

INDEX GUIDELINE

Solactive Global Real Estate 2-Factor Index

Version 1.1

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INTRODUCTION

This document (the "Guideline") is to be used as a guideline with regard to the composition, calculation and maintenance of the Solactive Global Real Estate 2-Factor Index (the "Index"). Any amendments to the rules made to the Guideline are approved by the Index Committee specified in Section 5.5. The Index is owned, calculated, administered and published by Solactive AG ("Solactive") assuming the role as index administrator (the "Index Administrator") under the Regulation (EU) 2016/1011 (the "Benchmark Regulation" or "BMR"). The name "Solactive" is trademarked.

The Guideline and the policies and guidelines referenced herein contain the underlying principles and rules regarding the structure and operation of the Index. Solactive does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the level of the Index at any certain point in time nor in any other respect. Solactive strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the Index. The publication of the Index by Solactive does not constitute a recommendation for capital investment and does not contain any assurance or opinion of Solactive regarding a possible investment in a financial instrument based on this Index.



1. INDEX SPECIFICATIONS

1.1. SCOPE OF THE INDEX

The Solactive Global Real Estate 2-Factor Index ("Index") is a US Dollar (the "Index Currency") denominated index that uses a quantitative rule-based, dynamic, asset allocation strategy. A volatility control mechanism is implemented in the Index in order to target the volatility at 9%.

1.2. IDENTIFIERS AND PUBLICATION

The Index is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive Global Real Estate 2-Factor Index	DE000SLA7018	USD	NTR	.SOLGR2F	SOLGR2F Index

The Index is published via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display the Index via its information systems. In the event that data cannot be provided to the price marketing services of Boerse Stuttgart GmbH, the Index cannot be published.

Any publication in relation to the Index (e.g. notices, amendments to the Guideline) will be available at the website of the Index Administrator: <https://www.solactive.com/news/announcements/>.

1.3. INITIAL LEVEL OF THE INDEX

The initial level of the Index on the Start Date is 1000. Historical values from the Live Date will be recorded in accordance with Article 8 of the BMR Levels of the Index published for a period prior to the Live Date have been back-tested.

1.4. PRICES AND CALCULATION FREQUENCY

The level of the Index is calculated on each Business Day at 9:00 a.m. CET

1.5. LICENSING

Licenses to use the Index as the underlying value for financial instruments, investment funds and financial contracts may be issued to stock exchanges, banks, financial services providers and investment houses by Solactive.



1.6. DEFINITIONS IN RESPECT OF SECTION 1

This section contains defined terms used in Section 1 and, if applicable, other Sections of the Guideline.

“Business Day” means a day on which all Index Constituents are scheduled to publish a closing level.

“Closing level” in respect of an Index Constituent, shall mean the end-of-day level published on Thomson Reuters.

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

“Index Constituent” is each component reflected in table 2.1.1.

“Index Currency” is the currency specified in the column “Currency” in the table in Section 1.2.

“Live Date” is 27 February 2019.

“Start Date” is 9 June 2006.



2. INDEX SELECTION

2.1. INDEX CONSTITUENTS

The Index is allocated across two components. The table below (Table 2.1.1) contains a brief description of the components that the Index can select from.

Constituent	Name	ISIN	Currency	RIC	BBG Ticker	TC
1	Solactive Global Real Estate NTR Index	-	USD	.SOLGREN	SOLGREN Index	0.0005
2	CS 10-Year US Treasury Note Futures Index ER	-	USD	.CSRFTYUE	CSRFTYUE Index	0.00025

2.2. WEIGHTING OF THE INDEX COMPONENTS

On each Business Day each Index Constituent is weighted according to Appendix A.1. in order to achieve an index target volatility of 9%.

3. REBALANCE

3.1. ORDINARY REBALANCE

We say an index business day t is an index rebalancing day if, and only if

$$w_{i,t} \neq w_{i,t-1}$$

for at least one constituent i .

