

# INDEX GUIDELINE

Solactive Global Benchmark Series [GBS]

Version 1.7

10 September 2018



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# INDEX GUIDELINE

Introduction

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## INTRODUCTION

This document is to be used as a guideline with regard to the composition, calculation and management of the Solactive Global Benchmark Series. Any changes made to the guideline are to be initiated by the Index Committee specified in Section 1.6 of this document. The Solactive Global Benchmark Series is calculated and published by Solactive AG. The name "Solactive" is copyrighted.

This document contains the underlying principles and regulations regarding the structure and the operating of the Solactive Global Benchmark Series ("the Indices"). Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Indices nor the Index values at any given point in time, nor in any other respect. The Indices are merely calculated and published by Solactive AG, which 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 Indices. The publication of the Indices by Solactive AG does not constitute a recommendation for capital investment, nor does said publication contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on these Indices.



# INDEX GUIDELINE

Index Specifications



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# 1 INDEX SPECIFICATIONS

The Solactive Global Benchmark Series is calculated and distributed by Solactive AG.

The Indices aim to track various segments of the global stock market and are selected and weighted according to Free Float Market Capitalization. The Indices are adjusted semi-annually, in May and November. Additionally, IPOs can be included on a quarterly basis if they meet all criteria outlined in the relevant sections of this document.

Specifically, the objectives of the Solactive Global Benchmark Series are to:

- > provide a broad benchmark for various size segments of the global stock market.
- > serve as a starting universe for smart beta indices that assign stock-specific factors based on a broad benchmark index.
- > enable index analytics with regard to the evolution of sectors and aggregated figures such as dividends, stock buybacks, earnings per share, among others.

## 1.1 INDEX VERSIONS

The Indices are calculated in USD, EUR and in the respective domestic country currency by default. Additional currencies may be added upon request.

The Indices are calculated as Price Return, Net Total Return and Total Return. Withholding tax rates are applied in the Net Total Return Indices. The Price Return and Total Return Indices do not apply withholding tax rates.

The Global Benchmark Series is distributed using the identifiers found in Section 5.

## 1.2 INITIAL VALUE

The Indices are launched with a level of 1000 at the close of the Start Date, May 8, 2017.

## 1.3 DISTRIBUTION

The Indices are 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 it will distribute/display the Index via its information systems.

## 1.4 PRICES AND CALCULATION FREQUENCY

The price of the Index is calculated on each Business Day based on the prices on the respective Exchanges on which the Index Components are listed. The most recent prices of all Index Components are used. Prices of Index Components not listed in the Index Currency are converted using spot foreign exchange rates quoted by Reuters. Should there be no current price available on Reuters, the most recent price or the Trading Price on Reuters for the preceding Trading Day is used in the calculation. The daily Index Closing Level is calculated using the 4:00 p.m. London time Reuters/WMCO closing spot rates.



The Index is calculated every Business Day from 9:00 a.m. to 10:30 p.m. 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 Selection Day, the new Index Components of the Solactive Global Benchmark Series are weighted according to Free Float Market Capitalization. The relevant float shares outstanding as of the Selection Day are used and are implemented as of the close on the Adjustment Day. The shares are adjusted for corporate actions between the Selection Day and the Adjustment Day. This only relates to corporate actions that have a direct impact on price and shares (i.e. stock splits, stock dividends and rights issues).

## 1.6 OVERSIGHT

A committee composed of Solactive staff is responsible for decisions regarding the composition of the Solactive Global Benchmark Series as well as any amendments to the rules (in this document referred to as the "Index Committee"). The future composition of the Indices is determined by the Index Committee on the Selection Days according to the procedure outlined in Section 2.1 of this document, applicable to all stocks that meet the criteria outlined in Chapter 4 of this document. The Index Committee shall also decide the future composition of the Indices if any Extraordinary Events occur and the implementation of any necessary adjustments.

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

## 1.7 PUBLICATION

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

## 1.8 HISTORICAL DATA

Historical data will be maintained from May 8, 2017.

## 1.9 LICENSING

Licenses to use the Index as the underlying for investment products issued by stock exchanges, banks, financial services providers and investment houses, or for benchmark usage, are granted by Solactive AG.



# INDEX GUIDELINE

Composition of the Index



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## 2 COMPOSITION OF THE INDEX

### 2.1 SELECTION OF THE INDEX COMPONENTS

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

The construction of the Global Benchmark Series follows a bottom-up approach. In a first step, the national benchmark indices are created, which can then be combined to compose international benchmark indices. The procedure below describes the security selection process.

#### 2.1.1 Country Assignment

Each security from the Index Universe is assigned to a specific country [AC] as the basis for the construction of a national benchmark index. If the Country of Primary Listing [CPL] equals the Country of Incorporation [COI], then the security will be assigned to this country. Based on this comparison the majority of companies are assigned to an AC. If these do not coincide, then the Country of Domicile [COD] and the Country of Risk [COR] are additionally considered to determine the AC.

#### 2.1.2 Choice of Listing

Where securities are listed on multiple exchanges, only one listing is eligible for inclusion. If there is at least one domestic listing of a security in the Index Universe then the most liquid domestic listing (as determined by the minimum of the 1-month and 6-month Average Daily Value Traded) will be selected. If no domestic listing is available in the Index Universe, then the most liquid foreign listing will be selected.

