Solactive USD Emerging Market Bond –Interest Rate Hedged Index

Summary

- *The Solactive USD Emerging Market Bond –Interest Rate Hedged Index (the "Index") is a rule based index that tracks the performance of a basket of US dollar denominated Emerging markets bonds. The treasury rate exposure of the bonds is hedged by a Duration-matched short position in US Treasury bonds.*
- *The Index is comprised of a basket of USD denominated Emerging Market Bonds issued by governments or quasi-sovereign entities on the long side and matching USD Treasury bonds on the short side.*
- *The Index is reconstituted and rebalanced on the last business day of each month.*

Index Publication

The Index is calculated and published to Bloomberg as follows

Index Name	Return Type	Currency	Bloomberg Ticker	Reuters Ticker
Solactive USD Emerging Market Bond – Interest Rate Hedged Index	Total Return	USD	SOLEMIH Index Consisting of SOLEMLO and SOLEMSH	. SOLEMIH

Index Description

The Solactive USD Emerging Market Bond –Interest Rate Hedged Index ("Index") tracks the performance of a basket of US dollar denominated Emerging market bonds issued by sovereigns and quasi sovereign entities. The treasury rate exposure of the SOLACTIVE USD Emerging Market Bond Portfolio is hedged by a Duration-matched short position in US Treasury bonds. The index is hence composed of two sub-portfolios: The Long Position: SOLACTIVE USD Emerging Market Bond Portfolio ("USD EM Portfolio") and the short position: SOLACTIVE Treasury Hedge Portfolio ("Hedge Portfolio").

The bonds eligible for inclusion in the SOLACTIVE USD Emerging Market Bond Portfolio (the "Selection Pool") are those bonds that fulfil the following conditions:

The Long Position: USD EM Portfolio

- Market Issue: Government debt or debt from quasi sovereign entities only. The following market types are excluded: REGS and private placements if they are not 144As.
- Bond Type: Fixed coupon bonds, callable and puttable bonds, zero coupon bonds are eligible for inclusion.
- The following bond types are excluded: floating rate bonds, variable coupon bonds, convertibles, inflation-linked bonds, accrued only bonds, Pay-in kind bonds, repackaged securities linked to a security, preferred securities, bearer bonds, asset backed or other structured bonds, defaulted bonds, flat trading bonds, dual currency bonds.
- Country of risk: Bonds with country of risk classified as emerging markets by Solactive index committee are eligible. The following countries are classified as emerging markets as of October 2014: Brazil, Chile, China, Colombia, Croatia, Ecuador, El Salvador, Hungary, Indonesia, Kazakhstan, Latvia, Lebanon, Lithuania, Malaysia, Mexico, Panama, Peru, Poland, Qatar, Romania, Russia, South Africa, Sri Lanka, Turkey, Ukraine, Uruguay, Venezuela, Egypt, Philippines
- Time to maturity: Bonds already included in index must have a minimum of 2 years remaining to maturity. Bonds to be included must have a minimum of 2.5 years to maturity.
- Amount Outstanding of at least 1 bn USD
- Currency: US Dollar denominated.
- Bonds must be priced by the relevant pricing provider as stated under Index Calculation and Publication.

The Short Position: SOLACTIVE Treasury Hedge Portfolio ("Hedge Portfolio")

The short position rebalances monthly on the last business day of each month. Cheapest to deliver (CTD) treasury bonds for US Treasury bond futures are used to create a Duration-matched short position to hedge treasury rate exposure of the long USD EM Portfolio position. The CTD bonds for the 5 front quarter US Treasury bond futures[1] are selected. On each monthly rebalancing day, Duration of all bonds in the long position and Duration of the 5 CTD bonds eligible for the short position are calculated. All 5 CTD bonds can be included in the index. A CTD bond will only not be included if it receives a weight of 0% (see "Index Rebalancing and Weighting").

The SOLACTIVE USD Emerging Market Bond –Interest Rate Hedged Index, the Hedge Portfolio and the USD EM Portfolio are calculated on each "Business Day". Business Days are defined as days on which the New York Stock Exchange (NYSE) is open for trading.

[1] 2-Year US Treasury note future (TH), 5-Year US Treasury note future (FV), 10-Year US Treasury note future (TY), US Treasury long bond future (US) and Ultra US Treasury bond future (WN).

