

# INDEX GUIDELINE

Solactive Hamilton Mixed Asset Index

Version 1.0

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## TABLE OF CONTENTS

Introduction .....	3
1. Index Specifications.....	4
1.1. Scope of the Index.....	4
1.2. Identifiers and Publication .....	4
1.3. Initial Level of the Index .....	4
1.4. Prices and calculation frequency .....	5
1.5. Licensing .....	5
2. Index Selection.....	6
2.1. Index Constituents.....	6
3. Calculation of the Index .....	6
3.1. Index formula .....	6
3.2. Amending historical levels .....	8
3.3. Chaining ETFs and Indices .....	9
3.4. Accuracy.....	10
3.5. Adjustments.....	10
3.6. Recalculation .....	10
3.7. Market Disruption .....	10
4. Miscellaneous .....	11
4.1. Discretion .....	11
4.2. Methodology Review.....	11
4.3. Changes in calculation method .....	11
4.4. Termination.....	12
4.5. Extraordinary Termination.....	12
4.6. Oversight .....	12
5. Definitions .....	13
6. History of Index Changes.....	14
Contact.....	15



## INTRODUCTION

This document (the "**GUIDELINE**") is to be used as a guideline with regard to the composition, calculation and maintenance Solactive Hamilton Mixed Asset 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 administrator (the "**INDEX ADMINISTRATOR**") under the Regulation (EU) 2016/1011 (the "**BENCHMARK REGULATION**" or "**BMR**"). The name "Solactive" is trademarked.

*The text uses defined terms which are formatted with "SMALL CAPS". Such Terms shall have the meaning assigned to them as specified in Section 6 (Definitions).*

The GUIDELINE and the policies and methodology documents 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

Category	Description
Asset Class	Multi Asset
Strategy	The INDEX strategy tracks the performance of US large cap equity markets, treasuries and Gold with a partial currency hedge.
Regional Allocation	US
Rebalancing frequency	Daily

## 1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive Hamilton Mixed Asset Index	DE000SLOKDK6	USD	TR*	.SOLHAMMA	SOLHAMMA INDEX

AR\* means that the INDEX is calculated as adjusted return.

The INDEX is published on the website of the INDEX ADMINISTRATOR ([www.solactive.com](http://www.solactive.com)) and is, in addition, available 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.

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 11<sup>th</sup> November 2004, the INDEX START DATE, is 100. Historical values from the March 14<sup>th</sup> 2025, 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 CALCULATION DAY at 5:30 p.m. EST based on the CLOSING PRICES for the INDEX COMPONENTS as calculated and published by Solactive.

The CLOSING PRICES of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the 4pm New York time WM Fixing quoted by Refinitiv.

## 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



## 2. INDEX SELECTION

### 2.1. INDEX CONSTITUENTS

The INDEX is composed of the following components (the INDEX COMPONENTS):

Component	Name	Currency	RIC	BBG Ticker	$w_i$
1	Solactive GBS United States 500 Index TR	USD	.US500T	US500T Index	60%
2	Solactive US 20+ Year Treasury Bond Index	USD	.SOLUT20	SOLUT20 Index	20%
3	Solactive Gold Spot Index	USD	.SOLAGOLD	SOLAGOLD Index	20%
4	WMR 4pm New York USD/CAD Spot rate				20%

## 3. CALCULATION OF THE INDEX

### 3.1. INDEX FORMULA

The INDEX for any CALCULATION DAY  $t$ , denoted  $Index_t$ , is determined in accordance with the following formula, where  $Index_0 = 100$ :

$$Index_t = Index_R * \left( 1 + \sum_{i=1}^2 w_i * \left( \frac{CP_{i,t}}{CP_{i,R}} - 1 \right) + 0.2 * \left( \frac{C_{synth\_gold,t}}{C_{synth\_gold,R}} - 1 \right) \right)$$

With:

$Index_t$  = The level of the INDEX as of CALCULATION DAY  $t$

$R$  = The REBALANCING DAY immediately preceding CALCULATION DAY  $t$

$Index_R$  = The level of the INDEX as of  $R$

$w_i$  = The weight of INDEX COMPONENT  $i$  as per Section 2.1

$CP_{i,t}$  = The CLOSING PRICE of INDEX COMPONENT  $i$  as of CALCULATION DAY  $t$

$CP_{i,R}$  = The CLOSING PRICE of INDEX COMPONENT  $i$  as of  $R$

$C_{synth\_gold,t}$  = the synthetic gold position as of as of CALCULATION DAY  $t$