#### 2.1.3 Dividing the Index Universe into Size Buckets

The remaining securities from the Index Universe and within each AC are then assigned to different size buckets to create the national benchmark indices. A separate benchmark index can be created for each size bucket. The securities are first ranked by Market Capitalization in descending order and subsequently assigned to a size bucket based on the accumulated Free Float Market Capitalization of the security in the Index Universe. Following the initial composition on the Start Date, buffer rules are implemented in order to prevent turnover between the respective size buckets for any subsequent adjustments. The table below clarifies the accumulated Free Float Market Capitalization thresholds for new and current (i.e. top and bottom buffers) securities of each size bucket.

Size Bucket	Accumulated Free Float Market Capitalization		
	General Threshold*	Top Buffer	Bottom Buffer
Large & Mid Cap	0% - 85%	80%	90%
Small Cap	85% - 99%	98.5%	99.5%
All Cap	0% - 100%	n/a	n/a

\* The initial accumulated Free Float Market Capitalization threshold as of the Start Date of the Indices



## 2.1.4 Creating International Benchmark Indices

International benchmark indices are created by adding the securities from the respective national benchmark indices within the same size bucket. For example, the Solactive GBS North America Large & Mid Cap Index is created by adding the securities from the Solactive GBS United States Large & Mid Cap Index and the Solactive GBS Canada Large & Mid Cap Index. The countries comprised within each international index are listed in Section 6.

## 2.2 ORDINARY ADJUSTMENT

The composition of the Index is adjusted at the close of the first Wednesday in May and November. The composition of the Solactive Global Benchmark Series is reviewed on the Selection Day and necessary changes are announced. The composition is implemented after the close of the market on the Adjustment Day.

In addition to the semi-annual Adjustment Days, there is a semi-annual IPO Review Date, where potential IPOs are evaluated for inclusion on the IPO Adjustment Day. In order to be eligible for any of the indices comprising the Solactive Global Benchmark Series, the IPO must fulfill the criteria outlined in Chapter 4, as well as the buffer rules outlined in Section 2.1.3.

The changes will be implemented after the close of the market on the IPO Review Adjustment Day. The weight of the other Index Components will be reduced proportionally according to their Free Float Market Capitalization.

The Free Float Market Capitalization data is updated at the IPO Review Date. This approach leads to a new weighting even excluding any eligible IPO.

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

## 2.3 EXTRAORDINARY ADJUSTMENT

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



# INDEX GUIDELINE

Calculation of the Index



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## 3 CALCULATION OF THE INDEX

### 3.1 INDEX FORMULA

The Index Value on a Business Day at the relevant time is calculated in accordance with the following formula:

$$Index_t = \sum_{i=1}^n \frac{(x_{i,t} \times p_{i,t} \times f_{i,t})}{D_t}$$

With:

$Index_t$	=	Index Value on Business Day $t$
$x_{i,t}$	=	Number of Index Shares of the Index Component $i$ on Business Day $t$
$p_{i,t}$	=	Price of Index Component $i$ on Business Day $t$
$f_{i,t}$	=	Foreign exchange rate to convert the Price of Index Component $i$ on Business Day $t$ into the Index Currency
$D_t$	=	Divisor on Business Day $t$

The initial Divisor on the Start Date is calculated according to the following formula:

$$D_t = \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}{Initial\ Index\ Level}$$

After the close of trading on each Adjustment Day  $t$ , the new Divisor is calculated as follows:

$$D_{t+1} = \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t+1})}{Index_t}$$

This Divisor is valid starting the immediately following Business Day.

### 3.2 ACCURACY

- > The value of the Index is rounded to 2 decimal places.
- > The Number of Index Shares is rounded to integers.
- > Divisors are rounded to six decimal places.

### 3.3 ADJUSTMENTS

The Indices are adjusted for systematic changes in prices due to corporate actions as soon as these become effective. This requires the new Number of Index Shares of the affected Index Component and the Divisor to be calculated on an ex-ante basis, i.e. based on close prices of the Index Components as of close prior to the respective ex-date.

The Solactive Global Benchmark Series is adjusted for distributions, capital increases (rights issues) and stock splits.



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 the Index Calculator.

### 3.4 DIVIDENDS AND OTHER DISTRIBUTIONS

Regular cash distributions and special distributions are included in the Net Total Return and Total Return Indices (only special distributions are included in the Price Return indices). Distributions cause an adjustment of the Divisor. The new Divisor is calculated as follows:

$$D_{t+1} = D_t \times \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t}) - (x_{i,t} \times y_{i,t} \times g_{i,t})}{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}$$

With:

- $x_{i,t}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t$
- $y_{i,t}$  = Distribution of Index Component  $i$  with ex-date  $t + 1$  multiplied by the Dividend Correction Factor
- $p_{i,t}$  = Price of Index Component  $i$  on Trading Day  $t$
- $f_{i,t}$  = Foreign exchange rate to convert the Price of Index Component  $i$  on Trading Day  $t$  into the Index Currency
- $g_{i,t}$  = Foreign exchange rate to convert the amount of the distribution of Index Component  $i$  on Trading Day  $t$  into the Index Currency
- $D_t$  = Divisor on Trading Day  $t$
- $D_{t+1}$  = Divisor on Trading Day  $t + 1$

### 3.5 CORPORATE ACTIONS

#### 3.5.1 Principles

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

If this is the case, the Index Calculator shall make the necessary adjustments that are deemed appropriate in order to take into account the dilutive, concentrative or similar effect, and shall determine the date on which this adjustment shall come into effect.

