

INDEX GUIDELINE

Solactive Global Bond ESG Climate Indices

Version 2.1

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INTRODUCTION

This document (the “GUIDELINE”) is to be used as a guideline with regard to the composition, calculation and maintenance of the Solactive Global Bond ESG Climate Index (the “INDEX”). Any amendments to the rules made to the GUIDELINE are approved by the OVERSIGHT COMMITTEE as specified in the Bond Index Methodology. 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 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 of financial instruments or investment funds referencing the INDEX under a valid license – 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

The Solactive Global Bond ESG Climate Index is a benchmark to measure the performance of a global investment grade bond universe that includes bonds issued by central governments, government-related issuers, corporates as well as securitized debt instruments. The benchmark is designed to provide a broad coverage of local currency debt from developed and emerging markets.

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	Calculation Formula*	RIC	BBG ticker
Solactive Global Bond ESG Climate Index	DE000SL0BTG9	USD	TR	Periodic	.SOLGES	-
Solactive Global Bond 1-5YR ESG Climate Index	DE000SL0BTF1	USD	TR	Periodic	.SOLG15	-



Solactive Global Bond ESG Climate EUR Index	DE000SL0BTR6	EUR	TR	Periodic	.SOLGEES	-
Solactive Global Bond 1-5YR ESG Climate EUR Index	DE000SL0CMQ1	EUR	TR	Periodic	.SOLGE15	-
Solactive Global Bond ESG Climate GBP Index	DE000SL0CMT5	GBP	TR	Periodic	.SOLGEGS	-
Solactive Global Bond 1-5YR ESG Climate GBP Index	DE000SL0CMU3	GBP	TR	Periodic	.SOLGG15	-
Solactive Global Bond ESG Climate EUR Hedged Index	DE000SL0CMR9	EUR	CH	Standard	.SOLGEEHS	.SOLGEEHS
Solactive Global Bond ESG Climate GBP Hedged Index	DE000SL0CMV1	GBP	CH	Standard	.SOLGEGHS	.SOLGEGHS
Solactive Global Bond 1-5YR ESG Climate EUR Hedged Index	DE000SL0CMS7	EUR	CH	Standard	.SOLGEH15	.SOLGEH15
Solactive Global Bond 1-5YR ESG Climate GBP Hedged Index	DE000SL0CMW9	GBP	CH	Standard	.SOLGGH15	.SOLGGH15

*The calculation formula refers to the index calculation's dependency on cash reinvestment, based on whether the cash reinvestment occurs on a daily/direct basis or periodically.

*TR means that the INDEX is calculated as Total Return index as described in the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>

*CH means that the Index is calculated as Currency Hedge Index as described in the Currency Hedged Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/currency-hedged-general-methodology/>

The INDEX is published on the website of the INDEX ADMINISTRATOR (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

Historical values will be recorded in accordance with Article 8 of the BMR. Levels of the INDEX published for a period prior to this date have been backtested.

Name	RIC	Live Date	Initial Value
Solactive Global Bond ESG Climate Index	.SOLGES	31 st July 2022	1000
Solactive Global Bond 1-5YR ESG Climate Index	.SOLG15	31 st July 2022	1000
Solactive Global Bond ESG Climate EUR Index	.SOLGEES	31 st July 2022	1000
Solactive Global Bond 1-5YR ESG Climate EUR Index	.SOLGE15	31 st July 2022	1000
Solactive Global Bond ESG Climate GBP Index	.SOLGEGS	31 st July 2022	1000
Solactive Global Bond 1-5YR ESG Climate GBP Index	.SOLGG15	31 st July 2022	1000
Solactive Global Bond ESG Climate EUR Hedged Index	.SOLGEEHS	31 st July 2022	1000
Solactive Global Bond ESG Climate GBP Hedged Index	.SOLGEGHS	31 st July 2022	1000
Solactive Global Bond 1-5YR ESG Climate EUR Hedged Index	.SOLGEH15	31 st July 2022	1000
Solactive Global Bond 1-5YR ESG Climate GBP Hedged Index	.SOLGGH15	31 st July 2022	1000

1.4. PRICES AND CALCULATION FREQUENCY

The INDEX is calculated and distributed once every BUSINESS DAY based on the LAST EVALUATED BID PRICES of the INDEX COMPONENTS. Bonds added in a rebalancing (see Section 3) are included in the INDEX at the LAST EVALUATED ASK PRICES on the relevant REBALANCE DAY. Bonds which are excluded from the INDEX in a rebalance are reflected in the calculation of the level of the INDEX for the REBALANCE DAY at the LAST EVALUATED BID PRICES on the relevant REBALANCE DAY. INDEX analytical values are calculated each BUSINESS DAY using the LAST EVALUATED BID PRICES based on FIXING TIME. Prices of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using 4:00 PM London WM Spot and Forward Fixings quoted by Reuters.