A committee composed of staff from Solactive AG (the "Index Committee") is responsible for amendments to the rules and the Index Administrator is responsible for decisions regarding the composition of the Index. Oversight of the Index is the responsibility of the Index Committee. Each member of the Index Committee is subject to procedures designed to prevent the use and dissemination of material non-public information regarding the Index.

The future composition of the Index is set by the Index Calculation Agent on the Selection Days (as defined herein). The Index Calculation Agent also makes decisions regarding the future composition of the Index if any Extraordinary Events (as defined herein) should occur and the implementation of any necessary adjustments.

Members of the Index Calculation Agent can recommend at any time changes to the composition of the Index or to the rules and submit them to the Index Committee for approval in order to address extraordinary circumstances.

Index Calculation and Publication

Solactive AG ("Solactive") serves as the Index Administrator and Calculation Agent. The price of the Index is calculated on each Business Day based on bid prices provided by Interactive Data or any appointed successor for the Index components ("Index Components"). The most recent prices of all Index Components are used. The Index is calculated every Business Day around 4:45 pm New York time. Coupons are reinvested on the respective next rebalancing day.

Reuters/EJV and other third-party pricing sources are also used in the verification process and also used when prices from the primary sources are unavailable for a particular bond and date.

The Index is published via the price marketing services and Boerse Stuttgart AG and is distributed to all affiliated vendors. All specifications and information relevant for calculating the Index are made available on the http://www.solactive.com web page and sub-pages.

Index Rebalancing and Weighting

The composition of the Index is determined three days prior to the last Business Day of each month (the "Selection Day"). The composition of the Index is ordinarily adjusted monthly on the last Business Day of each month (the "Adjustment Day"). The first adjustment will take place on the last business day in November 2014.

As of each Selection Day, all bonds which meet the requirements of the Selection Pool are included in the Index. Additionally, on the Selection Day of each month, the Index Committee evaluates whether all current Index Components still meet the requirements of the Selection Pool and – if necessary – any Index Components which do not pass this screen are removed from the Index as soon as reasonably practicable. On each Selection Day, Solactive identifies the Selection Pool.

The Index Committee will decide about the future composition and the implementation of any necessary adjustments of the Index if an Extraordinary Event (as defined below) regarding one or more Index Components occurs.

The Long Position

At the respective Selection Day prior to the Adjustment Day, country weights are capped at 5%. Excess weights will be redistributed on a pro rata basis among countries whose weights are less than 5%. The process is iterated till no country has a weight higher than 5%. The resulting weights are called final capped weight.

The Short Position

On the respective Selection Day prior to the Adjustment day, weights of the 5 CTD Treasury bonds selected for the short position are calculated as below.

Bonds in the long position are divided into 5 buckets corresponding to the 5 selected CTD Treasury bonds. Each bond is grouped with the CTD Treasury bond with the closest Duration match. The amount outstanding of each Treasury bond is assigned such that the Duration of the Treasury bond is equal to the aggregate Duration of all bonds in the corresponding bucket. In the case where the combined market value of the short positions is not equal to the market value of the long position, the market value of the longest and shortest Treasury bonds in the short position are adjusted so that the total market value of the long position and short position agree while holding the aggregate Duration constant.

Index Calculation

Index formula

The SOLACTIVE USD Emerging Market Bond –Interest Rate Hedged Index is calculated as

$$LSIndex_t = LSIndex_n * (1 + \frac{Portfolio^{Long}{}_t}{Portfolio^{Long}{}_n} - \frac{Portfolio^{Short}{}_t}{Portfolio^{Short}{}_n}) + LSIndex_{t-1} * (FF_{t-1} * DCF_t)$$

Where:

$LSIndex_n$ = Value of the Long Short Index on Adjustment Day n

$LSIndex_t$ = Value of the Long Short Index on Calculation Day t

$Index^{Long}{}_t$ = Value of the Long Portfolio on Calculation Day t

$Index^{Long}{}_n$ = Value of the Long Portfolio on Adjustment Day n

$Index^{Short}{}_t$ = Value of the Short Portfolio on Calculation Day t

$Index^{Short}{}_n$ = Value of the Short Portfolio on Adjustment Day n

FF_{t-1} = Federal Funds Effective Rate as of t-1 divided by 100

DCF_t = Day Count Fraction, which shows the difference of the last Calculation Day t-1 until Calculation Day t divided by 360

USD EM Portfolio (Long Portfolio) or Hedged Index (Short Portfolio) is calculated as:

As a formula:

$$MarketValue_t = \sum_{i=1}^{a} (Dirty\,\mathrm{Price}_{i,t} + CPAdj_{i,t}) \cdot Amount_{i,n} \cdot Capfactor_{i,rb}$$

$$PaidCash_t = \sum_{i=1}^{a} Coupon_{i,t} \cdot Amount_{i,n} \cdot Capfactor_{i,rb}$$

$$BaseValue_n = \sum_{i=1}^{a} (Dirty\,\mathrm{Price}_{i,n} + CPAdj_{i,t}) \cdot Amount_{i,n} \cdot Capfactor_{i,rb}$$

Whereas:

$Portfolio_t$ = Value of the Portfolio on Business Day t.