$C_{synth\_gold,R}$  = the synthetic gold position as of as of R

$USDCAD_t$  = The WMR USDCAD 4pm New York FX rate as of CALCULATION DAY t

$USDCAD_R$  = The WMR USDCAD 4pm New York FX rate as of R

Where:

$$C_{synth\_gold,t} = C_{synth\_gold,t-1} * \left( \frac{CP_{3,t}}{CP_{3,t-1}} + \frac{CP_{4,t}}{CP_{4,t-1}} - 1 \right)$$

Where:

$CP_{3,t}$  = The CLOSING PRICE of INDEX COMPONENT 3 as of CALCULATION DAY t

$CP_{3,R}$  = The CLOSING PRICE of INDEX COMPONENT 3 as of R

## 3.2. REBALANCING

The START DATE is assumed to be a REBALANCING DAY.

On each CALCULATION DAY following the START DATE, a CALCULATION DAY is deemed to be a REBALANCING DAY if the absolute difference in drifted weights and target weights as of CALCULATION DAY t-1 is higher than the REBALANCING THRESHOLD for any of INDEX COMPONENT 1, INDEX COMPONENT 2 or the synthetic gold position.

CALCULATION DAY t is deemed to be a REBALANCING DAY if:

$$abs(w\_drift_{i,t-1} - w_i) > threshold \text{ for } i \in \{1, 2, synth\_gold\}$$

Where:

$$w\_drift_{i,t} = w_i * \frac{\frac{CP_{i,t}}{CP_{i,R}}}{\frac{Index_t}{Index_R}}$$

*for*  $i \in \{1, 2, synth\_gold\}$

and **threshold** being the REBALANCING THRESHOLD of 2%.

Note that if CALCULATION DAY t is a REBALANCING DAY, then the next CALCULATION DAY cannot be a REBALANCING DAY.



### 3.3. AMENDING HISTORICAL LEVELS

The level of the INDEXCOMPONENTS are not available from the START DATE.

To prepend the backtest, ETFs have been used to calculate a proxy level for each INDEXCOMPONENT

Component	Name	ETF	RIC	Total Expense Ratio	Switch date
1	Solactive GBS United States 500 Index TR	SPDR S&P 500 ETF	SPY.P	0.0945%	2006-05-08
2	Solactive US 20+ Year Treasury Bond Index	ISHARES 20+ YEAR TREASURY BOND ETF	TLT.OQ	0.15%	2006-12-29
3	Solactive Gold Spot Index	SPDR GOLD SHARES	GLD.P	0.4%	2022-01-25

For each ETF, a Total Return (net) time series was calculated by reinvesting the dividends. Based on the Total Return (net) time series, a Total Return (gross) time series was calculated by adding the total expense ration back to the performance to properly proxy the respective indices.

As of START DATE.

$$ETF\_TR_{i,t}^{NET} = 100$$

$$ETF\_TR_{i,t}^{GROSS} = 100$$

On each CALCULATION DAY following the START DATE

$$ETF\_TR_{i,t}^{NET} = ETF\_TR_{i,t}^{NET} * \left( \frac{P_{i,t} + div_{i,t}}{P_{i,t-1}} \right)$$

With:





$ETF\_TR_{i,t}^{NET}$  = The level of the total return (net) time series CALCULATION DAY t

$ETF\_TR_{i,t-1}^{NET}$  = The level of the total return (net) time series CALCULATION DAY t-1

$P_{i,t}$  = The unadjusted closing price of the respective ETF as CALCULATION DAY t

$P_{i,t-1}$  = The unadjusted closing price of the respective ETF as CALCULATION DAY t-1

$div_{i,t}$  = The dividend amount as paid by the respective ETF with ex-date equal to CALCULATION DAY t

$$ETF\_TR_{i,t}^{GROSS} = ETF\_TR_{i,t-1}^{GROSS} * \left( \frac{ETF\_TR_{i,t}^{NET}}{ETF\_TR_{i,t-1}^{NET}} + TER_i * DCF_{t,t-1} \right)$$

Where:

$ETF\_TR_{i,t}^{GROSS}$  = The level of the total return (gross) time series CALCULATION DAY t

$ETF\_TR_{i,t-1}^{GROSS}$  = The level of the total return (gross) time series CALCULATION DAY t-1

$TER_i$  = The total expense ratio of the respective ETF

$DCF_{t,t-1}$  = The day count fraction (using 365 days)

### 3.4. CHAINING ETFS AND INDICES

The LONG-SHORT index is calculated according to the following formula:

Starting on the SWITCH DATE, the CLOSING PRICES of the INDEX COMPONENTS are used.