The currency hedged indices are calculated based on TRADING PRICES on the exchanges on which the UNDERLYING INDEX COMPONENTS are listed. TRADING PRICES of the UNDERLYING INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the current Intercontinental Exchange (ICE) spot foreign exchange rate. Should there be no current TRADING PRICE for an INDEX COMPONENT, the later of: (i) the most recent CLOSING PRICE; or (ii) the last available TRADING PRICE for the preceding TRADING DAY is used in the calculation.

In addition to the intraday calculation a closing level of the INDEX for each calculation day is also calculated. This closing level is based on the CLOSING PRICES for the underlying index and 4:00 PM London time WM Spot and Forward Fixings quoted by Reuters. If there is no 4:00 PM London time WM Fixing for the relevant CALCULATION DAY, the last available 4:00 PM London time WM Fixing will be used for the closing level calculation.



2. INDEX SELECTION

On each SELECTION DAY, all bonds which meet the INDEX COMPONENT REQUIREMENTS are eligible for inclusion in the INDEX and will be added as INDEX COMPONENT on the REBALANCE DAY. Additionally, on each SELECTION DAY, it will be evaluated whether all current INDEX COMPONENTS still meet the INDEX COMPONENT REQUIREMENTS. Each INDEX COMPONENT that does not meet the INDEX COMPONENT REQUIREMENTS will be removed from the INDEX on the next REBALANCE DAY.

2.1. SELECTION OF THE INDEX COMPONENTS

The initial composition of the INDEX, as well as any selection for a rebalance (as specified in Section 3) is determined using the following rules:

- Bonds not denominated in a foreign hard currency must be issued in one of the listed countries. For Sovereign bonds the country of incorporation is relevant. For all other bonds the country of risk is relevant.

Australia	Malaysia
Austria	Mexico
Belgium	Netherlands
Canada	New Zealand
Chile	Norway
China	Peru
Colombia	Philippines
Croatia	Poland
Czechia	Portugal
Denmark	Qatar
Finland	Singapore
France	Slovakia
Germany	Slovenia
Greece	Spain
Hong Kong	Sweden
Hungary	Switzerland
Indonesia	Taiwan
Ireland	Thailand
Israel	United Arab Emirates
Italy	United Kingdom
Japan	United States
Korea, Republic of	
Luxembourg	

- FIXED COUPON BONDS, ZERO-COUPON BONDS and FIX-TO-FLOAT BONDS are eligible. Fixed coupon MBS, CMBS and ABS are eligible.
- Bonds must be issued by either a corporate, a central government, a government related issuer or an issuer of securitized debt.
- Bonds must have an INVESTMENT GRADE RATING by either S&P or Moody's. For CAD denominated bonds, DBRS Ratings are respected as a third rating agency. For government



issuers, the country's issuer rating is relevant for inclusion. For MBS and CMBS the issuer rating is relevant for inclusion if the bond rating is not available. For the avoidance of doubt if one of the rating agencies applies an INVESTMENT GRADE RATING to the bond (non-structured /non-sovereign securities) or the issuer (sovereign / structured securities) respectively it is eligible for inclusion in the index.

