

ADVANCED RESEARCH RISK PARITY INDEX GUIDELINE

An Index of Advanced Research Investment Solutions

Version 3.1

26 July 2021



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Introduction



INTRODUCTION

This document (the "Guideline") is to be used as a guideline with regard to the composition, calculation and maintenance of the Index. 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.

It contains the underlying principles and rules regarding the structure and operation of the Advanced Research Risk Parity Index (the "Index"). Solactive AG shall make every effort to implement the applicable 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 does not constitute a 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.



Index Specifications



1 INDEX SPECIFICATIONS

- The Advanced Research Risk Parity Index (the "Index") is an Index of Advanced Research Investment Solutions, LLC and is calculated and distributed by Solactive AG.
- The Index is a rules-based, risk parity strategy comprised of ETFs, indexes, and futures that give exposure to multiple asset classes in an equally weighted risk framework.
- The Index is administered by EQM Indexes LLC.
- The Index is a Gross Total Return index.
- The Index is published in USD.

1.1 SHORT NAME AND ISIN

The Index is distributed under ISIN DE000SLA9Q71. The Index is published on Reuters under the code .RPARTR and on BBG under the code RPARTR.

1.2 INITIAL VALUE

The Index is based on 100 at the close of trading on the start date, 01 October 2019.

1.3 DISTRIBUTION

The Index is published via the price marketing services of Boerse Stuttgart GmbH 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 CALCUATION 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 translated 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 value is calculated using Reuters/WMCO closing spot rates as at 4pm London time.

The Index is calculated every Business Day from 9:00 a.m. to 10:50 p.m., CET. In the event that data cannot be provided to Reuters or to the pricing services of Boerse Stuttgart GmbH, the Index cannot be distributed.



1.5 WEIGHTING

On each Adjustment Day, each index component of the Advanced Research Risk Parity Index is weighted according to a proprietary fixed weighting methodology such that risk is roughly equivalent among

four broad multi-asset categories:

- 1. Global Equities (U.S., Non-US Developed, Emerging Markets),
- 2. Commodities (commodity producer equities and gold),
- 3. U.S. Treasury Inflation-Protected Securities (TIPS),
- 4. U.S. Treasuries (T-Bills and Treasury Futures).

Asset allocation targets are set in order to achieve similar long-term (20+ year) volatility from each of the four asset classes.

1.6 OVERSIGHT

A Committee composed of staff from EQM Indexes and Advanced Research Investment Solutions LLC (the "Committee" or the "Index Committee") is responsible for decisions regarding any amendments to the rules of the index.

Changes to the Guideline are submitted 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.com web page and sub-pages and at www.eqmindexes.com.

1.8 HISTORICAL DATA

Historical data will be maintained from the launch of the Index on 30 April 1998.

1.9 LICENSING

Licenses to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Advanced Research Investment Solutions, LLC.



Composition of the Index



2 COMPOSITION OF THE INDEX

2.1 SELECTION OF THE INDEX COMPONENTS

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

- The components of the Advanced Research Risk Parity Index are selected from a security pool of Exchange Traded Funds (ETFs), licensed indexes, and/or individual securities or futures combined to form an Index.
- The selection of the index components is based on past historical performance and the risk characteristics of each asset class proxy.

On the Selection Days, Advanced Research Investment Solutions, LLC provides the new composition and the new weightings to the composition. Selection days occur 5 business days before the Adjustment Date.

2.2 ORDINARY ADJUSTMENT

The composition of the Index is adjusted quarterly. The composition of the Index is reviewed on the Selection Day and necessary changes are announced.

The first adjustment will be made on the last business day in November based on the Trading Prices of the Index Components on the Adjustment Day, and quarterly thereafter on the last business day in February, May, and August.

2.3 EXTRAORDINARY ADJUSTMENT

An extraordinary adjustment, if applicable, is triggered and applied in compliance with the rules set forth in the <u>Solactive Guideline for Extraordinary Corporate Actions</u>.



Calculation of the Index



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:

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

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

3.2 ACCURACY

- The value of the Index will be rounded to 2 decimal places.
- The Number of Shares of the Index Components will be rounded to six decimal places.

3.3 ADJUSTMENTS

Indices need to be adjusted for systematic changes in prices once these become effective. This requires the new Number of Index Shares of the affected Index Component.