#### 3.5.2 Capital increases

In the case of capital increases with ex-date  $t + 1$ , the Index is adjusted as follows:

$$x_{i,t+1} = x_{i,t} \times \frac{1 + B}{1}$$



With:

- $x_{i,t}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t$
- $x_{i,t+1}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t + 1$
- $B$  = Shares received for every share held

$$p_{i,t+1} = \frac{p_{i,t} + s \times B}{1 + B}$$

With:

- $p_{i,t}$  = Price of Index Component  $i$  on Trading Day  $t$
- $p_{i,t+1}$  = Hypothetical price of Index Component  $i$  on Trading Day  $t + 1$
- $s$  = Subscription Price in the Index Component currency
- $B$  = Shares received for every share held

$$D_{t+1} = D_t * \frac{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t}) + \sum_{i=1}^n [(x_{i,t+1} \times p_{i,t+1} \times f_{i,t}) - (x_{i,t} \times p_{i,t} \times f_{i,t})]}{\sum_{i=1}^n (p_{i,t} \times f_{i,t} \times x_{i,t})}$$

With:

- $x_{i,t}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t$
- $x_{i,t+1}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t + 1$
- $p_{i,t}$  = Price of Index Component  $i$  on Trading Day  $t$
- $p_{i,t+1}$  = Hypothetical price of Index Component  $i$  on Trading Day  $t + 1$
- $f_{i,t}$  = Foreign exchange rate to convert the Price of Index Component  $i$  on Trading Day  $t$  into the Index Currency
- $D_t$  = Divisor on Trading Day  $t$
- $D_{t+1}$  = Divisor on Trading Day  $t + 1$

### 3.5.3 Share splits

In the case of share splits with ex-date on Trading Day  $t + 1$ , it is assumed that the prices change in ratio of the terms of the split. The new Number of Index Shares is calculated as follows:

$$x_{i,t+1} = x_{i,t} \times B$$

With:

- $x_{i,t}$  = Number of Index Shares of the affected Index Component on Trading Day  $t$
- $x_{i,t+1}$  = Number of Index Shares of the affected Index Component on Trading Day  $t + 1$
- $B$  = Shares after the share split for every share held before the split



### 3.5.4 Stock distributions

In the case of stock distributions with ex-date on Trading Day  $t + 1$ , it is assumed that the prices change according to the terms of the distribution. The new Number of Index Shares is calculated as follows:

$$x_{i,t+1} = x_{i,t} \times (1 + B)$$

With:

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

$x_{i,t+1}$  = Number of Index Shares of the Index Component  $i$  on Trading Day  $t + 1$

$B$  = Shares received for every share held

## 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](#).



# INDEX GUIDELINE

## Definitions



Version 1.7 – 10 September 2018





## 4 DEFINITIONS

**“Adjustment Day”** is the close of the first Wednesday in May and November. If that day is not an Eligible Rebalancing Day, the Adjustment Day will be the following Eligible Rebalancing Day.

**“Average Daily Value Traded”** means, in respect of an Index Component, the sum of Daily Value Traded over a specified period divided by the number of Trading Days that fall in the specified period.

**“Business Day”** is any weekday from Monday through Friday.

**“Daily Value Traded”** means, in respect of an Index Component and of a Trading Day, the product of (i) the Trading Price of such Index Component and (ii) the volume traded (measured as a number of shares) of such Index Component across all Exchanges during such Trading Day.

**“Dividend Correction Factor”** is 1 for the Price Return and Total Return Indices. For the Net Total Return Indices, the Dividend Correction Factor is calculated as 1 minus the applicable withholding tax rate and/or other applicable tax rate prevalent in the respective country. The table can be accessed on the Solactive website at: [Withholding Tax Rates](#)

NTR Indices that include an ISO Country Code (2 letters) in the index name indicate that withholding tax rates from the perspective of an investor based in that country are applied.

**“Developed World Countries”** refers to the list of developed world countries as determined by the Solactive Country Classification Framework. The framework and the country list can be accessed on the Solactive website at: [Solactive Country Classification Framework](#)

**“Eligible Rebalancing 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.

**“Exchange”** refers to the primary exchange of any Index Component. The Trading Prices of the primary exchange are used to calculate the Solactive Global Benchmark Series. The Index 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.

**“Extraordinary Event”** refers, in particular, to:

- > Delisting
- > Insolvency
- > a Merger
- > the Nationalization of a company
- > a Takeover Bid.

**“Delisting”** of an Index Component occurs when 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 the 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.

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 according to 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 that 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 which 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.

**"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 in accordance with the law applicable to the Merger.

**"Nationalization"** is a process whereby all shares or the majority of the assets of the issuer of the shares are nationalized or are expropriated or otherwise must be transferred to public bodies, authorities or institutions.

**"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.

**"Free Float Market Capitalization"** is with regard to each of the securities in the Solactive Global Benchmark Series on a Selection Day the share class-specific Free Float Market Capitalization for any security in the Index Universe. It is calculated as the multiplication of the shares outstanding in Free Float (as sourced from data vendors) multiplied with the Trading Price of the share class as of the respective Selection Day.



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

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

“**Index Currency**” is USD, EUR and the respective domestic currency of a country. Additional currencies may be added upon request.

