

GUIDELINE

**Solactive Diversified Developed Economy Healthcare VT
Index**

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This document contains the underlying principles and regulations regarding the structure and the operating of the Solactive Diversified Developed Economy Healthcare VT Index ("the Index"). 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 Indices nor the Index values at any certain point in time nor in any other respect. The Indices are 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 these Indices.

Introduction

This document is to be used as a guideline with regard to the composition, calculation and management of the Solactive Diversified Developed Economy Healthcare VT Index. Any changes made to the guideline are initiated by the Committee specified in section 1.6 of this document. The Index is calculated and published by Solactive AG. The name “Solactive” is copyrighted.

1 Index specifications

The Solactive Diversified Developed Economy Healthcare VT Index is calculated and distributed by Solactive AG.

The Index takes a variable exposure to the Solactive Diversified Developed Economy Healthcare PR Index (ISIN: DE000SLA5C48, Bloomberg SMEDOCPR Index) with the aim to achieve an annualized volatility of less than or equal to 11%. The Index therefore notionally invests in Solactive Diversified Developed Economy Healthcare PR Index and a hypothetical money market position at the 3-month USD Libor rate (as published on Reuters under the RIC USD3MFSR=, Bloomberg US0003M Index). The index allows a maximal leverage of 150% and considers an index calculation fee of 2% per annum (which is deducted on a daily basis).

The Index is calculated and published in USD.

1.1 Short name and ISIN

The Indices are distributed under the following identifiers:

Name	ISIN	WKN	Characteristic	Bloomberg
Solactive Diversified Developed Economy Healthcare VT Index	DE000SLA3PF4	SLA3PF	Volatility Target	SMEDOC30 Index

1.2 Initial value

The Indices are launched with a level of 100 at the close on the start date, November 30th 2006.

1.3 Distribution

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

1.4 Prices and calculation frequency

The level of the Index is calculated for each Calculation Day on which the Solactive Diversified Developed Economy Healthcare PR Index is published (such a day being a Publication Day).

The Solactive Diversified Developed Economy Healthcare VT Index is calculated every Business Day 23:00 pm 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

The weights of the index components can change on a daily basis.

The determination of the weights is described in detail in Section 3.

1.6 Decision-making bodies

A Committee composed of staff from Solactive is responsible any amendments to the rules (in this document referred to as the "Index Committee").

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 January 22nd 2018.

1.9 Licensing

Licences 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.

2 Composition of the Index

2.1 Selection of the Index Components

The Index is composed of the following two underlyings (each of them an Underlying Component, together the Underlying Components):

- 1) Solactive Diversified Developed Economy Healthcare PR Index (Underlying Component 1).
- 2) 3-month USD Libor rate (Underlying Component 2).

2.2 Ordinary adjustment

Not applicable

2.3 Extraordinary adjustment

Not applicable.

3 Calculation of the Index

3.1 Index formula

The Index Level for any Calculation Day is determined in accordance with the following formula:

$$VT_t = VT_{t-1} * \left(1 + Exp_{t-1} * \left(\frac{UC1_t}{UC1_{t-1}} - 1 \right) - Exp_{t-1} * rate_{t-1} * \frac{DC_{t,t-1}}{360} - CF * \frac{DC_{t,t-1}}{365} \right)$$

with:

IL_t = Index Level as of Calculation Day t

w_{t-1} = Exposure as of Calculation Day t-1

$UC1_t$ = The closing level of Underlying Component 1 for Calculation Day t

$rate_{t-1}$ = Level of the Underlying Component 2, expressed as a percentage, for Calculation Day t-1

$DC_{t,t-1}$ = Number of Calendar Days from (and excluding) Calculation Day t-1 to (and including) Calculation Day t

$DC_{t,t-1}$ is the number of calendar days between Trading Day t (including) and Trading Day t-1 (excluding)

CF is the index calculation fee of 2% per annum which is deducted on a daily basis.

Exp_{t-1} is the exposure to the underlying equity index as of Trading Day t-1.

The formula for Exp_t is given below:

$$Exp_t = \min \left(maxLeverage, \frac{volTarget}{realizedVol_{t-2}} \right)$$

Where $maxLeverage = 1.5$ and $volTarget = 11\%$

The $realizedVol_t$ is calculated according to the following formula:

$$realizedVol_t = \sqrt{\frac{252}{19} * \sum_{i=0}^{19} \left(r_{t-i} - \frac{1}{20} \sum_{j=0}^{19} r_{t-j} \right)^2}$$

Where $r_{t-i} = \ln \left(\frac{Index_{t-i}}{Index_{t-i-1}} \right)$

3.2 Precision

The Index Level will be published with rounding to [2] decimal places.

3.3 Adjustments

Not applicable.

3.4 Dividends and other distributions

Not applicable.

3.5 Corporate actions

Not applicable.

3.6 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 strictly adheres to its publicly available [Correction Policy](#).

3.7 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 Components” are the Solactive Diversified Developed Economy Healthcare PR Index and the 3-month USD Libor rate (as published on Reuters under the RIC: USD3MFSR=)

A **“Calculation Day”** is any weekday for which the Underlying Component 1 is scheduled to have a Closing Price published.

A **“Publication Day”** is the weekday on which the Closing Price on a Calculation Day is published for the Underlying Component 1.

The **“Target Volatility”** is 11%.

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

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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 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, 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.