

## **GUIDELINE**

# **Global Sustainability Signatories Index 7.5% VC ER**

Version 1.2 dated July 24th, 2018

# Contents

## Introduction

### 1 Index specifications

- 1.1 Short name and ISIN
- 1.2 Initial value
- 1.3 Distribution
- 1.4 Prices and calculation frequency
- 1.5 Weighting
- 1.6 Decision-making bodies
- 1.7 Publication
- 1.8 Historical data
- 1.9 Licensing

### 2 Composition of the Index

- 2.1 Selection of the index components
- 2.2 Ordinary adjustment
- 2.3 Extraordinary adjustment

### 3 Calculation of the Index

- 3.1 Index formula
- 3.2 Accuracy
- 3.3 Adjustments
- 3.4 Dividends and other distributions
- 3.5 Corporate actions
- 3.6 Miscellaneous

### 4 Definitions

### 5 Appendix

- 5.1 Contact data
- 5.2 Calculation of the Index – change in calculation method
- 5.3 Calculation of the Underlying Equity Index

This document contains the underlying principles and regulations regarding the structure and the operating of Global Sustainability Signatories Index 7.5% VC ER. Solactive AG shall make every effort to implement regulations. Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the Index value at any certain point in time nor in any other respect. The Index is merely calculated and published by Solactive AG and it strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive AG – 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 AG is no recommendation for capital investment and does not contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on this Index.

## Introduction

This document is to be used as a guideline with regard to the composition, calculation and management of the Global Sustainability Signatories Index 7.5% VC ER. Any changes made to the guideline are initiated by the Committee specified in section 1.6. The Index is calculated and published by Solactive AG. The name “Solactive” is trademarked.

## 1 Index specifications

Global Sustainability Signatories Index 7.5% VC ER (“Global Sustainability Signatories Index 7.5% VC ER”, the “Index”) is an Index developed by Sustainalytics and is calculated and distributed by Solactive AG.

The Index consists of two layers, the Underlying Equity Basket (as described in Section 5.3. of the Appendix) and a Volatility Control Index on top of the Underlying Equity Basket (in the following “the Index”), combining the Underlying Equity Basket with a volatility control mechanism. The Index is calculated as an excess return over 3-month USD Libor rate. The Index is designed to capture the evolution of price movements of the Underlying Equity Basket, achieving a certain level of volatility in the Index. This is done by dynamically allocating to the Underlying Equity Basket and a hypothetical money market position (the Cash Asset) depending on the level of volatility in the Underlying Equity Basket.

The Underlying Equity Basket is a stock index composed of a representative group of UN Global Compact signatories, selected based on Sustainalytics ESG Scoring methodology and consistent base-line profitability. The Sustainalytics ESG score measures the environmental, social and governance performance of each company within the starting universe, which includes companies that i) rank in the top 25th percentile within sector and the top 50<sup>th</sup> within their respective region ii) are Global Compact Compliant and iii) not involved in tobacco, the energy sector, and category 4 or 5 ESG violations.

The Index is calculated and published in USD.

### 1.1 Short name and ISIN

The Index is distributed under ISIN <DE000SLA52C1>; the WKN is <SLA52C>. The Index is published on Bloomberg under the code GSSI <Index>.

The Underlying Equity Basket is distributed under the Name <Global Sustainability Signatories Index NTR>, ISIN <DE000SLA5FC7> and WKN <SLA5FC>. It is published on Reuters under the code <.GSSINTR> and on Bloomberg under the code GSSINTR <Index>

### 1.2 Initial value

The Index is based on 100 at the close of trading on the Index Start Date, January 1<sup>st</sup>, 2013. The Underlying Equity Basket is based on 100 at the close of trading on the Underlying Equity Basket Start Date, October 1<sup>st</sup>, 2012.

### 1.3 Distribution

The Index is published via the price marketing services of Boerse Stuttgart AG and is distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether he will distribute/display the Index via his information systems.

#### **1.4 Prices and calculation frequency**

The Index is calculated every Business Day from 9:00am to 10:30pm, CET. In the event that data cannot be provided to Reuters or to the pricing services of Boerse Stuttgart AG the Index cannot be distributed.

#### **1.5 Weighting**

On each Business Day, each Index Component of the Index is weighted according to the methodology as outlined in Section 2.1.

#### **1.6 Decision-making bodies**

A Committee composed of staff from Solactive is responsible for decisions regarding the composition of the Index as well as any amendments to the rules (in this document referred to as the "Committee" or the "Index Committee"). The future composition of the Index is determined by the Committee on the Selection Days according to the procedure outlined in 2.1 of this document. The Committee shall also decide about the future composition of the Index if any Extraordinary Events should occur and the implementation of any necessary adjustments.

Members of the Committee can recommend changes to the guideline and submit them to the Committee for approval.

#### **1.7 Publication**

All specifications and information relevant for calculating the Index are made available on the <http://www.solactive.de> web page and sub-pages.