With respect to the Start Date $t = 0$, the Number of Units invested in constituent i are calculated according to the following formula:

$$N_{i,0} = w_{i,0} \times \frac{I_0}{p_{i,0}}$$

With respect to any following index business day t , the Number of Units invested in Constituent i are calculated according to the following formula:



$$N_{i,t} = \begin{cases} N_{i,t-1}, & \text{if } t = 1, \\ w_{i,t} \times \frac{I_{t-2}}{p_{i,t-2}}, & \text{if } t \text{ is an index rebalancing day,} \\ N_{i,t-1}, & \text{else.} \end{cases}$$

whereas

- I_t Index level as of t , determined according to section 2.
- $N_{i,t}$ Numbers of Units of constituent i as of t .
- $w_{i,t}$ Weight of constituent i as of t , determined according to appendix A.1
- $p_{i,t}$ Closing level of constituent i as of t .



4. CALCULATION OF THE INDEX

4.1. INDEX FORMULA

The index formula is expressed in mathematical terms as follows:

$$I_t = I_{t-1} + \left(\sum_i N_{i,t-1} \times (p_{i,t} - p_{i,t-1}) \right) - RC_t$$

whereas

- I_t Index level as of t , determined according to section 2.
- $N_{i,t}$ Numbers of Units of constituent i as of t .
- $p_{i,t}$ Closing level of constituent i as of t .
- $RC_{i,t}$ Index Rebalancing Cost as of t .

4.2. INDEX REBALANCING COST

The Index Rebalancing Cost is calculated according to the following formula:

With respect to the Start Date $t = 0$:

$$RC_0 = 0$$

With respect to any following index business day t :

$$RC_t = \sum_i TC_i \times |N_{i,t} - N_{i,t-1}| \times p_{i,t}$$

whereas

- $N_{i,t}$ Numbers of Units of constituent i as of t according to section 3.1.
- TC_i Transaction Cost for constituent i as defined in table 2.1.1.
- $p_{i,t}$ Closing level of constituent i as of t .

4.3. ACCURACY

The Index Level will be rounded to 3 decimal places.



4.4. RECALCULATION

Solactive makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the index determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. Solactive endeavors to correct all errors that have been identified within a reasonable period of time. The understanding of "a reasonable period of time" as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive [Correction Policy](#), which is incorporated by reference and available on the Solactive website: www.solactive.com.

4.5. MARKET DISRUPTION

In periods of market stress Solactive calculates its indices following predefined and exhaustive arrangements as described in the Solactive [Disruption Policy](#), which is incorporated by reference and available on the Solactive website: www.solactive.com. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more Index Components. The determination of the Index may be limited or impaired at times of illiquid or fragmented markets and market stress.

5. MISCELLANEOUS

5.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the Index (for example the determination of the Index Universe (if applicable), the selection of the Index Components (if applicable) or any other relevant decisions in relation to the Index) shall be in accordance with the Solactive's Discretion Policy, which is available at Solactive's website: www.solactive.com.

5.2. METHODOLOGY REVIEW

The methodology of the Index is subject to regular review. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the Index, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be



made in accordance with the [Methodology Policy](#), which is incorporated by reference and available on the Solactive website: www.solactive.com.

Such change in the Methodology will be announced on the Solactive webpage under the section "[Announcement](#)", which is available at address <https://www.solactive.com/news/announcements/>. The date of the last amendment of this Index is contained in this Guideline.

5.3. CHANGES IN CALCULATION METHOD

The application by the Index 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.

5.4. TERMINATION

Solactive makes the greatest possible efforts to ensure the resilience and continued integrity of its indices over time. Where necessary, Solactive follows a clearly defined and transparent procedure to adapt index methodologies to changing underlying markets (see Section 5.2 "Methodology Review") in order to maintain continued reliability and comparability of the indices. Nevertheless, if no other options are available the orderly cessation of an index may be indicated. This is usually the case when the underlying market or economic reality, which an index is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the index, the index rules, and particularly the selection criteria, can no longer be applied coherently or the index is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

Solactive has established and maintains clear guidelines on how to identify situations in which the cessation of an index is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Termination Policy, which is incorporated by reference and available on the Solactive website: www.solactive.com.

5.5. OVERSIGHT

An index committee composed of staff from Solactive and its subsidiaries (the "Index Committee") is responsible for decisions regarding any amendments to the rules of the Index. Any such amendment, which may result in an amendment of the Guideline, must be submitted to the Index Committee for prior approval and will be made in compliance with the "Solactive Methodology Policy", which is available at www.solactive.com.

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