- CNY denominated bonds of the following issuers are eligible regardless of their rating: China Development Bank, Export-Import Bank of China, and Agricultural Development Bank of China.
- STEP-UP BONDS, SINKABLE AND AMORTIZED BONDS, PUTTABLE BONDS, CALLABLE BONDS, EURO MTN BONDS, EURO DOLLAR, PERPETUAL BONDS, EXTENDABLE BONDS, COVERED BONDS as well AS 144A BONDS ARE ELIGIBLE.
- INFLATION LINKED BONDS, CONVERTIBLE BONDS, CERTIFICATE OF DEPOSIT, LOAN PARTICIPATION NOTES, MUNICIPAL BONDS, CONTINGENT CAPITAL SECURITIES, DUAL CURRENCY BONDS, CREDIT LINKED, PREFERRED SECURITIES, PASS-THROUGH CERTIFICATES, MONEY MARKET INSTRUMENTS, BILL & DISCOUNT NOTES, COMMERCIAL PAPERS, PRIVATE PLACEMENTS NOT 144A, COLLATERALIZED DEBT OBLIGATION, TBAs, Fremf Mortgage Trust CMBS, ABS/MBS/CMBS PRIVATE PLACEMENTS, MBS MEGA/PLATINUM POOLS, STRIPS GOVERNMENT BONDS are not eligible.
- In case bonds are issued under 144A AND REGS, the REGS bond is selected while the 144A version is not eligible.
- Danish Mortgage-Backed Securities (Realkreditobligationer / Særligt Dækkede Obligationer & Realkreditobligationer) are not eligible.
- MBS with a 30-year, 15-year or 20-year fixed-rate program are eligible. US Agency CMBS must be issued after July 1, 2014.
- MBS must be issued by the following issuers: GNMA, FHLMC, FNMA.
- For bonds entering the index the EFFECTIVE TIME TO MATURITY must be at least 18 months. Constituents of the index must have an EFFECTIVE TIME TO MATURITY of at least 1 year from the REBALANCE DAY. For MBS, the WEIGHTED AVERAGE MATURITY should be at least 1 year from the REBALANCE DAY. For ABS & CMBS, the AVERAGE LIFE should be at least 1 year from the REBALANCE DAY.
- All bonds with an extraordinary upcoming call date prior to the REBALANCE DAY + 1 BUSINESS DAY are not eligible.
- Bonds must be issued prior to the SELECTION DAY and not defaulted.
- A price from the PRICING PROVIDER must be available for each INDEX COMPONENT on each SELECTION DAY.
- To be eligible, the issue/structured product types must have a minimum amount outstanding as described in the table below:
- For US Treasuries, the amount outstanding is adjusted for central banks holdings.



<i>Region</i>	<i>Currency</i>	<i>Sovereign Issuer</i>	<i>No-Sovereign Issuer</i>
AMERICAS	CAD	1,000,000,000	300,000,000
	USD	1,000,000,000	400,000,000
	CLP	200,000,000,000	400,000,000,000
	COP	1,000,000,000,000	2,000,000,000,000
	MXN	10,000,000,000.00	10,000,000,000
	UYU	70,000,000,000	20,000,000,000
	PEN	1,000,000,000	2,000,000,000
EMEA	CHF	500,000,000	500,000,000
	CZK	10,000,000,000	10,000,000,000
	DKK	5,000,000,000	3,000,000,000
	EUR	1,000,000,000	500,000,000
	GBP	1,000,000,000	250,000,000
	HUF	200,000,000,000	200,000,000,000
	ISK	200,000,000,000	70,000,000,000
	ILS	2,000,000,000	1,500,000,000
	NOK	5,000,000,000	4,000,000,000
	PLN	2,000,000,000	2,000,000,000
	RON	1,000,000,000	2,000,000,000
	RUB	20,000,000,000	35,000,000,000
	SEK	5,000,000,000	1,500,000,000



<i>Region</i>	<i>Currency</i>	<i>Sovereign Issuer</i>	<i>No-Sovereign Issuer</i>
Asia- Pacific	AUD	500,000,000	500,000,000
	CNY	5,000,000,000	10,000,000,000
	HKD	4,000,000,000	3,000,000,000
	IDR	4,000,000,000,000	7,000,000,000,000
	JPY	80,000,000,000	50,000,000,000
	KZT	600,000,000,000	210,000,000,000
	KRW	2,000,000,000,000	600,000,000,000
	MYR	2,000,000,000	2,000,000,000
	NZD	700,000,000	700,000,000
	SGD	500,000,000	700,000,000
	PHP	300,000,000,000	25,000,000,000
	TWD	40,000,000,000	15,000,000,000
	THB	30,000,000,000	15,000,000,000

<i>Deal Size</i>	<i>ABS</i>	<i>CMBS</i>	<i>MBS</i>
<i>USD</i>	1,000,000,000	750,000,000	//
<i>Current Balance or Tranche Size</i>	<i>ABS</i>	<i>CMBS</i>	<i>MBS*</i>
<i>USD</i>	25,000,000	100,000,000	1,000,000,000

*MBS weights are determined with two screenings: See more details in 2.2

The final composition of SOLG15 / SOLGE15 and SOLGG15 are determined using the following rules:

- Bonds must have an EFFECTIVE TIME TO MATURITY for bonds not classified as structured products or Average Life/ Weighted Average Maturity for MBS or Average life for ABS/ CMBS between 1-5 years.