#### **1.8 Historical data**

Historical data will be maintained from the launch of the Index on May 16<sup>th</sup>, 2018

#### **1.9 Licensing**

Licences to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Sustainalytics. The ESG-related information, methodologies, data and opinions contained or reflected herein are not directed to or intended for use or distribution to India-based clients or users and their distribution to Indian resident individuals or entities is not permitted, and Morningstar Sustainalytics accepts no responsibility or liability whatsoever for the actions of third parties in this respect.

## 2 Composition of the Index

### 2.1 Selection of the Index Components

The Index is potentially adjusted on each Business Day.

The Index holds hypothetical positions in the Underlying Equity Basket and a Cash Asset (as defined in Section 3.1.2) to achieve a target volatility of 7.5%.

Define the n-day return of the Underlying Equity Basket on Business Day t as:

$$r_t^n = \left( \frac{UB_t}{UB_{t-n}} \right) - 1$$

Where:

$UB_t$ : The level of the Underlying Equity Basket on Business Day t

$UB_{t-n}$ : The level of the underlying Equity Basket on Business Day t-n

The Realized Volatility on Business Day t is calculated according to the following formula:

$$realVol_t = \max \left( \sqrt{AF} \times \sqrt{\frac{\sum_{j=1}^{VOP} \left\{ \left( 1 - \frac{3}{VOP} \right)^j \times (r_{t-j+1}^1)^2 \right\}}{\sum_{j=1}^{VOP} \left( 1 - \frac{3}{VOP} \right)^j}}, \sqrt{\frac{AF}{5}} \times \sqrt{\frac{\sum_{j=1}^{VOP} \left\{ \left( 1 - \frac{3}{VOP} \right)^j \times (r_{t-j+1}^5)^2 \right\}}{\sum_{j=1}^{VOP} \left( 1 - \frac{3}{VOP} \right)^j}} \right)$$

where:

$VOP$ : The relevant observation window consisting of 60 Business Days, ending on and including Business Day t

$AF$ : The annualization factor of 252

The Ideal Weight on Business Day t is calculated according to the following formula:

$$IdealWeight_t = \min \left( maxLev, \frac{TargetVol}{realVol_t} \right)$$

where:

$maxLev$ : The maximal leverage which is equal to 100%

$TargetVol$ : The target volatility which is equal to 7.5%

The Actual Weight on the Index Start Date is equal to the Ideal Weight as determined two Business Days prior to the Index Start Date.

On all following Business Days, the Actual Weight is determined according to the following formula:

If Business Day is a Volatility Rebalancing Day, then:

$$ActWeight_t = \max(-1; \min(1, IdealWeight_{t-2} - ActWeight_{t-1})) + ActWeight_{t-1}$$

If Business Day is a not Volatility Rebalancing Day, then:

$$ActWeight_t = ActWeight_{t-1}$$

Business Day t is deemed to be a Volatility Rebalancing Day if the following two conditions are fulfilled:

- 1)  $IdealWeight_{t-2} \neq ActWeight_{t-1}$
- 2)  $ActWeight_{t-1} * realVol_{t-2} > 8\%$  or  $ActWeight_{t-1} * realVol_{t-2} < 7\%$

The Underlying Equity Basket Units on the Index Start Date are calculated as:

$$UU_t = \frac{IdealWeight_{t-2}}{UB_t} * 100$$

On each Business Day following the Index Start Date, the Underlying Equity Basket Units are calculated according to:

If Business Day t is a Volatility Rebalancing Day then:

$$UU_t = ActualWeight_t * \frac{TR_{t-2}}{UB_{t-2}}$$

If Business Day t is not a Volatility Rebalancing Day then:

$$UU_t = UU_{t-1}$$

Where

$TR_{t-2}$ : The level of the Total Return Index as of Business Day t-2 (as defined in Section 3).

The Cash Units on the Index Start Date are calculated to:

$$CU_t = (TR_t - UU_t * UB_t) / CA_t$$

On each Business Day following the Index Start Date, the Cash Units are calculated according to:

If Business Day t is a Volatility Rebalancing Day then:

$$CU_t = (TR_t - UU_t * UB_t) / CA_t$$

If Business Day t is not a Volatility Rebalancing Day then:

$$CU_t = CU_{t-1}$$

Where:

$CA_t$ : The Cash Asset as of Business Day t

The Cash Assets as of the Index Start Date is calculated according to:

$$CA_t = CA_{t-1} * \left(1 + ONrate_{t-1} * \frac{DC_{t,t-1}}{360}\right)$$

Where:

$ONrate_{t-1}$ : The overnight rate as of Business Day t-1. In case no such rate is available on Business Day t-1, then the latest available rate is used

$DC_{t,t-1}$ : The number of calendar days from Business Day t-1 (including) up to Business Day t (excluding)

