Guideline relating to

Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged)

Version 2.0 dated 12 November 2014

Contents

This document contains the underlying principles and regulations regarding the structure and the operating of the Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged). 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 index nor the index value at any certain point in time nor in any other respect. The Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is the sole property of Solactive AG. Solactive AG 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 calculation and 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 is to be used as a guideline with regard to the composition, calculation and management of the Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged). Any changes made to the guideline are initiated by the Committee specified in section 1.6.. Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is the sole property of Solactive AG. Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is calculated and published by Solactive AG. The name "Solactive" is copyrighted.

1. Index specifications

Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is a rules-based, initially equal weighted index for the hybrid securities market denominated in JPY. The index is comprised of USD/EUR/GBP denominated hybrid securities which can be called or matured before Jul 2019.

1.1. Name and ISIN

Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is distributed under ISIN DE000SLA0GX2; the WKN is SLA0GX .

1.2. Initial value
The index will be calculated every Business Day starting on 5th of June 2014. The index was based on 1000 as at the close of trading on 5th of June 2014.

1.3. Distribution

The Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is published via the price marketing services of Boerse Stuttgart AG and is distributed to all affiliated vendors.

1.4. Prices and calculation frequency

Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is calculated based on the Evaluated Price (see 5.1 Further Definitions) of the respective index components. The index is calculated and distributed once every Business Day. In the event that data cannot be provided or that there are troubles regarding the price marketing of Solactive AG the index cannot be distributed.

1.5. Weighting

The Index Components are initially equally weighted and then their respective weightings change according to their respective price and exchange rate movements. The weighting methodology may be amended by the Index Committee and the Scientific Committee if required due to legal framework.

1.6. Decision-making bodies

The Scientific Committee is composed of 3 people.

Member of the Scientific Committee	Julien Turc	SG Research
	Benjamin Bruder	Lyxor Research
	Makoto Yosano	SG Tokyo/Lyxor

The roles of the scientific committee are:
> ➢ to approve the modification on the index rule in the future,
> ➢ to provide (if needed) the information/data to the index provider.

A Committee composed of Solactive AG employees is responsible for decisions regarding the composition of Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) as well as any amendments to the rules (hereinafter referred to as the "**Committee**" or the "**Index Committee**"). The Committee will also decide about the future composition of Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) if any extraordinary event (see chapter 4) occurs and the implementation of any necessary adjustments.

Members of the Committee can recommend at any time changes to the composition of the Index or to the guideline and submit them to the Committee for approval.

1.7. Publication

All specifications and information relevant for calculating the index are made available on the http://www.solactive.com web pages and sub-pages.

1.8. Historical data

Historical data will be maintained from the 05-June 2014.

1.9. Licensing

Licenses 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. Composition of the Index

2.1. Eligible Portfolio Construction

The Eligible Portfolio is constructed from the universe of the Hybrid Securities Universe. From the Hybrid Securities Universe the following filters are applied to derive the Eligible Portfolio:

Issuer	Issuers included in G-Sifis and G-Siis list*, issue from Greece and China shall be excluded * G-Sifis and G-Siis also include their subsidiaries or related companies guaranteed respectively by such relevant G-SIIs or G-SIFIs as applicable and major subsidiaries without guarantee from G-SIIs/G-SIFIs parent.
Currency	USD, EUR and GBP securities only
Maturity	Maturity or First Call between [01-JUL-2016] and [01-Jul-2019]
Liquidity Criteria	Liquidity Score, provided by the Scientific Committee = 1
Contingent Convertible	Contingent Convertible bonds with permanent write down clause should be excluded
Lower Limit Rating	Strictly above CCC+
Rating	Based on the rating of Moody's and S&P. If both ratings are available, the worst rating of two will be considered. If only one rating is available, the available rating will be considered.

2.2. Final Portfolio Construction

At the time of the Index Launch, the Final Portfolio shall be constructed with the following method

All bonds in the eligible portfolio will be ranked according to their Adjusted Yield, whereas the bond with the highest Adjusted Yield will receive the smallest Yield score. From this list, the 30 bonds will be selected from the Eligible Portfolio, such that the sum of the Yield Score of the 30 selected bonds is as low as possible and the portfolio satisfies all the Initial Portfolio Constraint.