(the “INDEX COMPONENT REQUIREMENTS “)]

The determination of the INDEX COMPONENTS is fully rule-based, and the INDEX ADMINISTRATOR has no discretion.



2.1.1. SELECTION OF THE INDEX CURRENCY COMPONENTS

Based on the INDEX CURRENCY UNIVERSE, the initial composition of the INDEX as well as any selection for an ordinary rebalance is determined on the SELECTION DAY in accordance with the following rules (the "INDEX CURRENCY COMPONENT REQUIREMENTS"):

- All of the currencies from the INDEX CURRENCY UNIVERSE.

2.2. WEIGHTING OF THE INDEX COMPONENTS

On each SELECTION DAY each INDEX COMPONENT is weighted to match the aggregated weight of the respective sub-universe (Corporates, Government, and remaining bonds) in the BENCHMARK INDEX. The optimization considers the Northern Trust ESG framework.

The index is optimized based on the Northern Trust ESG framework. For the optimization the index components of the BENCHMARK INDEX are separated into corporate bonds, sovereign bonds, and the remaining securities.

For the remaining securities, the weight of the index will be integrated in the Index as follow:

$$W_i = W_{bi}$$

Where:

- W_i = Weight Index Bond
- W_{bi} = Weight BENCHMARK INDEX Bond

For corporate and sovereign bonds, the weight of the index will result from the weights of the optimization and integrate in the Index as follow:

$$W_i = W_{obi}$$

Where:

W_{obi} = Weight Optimized Index Bond

1) Optimization for Government bonds

The goal of the objective function is to maximize the weighted Sovereign ESG Score of all sovereign bonds included in the Index under constraints described below. For countries where it is not possible to calculate a Sovereign ESG Score (e.g., due to missing data points), the bonds of the respective country are not eligible. The weight of the securities are optimized based on their exposure to quantitative factors such as:

- Sovereign ESG Score (SovESG) as determined by **Solactive** using World Bank data points.
- **Emission Database For Global Atmospheric Research or EDGAR** (<https://edgar.jrc.ec.europa.eu/>) Carbon Data Points: Carbon Intensity Score and Carbon Risk Rating (=Carbon Transition Score)



- Duration to Worst
- Yield to Worst

The Northern Trust ESG Framework for government bond securities gears for good governance, fiscal prudence coupled with a carbon reduction target to hedge climate change risks. The Sovereign ESG score is updated annually with most recent data available in April.

A Sovereign ESG Score (SovESG) per country is calculated:

$$SovESG = 40\% \times \left(\frac{Db_j}{GDP_j} \right) + 20\% \times \left(\frac{Df_j}{GDP_j} \right) + 20\% \times \left(\frac{Cab_j}{GDP_j} \right) + 20\% \times WGI_j$$

Where:

- Db_j = Country's debt normalized & ranked.
- Df_j = Country's deficit normalized & ranked.
- Cab_j = Country's Current Account Balance normalized & ranked.
- GDP_j = Country's Gross Domestic Product.
- WGI_j = The World Governance Indicator per country. WGI are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. This data is gathered from several survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI is updated annually. The six scores applied to every broad indicator is equally aggregated weighted in a single Governance score. For a detailed description of these scores please refer to: <http://info.worldbank.org/governance/wgi/>

The constraints are defined as follows:

- The weighted average of the CARBON INTENSITY SCORE of the government bonds must be minimum 10% lower than the weighted CARBON INTENSITY SCORE of the government bonds in the BENCHMARK INDEX.
- The weighted average of the CARBON EMISSION of the government bonds must be minimum 20% lower than the weighted CARBON EMISSION of the government bonds in the BENCHMARK INDEX.
- The weighted average of the CARBON TREND SCORE of the government bonds must be minimum 10% lower than the weighted CARBON TREND SCORE of the government bonds in the BENCHMARK INDEX.
- Absolute and relative weighting of countries compared to the BENCHMARK INDEX. We define a maximum and minimum weighting per country by looking at an ABSOLUTE COUNTRY WEIGHT deviation and a Relative Country Weight deviation. The stricter constraint represents the maximum / minimum deviation. Absolute Country Weight –



the weight of each country in the INDEX may deviate by +/-5% from the weight of the country weight in the BENCHMARK INDEX. Relative Country Weight – the weight of each country in the INDEX may range from 150% to -50% compared to the country weight in the BENCHMARK INDEX.