“**Index Universe**” in respect of a Selection Day are all companies that fulfill all of the following criteria:

**Developed World Countries:**

1. **Eligible Security Types:** common stock, preferred stock, real estate investment trust [REIT], stapled security, saving shares, American depository receipt [ADR] and comparable depository receipts, tracking stock, royalty trust, unit
2. **Exchange Listing** in one of the Developed World Countries in accordance with the Solactive Country Classification on one of the eligible exchanges.
3. **Tradability Requirements:**
  - > New (Current) Index Components require an Average Daily Value Traded of at least USD 1,000,000 (750,000) over the preceding 1-month and 6-month period
  - > New (Current) Index Components require a volume traded of at least 100,000 (75,000) shares over the preceding 1-month period and 600,000 (450,000) shares over the preceding 6-month period
  - > New (Current) Index Components require a free float percentage of at least 10% (7.5%)
  - > Index Components must not have more than 10 non-trading days over the preceding 6-month period



The tradability requirements of companies with an Initial Public Offering (IPO) date that lies within the 6-month period prior to the Selection Day are modified as follows:

- > New Index Components require an Average Daily Value Traded of at least USD 1,000,000 over the preceding 1-month period
- > New Index Components require a volume traded of at least 100,000 shares over the preceding 1-month period
- > New Index Components require a free float percentage of at least 10%
- > New Index Components must have no non-trading days since the IPO date
- > New Index Components must have a trading history of at least 20 Business Days

**"IPO Adjustment Day"** is the first Wednesday of February and August. If that day is not an Eligible Rebalancing Day, the Adjustment Day will be the following Eligible Rebalancing Day.

**"IPO Review Day"** is 20 Business Days before the IPO Adjustment Day.

**"Country of Primary Listing [CPL]"** is defined by Solactive based on the assessment of market data providers as the country of the exchange where the security is primarily trading.

**"Country of Incorporation [COI]"** is defined by Solactive based on the assessment of market data providers as the country where the company is incorporated or legally registered.

**"Country of Domicile [COD]"** is defined by Solactive based on the assessment of market data providers as the location of the company's management board.

**"Country of Risk [COR]"** is defined by Solactive based on the assessment of market data providers as the country in which the company would be influenced the most by potential changes in the business environment.

**"Market Capitalization"** is, with regard to each of the securities in the Solactive Global Benchmark Series on a Selection Day, the company Market Capitalization for any security in the Index Universe. It is calculated as the sum of all Share Class Market Capitalizations of a company.

**"Number of Index Shares"** is, in respect of an Index Component and any given Business Day, the number of shares included in the Index. As of the semi-annual Adjustment Days, the Number of Index Shares equals the float shares outstanding for any stock as of the preceding Selection Day - adjusted for any corporate actions between the Selection Day and the Adjustment Day. This only relates to corporate actions that have a direct impact on the price and shares (i.e. stock splits, stock dividends, and rights issues). The number of float shares is sourced from a data provider chosen by the Index Calculator.

**"Selection Day"** is the Business Day 20 Business Days before the Adjustment Day.

**"Share Class Market Capitalization"** is, with regard to each of the securities in the Solactive Global Benchmark Series 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 of the share class (as sourced from data vendors) multiplied by the Trading Price of the share class as of the respective Selection Day.



“**Start Date**” is May 8, 2017.

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

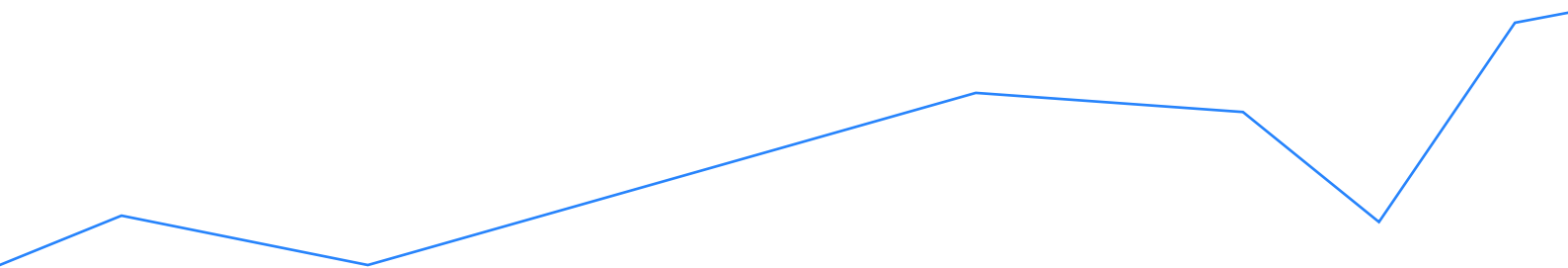
With regard to an Index Component (subject to the provisions given above under “Extraordinary Events”), the “**Trading Price**” in respect of a Trading Day is the closing price on this Trading Day determined in accordance with the Exchange regulations. If the Exchange has no closing price for an Index 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 it.

“**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 ultimately responsible as to 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.



# INDEX GUIDELINE

List of published indices



Version 1.7 – 10 September 2018



## 5 LIST OF PUBLISHED INDICES

The list below includes the indices from the Solactive Global Benchmark Series that have been published as of the version date of this document.

