

Index Manual relating to the

Solactive Japanese Buyback Index (USD Daily Currency Hedged)

Version 1.0 dated January 26th, 2015

## **Contents**

#### Introduction

#### 1 Index Specifications

- 1.1 Short Name and ISIN
- 1.2 Initial Value
- 1.3 Distribution
- 1.4 Levels and Calculation Frequency
- **1.5** Underlying Index
- **1.6** Currency Hedging Strategy
- 1.7 Decision Making Bodies
- **1.8** Publication
- 1.9 Historical Data
- 1.10Licensing

### 2 Terms and Definitions relating to the Index

#### 3 Calculation of the Index

- 3.1 Index Formula
- 3.2 Consequences of an Index Extraordinary Event
- 3.3 Index Disruption Events Remedies

#### 4 Appendix

- 4.1 Contact Data
- 4.2 Calculation of the Index Change in Calculation Method

This document contains the underlying principles and regulations regarding the structure and the operating of the Solactive Japanese Buyback Index (USD Daily Currency 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 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 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 this Index.

## Introduction

This document (the "Index Manual") is to be used as a guideline with regard to the composition, calculation and management of the Solactive Japanese Buyback Index (USD Daily Currency Hedged) (BUYJPUH). Any changes made to the Index Manual are initiated by the Committee specified in Section 1.7. This version of the Index Manual is correct as of the date on the cover of this document. The Solactive Japanese Buyback Index (USD Daily Currency Hedged) is calculated and published by Solactive AG. The name "Solactive" is copyrighted.

## 1 Index Specifications

The Solactive Japanese Buyback Index (USD Daily Currency Hedged) (the "Index") is an Index of Solactive AG, and is calculated and published by Solactive AG. The Index is based on the Solactive Japanese Buyback Index (USD) denominated in USD (the "Underlying Index") that tracks the price movements in shares of companies, which have announced a stock buyback in the last two months preceding the last calculation date in January, March, May, July, September and November for the Underlying Index.

The Index is based on the Underlying Index but aims to offer an additional hedging feature against JPY and USD foreign exchange rates variations.

The Index is a total return index, which means that dividends are reinvested, net of withholding tax. The current withholding tax rates applied are published by the Index Sponsor on the website <a href="http://www.solactive.com/documents-and-downloads/">http://www.solactive.com/documents-and-downloads/</a>

The Index is calculated end of day and published in USD.

#### 1.1 Short Name and ISIN

The Solactive Japanese Buyback Index (USD Daily Currency Hedged) is distributed under the ISIN DE000SLA0RX9; the WKN is SLA0RX. The Index is published in Reuters under the code <.BUYJPUH> and in Bloomberg under the code BUYJPUH <Index>.

#### 1.2 Initial Value

The Index is based on 1000 as at the close of trading on the "**Index Base Date**" November 28<sup>th</sup>, 2008. The Index was launched on the "**Index Launch Date**" January 26<sup>th</sup>, 2015.

#### 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 he will distribute/display the Index via his information systems.

## 1.4 Levels and Calculation Frequency

The level of the Index is calculated end of day on each Index Calculation Date based on the value of the Underlying Index.

The daily index closing value is calculated using Reuters/WMCO rates as at 4pm London time.

The Index is calculated and published daily on every Index Calculation Date. In the event that data cannot be provided to the pricing services of Boerse Stuttgart AG the Index Level cannot be published.

Any incorrect calculation is adjusted on a retrospective basis. Please note that at the time of the calculation and publication of the Index, the prices used for the calculation may already have changed.

## 1.5 Underlying Index

The Underlying Index is Solactive Japanese Buyback Index (USD).

The Underlying Index is an index of Solactive AG, and is calculated and published by Solactive AG. It tracks the price movements in shares of companies, which have announced a stock buyback in the last two months preceding the last calculation date in January, March, May, July, September and November for the Underlying Index. The components of the Underlying Index are listed in JPY.

