

Guidelines relating the

Commodity Leverage Index Family EUR Hedged

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This document contains the underlying principles and regulations regarding the structure and operating of the Commodity Leverage Index Family EUR Hedged. Solactive AG (the “**Index Sponsor**”) 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 Commodity Leverage Index Family EUR Hedged nor the Commodity Leverage Index Family EUR Hedged values at any certain point in time nor in any other respect. The Commodity Leverage Index Family EUR Hedged 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 Commodity Leverage Index Family EUR Hedged. The publication of the Commodity Leverage Index Family EUR Hedged 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 the Commodity Leverage Index Family EUR Hedged.

## **Introduction**

This document is to be used as a guideline with regard to the composition, calculation and management of the Commodity Leverage Index Family EUR Hedged. Any changes made to the guidelines are initiated by the Committee specified in section 1.5. The Commodity Leverage Index Family EUR Hedged is calculated and published by Solactive AG.

## **1 Index specifications**

The Commodity Leverage Index Family EUR Hedged (the “**Indices**”) replicates the performance of a hypothetical investment in the underlying commodity futures taking into account interest rates and is calculated and distributed by Solactive AG.

The details of the Indices and their respective underlyings are presented in Section 4.3.

The Indices are calculated as a total return index and published in EUR.

### **1.1 Short name and ISIN**

The levels of the Indices are distributed under the identifiers stated in Section 4.3.

### **1.2 Initial value**

The Index on Gold is based on 1,000 at the close of trading on 10 June, 2014 whereas the other indices are based on 1,000 at the close of trading on 3 January, 2017.

### **1.3 Distribution**

The Index is 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 the vendor will distribute/display the Indices via the vendor’s information systems.

### **1.4 Levels and calculation frequency**

The level of the Indices are calculated on each Business Day based on the prices of the respective underlying assets. During the times of Live Calculation the Index is calculated based on the most recent prices. The Closing Calculation is conducted based on the settlement price of the respective asset. In case there is no current price available during the time of Live Calculation, the most recent one is used or the most recent settlement price. In case there is no settlement price available during the time of the Closing Calculation, the most recent one is used.

The Indices are calculated on every Business Day and on each Calculation Time. The level of the Index is calculated continuously in 15-second intervals during these hours. In the event that data cannot be provided to Reuters or to the pricing services of Boerse Stuttgart AG the Index cannot be distributed.

Any incorrect calculation is adjusted on a retrospective basis.

## **1.5 Decision-making bodies**

A committee (in these Index Guidelines referred to as the "**Committee**" or the "**Index Committee**") composed of staff from Solactive AG is responsible for selecting and weighting the new composition of the Index in accordance with the rules as described in these Index Guidelines. The Committee shall also decide about the implementation of any necessary adjustments to the Indices in accordance with any applicable regulations that might affect any product that references the Indices.

The Committee shall also decide about the future composition of the Indices in the event that any Extraordinary Event occurs.

The Committee shall make all decisions and any amendments to the Index Guidelines on a commercially reasonable basis.

## **1.6 Publication**

All specifications and information relevant for calculating the Index are made available on the <http://www.solactive.com> web page and sub-pages (or any successor pages thereto).

## **1.7 Licensing**

Licences, if any, to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Solactive AG.

## 2 Calculation of the Index

### 2.1 Index formula

The level of the Index on a Business Day (t) at a Calculation Time (v) is calculated in accordance with the following formula:

$$I(t, v) = I(t - 1) \cdot \left[ \frac{CH(t, v)}{CH(t - 1)} + r(t - 1) \cdot \frac{d}{360} \right]$$

with:

- I(t,v) = Index level on Business Day (t) at Calculation Time (v)
- I(t-1) = Index level on Business Day (t-1) as of the Fixing Time
- CH(t-1) = Excess Return Currency Hedged Index level on Business Day (t-1) as of the Fixing Time
- d = number of calendar days between Business Day (t-1) (included) and Business Day (t) (excluded)
- r(t-1) = EONIA rate on Business Day (t-1)

The level of the Excess Return Currency Hedged Index on Business Day (t) at a Calculation Time (v) is calculated in accordance with the following formula:

$$CH(t, v) = CH(t - 1) \cdot \left[ 1 + \frac{FX(t - 1)}{FX(t, v)} \cdot \left( \frac{ER(t, v)}{ER(t - 1)} - 1 \right) \right]$$

with:

- CH(t,v) = Excess Return Currency Hedged Index level on Business Day (t-1) at Calculation Time (v)
- CH(t-1) = Excess Return Currency Hedged Index level on Business Day (t-1) as of the Fixing Time
- ER(t,v) = Excess Return Index level on Business Day (t) at Calculation Time (v)
- ER(t-1) = Excess Return Index level on Business Day (t-1) as of the Fixing Time
- FX(t,v) = the WM/Reuters EUR/USD Daily Closing Spot Rate MID on Business Day (t) on Business Day (t) if Calculation Time (v) is equal to the fixing time or the Reuters EUR/USD Spot Rate MID on Business Day (t) at Calculation Time (v) if Calculation Time (v) is not equal to the Fixing Time
- FX(t-1) = the WM/Reuters EUR/USD Daily Closing Spot Rate MID on Business Day (t-1)

The level on an Excess Return Index on a Business Day (t) at a Calculation Time (v) is calculated in accordance with the following formula:

$$ER(t, v) = \max \left[ 0; ER(t - 1) \cdot \frac{UI(t, v)}{UI(t - 1)} \right]$$

UI(t-1) = Underlying Index level on Business Day (t-1) as of the Fixing Time

The level on an Underlying Index on a Business Day (t) at a Calculation Time (v) is calculated in accordance with the following formulae:

