

INDEX GUIDELINE

*Solactive ISS Paris Aligned Select Euro Corporate
IG Index*

Version 2.0

22 February 2023



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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 ISS Paris Aligned Select Euro Corporate IG 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 INDEX is a rules-based index, engineered to measure the performance of liquid, euro denominated, investment grade corporate debt. The index provides exposure to a portfolio, which is based on ISS ESG climate analysis and is in line with a 1.5°C scenario through 2050. At the same time the index displays very similar credit and interest rate risk distributions compared to the Solactive Euro IG Corporate Index. The INDEX CURRENCY is EUR.

To achieve the 1.5°C scenario, the weighted GHG EMISSIONS and GHG INTENSITIES of the INDEX are reduced compared to the BENCHMARK INDEX. On a semi-annual basis, for the selection days in January and July, both measures reduced to be in line with a yearly decarbonization rate of at least 7%. The basis for the SELF-DECARBONIZATION TRAJECTORY is the respective BASE DATE.

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:



Name	ISIN	Currency	Type	Calculation Formula	RIC	BBG ticker
Solactive ISS Paris Aligned Select Euro Corporate IG Index	DE000SL0AY79	EUR	TR	BMV	.SOLESPAB	SOLESPAB

*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/>

*BMV means that the INDEX is calculated as a base market value Index as described in the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-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 Börse 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

The initial level of the INDEX on the LIVE DATE is 1000. Historical values from the LIVE DATE will be recorded in accordance with Article 8 of the BMR.

1.4. PRICES AND CALCULATION FREQUENCY

The INDEX is calculated and distributed once every BUSINESS DAY based on the LAST EVALUATED BID PRICE of the INDEX COMPONENTS. Bonds added in a rebalancing (see Section 3) are included the INDEX at the LAST EVALUATED ASK PRICE on the relevant REBALANCE DAY (as specified in Section 3.3). 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 PRICE on the relevant REBALANCE DAY. INDEX analytical values are calculated each BUSINESS DAY using the LAST EVALUATED BID PRICE based on FIXING TIME. Prices of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the WM 4 PM London Fixing quoted by Reuters.

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

- A price from the PRICING PROVIDER must be available for each INDEX COMPONENTS on each SELECTION DAY
- All INDEX COMPONENTS must be a member of the BENCHMARK INDEX.

All bonds and their issuers are evaluated based on the criteria outlined in the table below. Bonds which do not comply with the screens or do not disclose relevant information are excluded from the INDEX The evaluation is based on data provided by the ESG DATA PROVIDER:

Theme	Topic	Exclusion criterion
Norm-Based Research	Environment	Verified failure to respect established norms such as the United Nations Global Compact (UNGC) principles, the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, or UN Guiding Principles for Business and Human Rights.
	Human Rights	
	Corruption	
	Labour Rights	
Controversial Weapons Research	Nuclear weapons	Verified or alleged ongoing involvement
	Depleted Uranium	
	Nuclear weapons outside the NPT	



	Cluster munitions	
	Anti-personnel mines	
Activity-Based Screening	Coal mining and power generation	>=1%
	Fossil fuel production, exploration, distribution, and services.	>=10%
	Electric power generation from fossil fuel sources	>=50%
	Adult Entertainment - Maximum Percentage of Revenue	>15%
	Adult Entertainment Producer - Maximum Percentage of Revenue	>5%
	Alcohol - Maximum Percentage of Revenue	>15%
	Alcohol Producer - Maximum Percentage of Revenue	>5%
	Gambling - Maximum Percentage of Revenue	>15%
	Gambling Ownership or Operations	>5%
	Cannabis Recreational	>0%
	Civilian Firearms - Maximum Percentage of Revenue	>5%
	Civilian Firearms Producer	>0%
	Weapons Producer - Maximum Percentage of Revenue	>5%
	Weapons - Maximum Percentage of Revenue	>15%
	Genetic Engineering - Maximum Percentage of Revenue	>5%
	Any tie to thermal coal	>0%
Tobacco Cultivation & Production	>0%	
Environmental Objectives	Sustainable Development Goal 12: Responsible Consumption and Production	Significant Negative Impact, i.e. single SDG Impact Rating
	Sustainable Development Goal 13: Climate Action	