## 2.2 Ordinary adjustment

The composition of the Fund Basket Index is adjusted each Volatility Rebalancing Day in accordance with the description in Section 2.1

## 2.3 Extraordinary adjustment

Not applicable



## 3 Calculation of the Index

### 3.1 Index formula for the Index

The Total Return Index is calculated on every Business Day according to the following formula:

$$TR_t = UU_{t-1} * UB_t + CU_{t-1} * CA_t - rebFee_t$$

Where:

$rebFee_t$ : The Rebalancing Fee on Business Day t

The Rebalancing Fee on Business Day t is calculated according to:

If Business Day t is a Volatility Rebalancing Day then:

$$rebFee_t = UB_t * fee * abs(UU_t - UU_{t-1})$$

If Business Day t is not a Volatility Rebalancing Day then:

$$rebFee_t = 0$$

Where:

$fee$ : The nominal fee which is equal to 4 basis points.

The Index is calculated according to the following formula:

$$Index_t = Index_{t-1} * \left( \frac{TR_t}{TR_{t-1}} - ERrate_{t-1} * \frac{DC_{t,t-1}}{360} \right)$$

Where:

$ERrate_{t-1}$ : The Excess Return Rate as of Business Day t-1. In case no rate is available on Business Day t-1, then the latest available rate is used.

### 3.2 Accuracy

The value of the Index will be rounded to 2 decimal places.

The Number of Shares of the Index Components will not be rounded.

### 3.3 Adjustments

Not applicable

### **3.4 Dividends and other distributions**

Not applicable

### **3.5 Corporate actions**

Not applicable

### **3.6 Miscellaneous**

#### **3.6.1 Recalculation**

Solactive AG makes the greatest possible efforts to accurately calculate and maintain its indices. However, the occurrence of errors in the index determination process cannot be ruled out. In such cases Solactive AG adheres to its publicly available [Correction Policy](#).

#### **3.6.2 Market Disruption**

In periods of market stress Solactive AG calculates its indices following predefined and exhaustive arrangements set out in its publicly available [Disruption Policy](#).

## 4. Definitions

“**Underlying Equity Basket**” is the Global Sustainability Signatories Index NTR (ISIN: DE000SLA5FC7). Please refer to the Appendix for further details regarding constituent selection and calculation of the Underlying Equity Basket.

“**Overnight Rate**” is the following security:

- 1) Libor USD Overnight Rate (RIC: USDONFSR=, BBG: US000/N Index)

“**Excess Return Rate**” is the following security:

- 1) ICE LIBOR USD 3 Month (RIC: USD3MFSR=, BBG: US0003M Index)

A “**Business Day**” is every weekday other than Saturday or Sunday on which the New York Stock Exchange is scheduled to be open for its regular trading session.

“**Index Start Date**” is 1<sup>st</sup> January 2013.

“**Underlying Equity Basket Start Date**” is October 1<sup>st</sup> 2012.

The “**Index Calculator**” is Solactive AG or any other appropriately appointed successor in this function.

The “**Index Currency**” is USD.

## 5 Appendix

### 5.1 Contact data

#### Information regarding the Index concept

Sustainalytics

Melissa Chase

215 Spadina Ave, Suite 300, Toronto, ON. Canada M5T 2C7

Phone: +1 647 317 3646

E-Mail: melissa.chase@sustainalytics.com

Sustainalytics

Vikram Puppala

215 Spadina Ave, Suite 300, Toronto, ON. Canada M5T 2C7

Phone: +1 647 317 3694

E-Mail: vikram.puppala@sustainalytics.com

### 5.2 Calculation of the Index – change in calculation method

The application by the Index Calculator of the method described in this document is final and binding. The Index Calculator 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, financial or tax reasons may require changes to be made to this method. The Index Calculator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index, which he 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 Calculator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes the Index Calculator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

### 5.3. Calculation and Selection of the Underlying Equity Basket

The following Sections describe the Selection and Calculation of the Underlying Equity Basket.

#### 5.3.1. Selection and Weighting of the Index Components

The initial composition of the Index as well as any ongoing adjustment is based on the following rules:

On the Selection Days, Solactive AG defines the Index Universe according to the rules outlined in Section 5.3.9. The selection of the 100 index constituents as well as the determination of their weights proceeds according to the following steps:

1. All securities in the Index Universe are ranked according to their ESG Score in descending order. To avoid any doubt, the security with the highest rank has the highest ESG Score.
2. The initial value of the auxiliary variable  $Multiplier = 1$ .
3. The target number of index members,  $MembTarget$ , is calculated based on the size of the index universe.

$$MembTarget = Round5(80\% * Number\ of\ stocks\ in\ Index\ Universe)$$

where,

$$Round5(X) = \text{Function that will round the number X to the nearest integer divisible by 5, i.e } Round5(72,34) = 70$$

The maximum number of index members is 100, the minimum number of index members is fixed at 70.