$Portfolio_n$ = Value of the Portfolio on the last Adjustment Day n.

$CPAdj_{i,t}$ = Variable Coupon Adjustment Factor i on Business Day t is 0 if a bond enters the portfolio during an ex-dividend period. If the bond is already in the index during the ex-dividend period, the Variable Coupon Adjustment Factor equals the coupon amount.

$Dirty\,\mathrm{Price}_{i,t}$ = Dirty Price of the bond i on Business Day t, whereas Dirty Price t is the sum of the clean price of the bond i on Business Day t and the accrued interest on Business Day t.

$DirtyPrice_{i,n}$ = Dirty Price of the bond i on the last Adjustment Day n, whereas Dirty Price is the sum of the clean price of the bond i on the last Adjustment Day n and the accrued interest on the last Adjustment Day n.

$Amount_{i,n}$ = Amount Outstanding of the respective bond as defined on the last Adjustment Day n.

$PaidCash_t$ = a) Value of the coupon payments between Adjustment Days.

b) If a bond i will be removed from the portfolio between Adjustment Days, the resulting payment of the bond will be included in the Paid Cash component of the portfolio.
On the next Adjustment Day "Paid Cash" will be reinvested in the portfolio.

$Coupon_{i,t}$ = Coupon payment of bond i between payment date and Adjustment Day n. In case there is no coupon payment, Coupon i,t is 0.

$Capfactor_{i,rb}$ = Weighting Cap Factor of portfolio component i determined on Selection day rb, to cap the weighting as described under Index Rebalancing and Weighting

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

The index was launched on the October 31st 2014. The history is backtested since December 31st 2011.

According to the terms of the bond, the Calculation Agent will take the following conventions into account:

Act/Act

Act/360

Act/365

30/360

ISMA 30/360

The Index or Portfolio does not take taxes into account and assumes gross coupon payments and settlement convention of t+0.

Adjustments

Indices need to be adjusted for systematic changes in prices once these become effective. Following the Index Committee's decision, the following Corporate Actions will result in changes or adjustments to an index or Portfolio as indicated below between Adjustment Days:

- For Full Tender, Early Redemption or Full Call, the bond proceeds will be held in Paid Cash until the reinvestment at the next rebalancing day. For the avoidance of doubt a tender must be mandatory, the pure offer to tender a bond will not lead to an adaption of the index or portfolio.

- Flat Trading: A bond is flat trading if the bond issuer will not meet its coupon payment obligation which means that the buyer of a bond is not responsible for paying the interest that has accrued since the last payment. If a bond is defined to be "flat trading" between two adjustment days the respective Accrued Interests and coupons will be set to 0. The bond will not be removed until the next adjustment date.

- Defaulted bonds: If the status of a bond changes to "In Default", the bond will remain as part of the index or portfolio at the last available evaluated price provided by the pricing source until the next regular index adjustment day.

Note: Debt issuances of an existing bond will not be considered until the next Adjustment Day.

Definitions

A "**credit event**" is the suspension of debt service, insolvency or failure to pay.

"Extraordinary event" is an early redemption of a bond or a credit event

"**Last price**" is (aside from the rules referred to in "extraordinary events") the last available evaluated price.

A "**Business Day**" is a day on which New York Stock Exchange is open for trading.

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

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

"Quasi sovereign debt": is debt from entities that are controlled, owned or guaranteed by a government

The "**index currency**" is the U.S. dollar

"Long Portfolio" is the USD EM Portfolio

"Short Portfolio" is the Hedged Index

"Selection Day" is the business day 3 days prior to the Adjustment day.

"Adjustment Day" is the last business day of the month.

Appendix

Contact data

Solactive AG

Guiollettstr. 54

60325 Frankfurt am Main

Tel.: +49 (69) 719 160-19

indexing@solactive.com

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. The Index calculator will make announcements regarding the amendment of the index guideline. 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.