The Underlying Index is a total return index, which means that dividends are reinvested, net of withholding tax. The current withholding tax rates applied are published by the Index Sponsor on the website <a href="http://www.solactive.com/documents-and-downloads/">http://www.solactive.com/documents-and-downloads/</a>

The Underlying Index is calculated end of day and published in USD.

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

## 1.6 Currency Hedging Strategy

The Index embeds a systematic currency hedge strategy against USD (the "Currency Hedging Strategy"), which corresponds to a hypothetical position on a end of month currency forwards on USD adjusted on a daily basis.

On each Index Calculation Date, the Index Level is computed by combining (i) the returns on the Underlying Index converted to USD and (ii) any positive or negative return linked to the Currency Hedging Strategy.

## 1.7 Decision-making Bodies

A committee (in this Index Manual referred to as the "**Committee**" or the "**Index Committee**") composed of staff from the Index Sponsor shall decide about the implementation of any necessary adjustments to the Index in accordance with any applicable regulations that might affect any product that references the Index.

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

#### 1.8 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).

#### 1.9 Historical Data

Historical data will be maintained from the Index Base Date on November 28<sup>th</sup>, 2008.

## 1.10 Licencing

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

# 2 Terms and Definitions relating to the Index

"ACT(t,  $t_{(+1)}$ )" means the number of calendar days between the Index Calculation Date (t) (excluded) and the Index Calculation Date ( $t_{(+1)}$ ) (included);

"ACT( $t_{(-1)},t_{(+1)}$ )" means the number of calendar days between the Index Calculation Date ( $t_{(-1)}$ ) (excluded) and the Index Calculation Date ( $t_{(+1)}$ ) (included);

"AF(t)" or "Adjustment Factor for daily hedge on t" means in respect of any Index Calculation Date (t), an adjustment factor determined as follows:

$$AF(t) = \frac{BUYJP(t-1)}{BUYJP(t_{(-1)})}$$

"BUYJP(t)" means in respect of any Index Calculation Date (t), the closing level of the Solactive Japanese Buyback Index denominated in JPY published in Reuters under the code <.BUYJP> and in Bloomberg under the code BUYJP <Index>;

"Foreign Exchange Rate", "FX(t)" means in respect of an Index Calculation Date (t), the closing spot exchange rate to convert the Index Currency (i.e. USD) into JPY as of such Index Calculation Date (t), as published by the WM Company, or any successor thereto;

"FX Rebalancing Date" means the last business day of each month;

"Hedge Impact", "HI(t)" means in respect of an Index Calculation Date (t), the performance impact of hedging the exposure JPY relative to the Index Currency as of such Index Calculation Date (t);

"Index Calculation Agent" means Solactive AG acting as calculation agent for the Index;

"Index Calculation Date" means any Scheduled Calculation Date on which no Index Disruption Event exists;

"Index Currency" means the US Dollar ("USD");

"Index Disruption Event" means with respect to an Index Component that is Market Data, the non-publication of the level of any Market Data used by the Index Calculation Agent for the purposes of calculating the Index;

"Index Launch Date" means January 26th, 2015;

"Index Level", "IL(t)" means in respect of any Index Calculation Date (t), the closing level of the Index calculated and published by the Index Calculation Agent on such date at the Valuation Time, pursuant to the Index Rules;

"Index Sponsor" means Solactive AG;

"One-month Forward Contracts" means the hypothetical one-month currency forwards contracts on USD used to hedge the JPY currency risk;

"One-month Forward Foreign Exchange Rate", "F(t)" means in respect of Index Calculation Date (t), the one-month forward exchange closing rate to convert the Index Currency into JPY, as published by the WM Company, or any successor thereto;

"Scheduled Calculation Date" means any day on which the Underlying Index is calculated and disseminated by the Underlying Index Sponsor.

