receive a weight of 1%

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 webpage under the section "Announcement", which is available at https://www.solactive.com/news/announcements/

3.2. EXTRAORDINARY REBALANCE

In addition to the ordinary rebalance, the INDEX is also rebalanced extraordinarily. These adjustments take place outside the rebalancing schedule and follow different rules than the ordinary rebalances. The extraordinary rebalance is triggered by the mechanism described below:

An extraordinary removal of an INDEX COMPONENT takes place if such INDEX COMPONENT breaches one of the criteria in the Category "Norm-based Research" as outlined in Section 2.2. SOLACTIVE will carry out such removal after the close on the last CALCULATION DAY of the month if it is informed by the DATA PROVIDER about the breach at least ten CALCULATION DAYS before the last CALCULATION Day of the month. If such information is delivered later than that, the removal of the INDEX COMPONENT will take place on the last CALCULATION DAY of the subsequent month. In any of these cases, the weight of the INDEX COMPONENT in question will be distributed pro-rata across all other existing INDEX COMPONENTS.

4. CALCULATION OF THE INDEX

4.1. INDEX FORMULA

The INDEX is calculated as 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 in the INDEX COMPONENT 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 two 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".

"CALCULATION DAY" is every weekday from Monday to Friday on which the New York Stock Exchange (MIC: XNYS) is open for general business.

"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.

"DATA PROVIDER" is ISS. For more information, please visit: https://www.issgovernance.com/

"ELIGIBLE COUNTRIES" are the following countries: Austria, Finland, Ireland, Netherlands, Spain, United Kingdom, Belgium, France, Israel, Norway, Sweden, Denmark, Germany, Italy, Portugal, Switzerland, Canada, United States, Australia, New Zealand, Hong Kong, Singapore and Japan

"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.

"FIXING DAY" is the REBALANCING DAY.

The **"FREE FLOAT"** is with regard to each of the securities fulfilling the Index Component Requirements on a SELECTION DAY the share class-specific fraction of the total number of shares of such share class issued that are available for trading by market participants and not locked-in by long term holders, as sourced from data vendors.

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 UNIVERSE**" is the INDEX UNIVERSE as defined in the guideline of the SOLACTIVE Global Benchmark Series: https://solactive.com/downloads/Guideline-Solactive-GBS-Benchmark-Series.pdf.

"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 5th CALCULATION DAY following the SELECTION DAY

"**SELECTION DAY**" is last CALCULATION DAY in June and December.

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

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

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 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.

"**UNIVERSE DETERMINATION DAY**" is the last CALCULATION DAY December.

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