4. For each stock  $i$  from Sector  $s$  and Region  $r$  in the Index Universe (starting with the best ranked stock from step 1 and moving down the list):
  - (i) Count all securities in the Index Universe with a positive constrained weight of stock  $i$  in Sector  $s$  within Region  $r$ ,  $ConstrainedWt_{i,s,r}$ . If the number of securities
    - a. is greater than  $MembTarget$  the variable  $Multiplier = Multiplier - 0.0001$
    - b. is smaller than  $MembTarget$  the variable  $Multiplier = Multiplier + 0.0001$
 When the procedure starts with security  $i=1$ , this number will be set = 1
  - (ii) The remaining allocation,  $RemAlloc_{i,s,r}$ , for stock  $i$  belonging to Sector  $s$  within Region  $r$  is given by:

$$RemAlloc_{i,s,r} = (TotalWt_{s,r}^{Benchmark} - \sum_j^{i-1} ConstrainedWt_{j,s,r})$$

where:

$$TotalWt_{s,r}^{Benchmark} = \text{Total allocation in Sector } s \text{ within Region } r \text{ in the Benchmark.}$$

$ConstrainedWt_{i,s,r}$  = Constrained weight of stock  $i$  in Sector  $s$  within Region  $r$

(iii) If  $RemAlloc_{i,s,r}$  determined in 3.(ii) is greater than zero, the constrained weight of stock  $i$  in Sector  $s$  within Region  $r$ ,  $ConstrainedWt_{i,s,r}$ , is calculated as follows:

$$ConstrainedWt_{i,s,r} = \min \left( 8\%, \frac{MktCapRatio_i}{Multiplier}, ADVWtCap_i \right)$$

where:

$$MktCapRatio_i = \frac{MktCap_i}{\sum_{i=1}^n MktCap_i}$$

$MktCap_i$  = Free Float Market Cap of security  $i$ .

$n$  = indicates the stock with the lowest rank from step 1.

$$ADVWtCap_i = \frac{ADV_i \times 8\% \times 5}{2,000,000,000}$$

$ADV_i$  = Average Daily Value traded of stock  $i$  over the 3 months prior to and including the Selection Day.

(iv) If  $RemAlloc_{i,s,r}$  determined in 3.(ii) is smaller or equal to zero the constrained weight of stock  $i$  in Sector  $s$  within Region  $r$ ,  $ConstrainedWt_{i,s,r} = 0$ .

(v) Steps 3.(i) – 3.(iv) are repeated until there are exactly  $MembTarget$  stocks with constrained weight,  $ConstrainedWt_{i,s,r}$ , greater than 0.

5. The Adjusted Weight of stock  $i$ ,  $AdjWt_i$ , is calculated by the following formula:

$$AdjWt_i = \min \left( 8\%, ADVWtCap_i, \frac{ConstrainedWt_i \times TotalWt_{s,r}^{Benchmark}}{\sum_i^{100} ConstrainedWt_{i,s,r}} \right)$$

where:

$\sum_i^{100} ConstrainedWt_{i,s,r}$  = The sum of all constrained weights of stocks assigned to the same Sector  $s$  within Region  $r$ .

6. The Final Weight of stock  $i$ ,  $FinalWt_i$ , is determined as follows:

$$FinalWt_i = \min \left( 10\%, 1.25 \times ADVWtCap_i, \frac{AdjWt_i \times TotalWt_r^{Benchmark}}{\sum_i^{100} AdjWt_{i,r}} \right)$$

where:

$TotalWt_r^{Benchmark}$  = Total allocation in Region  $r$  in the Benchmark (across all sectors  $s$ )

$\sum_i^{100} AdjWt_{i,r}$  = The sum of all Adjusted Weights of stocks assigned to the same Region  $r$  (across all sectors  $s$ ).

7. In the case where the sum of  $FinalWt_i$  over all 100 remaining securities does not add up to 100%, the Final Index Weight,  $IndexWt_i$ , of each security  $i$  is rescaled as follows:

$$IndexWt_i = \min \left( 10\%, 1.25 \times ADVWtCap_i, \frac{FinalWt_i * [\sum_i^{100} FinalWt_{i,r}^{UNCAPPED} + (TotalWt_r^{Benchmark} - \sum_i^{100} FinalWt_{i,r})]}{\sum_i^{100} FinalWt_{i,r}^{UNCAPPED}} \right)$$

where:

$$\sum_i^{100} FinalWt_{i,r}^{UNCAPPED} = \text{The sum of all Final Weights assigned to the same Region } r \text{ (across all sectors } s) \text{ which have not been capped, i.e. with a weight unequal to } 10\% \text{ or } 1.25 \times ADVWtCap_i.$$