" $t_{(-1)}$ " means in respect of Index Calculation Date (t), the FX Rebalancing Date immediately preceding such Index Calculation Date (excluded). For the avoidance of doubt, if (t) is a FX Rebalancing Date,  $t_{(-1)}$  shall be approximately one month before (t);

" $t_{(+1)}$ " means in respect of Index Calculation Date (t), the FX Rebalancing Date immediately following such Index Calculation Date (included). For the avoidance of doubt, if (t) is a FX Rebalancing Date,  $t_{(+1)}$  shall be identical to (t);

"Underlying Index", means the Solactive Japanese Buyback Index (USD);

"Underlying Index Level", "UI(t)" means in respect of any Index Calculation Date (t), the closing level of the Underlying Index as of such Index Calculation Date (t);

"Underlying Index Sponsor", means Solactive AG;

"Valuation Time" means at 6pm Central European Time as of the Index Launch Date and as may be modified by the Index Sponsor from time to time thereafter).

#### 3 Calculation of the Index

#### 3.1 Index Formula

The Index Value "IL(t)" on a Index Calculation Date at the relevant time is calculated in accordance with the following formula:

$$IL(t) = IL(t_{(-1)}) \times \left[ \frac{UI(t)}{UI(t_{(-1)})} + HI(t) \right]$$

with,

IL(0) = 1000 (as of the Index Launch Date)

HI(t) is determined as follows:

When t is not the last business day of the month:

$$HI(t) = \sum_{i=t_{(-1)}+1}^{t} AF(i) \times \left(\frac{FX(t_{(-1)})}{FFX(i-1)} - \frac{FX(t_{(-1)})}{FFX(i)}\right)$$

When t is the last business day of the month  $(t=t_{(+1)})$ :

$$HI(t) = \sum_{i=t_{(-1)}+1}^{t-1} AF(i) \times \left(\frac{FX(t_{(-1)})}{FFX(i-1)} - \frac{FX(t_{(-1)})}{FFX(i)}\right) + AF(t) \times \left(\frac{FX(t_{(-1)})}{FFX(t-1)} - \frac{FX(t_{(-1)})}{FX(t)}\right)$$

With:

$$FFX(t) = FX(t) + \frac{ACT(t, t_{(+1)})}{ACT(t_{(-1)}, t_{(+1)})} \times (F(t) - FX(t))$$

## 3.2 Consequences of an Index Extraordinary Event

If the Underlying Index is (i) not calculated and announced by the sponsor of the Underlying Index (the "Underlying Index Sponsor") but is calculated and announced by a successor Underlying Index Sponsor acceptable to the Index Calculation Agent, after instruction from the Index Sponsor, or (ii) replaced by a successor index using, in the determination of the Index Calculation Agent, after instruction from the Index Sponsor, the same or a substantially similar formula for and method of calculation as used in the calculation of such Underlying Index, then in each case that successor index will replace such Underlying Index. Additionally, if the Underlying Index ceases to be the underlying reference asset of an exchange-traded futures or option contract (if applicable), the Index Calculation Agent, after instruction from the Index Sponsor, may, but is not obligated to, replace the Underlying Index with a new index; provided that such new index uses, in the determination of the Index Calculation Agent, after instruction from the Index Sponsor, the same or a substantially similar formula for and method of calculation as used in the calculation of the original Underlying Index.

In the event that the Underlying Index is replaced under any circumstance described in the previous paragraph, that replacement index will be deemed a "Successor Underlying Index" for such Underlying Index. Such Successor Underlying Index will be used as a substitute for the original Underlying Index for all purposes, including for purposes of determining the level of the Underlying Index and whether an Index Disruption Event exists with respect to such Underlying Index.

If, with respect to the Underlying Index and a Scheduled Trading Day, the sponsor of the Underlying Index announces on or prior to such Scheduled Trading Day that it will make a material change in the formula for or the method of calculating such Underlying Index or in any other way materially modifies such Underlying Index (other than a modification prescribed in that formula or method to maintain such Underlying Index for routine events), the Index Calculation Agent, after instruction from the Index Sponsor, may, but is not obligated to, calculate the level of the Underlying Index on such Scheduled Trading Day in accordance with the formula for and method of calculating such Underlying Index last in effect prior to such change or cancellation, but using only those securities or instruments that comprised such Underlying Index immediately prior to such change or cancellation.