Name	ISIN	Characteristic	Reuters	Bloomberg	Publication Date
Solactive GBS Developed Markets Europe Large & Mid Cap EUR Index NTR	DE000SLA4GF1	Net Total Return	.SEULMCEN	SEULMCEN	02 January 2018
Solactive GBS Developed Markets Pacific Large & Mid Cap USD Index NTR	DE000SLA3546	Net Total Return	.SPCLMCUN	SPCLMCUN	02 January 2018
Solactive GBS North America Large & Mid Cap USD Index NTR	DE000SLA34K2	Net Total Return	.SNALMCUN	SNALMCUN	02 January 2018
Solactive GBS Developed Markets ex North America Large & Mid Cap CAD Index (CA NTR)	DE000SLA5AN5	Net Total Return	.SXALMCCC	SXALMCCC	02 January 2018
Solactive GBS Developed Markets Eurozone Large & Mid Cap Index NTR	DE000SLA40V6	Net Total Return	.SEZLMCN	-	23 January 2018
Solactive GBS Developed Markets Eurozone Large & Mid Cap Index PR	DE000SLA40T0	Price Return	.SEZLMCP	-	23 January 2018
Solactive GBS United Kingdom Large & Mid Cap Index PR	DE000SLA4W60	Price Return	.SGBLMCP	-	27 February 2018
Solactive GBS Austria Large & Mid Cap Index NTR	DE000SLA3579	Net Total Return	.SATLMCN	-	28 May 2018
Solactive GBS Austria Large & Mid Cap Index PR	DE000SLA3553	Price Return	.SATLMCP	-	28 May 2018
Solactive GBS Austria Large & Mid Cap Index TR	DE000SLA3561	Gross Total Return	.SATLMCT	-	28 May 2018
Solactive GBS Australia Large & Mid Cap Index NTR	DE000SLA3454	Net Total Return	.SAULMCN	-	28 May 2018
Solactive GBS Australia Large & Mid Cap Index PR	DE000SLA3439	Price Return	.SAULMCP	-	28 May 2018
Solactive GBS Australia Large & Mid Cap Index TR	DE000SLA3447	Gross Total Return	.SAULMCT	-	28 May 2018
Solactive GBS Belgium Large & Mid Cap Index NTR	DE000SLA4DD3	Net Total Return	.SBELMCN	-	28 May 2018
Solactive GBS Belgium Large & Mid Cap Index PR	DE000SLA4DB7	Price Return	.SBELMCP	-	28 May 2018
Solactive GBS Belgium Large & Mid Cap Index TR	DE000SLA4DC5	Gross Total Return	.SBELMCT	-	28 May 2018
Solactive GBS Canada Large & Mid Cap Index NTR	DE000SLA4D63	Net Total Return	.SCALMCN	-	28 May 2018
Solactive GBS Canada Large & Mid Cap Index PR	DE000SLA4D48	Price Return	.SCALMCP	-	28 May 2018
Solactive GBS Canada Large & Mid Cap Index TR	DE000SLA4D55	Gross Total Return	.SCALMCT	-	28 May 2018
Solactive GBS Switzerland Large & Mid Cap Index NTR	DE000SLA4V53	Net Total Return	.SCHLMCN	-	28 May 2018



## Index Guideline

Solactive GBS Switzerland Large & Mid Cap Index PR	DE000SLA4V38	Price Return	.SCHLMCP	-	28 May 2018
Solactive GBS Switzerland Large & Mid Cap Index TR	DE000SLA4V46	Gross Total Return	.SCHLMCT	-	28 May 2018
Solactive GBS Germany Large & Mid Cap Index NTR	DE000SLA34A3	Net Total Return	.SDELMCN	-	28 May 2018
Solactive GBS Germany Large & Mid Cap Index PR	DE000SLA3389	Price Return	.SDELMCP	-	28 May 2018
Solactive GBS Germany Large & Mid Cap Index TR	DE000SLA3397	Gross Total Return	.SDELMCT	-	28 May 2018
Solactive GBS Denmark Large & Mid Cap Index NTR	DE000SLA4FH9	Net Total Return	.SDKLMCN	-	28 May 2018
Solactive GBS Denmark Large & Mid Cap Index PR	DE000SLA4FF3	Price Return	.SDKLMCP	-	28 May 2018
Solactive GBS Denmark Large & Mid Cap Index TR	DE000SLA4FG1	Gross Total Return	.SDKLMCT	-	28 May 2018
Solactive GBS Developed Markets Large & Mid Cap USD Index NTR	DE000SLA4ID2	Net Total Return	.SDMLMCUN	SDMLMCUN	28 May 2018
Solactive GBS Developed Markets Large & Mid Cap USD Index PR	DE000SLA4IB6	Price Return	.SDMLMCUP	SDMLMCUP	28 May 2018
Solactive GBS Developed Markets Large & Mid Cap USD Index TR	DE000SLA4IC4	Gross Total Return	.SDMLMCUT	SDMLMCUT	28 May 2018
Solactive GBS Spain Large & Mid Cap Index NTR	DE000SLA4T73	Net Total Return	.SESLMCN	-	28 May 2018
Solactive GBS Spain Large & Mid Cap Index PR	DE000SLA4T57	Price Return	.SESLMCP	-	28 May 2018
Solactive GBS Spain Large & Mid Cap Index TR	DE000SLA4T65	Gross Total Return	.SESLMCT	-	28 May 2018
Solactive GBS Developed Markets Europe Large & Mid Cap USD Index NTR	DE000SLA4F04	Net Total Return	.SEULMCUN	-	28 May 2018
Solactive GBS Developed Markets Europe Large & Mid Cap USD Index PR	DE000SLA4FY4	Price Return	.SEULMCUP	-	28 May 2018
Solactive GBS Developed Markets Europe Large & Mid Cap USD Index TR	DE000SLA4FZ1	Gross Total Return	.SEULMCUT	-	28 May 2018
Solactive GBS Developed Markets Eurozone Large & Mid Cap Index TR	DE000SLA4OU8	Gross Total Return	.SEZLMCT	-	28 May 2018
Solactive GBS Finland Large & Mid Cap Index NTR	DE000SLA4GM7	Net Total Return	.SFILMCN	-	28 May 2018
Solactive GBS Finland Large & Mid Cap Index PR	DE000SLA4GK1	Price Return	.SFILMCP	-	28 May 2018
Solactive GBS Finland Large & Mid Cap Index TR	DE000SLA4GL9	Gross Total Return	.SFILMCT	-	28 May 2018
Solactive GBS France Large & Mid Cap Index NTR	DE000SLA4HC6	Net Total Return	.SFRLMCN	-	28 May 2018
Solactive GBS France Large & Mid Cap Index PR	DE000SLA4HA0	Price Return	.SFRLMCP	-	28 May 2018
Solactive GBS France Large & Mid Cap Index TR	DE000SLA4HB8	Gross Total Return	.SFRLMCT	-	28 May 2018