- Currency Weight – the weight of each currency in the INDEX may deviate by +/-5% from the currency weight of the BENCHMARK INDEX.
- Government Bond Yield – The weighted average yield of the government bonds in the INDEX may deviate by +/-1% compared to the weighted average government bond yield in the BENCHMARK INDEX.
- Duration to Worst– the weighted average duration to worst of the government bonds in INDEX may deviate by +/-0.5 to the weighted average duration to worst of the government bonds in the BENCHMARK INDEX.
- Turnover - The turnover of the INDEX is limited to exceed the monthly turnover of the BENCHMARK INDEX by 3%. Turnover is calculated using all information as of SELECTION DAY.

In case the optimization is unable to find a feasible solution the constraints are loosened step wise to reach solution for optimization while respecting the constraints as good as possible.

2) Optimization for Corporate bonds

The goal for the corporate bond part of the index is to adjust the universe by including environmental, social and governance characteristic. The weight of the securities is optimized based on their exposure to quantitative factors such as:

- ESG VECTOR SCORE as determined by **Northern Trust** Investment's proprietary methodology
- **Institutional Shareholder Services** ESG Data: Carbon Intensity Score and Carbon Risk Rating (=Carbon Transition Score)
- Duration to Worst
- OAS

The goal of the objective function is to maximize the weighted ESG VECTOR SCORE of all corporate bonds included in the Index under constraints described below. For bonds unmapped to a ESG VECTOR SCORE (e.g., due to missing data points), the bonds will be eligible and will receive 0.5 as a ESG VECTOR SCORE.

Bonds listed on the NT EXCLUSION LIST, will be excluded from the index universe. Exclusions are based on controversial sectors as the weapons or tobacco producers as well as involvement in ESG controversies.

The constraints are defined as follows:

- The weighted average of the CARBON INTENSITY SCORE of the corporate bonds must be minimum 50% lower than the weighted CARBON INTENSITY SCORE of the corporate bonds in the BENCHMARK INDEX. For Bonds where no CARBON INTENSITY SCORE is available the relevant Sector Harmonized Mean is used.
- The weighted average of the CARBON TRANSITION SCORE of the corporate bonds must be minimum 10% higher than the weighted CARBON TRANSITION SCORE of the corporate bonds



in the BENCHMARK INDEX. For Bonds where no CARBON TRANSITION SCORE is available, the relevant Sector Harmonized Mean is used.

- OAS – The weighted average OAS of the corporate bonds in the INDEX may deviate by +/- 0.001% compared to the weighted average OAS corporate in the BENCHMARK INDEX.
- Duration to Worst– the weighted average duration to worst of the corporate bonds in INDEX may deviate by +/-0.01% to the weighted average duration to worst of the corporate bonds in the BENCHMARK INDEX.
- Currency Bucket – the weight of each currency reflected in the corporate bonds may deviate by +/-5% from the respective weight of the currency in the BENCHMARK INDEX.
- Country Bucket – the weight of each country reflected by corporate bonds may deviate by +/-5% from the respective weight in the BENCHMARK INDEX.
- Sector Bucket – the weight of each sector represented by corporate bonds may deviate by +/-2% from the respective weight the BENCHMARK INDEX.
- Maturity Bucket – the weight of each maturity bucket (1-3 Years, 3-5 Years, 5-7 Years, 7-10 Years, 10-20 Years, 20+ Years) reflected by corporate bonds may deviate by +/- 1% from the respective weight in the BENCHMARK INDEX.
- Turnover - The turnover of the INDEX is limited to exceed the monthly turnover of the BENCHMARK INDEX by 3%. Turnover is calculated using all information as of SELECTION DAY.
- Bond Bucket - is determined based on the ESG VECTOR SCORE.
 - o 5 linear quintiles are built representing the best issuer ESG VECTOR SCORE (first quintile) to the worst (last quintile). For bonds without an ESG VECTOR SCORE, the median ESG corporate rating is applied (0,5).
 - o The corporate bond weight in the INDEX may range as follows:

$$\begin{aligned} &Upper\ Branch\ Corporate\ Bond\ Weight \geq \\ &\quad Corporate\ Bond\ Benchmark\ Weight \\ &\geq Lower\ Branch\ Corporate\ Bond\ Weight \end{aligned}$$
 - o The Corporate Bond Benchmark Weight will be separately multiplied by the upper and lower branch factors to define the minimum and maximum bond weights.
 - o Unique Upper and Lower factors are calculated for each Bond Bucket. For the Lower Factor / Lower Branch, the Corporate Bond Benchmark Weights (CBBw) will be taking into consideration. Depending about the value of BBw, the Lower Factor will be determined according to the below table.