Following the Committee's decision, the Index is adjusted for distributions, capital increases 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

Dividend payments and other distributions are included in the Index. They cause an adjustment of the Number of Shares. 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

3.5 CORPORATE ACTIONS

3.5.1 Principles

Following the announcement by an issuer of Index Components of the terms and conditions of a corporate action, the Index Calculator determines whether such corporate action has a dilutive, concentrative or similar effect on the price of the respective Index Component.

If this should be 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.

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.

3.5.2 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:

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

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. 3.5.3 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

3.5.4 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

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 <u>Correction Policy</u>.

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 <u>Disruption Policy</u>.



Definitions



4 DEFINITIONS

The "Selection Pool" are those securities that fulfill the following conditions:

- An exchange traded product (ETF) that tracks a designated asset class and trades on a regulated stock exchange with at least \$100 million USD in assets under management and demonstrates adequate trading volume and liquidity with aggregate volume over the last 90 days of at least 100,000 shares traded.
- A group of securities constructed as an index consisting of individual securities such as stocks, bonds, and futures that trade on a regulated exchange and demonstrate adequate trading volume and liquidity for an exchange traded product as determined by the index provider.

The individual asset class proxies are modeled using the following exchange traded securities and indexes and will have the following corresponding weights.

35% Longer-Term U.S. Treasury Inflation-Protected Securities (TIPS)

PIMCO 15+ Year US TIPS Index ETF (LTPZ), with history prior to 9/8/2009 utilizing the EQM Long-Term TIPS Index.

Historical index constituents must meet the following minimum market requirements:

- Index consisting of USD-denominated inflation-linked notes and bonds issued by the U.S. Treasury 15+ years in duration at the time of issuance with a minimum term to final maturity of at least one year as of the rebalance date.
- Only fixed rate coupons are eligible, with zero coupon rates being excluded.
- Bonds and notes are market value weighted.
- The index is rebalanced monthly at each month end. The new index constituents meeting eligibility criteria are selected 3 days prior to month end. The index follows the US bond market calendar and index levels are calculated at the end of each business day at the market close.

12.5% U.S. Equities

Vanguard Total Stock Market Index Fund ETF Shares (VTI), with history prior to 6/1/2001 utilizing the gross total returns for the Vanguard Total Stock Market Index Fund Institutional Share Class (VITSX) for the backtest period from 4/30/1998 to 5/31/2001.

5% Non-U.S. Developed Market Equities

Vanguard FTSE Developed Markets ETF (VEA), with history prior to 8/1/07 utilizing the EQM Developed Markets Index. The index consists of Large and Mid-Cap stocks across 25 developed market countries not including the United States: Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, Taiwan, Israel, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.



Historical index constituents must meet the following minimum market requirements:

- Active non-U.S. companies, listed on a regulated exchange.
- Common stock and corporations including equity and mortgage REITs.
- Minimum market capitalization USD of \$2 billion.
- Price in USD not exceeding \$10,000 per share.
- Average traded value over the last six months of at least \$250,000 USD and free float percentage greater than 20%.

Historical constituents are market capitalization weighted and rebalanced quarterly commencing April 30 for the backtest period from 4/30/1998 to 7/31/07.

7.5% Emerging Market Equities

Vanguard FTSE Emerging Markets ETF (VWO), with history prior to 4/1/2005 utilizing the EQM Emerging Markets Index. The index consists of Large and Mid-Cap stocks across 25 emerging market countries including: Brazil, Chili, China, Columbia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Kuwait, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Qatar, Russia, Saudi Arabia, South Africa, Thailand, Turkey, United Arab Emirates.

Historical index constituents must meet the following minimum market requirements:

- Active non-U.S. companies, listed on a regulated exchange.
- Common stock and corporations including equity and mortgage REITs.
- Minimum market capitalization USD of \$2 billion.
- Price in USD not exceeding \$10,000 per share.
- Average traded value over the last six months of at least \$250,000 USD and free float percentage greater than 20%.

Historical constituents are market capitalization weighted and rebalanced quarterly commencing April 30 for the backtest period from 4/30/1998 to 3/31/2005.



25% Commodities

The EQM Global Commodity Index is comprised of global equities traded on a developed market exchange deriving their primary source of revenue (more than 50%) from the following global commodity segments: Energy, Clean Energy, Diversified Mining, Agriculture, and Water. Gold exposure is achieved by holding an exchange-traded ETF owning physical gold.