On each day prior to the SWITCH DATE, the total return (gross) time series returns are used to prepend the CLOSING PRICES of the INDEX COMPONENTS:

On each CALCULATION DAY prior to the SWITCH DATE:

$$CP_{i,t-1} = CP_{i,t} * \frac{ETF\_TR_{i,t-1}^{GROSS}}{ETF\_TR_{i,t}^{GROSS}}$$

With this approach, the CLOSING PRICES of the INDEX COMPONENTS as of the START DATE are (when rounded to 2dp):

$$CP_{1,StartDate} = 876.15$$

$$CP_{2,StartDate} = 912.54$$

$$CP_{3,StartDate} = 443.5$$



### 3.5. ACCURACY

The level of the INDEX will be rounded to 2 decimal places for publication.

### 3.6. ADJUSTMENTS

Under certain circumstances, an adjustment of the INDEX may be necessary between two regular REBALANCE DAYS. Such adjustment has to be made if a corporate action (as specified in Section 4.4 below) in relation of an INDEX COMPONENT occurs. Such adjustment may have to be done in relation to an INDEX COMPONENT and/or may also affect the number of INDEX COMPONENTS and/or the weighting of certain INDEX COMPONENTS and will be made in compliance with the SOLACTIVE Equity Index Methodology, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/equity-index-methodology/>.

SOLACTIVE will announce the INDEX adjustment giving a notice period of at least two TRADING DAYS (with respect to the affected INDEX COMPONENT) on the SOLACTIVE website under the Section "Announcements", which is available at <https://www.solactive.com/news/announcements/>. The INDEX adjustments will be implemented on the effective day specified in the respective notice.

### 3.7. RECALCULATION

SOLACTIVE makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the 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: <https://www.solactive.com/documents/correction-policy/>.

### 3.8. 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: <https://www.solactive.com/documents/disruption-policy/>. 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.



## 4. MISCELLANEOUS

### 4.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the INDEX (for example the selection of the INDEX COMPONENTS (if applicable) or any other relevant decisions in relation to the INDEX) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement.

### 4.2. METHODOLOGY REVIEW

The methodology of the INDEX is subject to regular review, at least annually. 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 SOLACTIVE Methodology Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.

Such change in the methodology will be announced on the SOLACTIVE website under the Section Announcements, which is available at <https://www.solactive.com/news/announcements/>. The date of the last amendment of this INDEX is contained in this GUIDELINE.

### 4.3. CHANGES IN CALCULATION METHOD

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



## 4.4. 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 the 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 SOLACTIVE Termination Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/termination-policy/>.

## 4.5. EXTRAORDINARY TERMINATION

In the event the level of the INDEX is calculated as zero or below zero (negative) the INDEX will be terminated. SOLACTIVE will announce such termination on its website [www.solactive.com](http://www.solactive.com) as soon as reasonably possible after the INDEX is calculated as zero or below zero.

For Clarification, Solactive may terminate indices for other reasons and in accordance with Solactive's policies.

## 4.6. 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 Methodology Policy, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.



## 5. DEFINITIONS

**“BENCHMARK REGULATION”** shall have the meaning as defined in Section “Introduction”.

**“BMR”** shall have the meaning as defined in Section “Introduction”.

**“CALCULATION DAY”** is every weekday from Monday to Friday

**“CLOSE OF BUSINESS”** is the calculation time of the closing level of the INDEX as outlined in Section 1.4.

The **“CLOSING PRICE”** in respect of an INDEX COMPONENT and a CALCULATION DAY is an INDEX COMPONENTS final regular-hours closing level as calculated by Solactive

**“GUIDELINE”** shall have the meaning as defined in Section “Introduction”.

**“INDEX”** shall have the meaning as defined in Section “Introduction”.

**“INDEX ADMINISTRATOR”** shall have the meaning as defined in Section “Introduction”.

**“INDEX COMPONENTS”** are the components listed in Section 2.1 .

**“INDEX CURRENCY”** is the currency specified in the column “Currency” in the table in Section 1.2.

**“INDEX UNIVERSE”** is the sum of all financial instruments which fulfill the INDEX UNIVERSE REQUIREMENTS.

**“LIVE DATE”** shall have the meaning as defined in Section 1.3.

**“INDEX COMMITTEE”** shall have the meaning as defined in Section 4.5.

**“SOLACTIVE”** shall have the meaning as defined in Section “Introduction”.

**“START DATE”** shall have the meaning as defined in Section 1.3.



## 6. HISTORY OF INDEX CHANGES

Version	Date	Description
1.0	2025-01-30	Index Guideline creation ( <i>initial version</i> )

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