<u>Buckets</u>	<i>Upper Branch (UPB)</i>	<i>Lower Branch (LPB)</i>	<i>Corporate Benchmark (CBBw)</i>	<i>Bond weights</i>
<u>B1</u>	5x	If BBw is true, then LPB = 0; if false then LPB = 0.5x	BBw <=0.001%	
<u>B2</u>	4x	If BBw is true, then LPB = 0; if false then LPB = 0.5x	BBw <=0.001%	
<u>B3</u>	3x	If BBw is true, then LPB = 0; if false then LPB = 0.2x	BBw <=0.00005%	
<u>B4</u>	2x	If BBw is true, then LPB = 0; if false then LPB = 0.2x	BBw <=0.00005%	
<u>B5</u>	1x	0X		

In case the optimization is unable to find a feasible solution the constraints are loosened step wise to reach solution for optimization while respecting the constraints as good as possible.

3) Non-Corporate / non-Sovereign Universes (remaining bonds)

The bonds issued by the issuers other than corporate, sovereign, or structured products, which are not part of the **NT EXCLUSION LIST**, will be included in the index with the same aggregated weight as the aggregated weight of the corresponding bonds in the Benchmark Index. All structured products will be included in the index with the same aggregated weight as their corresponding bonds in the Benchmark Index.

The final weight of MBS securities eligible for the index is geared towards a market weight based on a smaller amount outstanding and accounting for MBS MEGA/PLATINUM POOLS. This way MBS instruments get a representation in the index according to their market weight. Thus, the MBS securities in the index can be seen as a sampled representation in the index.

2.2.1. WEIGHTING OF THE INDEX CURRENCY COMPONENTS

On each SELECTION DAY, the weight of each INDEX CURRENCY COMPONENT is assigned according to the aggregated weights of all the UNDERLYING INDEX COMPONENTS quoted in the respective currency.



3. ORDINARY REBALANCE

In order to reflect the new selection of the INDEX COMPONENTS determined on the SELECTION DAY (in accordance with Section 2.1) the INDEX is adjusted on the REBALANCE DAY after CLOSE OF BUSINESS.

For more information on the rebalance procedure please refer to the Bond Index Methodology, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>.

SOLACTIVE will publish any changes made to the INDEX COMPONENTS with sufficient notice before the REBALANCE DAY on the SOLACTIVE webpage.

4. CORPORATE ACTIONS

As part of the INDEX maintenance SOLACTIVE will consider various events – also referred to as corporate actions – which result in an adjustment to the INDEX between two regular REBALANCE DAYS. Such events have a material impact on the price, weighting or overall integrity of INDEX COMPONENTS. Therefore, they need to be accounted for in the calculation of the INDEX. Adjustments to the INDEX to account for corporate actions will be made in compliance with the Bond Index Methodology.

5. DEFINITIONS

“AVERAGE LIFE” is the length of time the principal of a debt issue is expected to be outstanding. Average life is calculated using the weighted average time to the receipt of all future cash flows.

“144A BOND” is a bond available to American Investors with or without registration rights. In contrast to Reg S (Regulation S) where only non-US investors are allowed to buy the bond.

“ABS” are securities backed by the cash flows of a pool of assets.

“BILL & DISCOUNT NOTES” are short term bonds issued at a discount to par.

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

“BENCHMARK INDEX” “represents all the eligible bonds from either Solactive World All Bond ex-LCY Select Index (SOLWLCYS) or Solactive World All Bond ex-LCY Select 1-5YR Index (SOLWLCS15) before applying the **“NT EXCLUSION LIST”**.”

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

“BUSINESS DAY” is any day Monday to Friday in relation to the index except banking holidays as defined by the New York Stock Exchange (NYSE) and SIFMA.

“CARBON EMISSIONS” is expressed as the country’s total carbon emission production in million CO2 per year.