## Index Guideline

Solactive GBS United Kingdom Large & Mid Cap Index NTR	DE000SLA4W86	Net Total Return	.SGBLMCN	-	28 May 2018
Solactive GBS United Kingdom Large & Mid Cap Index TR	DE000SLA4W78	Gross Total Return	.SGBLMCT	-	28 May 2018
Solactive GBS Hong Kong Large & Mid Cap Index NTR	DE000SLA4H44	Net Total Return	.SHKLMCN	-	28 May 2018
Solactive GBS Hong Kong Large & Mid Cap Index PR	DE000SLA4H28	Price Return	.SHKLMCP	-	28 May 2018
Solactive GBS Hong Kong Large & Mid Cap Index TR	DE000SLA4H36	Gross Total Return	.SHKLMCT	-	28 May 2018
Solactive GBS Ireland Large & Mid Cap Index NTR	DE000SLA4J83	Net Total Return	.SIELMCN	-	28 May 2018
Solactive GBS Ireland Large & Mid Cap Index PR	DE000SLA4J67	Price Return	.SIELMCP	-	28 May 2018
Solactive GBS Ireland Large & Mid Cap Index TR	DE000SLA4J75	Gross Total Return	.SIELMCT	-	28 May 2018
Solactive GBS Israel Large & Mid Cap Index NTR	DE000SLA4K07	Net Total Return	.SILLMCN	-	28 May 2018
Solactive GBS Israel Large & Mid Cap Index PR	DE000SLA4KY4	Price Return	.SILLMCP	-	28 May 2018
Solactive GBS Israel Large & Mid Cap Index TR	DE000SLA4KZ1	Gross Total Return	.SILLMCT	-	28 May 2018
Solactive GBS Italy Large & Mid Cap Index NTR	DE000SLA4L97	Net Total Return	.SITLMCN	-	28 May 2018
Solactive GBS Italy Large & Mid Cap Index PR	DE000SLA4L71	Price Return	.SITLMCP	-	28 May 2018
Solactive GBS Italy Large & Mid Cap Index TR	DE000SLA4L89	Gross Total Return	.SITLMCT	-	28 May 2018
Solactive GBS Japan Large & Mid Cap Index NTR	DE000SLA4M13	Net Total Return	.SJPLMCN	-	28 May 2018
Solactive GBS Japan Large & Mid Cap Index PR	DE000SLA4M27	Price Return	.SJPLMCP	-	28 May 2018
Solactive GBS Japan Large & Mid Cap Index TR	DE000SLA4M05	Gross Total Return	.SJPLMCT	-	28 May 2018
Solactive GBS North America Large & Mid Cap USD Index PR	DE000SLA34H8	Price Return	.SNALMCUP	-	28 May 2018
Solactive GBS North America Large & Mid Cap USD Index TR	DE000SLA34J4	Gross Total Return	.SNALMCUT	-	28 May 2018
Solactive GBS Netherlands Large & Mid Cap Index NTR	DE000SLA4N61	Net Total Return	.SNLLMCN	-	28 May 2018
Solactive GBS Netherlands Large & Mid Cap Index PR	DE000SLA4N46	Price Return	.SNLLMCP	-	28 May 2018
Solactive GBS Netherlands Large & Mid Cap Index TR	DE000SLA4N53	Gross Total Return	.SNLLMCT	-	28 May 2018
Solactive GBS Norway Large & Mid Cap Index NTR	DE000SLA4Q28	Net Total Return	.SNOLMCN	-	28 May 2018
Solactive GBS Norway Large & Mid Cap Index PR	DE000SLA4QX3	Price Return	.SNOLMCP	-	28 May 2018