(i) During a Roll Period

$$UI(t, v) = UI(t - 1) \cdot \frac{CRW_A(t) \cdot F_A(t, v) + CRW_{NA}(t) \cdot F_{NA}(t, v)}{CRW_A(t) \cdot F_A(t - 1) + CRW_{NA}(t) \cdot F_{NA}(t - 1)}$$

(ii) Outside a Roll Period

$$UI(t, v) = UI(t - 1) \cdot \frac{F_A(t, v)}{F_A(t - 1)}$$

with:

- CRW<sub>A</sub>(t) = Commodity Roll Weight of the Active Contract on Business Day (t)
- CRW<sub>NA</sub>(t) = Commodity Roll Weight of the Next Active Contract on Business Day (t)
- F<sub>A</sub>(t,v) = price of the Active Contract on Business Day (t) at Calculation Time (v)
- F<sub>NA</sub>(t,v) = price of the Next Active Contract on Business Day (t) at Calculation Time (v)
- F<sub>A</sub>(t-1) = price of the Active Contract on Business Day (t-1) at the Fixing Time

$F_{NA}(t-1)$  = price of the Next Active Contract on Business Day (t-1) at the Fixing Time

## 2.2 Roll period

During the Roll Period the Active Contract is rolled over a five day period into the Next Active Contract. The Roll Period starts on the 5<sup>th</sup> business day of each month and the Commodity Roll Weight of the Active Contract is decreased by 20% after the Fixing Time of each Business Day of the Roll Period starting at 100% while the Commodity Roll Weight of the Next Active Contract is increased by 20% after the Fixing Time of each Business Day of the Roll Period starting at 0%.

The roll schedule of the underlying asset is listed in Section 4.4.

### 3 Definitions

**“Active Contract”** means the contract given in the roll schedule under Section 4.4 for the current month.

**“Business Day”** means a day on which the Exchange is scheduled to be open for trading during its regular trading session.

**“Calculation Time”** means, in respect of each Business Day, any time between 3:00 PM CET and the Fixing Time on such Business Day.

**“Closing Calculation”** means, in respect of a Business Day, the calculation which takes place when the settlement price of the corresponding underlying commodity asset of such Business Day is published.

**“Commodity Roll Weight”** means the target weight determined as per Section 2.2.

**“Excess Return Currency Hedged Index”** means the excess return and currency hedged version of the Index, the level of which is determined as per Section 2.1.

**“Excess Return Index”** means the excess return and non currency hedged version of the Index, the level of which is determined as per Sections 2.2 and 2.3.

**“Exchange”** means the Chicago Mercantile Exchange.

**“Extraordinary Event”** is referring to the case if one or more contracts mentioned in the roll schedule under Section 4.3 are not listed anymore.

**“Fixing Time”** means, in respect of a Business Day, the time at which the Closing Calculation takes place on such Business Day, which is when the settlement price of the corresponding underlying commodity asset of such Business Day is defined. As an indication, the Fixing Time in respect of the underlying commodity is provided in Section 4.4.

**“Index”** means one index of the Commodity Leverage Index Family EUR Hedged.

**“Index Sponsor”** means Solactive AG.

**“Live Calculation”** means the Index calculation that takes place from 3:00 PM CET until the Fixing Time on each Business Day.

**“Next Active Contract”** means the contract given in the roll schedule under Section 4.3 for the upcoming month.

**“Roll Period”** means a roll period as defined in Section 2.2.

## 4 Appendix

### 4.1 Contact data

#### Solactive AG

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### 4.2 Calculation of the Index – change in calculation method

The application by the Index Sponsor of the method described in this document is final and binding. The Index Sponsor shall apply the method described above for the 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 Sponsor may also make changes to the terms and conditions of the Index and the method applied to calculate the Index, 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 Sponsor will update the guideline on any such modifications or changes and publish it on his website. Despite the modifications and changes, the Index Sponsor will take the appropriate steps to ensure that the calculation method applied is consistent with the method described above.

### 4.3 Identifiers

Index	Underlying	Underlying Ticker	ISIN	Index RIC	Index Ticker
WTI Futures Long Index – EUR Hedged	WTI	CL	DE000SLA28R9	.OIL1LH	OIL1LH
Silver Futures Long Index – EUR Hedged	Silver	SI	DE000SLA28U3	.SLVR1LH	SLVR1LH
Natural Gas Futures Long Index – EUR Hedged	Natural Gas	NG	DE000SLA28X7	.GAS1LH	GAS1LH
Gold Futures Long Index – EUR Hedged	Gold	GC	DE000SLA0GV6	.GOLD1LH	GOLD1LH

### 4.4 Roll schedule

Contract/Month	1	2	3	4	5	6	7	8	9	10	11	12
Natural Gas	G	H	J	K	M	N	Q	U	V	X	Z	F+
Gold	G	J	J	M	M	Q	Q	Z	Z	Z	Z	G+
Silver	H	H	K	K	N	N	U	U	Z	Z	Z	H+
WTI	G	H	J	K	M	N	Q	U	V	X	Z	F+

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

Identifier	Month
F	January
G	February



H	March
J	April
K	May
M	June
N	July
Q	August
U	September
V	October
X	November
Z	December

#### 4.5 Indicative Fixing Times

<b>Underlying</b>	<b>Settlement Time EDT/EST</b>
Natural Gas	2:30 pm
Gold	3:45 pm
Silver	3:45 pm
WTI Oil	2:30 pm