Initial Portfolio Constraint

Limit per Issuer	Exposure on one Issuer is capped at [4] bonds per issuer
Tier 2 Instrument	At least [1] bonds of the portfolio shall be allocated to Tier 2 Hybrid Securities.
Sector diversification	At least [3] bonds of the portfolio shall be from each Banking/Insurance sector.
Currency diversification	At least [5] bonds of the portfolio shall be denominated on each USD/EUR/GBP.
Contingent Convertible	Exposure on Contingent Convertible is capped at [4] bonds

3. Ordinary adjustment

Bond Replacement

If any bond is exiting from the Final Portfolio due to a Semi-Annual Portfolio reshuffle, the Monthly Pre-Credit Event Replacement or the Roll Replacement, such bond shall be replaced by the bond having the highest Adjusted Yield from the Candidate Portfolio*. If there is no bond available in the Candidate Portfolio, then the bond shall be replaced by the US Treasury bill or UK/German government bond equivalent with the same currency as the exiting bond with maturity closest but before [01-JUL-2019]. Bonds causing the Limit of 20% Max weight per Issuer to be breached do not qualify as a replacement. The weight of the newly entering bond is that of replaced exiting bond. Exposure on Contingent Convertible is capped at [4] bonds

3.1. Limit per Issuer rebalance

3 business days before the last Business Day of each month, if the aggregated weighting on one issuer is exceeding [20%], then the total exposure to such issuer is reset to [19%]. Weight adjustment shall be allocated to other issuers on pro-rata basis. The effective date of such adjustment shall be on the first Business Day of the next month, whereas the corresponding Cap factor shall be determined 3 business days before the last Business Day of the month.

3.2. Semi-Annual Portfolio re-shuffle

Semiannually on the last Business Day of each November and May, starting from the end of November-2014 to the end of May-2018, the semi-annual Portfolio re-shuffle takes place.
3 business days before the semi-annual Portfolio reshuffle the Index Calculator calculates the Adjusted Yield on the Final Portfolio and the Candidate Portfolio.
If the lowest Adjusted Yield in the Final Portfolio is smaller than the Adjusted Yield of the Upper Quartile in the Candidate Portfolio, then the bond with the lowest Adjusted Yield in the Final Portfolio shall be replaced by the bond with the highest Adjusted Yield in the Candidate Portfolio provided that bond satisfying all the below Re-shuffle conditions. The process is repeated until the lowest Adjusted Yield in the Final Portfolio is at higher or equal to the Adjusted Yield of Upper Quartile bond in the Candidate Portfolio. If there is no bond satisfying all the Re-shuffle conditions, there won't be any re-shuffle.

Re-shuffle Conditions

Limit per Issuer	Bond which, by entering the Final Portfolio, causing a breach on the Limit per Issuer (20%), shall not be accepted
Yield Condition	The replacing bond's Adjusted Yield (ASK) needs to be at least [0.5%] higher than the exiting bond's Adjusted Yield (BID)
Maturity Condition	Call/Maturity date of the replacing bond needs to be after [01-JUL-2018].
Quality Condition	Strict Liquidity Score, provided by the Scientific Committee = 1 and the issuer's 5 year Senior CDS spread needs to be below [200]
Contingent Convertible	Exposure on Contingent Convertible is capped at [4] bonds

3.3. Monthly Pre-Credit Event Replacement

3 business days before **the last business day of each month**, if any bond in the Final Portfolio met the condition of Pre-credit Event, then this bond shall be eliminated from the Final Portfolio and replaced by the bond having the highest Adjusted Yield from the Candidate Portfolio in the next Credit Event Replacement date. The effective date of such adjustment shall be on the first Business Day of the next month.

Pre-credit Event	Either of 2 conditions met
	1) Bond rating is at or lower than CCC+,
	2) Distressed conditions; satisfying **both** below 2 conditions;
	i) The ratio between the equity of the issuer and the banking (or insurance) ETF listed below has a maximum drawdown of -60% during the preceding 3M period.
	KBE UP Equity (US Bank) IAK UP Equity (US Insurance) SX7PEX GY Equity (European Bank) INS FP EQUITY (European Insurance) 1306 JT (Japanese Bank/Insurance)
	ii) The 5 year senior CDS spread of the issuer is above 5%.

3.4. Roll Replacement

When any bond from the Final Portfolio is called, defaulted, conversion condition is triggered (applying to contingent convertibles)or matured on or before [01-JUL-2018], then this bond shall be replaced by the bond having the highest Adjusted Yield immediately at COB of the relevant call/maturity date. Any bond called or matured after [01-JUL-2018] shall be replaced by the Treasury bill or UK/German government bond equivalent with the same currency as the exiting bond with maturity closest but before [01-JUL-2019].

4. Calculation of the Index

4.1. Index formula

Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is an index whose value reflects the relative changes in bond values. Therefore the composition and weighting is adjusted every month.