8. In the case where the sum of  $IndexWt_i$  over all remaining securities does not add up to 100%, the remaining weight is redistributed proportionally across all index members.
9. The weight of any index member shall not exceed 10%. Should this be the case after the previous step, the respective security's weight is capped at 10% and the resulting residual weight is distributed proportionally across all other index members that are not capped at 10% yet. Should the weight of another stock exceed 10% after the redistribution, it is capped at 10% as well and the residual weight is redistributed proportionally across all other index members which are not capped at 10%. This procedure is repeated until none of the index members' weights exceed 10%.
10. Finally, Emerging Markets Securities are replaced by an available American Depositary Receipt or Depositary Receipt (hereafter abbreviated generically by ADR) if:

$$1.25 \times ADVWtCap_i^{ADR} > IndexWt_i$$

where:

$$ADVWtCap_i^{ADR} = \frac{ADV_i^{ADR} \times 8\% \times 5}{2,000,000,000}$$

$ADV_i^{ADR}$  = Average Daily Value traded of the ADR over the 3 months prior to and including the Selection Day

### 5.3.2. Ordinary adjustment

The composition of the Index is ordinarily reviewed once a year on the 5<sup>th</sup> last calendar in September. The composition of the Solactive Global Family Owned Companies Index is adjusted on the Adjustment Day.

The Index is rebalanced annually over a five-day period to ensure that rebalance transactions stay below the Average Daily Trading Volumes. Beginning on the Adjustment Day, and continuing until the fourth Common Business Day following the Adjustment Day, the weights of the constituents of the index on the n-th day are set as follows:

$$Weight_i(t_0 + n - 1) = Weight_i(t_0 - 1) + \frac{n * (Weight_i^* - Weight_i(t_0 - 1))}{D}, 0 < n \leq 5$$

Where:

- $t_0$  = First Adjustment Day
- $Weight_i(t)$  = Weight of Company i at time t
- $Weight_i^*$  = Target Weight of company i after the rebalance
- $n$  = n-th day of the rebalancing period
- $D$  = Total Rebalancing Days (=5)

The Number of Shares of any Index Component can be derived as follows using the weight above:

where,

- $x_{i,t}$  = Number of Shares of the Index Component i on Trading Day t
- $p_{i,t}$  = Price of Index Component i on Trading Day t in Index Currency
- $Index_{i,t}$  = Index Level i on Trading Day t

The first adjustment will be made in in October 2018 based on the Trading Prices of the Index Components on the Adjustment Day.

Additionally, the weight of each security is reset to the weight determined on the preceding selection day (described in Section 5.3.1) on the Weight Reset Dates.

Solactive AG shall publish any changes made to the Index composition on the Selection Day and consequently with sufficient notice before the Adjustment Day.

### 5.3.3. Extraordinary adjustment

An extraordinary adjustment, if applicable, is triggered and applied in compliance with the rules set forth in the Solactive Guideline for [Extraordinary Corporate Actions](#).

### 5.3.4. Index formula

The Index is an index whose value on a Business Day is equivalent to the sum over all Index Components of the products of (a) the Number of Shares of the Index Component and (b) the price of the Index Component at the respective Exchange.

As a formula:

$$Index_t = \sum_{i=1}^n x_{i,t} * p_{i,t}$$

With:



$x_{i,t}$  = Number of Shares of the Index Component i on Trading Day t  
 $p_{i,t}$  = Price of Index Component i on Trading Day t in Index Currency

The relationship between the Index Weight and the Number of Shares of of Index Component I is described by the following formula:

$$x_{i,t} = \frac{w_{i,t} * Index_t}{p_{i,t}}$$

where,

$x_{i,t}$  = Number of Shares of the Index Component i on Trading Day t  
 $w_{i,t}$  = Weight of Index Component I on Trading Day t  
 $p_{i,t}$  = Price of Index Component i on Trading Day t in Index Currency  
 $Index_{i,t}$  = Index Level i on Trading Day t

### 5.3.5 Accuracy

The value of the Index will be rounded to two decimal places.

Trading Prices will be rounded to six decimal places

### 5.3.6 Adjustments

Indices need to be adjusted for systematic changes in prices once these become effective. This requires the new Number of Shares of the affected Index Component to be calculated on an ex-ante basis.

The Index is adjusted for distributions, capital increases, rights issues, splits, par value conversions and capital reductions.

This procedure ensures that the first ex quote can be properly reflected in the calculation of the Index. This ex-ante procedure assumes the general acceptance of the Index calculation formula as well as open access to the parameter values used. The calculation parameters are provided by Solactive AG.

Any delay in calculating the new Number of Shares of an Index Component would create problems. Therefore, the procedure described above is the most appropriate.

### 5.3.7 Dividends and other distributions

Regular Cash Distributions and Special distributions are included in the Gross Return and Net Return indices (Only Special Distributions are included in the Price Return indices). They cause an adjustment of the Number of Shares of the corresponding Index Component. The new Number of Shares is calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - D_{i,t}}$$

With:

$x_{i,t}$  = Number of Shares of the Index Component i on Trading Day t

$D_{i,t}$  = Payment on Trading Day t multiplied by the Dividend Correction Factor of the respective country.