Index components must meet the following minimum market requirements and each commodity segment receives the following fixed aggregate weights:

Gold (10%)

SPDR Gold MiniShares Trust ETF (GLDM), with history prior to 9/1/17 utilizing the EQM Physical London Gold Index which tracks the spot price returns of physical gold bars from the London Bullion Market Association (LBMA) PM in US dollars.

Energy (5.25%)

- Active global companies engaged in Energy Exploration and Integrated Oil companies.
- Companies whose primary industry focus is Coal Production are excluded.
- Exchange listings are limited to regulated exchanges in Developed Asia Pacific (Australia, Hong Kong, Japan, Singapore) excluding South Korea and Taiwan, in North America, and in Western Europe.
- Companies must be publicly traded and have a minimum market capitalization USD of \$1 billion with an average traded value over the last 6 months of more than \$1m USD.
- The top 30 companies by USD market capitalization that meet these criteria are selected for inclusion.

Clean Energy (0.75%)

- Active global companies engaged in Clean Energy production and/or providers of clean energy equipment and technology.
- Exchange listings are limited to regulated exchanges in Developed Asia Pacific (Australia, Hong Kong, Japan, Singapore) excluding South Korea and Taiwan, in North America, and in Western Europe.
- Companies must be publicly traded and have a minimum market capitalization USD of \$1 billion with an average traded value over the last 6 months of more than \$1m USD.
- Utility companies are excluded.
- The top 15 companies by USD market capitalization that meet these criteria are selected for inclusion.
- Data history begins on 1/1/08, with the weight prior to that time being allocated to Energy.

Diversified Mining (5.25%)

Active global companies engaged in the production of metals and mining, including base metals, iron and steel and steel raw materials suppliers. Precious metals, metal recyclers, and steel and aluminum producers are excluded.



- Exchange listings are limited to regulated exchanges in Developed Asia Pacific (Australia, Hong Kong, Japan, Singapore) excluding South Korea and Taiwan, in North America, and in Western Europe.
- Companies must be publicly traded and have a minimum market capitalization USD of \$1 billion with an average traded value over the last 6 months of more than \$1m USD.
- The top 30 companies by USD market capitalization that meet these criteria are selected for inclusion.

Agriculture (3.0%)

- Active global companies engaged in agricultural production, the manufacture of agricultural equipment and farm machinery, and the production of fertilizers and agricultural chemicals.
- Exchange listings are limited to regulated exchanges in Developed Asia Pacific (Australia, Hong Kong, Japan, Singapore) excluding South Korea and Taiwan, in North America, and in Western Europe
- Companies must be publicly traded and have a minimum market capitalization USD of \$1 billion with an average traded value over the last 6 months of more than \$1m USD.
- The top 30 companies by USD market capitalization that meet these criteria are selected for inclusion.

Water (0.75%)

- Active global companies engaged in the production, filtration, infrastructure and equipment for water production. Water utility companies are eligible.
- Exchange listings are limited to regulated exchanges in Developed Asia Pacific (Australia, Hong Kong, Japan, Singapore) excluding South Korea and Taiwan, in North America, and in Western Europe.
- Companies must be publicly traded and have a minimum market capitalization USD of \$1 billion with an average traded value over the last 6 months of more than \$1m USD.
- The top 15 companies by USD market capitalization that meet these criteria are selected for inclusion.

Constituents within each commodity segment are market capitalization weighted and rebalanced on a quarterly basis. Backtest history is provided from 4/30/1998 to 9/30/2019.

15% U.S. Treasury Bills

SPDR Bloomberg Barclays 1-3 Month T-Bill ETF (BIL) with history prior to 5/30/2007 utilizing the EQM 1-3 Month U.S. Treasury Bill Index.

The EQM 1-3 Month U.S. Treasury Bill Index is designed to give exposure to U.S. Treasury Bills that have a maturity greater than or equal to 1 month and less than 3 months. The Index includes all publicly issued zero-coupon T-Bills with more than \$300 million of outstanding face value. Securities must be U.S. dollar denominated, fixed rate, and non-convertible. Excluded from the Index are certain special issues, such as flower bonds, targeted investor notes, state and local government series bonds, inflation protected public obligations of the U.S. Treasury, commonly known as



"TIPS," and coupon issues that have been stripped from bonds included in the Index. The Index is weighted by market capitalization and rebalanced on the last business day of the month.