“CARBON TREND SCORE” is a score calculated for the Sovereign sub-universe with the average of the last three ROLLING CARBON INTENSITY Score, which is updated annually.

“CARBON INTENSITY SCORE” is a factor identifying the issuer's total (Scope 1 + Scope 2) CARBON EMISSIONS intensity. CARBON INTENSITY is expressed as the issuer's total carbon emissions per million USD of



revenue as a proxy of the carbon efficiency per unit of output. Score is updated on each **“SELECTION DAY”**.

“CARBON TRANSITION SCORE” OR **“CARBON RISK RATING”** is a factor that provides a numeric score from 0 to 100 for the rated entity's overall carbon risk. For corporate issuers this score is based on an assessment of over 100 industry-specific indicators and a carbon risk classification at the industry and sub-industry levels. Score is updated on each **“SELECTION DAY”**.

“CALLABLE BONDS” is a bond with a call option.

“CERTIFICATE OF DEPOSIT” is a type of saving account you leave untouched with a fixed rate and term. These time deposit accounts can be found at banks and credit unions and pay interest on the money you invest.

“CLOSE OF BUSINESS” is a time stamp when an INDEX is calculated.

“CMBS” Commercial Mortgage-Backed Securities are ABS which are collateralised by a commercial real estate asset.

“COLLATERALIZED DEBT OBLIGATION” is a type of ABS that represents different loans bundled together and sold by the lender in the market.

“COMMERCIAL PAPERS” is a money market security issued by a large company to pay off its short-term debt.

“COUNTRY OF INCORPORATION” is defined by SOLACTIVE based on the assessment of market data providers as the country where the company is incorporated or legally registered.

“COUNTRY OF RISK” is defined by SOLACTIVE based on the assessment of market data providers as the country in which the company would be influenced the most by potential changes in the business environment.

“COVERED BONDS” are bonds backed by a ring-fenced pool of assets such as mortgages or public-sector loans. The ISSUER retains the responsibility to maintain the quality of the underlying asset pool.

“CONVERTIBLE BONDS” are bonds that can be converted to issuer's common equity share.

“CONTINGENT CAPITAL SECURITIES” are CONVERTIBLE BONDS used/issued in the banking industry.

“CREDIT LINKED” is a security with an attached credit default swap contract.

“CURRENCY HEDGE INDEX” represent the return resulting from the sum of an underlying index performance and the performance of the hedge of this index using currency forward contracts.

“DUAL CURRENCY” is bond with a different principal and coupon currency.

“ESG VECTOR SCORE” is a ESG rating provided by Northern Trust. Score is updated and taken on each **“SELECTION DAY”**.

“EFFECTIVE TIME TO MATURITY” is the minimum of the fix to float date if available or the maturity date. For bonds without a fix to float or maturity dates, the next call date will apply.

“NT EXCLUSION LIST” is a list of bonds that are not eligible due to the implementation of ESG exclusion criteria. List is updated and taken on each **“SELECTION DAY”**.



“EURO MTN BONDS / EMTN” is a medium-term debt security that is traded and issued outside of the United States and Canada. Is a note that usually matures between 5-10 years.

“EURO DOLLAR BONDS” are bonds denominated in USD issued by a non-American company outside of the United State and the issuer’s home country.

“EXTENDABLE BONDS” is a long-term fixed income bonds that includes an option to extend its initial maturity date

“FIXED COUPON BONDS” are bonds with a coupon rate that is fixed throughout their life, as opposed to bonds with floating, or variable coupons.

“FLOATING RATE NOTES” are bonds with a floating coupon rate, i.e., the coupon payments fluctuate in line with the underlying level of a pre-specified interest rate.

“FIXING TIME” is the time when the prices for the INDEX COMPONENTS are fixed for index calculation. This is specified in the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>.

“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 CALCULATOR” is SOLACTIVE or any other appropriately appointed successor in this function.

“INDEX COMPONENT” is each bond reflected in the INDEX.

“INDEX COMPONENT REQUIREMENTS” shall have the meaning as defined in Section 2.1.

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

“INDEX CURRENCY COMPONENTS” is each currency on which UNDERLYING INDEX COMPONENT trades in the market.

“INDEX CURRENCY COMPONENT WEIGHT” is value resultant from the sum of all the UNDERLYING INDEX COMPONENT’S weights quoted in the respective currency.