### 5.3.8. Corporate actions

#### 5.3.8.1 Principles

Following the announcement by a company included in the Index of the terms and conditions of a corporate action the Index Calculator determines whether such corporate action has a dilution, concentration or other effect on the price of the Index Component.

If this should be the case the Index Calculator shall make the necessary adjustments to the affected Index Component and/or the formula for calculating the Index and/or to other terms and conditions of this document that he deems appropriate in order to take into account the dilution, concentration or other effect and shall determine the date on which this adjustment shall come into effect.

Amongst other things the Index Calculator can take into account the adjustment made by an Affiliated Exchange as a result of the corporate action with regard to option and futures contracts on the respective share traded on this Affiliated Exchange.

#### 5.3.8.2 Capital increases

In the case of capital increases (from the company's own resources or through cash contributions) the new Numbers of Shares are calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{p_{i,t-1}}{p_{i,t-1} - rB_{i,t-1}} \quad \text{with:} \quad rB_{i,t-1} = \frac{p_{i,t-1} - B - N}{BV + 1}$$

With:

$x_{i,t}$  = Number of Shares of Index Component i on the day of the distribution

$x_{i,t-1}$  = Number of Shares of Index Component i on the day prior to the distribution

$p_{i,t-1}$  = Closing price on the day prior to ex date

$rB_{i,t-1}$  = Calculated value of rights issue

$B$  = Price of rights issue

$N$  = Dividend disadvantage

$BV$  = Subscription ratio

$B = 0$  if capital is increased from the company's own resources.

The last dividend paid or the announced dividend proposal is applied as the dividend disadvantage.

### 5.3.8.3 Capital reductions

In the case of capital reductions the new Number of Shares is determined as follows:

$$x_{i,t} = x_{i,t-1} * \frac{1}{H_{i,t}}$$

With:

- $H_{i,t}$  = Reduction ratio of the company on day t
- $x_{i,t}$  = Number of Shares of the affected Index Component on the day of the distribution
- $x_{i,t-1}$  = Number of Shares of the affected Index Component on the day prior to the distribution

### 5.3.8.4 Share splits and par value conversions

In the case of share splits and par value conversions it is assumed that the prices change in ratio to the number of shares or to the par values. The new Number of Shares is calculated as follows:

$$x_{i,t} = x_{i,t-1} * \frac{N_{i,t-1}}{N_{i,t}}$$

With:

- $N_{i,t-1}$  = Former par value of security class i (or new number of shares)
- $N_{i,t}$  = New par value of security class i (or former number of shares)
- $x_{i,t}$  = Number of Shares of the affected Index Component on the day of the distribution
- $x_{i,t-1}$  = Number of Shares of the affected Index Component on the day prior to the distribution

### 5.3.9. Definitions

“**Index Universe**” in respect of a Selection Day are those companies that fulfill the following conditions: Sustainalytics or any other appropriately appointed successor in this function provides on an annual basis, a Starting Universe consisting of publicly listed companies or their parent company that are Global Compact Signatories, fall within the research universe of Sustainalytics, not involved in tobacco or Category 4 & 5 Controversies, and are not in significant breach of Global Compact principles. Sustainalytics’ Controversy assessments measure companies for their level of involvement in major controversies or incidents that have an impact on the environment or society and the associated business risks companies face from such involvement. Involvement in controversies may indicate that a company’s management systems are not sufficient to protect it from its ESG risk exposure. Controversies may also highlight an ongoing incident that is creating risk for the company.

Each controversy is categorized from Category 1 (low impact on environment and society, posing negligible risks to the company) to Category 5 (severe impact on the environment and society, posing serious risks to the company). Controversy topics include: business ethics, society and community, environmental operations, environmental supply chain, product and service, employee, social supply chain, customer, governance, and public policy.

Solactive AG then obtains the Index Universe by retaining all securities from the Starting Universe which fulfill the following conditions:

1. Company is public.
2. Company is not assigned to the Energy sector.
3. Average Daily Value traded over the 3 months (ADV) prior to and including the Selection Day of at least USD 10 million.
4. Free Float Market Capitalisation of at least USD 500 million.
5. The Average over the last three reported annual Earnings Before Interest and Taxes (EBIT) figures must be positive. For all securities, which are assigned to the Sector “Finance” EBIT is replaced by Earnings Before Taxes (EBT).
6. Sustainalytics ESG Score is greater than the 75<sup>th</sup> percentile of the ESG score of all companies assigned to the same Sector. The 75<sup>th</sup> percentile is calculated using all remaining securities after step 2. above.
7. Sustainalytics ESG Score is greater than the 50<sup>th</sup> percentile of the ESG score of all companies assigned to the same Region. The 50<sup>th</sup> percentile is calculated using all remaining securities after step 2. above.

“**Index Component**” is each share currently included in the Index.