35% U.S. Treasury Bond Futures

17.5% Solactive 10-Year U.S. Treasury Future Index (SOLUS10T), a one-contract futures index that aims to replicate the returns of a continuous rolling long position of 10 Year Treasury Futures.

17.5% Advanced Research Ultra Treasury Bond Futures Index (ISIN: DE000SL0B1D4), a one-contract futures index that aims to replicate the returns of a continuous rolling long position of Ultra Treasury Bond Futures.

The above indices consist of the contracts closest to expiration (Near Month Futures Contract) or the contract scheduled to expire immediately following the Near Month Futures Contract (Far Month Futures Contract).

Prior to February 28, 2021, returns correspond to a 60% allocation to the Solactive 10-Year U.S. Treasury Future Index (SOLUS10T), with history prior to 1/3/2000 utilizing the EQM 10-year Treasury Futures Index.

Treasury Futures Roll Schedule

The roll is to take place on a quarterly rebalance basis through a rebalance where the active contract is replaced by the next active contract implemented over a five-day roll period. The roll period starts on the 5th Trading Day preceding the First Notice Day of the Active Contract. The Contract Roll Weight of the Active Contract is then decreased by 20% after the Close of Business of each Trading Day of the Roll Period starting at 100% while the Contract Roll Weight of the Next Active Contract is increased by 20% after the Close of Business of each Trading Day of the Roll Period starting at 0%. After the end of the Roll Period (End Roll Date included) the Next Active Contract becomes the Active Contract.

The roll schedule is as follows:

The Active Contract and the Next Active Contract are selected based on the current/next month as follows:

Active Contract:

Contract/Month 1 2 3 4 5 6 7 8 9 10 11 12

TY H H M M M U U U Z Z Z H+

Next Active Contract:

Contract/Month 1 2 3 4 5 6 7 8 9 10 11 12

TY M M U U U Z Z Z H+ H+ H+ M+



A "+" defines a contract of the following year. The following naming convention of the contracts holds:

Identifier Month

H March

M June

U September

Z December

"Roll Start Date" is the 5th Trading Day preceding the First Notice Day.

"Roll End Date" is the Trading Day preceding (and excluding) the First Notice Day.

"Contract Roll Weight" means the Target weight as described previously

"Roll Period" means all the Trading Days between "Roll Start Date" (included) and "Roll End Date" (included).

Treasury Futures exposure will be unfunded and collateralized by the position in T-Bills such that the index holds a 15% exposure to T-Bills using the SPDR Bloomberg Barclays 1-3 Month T-Bill ETF (BIL) with history prior to 5/30/2007 utilizing the EQM 1-3 Month U.S. Treasury Bill Index, + a multiple of 7/3 times the 10-Year Treasury Note Futures.

For any announcements, further details about the rolling schedule, or action related to this sub-index, please refer to the sub-index documentation at:

https://www.solactive.com/Indices/?index=DE000SLA2DS5

The "Index Component" is each share currently included in the Index.

The "Number of Shares" are 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 (converted into the Index Currency according to the principles laid out in Section 1.4 of this document).

The "Percentage Weight" of an Index Component is the ratio of its Trading Price multiplied by its Number of Shares divided by the Index value.

The "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 Nationalization of a company
- Insolvency.

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 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 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 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 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.

"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.

The "Exchange" is, in respect of the 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.



A "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.

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 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.

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

The "Index Currency" is USD.

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

A "Business Day" is any day on which the New York Stock Exchange is open for trading.

The "Adjustment Day" is the last business day in November, February, May, and August.

The "Selection Day" is 5 days prior to the adjustment day.

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.
- 2. trading on the Exchange or an Affiliated Exchange is ceased prior to the "Normal Exchange Closing Time", which 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

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carried out outside the normal trading hours. An exception to this classification as a Market Disruption Event is where the early cessation of trading is announced by the Exchange or Affiliated Exchange on this Trading Day at least one hour before

- 2.1. the actual closing time for normal trading on the Exchange or Affiliated Exchange on the Trading Day in question or, if earlier.
- 2.2. the closing time (if given) of the Exchange or Affiliated Exchange for the execution of orders at the time the quote is given.
- 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 its decision based on those circumstances that it considers reasonable and appropriate.



Appendix



5 APPENDIX

5.1 CONTACT DATA

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5.2 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. 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 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.