As a formula:

$$Index_t = Index_{t-1} * (1 + \sum_{i=1}^{a} (Totalreturn_{t,i} * weighting_{t-1,i}))$$

$$Totalreturn_{t,i} = \frac{Dirty\,Price_{t,i}}{Dirty\,Price_{t-1,i}} * \frac{Fx_{i,t}}{Fx_{i,t-1}} - 1$$

$$weighting_{t,i} = \frac{Dirty\,Price_{t,i} * Amount_{rb,i} * CapFactor_{rb,i}}{\sum_{i=1}^{a} Dirty\,Price_{i,t} * Amount_{rb,i} * CapFactor_{rb,i}}$$

$$Dirty\,Price_{t,i} = Price_{t,i} + ACCInt_{t,i} + PaidCash_{t,i}$$
$$Dirty\,Price_{t-1,i} = Price_{t-1,i} + ACCInt_{t-1,i}$$

Whereas:

$Index_t$	= Value of the index on trading day t
$Index_{t-1}$	= Value of the index on trading day t-1
$Totalreturn_{t,i}$	= Total return of the bond i on trading day t
$Price_{i,t}$	= Clean Price of the bond i on trading day t
$Price_{i,t-1}$	= Clean Price of the bond i on trading day t-1
$ACCInt_{i,t}$	= Accrued Interest of the bond i on trading day t
$ACCInt_{i,t-1}$	= Accrued Interest of the bond i on trading day t-1
$Fx_{i,t}$	= exchange rate of currency I on trading day t
$Fx_{i,t-1}$	= exchange rate of currency i on trading day t-1
$Weighting_{t,i}$	= weighting of the bond i on trading day t

$CapFactor_{rb,i}$ = Cap Factor is leading to an equal weight of all components (i) in the index on the Launch Date

It also serves to reset total exposure to one issuer to 19%, when it exceeds 20% (c.f. section 3.1.)

$PaidCash_{i,t}$ = Value of the coupon payment for bond i on trading day t

5.2 Accuracy

The value of the index will be rounded to four decimal places.

According to the terms of the bond, the Index Calculator will take the following conventions into account:
Act/Act
Act/360
Act/365
30/360
ISMA 30/360

The index does not take taxes into account and assumes gross coupon payments.

Accrued interests are calculated with settlement convention t+0. If a bond does not pay any coupons (e.g. zero coupon bonds or T-Bills) the Accrued Interest as well as the coupon payment will be set to 0.

5.3 Adjustments

Indices need to be adjusted for systematic changes in prices once these become effective. Following the Committee's decision Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) is adjusted for special payments, bankruptcy, capital reductions and redemptions. Thereby possible payments are included in the calculation as „Paid Cash".

6 Definitions

"Last Evaluated Price" generally is (aside from the rules referred to in "Extraordinary Events") the last available evaluated bid price. For bonds entering the index the last available evaluated ask price is considered.

A "**Business Day**": Tokyo/London/ NY

The **"Index Calculator"** is Solactive AG or any other appropriately appointed successor in this function.

The **"Index Currency"** is JPY.

"Issuer" is the issuing entity of the respective bond.

"Adjusted Yield" is defined as [Bond Ask yield + 1M Tibor – 1M Bond Currency Ibor] Where "Ibor" is US Libor for USD bonds, GBP Libor for GBP bonds and Euribor for EUR bonds.

"Yield Score" takes value of from 1 to N (where N is the number of bonds in the Eligible Portfolio). Yield Score of 1 is attributed to the bond with the highest Adjusted Yield in the Eligible Portfolio and n is attributed to the bond with the nth highest Adjusted Yield in the Eligible Portfolio.

"Candidate Portfolio" is the portfolio consists of the Eligible Portfolio excluding the members already in the Final Portfolio.

"Upper Quartile" is the highest 25th percentile. For example, if there are 40 bonds in the portfolio, ranked with Adjusted Yield, it corresponds the 10th highest Adjusted Yield in the portfolio.

"G-Sifis" list Global Systemically Important Financial Institutions*

"G-Siis" list Global Systemically Important Insurers*

* G-Sifis and G-Siis also include their subsidiaries or related companies guaranteed respectively by such relevant G-SIIs or G-SIFIs as applicable and major subsidiaries without guarantee from G-SIIs/G-SIFIs parent.

7 Appendix

7.1 Information provided by the Scientific Committee

The Scientific Committee provide following data to Solactive 4 days on each semi-annual reshuffle .

- Liquidity Score (used for the Eligible Portfolio construction) and Strict Liquidity Score (used for the semi-annual reshuffle) ➔ when replacement is considered.

7.2 Contact data

Information regarding Solactive Hybrid Securities Model Portfolio Index 07-2019 (FX un-hedged) concept

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7.3 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. 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, 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.