“**Number of Shares**” is in respect of an Index Component and any given Business Day the number or fraction of shares included in the Index. It is calculated for any Index Component as the ratio of (A) the Percentage Weight of an Index Component multiplied by the Index value and (B) its Trading Price.

“**Percentage Weight**” of an Index Component is the ratio of its Trading Price multiplied by its Number of Shares divided by the Index value.

“**Sector**” is provided by FactSet under the field “FG\_FACTSET\_ECONOMY”

“**Region**” is Asia/Pacific, Europe, United States and Canada, Africa/Middle East, Latin America/Caribbean

“**Average Daily Value Traded (ADV)**” means, in respect of a Share, the sum of Daily Trading Volumes over a specified period divided by the number of Exchange Trading Days that fall in the specified period.

**“Emerging Markets Securities”** are defined as securities which are denominated in any other than the following currencies: Australian Dollar, Canadian Dollar, Swiss Franc, Euro, UK Pound Sterling, Japanese Yen, New Zealand Dollar, Norwegian Krone, Swedish Krona, Hong Kong Dollar, Singapore Dollar, US Dollar, Israeli New Shekel, Danish Krone.

The **“Benchmark”** is a portfolio of stocks assembled and compiled by Solactive AG consisting of stocks that fulfill the following criteria:

1. Domiciled in a country classified under Developed Markets or Emerging Markets according to the [Solactive country classification system](#).
2. Average Daily Value traded over the 3 months (ADV) prior to and including the Selection Day of at least USD 1.5 million.

The total Allocations of the benchmark within regions and sectors within regions are then calculated for each stock based on its respective market capitalization.

**“Dividend Correction Factor”** is calculated as 1 minus the applicable withholding tax rate and/or other applicable tax rate currently prevalent in the respective country.

In particular an **“Extraordinary Event”** is

- a Merger
- a Takeover bid
- a delisting
- the Nationalisation of a company
- Insolvency.
- Significant breach of UN Global Compact Principles

The Trading Price for this Index Component on the day the event came into effect is the last available market price for this Index Component quoted on the Exchange on the day the event came into effect (or, if a market price is not available for the day the event came into effect, the last available market price quoted on the Exchange on a day specified as appropriate by the Index Calculator), as determined by the Index Calculator, and this price is used as the Trading Price of the particular Index Component until the end of the day on which the composition of the Index is next set.

In the event of the Insolvency of an issuer of an Index Component the Index Component shall remain in the Index until the next Adjustment Day. As long as a market price for the affected Index Component is available on a Business Day, this shall be applied as the Trading Price for this Index Component on the relevant Business Day, as determined in each case by the Index Calculator. If a market price is not available on a Business Day the Trading Price for this Index Component is set to zero. The Committee may also decide to eliminate the respective Index Component at an earlier point in time prior to the next Adjustment Day. The procedure in this case is identical to an elimination due to and Extraordinary Event.

An Index Component is **“delisted”** if the Exchange announces pursuant to the Exchange regulations that the listing of, the trading in or the issuing of public quotes on the Index Component at the Exchange has ceased immediately or will cease at a later date, for whatever reason (provided delisting is not because of a Merger or a Takeover bid), and the Index Component is not immediately listed, traded or quoted again on an exchange, trading or listing system, acceptable to the Index Calculator,

**“Insolvency”** occurs with regard to an Index Component if (A) all shares of the respective issuer must be transferred to a trustee, liquidator, insolvency administrator or a similar public officer as result of a voluntary or compulsory liquidation, insolvency or winding-up proceedings or comparable proceedings affecting the issuer of the Index Components or (B) the holders of the shares of this issuer are legally enjoined from transferring the shares.

A **“Takeover bid”** is a bid to acquire, an exchange offer or any other offer or act of a legal person that results in the related legal person acquiring as part of an exchange or otherwise more than 10% and less than 100% of the voting shares in circulation from the issuer of the Index Component or the right to acquire these shares, as determined by the Index Calculator based on notices submitted to public or self-regulatory authorities or other information considered by the Index Calculator to be relevant.

With regard to an Index Component a “**Merger**” is

- (i) a change in the security class or a conversion of this share class that results in a transfer or an ultimate definite obligation to transfer all the shares in circulation to another legal person,
- (ii) a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer to exchange shares with another legal person (except in a merger or share exchange under which the issuer of this Index Component is the acquiring or remaining company and which does not involve a change in security class or a conversion of all the shares in circulation),
- (iii) a takeover offer, exchange offer, other offer or another act of a legal person for the purposes of acquiring or otherwise obtaining from the issuer 100% of the shares issued that entails a transfer or the irrevocable obligation to transfer all shares (with the exception of shares which are held and controlled by the legal person), or
- (iv) a merger (either by acquisition or through forming a new structure) or a binding obligation on the part of the issuer of the share or its subsidiaries to exchange shares with another legal person, whereby the issuer of the share is the acquiring or remaining company and it does not involve a change in the class or a conversion of the all shares issued, but the shares in circulation directly prior to such an event (except for shares held and controlled by the legal person) represent in total less than 50% of the shares in circulation directly subsequent to such an event.