If at any time the method of calculating the Underlying Index, or the level thereof, is changed in a material respect, or if the Underlying Index is in any other way modified so that such Underlying Index does not, in the opinion of the Index Calculation Agent, after instruction from the Index Sponsor, fairly represent the level of the Underlying Index had such changes or modifications not been made, then the Index Calculation Agent, after instruction from the Index Sponsor, may, but is not obligated to, make such calculations and adjustments as the Index Calculation Agent, after instruction from the Index Sponsor, determines necessary in order to arrive at a level of an index comparable to such Underlying Index as if such changes or modifications had not been made, and the Index Calculation Agent, after instruction from the Index Sponsor, will calculate the level of the Index with reference to such Underlying Index, as adjusted.

If the Underlying Index Sponsor cancels the Underlying Index on or prior to any Scheduled Trading Day and no Successor Underlying Index exists, the Index Calculation Agent shall not determine the level for the Index for such Scheduled Trading Day. If such event exists and is not cured for twenty Scheduled Trading Days, the Index Calculation Agent shall, after instruction from the Index Sponsor either (each a "Extraordinary Event Remedy")

- (i) amend the Index Rules in a manner that preserves the economic characteristics of the Index,
- (ii) permanently cancel the Index, or
- (iii) decide to postpone such decision for another period of twenty (20) Scheduled Trading Days (an "Extraordinary Event Period Extension"), provided that after such period, Index Calculation Agent, after instruction from the Index Sponsor, shall decide again between the Extraordinary Event Remedies above, subject to a maximum of three Extraordinary Event Period Extension, including the first one.

## 3.3 Index Disruption Events Remedies

If an Index Disruption Event occurs on a Scheduled Calculation Date (a "Disrupted Calculation Date"), then the Index Calculation Agent, after instruction from the Index Sponsor, shall not calculate the Index Level on such Disrupted Calculation Date in which case the next Calculation Date shall be the first succeeding Scheduled Calculation Date that is not a Disrupted Calculation Date for any Index Component as determined by the Index Calculation Agent, after instruction from the Index Sponsor, unless each of the five Scheduled Calculation Dates immediately following the initial Disrupted Calculation Date is also a Disrupted Calculation Date for any Index Component, in which case:

- (i) the fifth Scheduled Calculation Date following the initial Disrupted Calculation Date, and each Scheduled Calculation Date that is a Disrupted Calculation Date thereafter, shall be deemed to be a Calculation Date (each, a "**Disrupted Calculation Date**"), notwithstanding the existence of an Index Disruption Event on such date and only for the purpose of determining an estimate of the Index Level; and
- (ii) on that fifth Scheduled Calculation Date and on each Disrupted Calculation Date thereafter, the Index Calculation Agent shall calculate the Index Level based on, in respect of a Basket Component, the levels or prices of the affected Basket Component last in effect prior to the occurrence of the relevant Index Disruption Event and relevant market indicators on the relevant date(s) of determination; and as determined in good faith, after instruction from the Index Sponsor.

Notwithstanding the foregoing Section, on any day from the first Disrupted Calculation Date but no later than the twentieth Scheduled Calculation Date following the initial Disrupted Calculation Date, if an Index Disruption Event has been continuing on each such day, the Index Sponsor will decide to (each a "Index Disruption Remedy"):

- (i) adjust any relevant terms of the Index Rules in a manner that preserves the economic characteristics of the Index; or
- (ii) continue the determination of the Index Level pursuant to section (ii) above for another maximum period of twenty Scheduled Calculation Dates (a "Disruption Period Extension"), provided that after such period, the Index Sponsor shall decide again between the Index Disruption Remedies, including a renewal of the Disruption Period Extension, subject to a maximum of three such extensions, including the first one.

If neither of the Index Disruption Remedies (i) and (ii) above constitutes suitable remedies for such Index Disruption Event, the Index Sponsor will permanently cancel the Index.

## 4 Appendix

#### 4.1 Contact data

## Information regarding the Solactive concept

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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 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 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. Despite the modifications and changes the Index Sponsor will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.