## Index Guideline

Solactive GBS Norway Large & Mid Cap Index TR	DE000SLA4QY1	Gross Total Return	.SNOLMCT	-	28 May 2018
Solactive GBS New Zealand Large & Mid Cap Index NTR	DE000SLA4PW7	Net Total Return	.SNZLMCN	-	28 May 2018
Solactive GBS New Zealand Large & Mid Cap Index PR	DE000SLA4PU1	Price Return	.SNZLMCP	-	28 May 2018
Solactive GBS New Zealand Large & Mid Cap Index TR	DE000SLA4PV9	Gross Total Return	.SNZLMCT	-	28 May 2018
Solactive GBS Developed Markets Pacific Large & Mid Cap USD Index PR	DE000SLA3520	Price Return	.SPCLMCUP	-	28 May 2018
Solactive GBS Developed Markets Pacific Large & Mid Cap USD Index TR	DE000SLA3538	Gross Total Return	.SPCLMCUT	-	28 May 2018
Solactive GBS Portugal Large & Mid Cap Index NTR	DE000SLA4R26	Net Total Return	.SPTLMCN	-	28 May 2018
Solactive GBS Portugal Large & Mid Cap Index PR	DE000SLA4R00	Price Return	.SPTLMCP	-	28 May 2018
Solactive GBS Portugal Large & Mid Cap Index TR	DE000SLA4R18	Gross Total Return	.SPTLMCT	-	28 May 2018
Solactive GBS Sweden Large & Mid Cap Index NTR	DE000SLA4UZ0	Net Total Return	.SSELMCN	-	28 May 2018
Solactive GBS Sweden Large & Mid Cap Index PR	DE000SLA4UX5	Price Return	.SSELMCP	-	28 May 2018
Solactive GBS Sweden Large & Mid Cap Index TR	DE000SLA4UY3	Gross Total Return	.SSELMCT	-	28 May 2018
Solactive GBS Singapore Large & Mid Cap Index NTR	DE000SLA4SV3	Net Total Return	.SSGLMCN	-	28 May 2018
Solactive GBS Singapore Large & Mid Cap Index PR	DE000SLA4SS9	Price Return	.SSGLMCP	-	28 May 2018
Solactive GBS Singapore Large & Mid Cap Index TR	DE000SLA4SU5	Gross Total Return	.SSGLMCT	-	28 May 2018
Solactive GBS United States Large & Mid Cap Index NTR	DE000SLA4YD9	Net Total Return	.SUSLMCN	-	28 May 2018
Solactive GBS United States Large & Mid Cap Index PR	DE000SLA4YB3	Price Return	.SUSLMCP	-	28 May 2018
Solactive GBS United States Large & Mid Cap Index TR	DE000SLA4YC1	Gross Total Return	.SUSLMCT	-	28 May 2018
Solactive GBS Developed Markets ex North America Large & Mid Cap USD Index NTR	DE000SLA4EK6	Net Total Return	.SXALMCUN	-	28 May 2018
Solactive GBS Developed Markets ex North America Large & Mid Cap USD Index PR	DE000SLA4EG4	Price Return	.SXALMCUP	-	28 May 2018
Solactive GBS Developed Markets ex North America Large & Mid Cap USD Index TR	DE000SLA4EH2	Gross Total Return	.SXALMCUT	-	28 May 2018
Solactive GBS Developed Markets Europe Large & Mid Cap EUR Index PR	DE000SLA4GD6	Price Return	.SEULMCEP	SEULMCEP	04 June 2018
Solactive GBS Developed Markets Europe Large & Mid Cap EUR Index TR	DE000SLA4GE4	Gross Total Return	.SEULMCET	SEULMCET	04 June 2018