The “**Merger Date**” is the date on which a Merger is concluded or the date specified by the Index Calculator if such a date cannot be determined under the law applicable to the Merger.

“**Nationalisation**” is a process whereby all shares or the majority of the assets of the issuer of the shares are nationalised or are expropriated or otherwise must be transferred to public bodies, authorities or institutions.

“**Significant breach of UN Global Compact Principles**” is defined as level five (very high) ESG-risk which is considered non-compliant with the global compact principles.

“**Exchange**” is, in respect of Index and every Index Component, the respective primary exchange where the Index Component has its primary listing. The Committee may decide to declare a different stock exchange the “Exchange” for trading reasons, even if the company is only listed there via a Stock Substitute.

“**Stock Substitute**” includes in particular American Depository Receipts (ADR) and Global Depository Receipts (GDR).

With regard to an Index component (subject to the provisions given above under “Extraordinary Events”) the “**Trading Price**” in respect of a Trading Day is the closing price on this Trading Day determined in accordance with the Exchange regulations. If the Exchange has no closing price for an Index Component, the Index Calculator shall determine the Trading Price and the time of the quote for the share in question in a manner that appears reasonable to him.

A “**Trading Day**” is in relation to the Index or an Index Component a Trading Day on the Exchange (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 normal Exchange closing time. The Index Calculator is responsible to determine whether a certain day is a Trading Day with regard to the Index or an Index Component or in any other connection relating to this document.

A “**Business Day**” is every weekday other than Saturday or Sunday on which the New York Stock Exchange is scheduled to be open for its regular trading session.

A “**Common Business Day**” is a Business Day on which the Exchanges for all stocks, which are included in the Index as of the immediately preceding Rebalancing Day or which are to be added to the index on the subsequent Rebalancing Days, are scheduled to be open.

**“Rebalancing Days”** are the five consecutive Common Business Days starting on the Adjustment Day.

The **“Index Calculator”** is Solactive AG or any other appropriately appointed successor in this function.

The **“Index Currency”** is USD.

**“Market Capitalisation”** is with regard to each of the shares in the Index Universe on a Selection Day or Adjustment Day the value published as the Market Capitalization for this day. As at the date of this document Market Capitalization is defined as the value of a company calculated by multiplying the number of shares outstanding of the company by its share price.

**“Free Float Market Capitalization”** is with regard to each of the shares in the Index Universe on a Selection Day or Adjustment Day calculated as the security’s number of shares available to the public multiplied by the security’s share price

**“Adjustment Day”** is the first Common Business Day in October.

**“Selection Day”** is the 5<sup>th</sup> last Business Day before the Adjustment Day.

**“Weight Reset Day”** is the first Common Business Day in January, April, and July.

An **“Affiliated Exchange”** is with regard to an Index Component an exchange, a trading or quotation system on which options and futures contracts on the Index Component in question are traded, as specified by the Index Calculator.

A **“Market Disruption Event”** occurs if

1. one of the following events occurs or exists on a Trading Day prior to the opening quotation time for an Index Component:
  - A) trading is suspended or restricted (due to price movements that exceed the limits allowed by the Exchange or an Affiliated Exchange, or for other reasons):
    - 1.1. across the whole Exchange; or
    - 1.2. in options or futures contracts on or with regard to an Index Component or an Index Component that is quoted on an Affiliated Exchange; or
    - 1.3. on an Exchange or in a trading or quotation system (as determined by the Index Calculator) in which an Index Component is listed or quoted; or
  - B) an event that (in the assessment of the Index Calculator) generally disrupts and affects the opportunities of market participants to execute on the Exchange transactions in respect of a share included in the Index or to determine market values for a share included in the Index or to execute on an Affiliated Exchange transaction with regard to options and futures contracts on these shares or to determine market values for such options or futures contracts; or
2. trading on the Exchange or an Affiliated Exchange is ceased prior to the usual closing time (as defined below), unless the early cessation of trading is announced by the Exchange or Affiliated Exchange on this Trading Day at least one hour before
  - (aa) the actual closing time for normal trading on the Exchange or Affiliated Exchange on the Trading Day in question or, if earlier.
  - (bb) the closing time (if given) of the Exchange or Affiliated Exchange for the execution of orders at the time the quote is given.

**“Normal exchange closing time”** is the time at which the Exchange or an Affiliated Exchange is normally closed on working days without taking into account after-hours trading or other trading activities carried out outside the normal trading hours; or

3. a general moratorium is imposed on banking transactions in the country in which the Exchange is resident if the above-mentioned events are material in the assessment of the Index Calculator, whereby the Index Calculator makes his decision based on those circumstances that he considers reasonable and appropriate.