“INDEX CURRENCY UNIVERSE” is the sum of all currencies which fulfill the INDEX CURRENCY UNIVERSE REQUIREMENTS.

“INDEX CURRENCY UNIVERSE REQUIREMENTS” shall have the meaning as defined in Section 2.1.1.

“INFLATION-LINKED BONDS” are bonds whose principal and coupon payments are indexed to inflation.

“INVESTMENT GRADE” are all ratings of at least BBB- by Standard & Poor’s/DBRS or Baa3 by Moody’s Investors Service.

“ISSUER” is the issuing entity of the respective bond.

“LOAN PARTICIPATION NOTE ” is a debt security that allows investors to purchase part of loan or loan package that are still unpaid.

“LAST EVALUATED ASK PRICE” the last available evaluated ask price by the designated PRICING PROVIDER.



"LAST EVALUATED BID PRICE" the last available evaluated bid price by the designated PRICING PROVIDER.

"MBS" Mortgage-Backed Securities are ABS which are collateralised by a mortgage or collection of mortgages.

"MBS MEGA/PLATINUM POOLS" is formed by combining individual agency MBS security and/or other mega/platinum pool into a new single entity.

"MONEY MARKET INSTRUMENTS" are short-term financing instruments aiming to increase the financial liquidity of businesses. They are usually traded over the counter.

"MUNICIPAL BONDS" are debt issued by states, cities, countries, or other government entities to fund day-to-day obligations and of finance capital projects. In general, they Interest is tax-free.

"OVERSIGHT COMMITTEE" shall have the meaning as defined in Section 5.5.

"PAYMENT-IN-KIND BONDS" are a type of bonds that pay interest in additional bonds rather than in cash.

"PASS-THROUGH CERTIFICATES" is a certificate that is given to an investor against certain mortgaged-backed securities that lie with the issuer.

"PERPETUAL BONDS" are a bond without a maturity date.

"PREFERRED SECURITIES" combine both debt and equity characteristics.

"PRICING PROVIDER" is available <https://www.solactive.com/documents/bond-pricing-provider/>

"PRIVATE PLACEMENT" are bonds sold to pre-selected investors and institutions rather than in an open market.

"PUTABLES BONDS" Puttable bond (put bond, putable or retractable bond) is a bond with an embedded put option. The holder of the puttable bond has the right, but not the obligation, to demand early repayment of the principal. The put option is exercisable on one or more specified dates.

"REBALANCE DAY" is the last BUSINESS DAY of the month.

"REGS BOND" is a bond issued in the Eurobond Market

"ROLLING CARBON INTENSITY" is a score calculated with the average of the last two-year CARBON INTENSITY.

"SELECTION DAY" is 8 BUSINESS DAYS before the scheduled REBALANCE DAY, disregarding any potential change of the REBALANCE DAY.

"SINKABLE / AMORTIZED BONDS" are bonds that are backed by a fund that sets aside money on a regular basis. A sinkable bond issuer is required to buy a certain amount of the bond back from the purchaser at various points throughout the life of the bond.

"SOLACTIVE" shall have the meaning as defined in Section "Introduction".

"STEP-UP COUPON BONDS" are bonds whose coupons increase while the bond is outstanding. The coupon amounts are determined at issuance.

"STRIPS GOVERNMENT BONDS" are bonds where the interest and the principal payments are spitted into different separated parts. The Strips holders will not receive any interest income.



“TBAs OR TO BE DETERMINED” are MBS that trade in the future. TBA are forward selling contracts.

“WEIGHTED AVERAGE MATURITY” is the weighted average amount of time until the maturities on mortgages in a mortgage-backed security.

“ZERO COUPON BONDS” means bonds which do not pay interest but are issued at a discount.

Please note that the definitions included in the Bond Index Methodology apply to this guideline. In case of a discrepancy, the definition presented in the guidelines should prevail.



6. HISTORY OF INDEX CHANGES

Version	Date	Description
1.0	01st June 2022	Index Guideline creation (initial version)
1.1	30th May 2023	Clarification regarding the deal size for ABS: change from 300 million to 1 billion.
1.2	16th April 2024	Excluding Saudi Arabia and India, LCY countries.
2.0	18th February 2025	Reformatting of Guideline. Addition of SOLGBNT and SOLGBNT5 Indices.
2.1	27 th May 2025	Adding currency hedged indices and removing SOLGBNT and SOLGBNT5 indices.

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