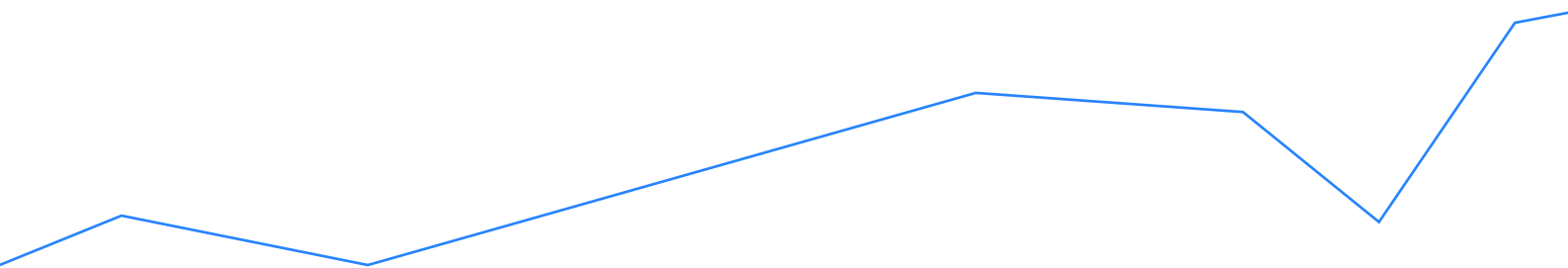
## Index Guideline

Solactive GBS Developed Markets Pacific ex Japan Large & Mid Cap USD Index NTR	DE000SLA4J59	Net Total Return	.SPJLMCUN	-	27 June 2018
Solactive GBS Developed Markets Pacific ex Japan Large & Mid Cap USD Index PR	DE000SLA4J34	Price Return	.SPJLMCUP	-	27 June 2018
Solactive GBS Developed Markets Pacific ex Japan Large & Mid Cap USD Index TR	DE000SLA4J42	Gross Total Return	.SPJLMCUT	-	27 June 2018
Solactive GBS Developed Markets Europe ex United Kingdom Large & Mid Cap USD Index NTR	DE000SLA4L30	Net Total Return	.SEBLMCUN	-	27 June 2018
Solactive GBS Developed Markets Europe ex United Kingdom Large & Mid Cap USD Index PR	DE000SLA4L06	Price Return	.SEBLMCUP	-	27 June 2018
Solactive GBS Developed Markets Europe ex United Kingdom Large & Mid Cap USD Index TR	DE000SLA4L22	Gross Total Return	.SEBLMCUT	-	27 June 2018
Solactive GBS Hong Kong Large & Mid Cap USD Index NTR	DE000SLA4H77	Net Total Return	.SHKLMCUN	SHKLMCUN	24 July 2018
Solactive GBS Hong Kong Large & Mid Cap USD Index PR	DE000SLA4H51	Price Return	.SHKLMCUP	SHKLMCUP	24 July 2018
Solactive GBS Germany Large & Mid Cap USD Index NTR	DE000SLA34D7	Net Total Return	.SDELMCUN	SDELMCUN	24 July 2018
Solactive GBS Germany Large & Mid Cap USD Index PR	DE000SLA34B1	Price Return	.SDELMCUP	SDELMCUP	24 July 2018
Solactive GBS United Kingdom Large & Mid Cap USD Index NTR	DE000SLA4XB5	Net Total Return	.SGBLMCUN	SGBLMCUN	24 July 2018
Solactive GBS United Kingdom Large & Mid Cap USD Index PR	DE000SLA4W94	Price Return	.SGBLMCUP	SGBLMCUP	24 July 2018
Solactive GBS Japan Large & Mid Cap USD Index NTR	DE000SLA4M47	Net Total Return	.SJPLMCUN	SJPLMCUN	24 July 2018
Solactive GBS Japan Large & Mid Cap USD Index PR	DE000SLA4M21	Price Return	.SJPLMCUP	SJPLMCUP	24 July 2018
Solactive GBS Canada Large & Mid Cap USD Index NTR	DE000SLA4D97	Net Total Return	.SCALMCUN	SCALMCUN	24 July 2018
Solactive GBS Canada Large & Mid Cap USD Index PR	DE000SLA4D71	Price Return	.SCALMCUP	SCALMCUP	24 July 2018



# INDEX GUIDELINE

International index composition



Version 1.7 – 10 September 2018



## 6 INTERNATIONAL INDEX COMPOSITION

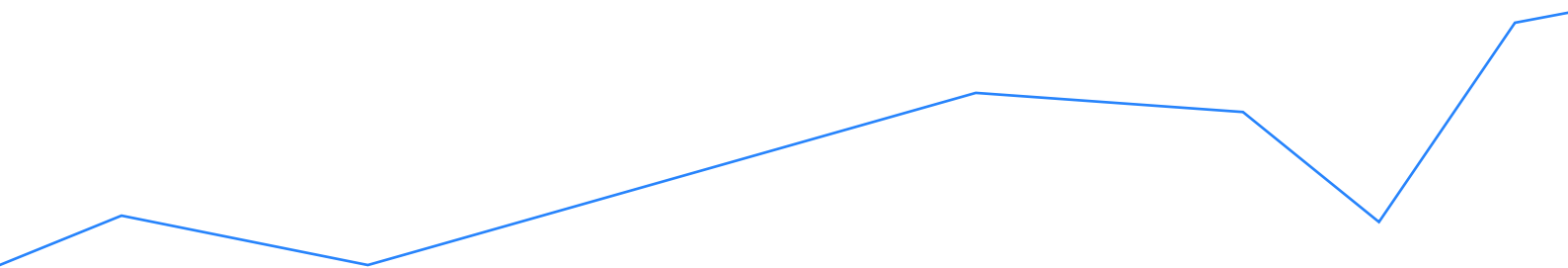
The table below includes the assignment of each Developed World Country to international indices. The Developed World Countries are defined in Section 4 and are based on the Solactive Country Classification Framework.

International Index	Constituent Countries
Developed Markets	Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, United States
Developed Markets Europe	Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom
Developed Markets Eurozone	Austria, Belgium, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain
North America	Canada, United States
Developed Markets Pacific	Australia, Hong Kong, Japan, New Zealand, Singapore



# INDEX GUIDELINE

List of eligible exchanges



Version 1.7 – 10 September 2018



## 7 LIST OF ELIGIBLE EXCHANGES

The table below includes the eligible exchanges of the Solactive Global Benchmark Series within the Developed Markets.

Country Name	Stock Exchange
<b>Asia/Pacific</b>	
Australia	Australian Securities Exchange
Hong Kong	Stock Exchange of Hong Kong
Japan	Tokyo Stock Exchange JASDAQ Securities Exchange
New Zealand	New Zealand Exchange
Singapore	Singapore Exchange
<b>Africa and Middle East</b>	
Israel	Tel Aviv Stock Exchange
<b>Europe</b>	
Austria	Vienna Stock Exchange
Belgium	Euronext Brussels
Denmark	NASDAQ OMX Nordic Copenhagen First North
Finland	NASDAQ OMX Nordic Helsinki First North
France	Euronext Paris
Germany	XETRA
Ireland	Irish Stock Exchange
Italy	Milan Stock Exchange
Netherlands	Euronext Amsterdam
Norway	Oslo Stock Exchange
Portugal	Euronext Lisbon
Spain	Madrid Stock Exchange Mercado Alternativo Bursatil
Sweden	Nordic Growth Market NASDAQ OMX Nordic Stockholm First North
Switzerland	SIX Swiss Exchange
United Kingdom	London Stock Exchange
<b>North America</b>	
Canada	Toronto Stock Exchange
USA	New York Stock Exchange NYSE MKT LLC. NYSE Arca NASDAQ



# INDEX GUIDELINE

Changes in calculation method



Version 1.7 – 10 September 2018





## 8 CHANGES 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 Series. 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 Indices and the method applied to calculate the Indices 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 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.

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