	Sustainable Development Goal 14: Life Below Water	of < -5.0. All companies are scored on each SDG on scale from -10 to +10.
	Sustainable Development Goal 15: Life on Land	
Explanation: % figures refer to revenue threshold (for degree of involvement)		

From all bonds which fulfill the above mentioned criteria, only the most liquid bonds are selected. To keep the index' key characteristics similar to the ones of the INVESTABLE UNIVERSE, a stratified sampling approach is used. The stratified sampling approach utilizes the following 3 steps:

1. Each security in the INVESTABLE UNIVERSE will be assigned to a specific bucket according to the securities' rating, sector and modified duration. There are 10 rating buckets, 2 sector buckets (Financials, Non-financials) and 5 modified duration buckets.
2. Market weights of each bucket, relative to INVESTABLE UNIVERSE, are calculated. According to the weight of each bucket the number of bonds which represent the specific bucket is determined. This is done by applying the following formula:

$$\text{Number of Bonds per Bucket}_j = \text{Bucket Weight}_{\text{SOLEUIGC}} * \text{Target Number of Bonds}$$

Please note that *Number of Bonds per Bucket_j* has to be an integer number. This is ensured by cutting off all decimals. This will lead to a lower number of bonds in the index than initially set by the target. To compensate for this, the buckets with the largest difference between the exact number of bonds and the integer number of bonds will receive one extra security. Despite this effort to keep the number of constituents in the INDEX fixed, due to the strict exclusion criteria mentioned above there is no guarantee to fulfill this objective.

3. Once the target number of bonds per bucket is defined. The appropriate number of bonds are selected which display the largest amount outstanding of the respective bucket. To avoid unnecessary turnover, bonds which are already member of the index are preferred.

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

2.2. WEIGHTING OF THE INDEX COMPONENTS

On each Selection day the weighting of the Index components is conducted with the following procedure. The overall goal is to find a bond weight combination that fulfills all carbon emission thresholds while minimizing overall index turnover and maintain the risk profile of the benchmark index.



The index model uses both, gross carbon emissions and EVIC-normalized carbon intensities as carbon measures. The thresholds are determined by the minimum of 50 % of the respective benchmark index value and the current trajectory value. Trajectory values follow a step-wise decreasing function with a semi-annual reduction of 3.5 %. On the base date of the trajectory, 50 % of the respective benchmark index value is used as a starting value.

To minimize trading costs and align the index to its un-filtered BENCHMARK INDEX, the sum of the preference-weighted turnover and risk factors is minimized. The bond's rating, time to maturity, issuer and sector are factored in as risk dimensions.

To make sure the optimization algorithm is not assigning zero-weights to bonds, a minimum weight of 10 bps is added. For bonds entering the index the previous closing weight is set to the current market weight, giving the optimization an incentive to assign a non-zero weight to those bonds.

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

"BASE DATE" is 31/01/2022 for GHG Emissions and 31/01/2023 for GHG Intensities.

"BENCHMARK INDEX" is the Solactive Euro IG Corporate Index (SOLEUIGC)

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

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

"BUSINESS DAY" with respect to the INDEX each day Monday to Friday except common European banking holidays. Common European banking holidays are Good Friday, Easter Monday, Christmas Day, Boxing Day and New Year's Day.

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

"EFFECTIVE TIME TO MATURITY" is the minimum of the next call or put date and the final maturity date.

"ESG DATA PROVIDER" is ISS ESG

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

"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/>.]

"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.

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

"GHG Emissions" are the sum of Scope 1,2 and 3 Greenhouse Gas Emissions as received from the ESG DATA PROVIDER. For all computations gross or absolute Greenhouse Gas Emissions are used. GHG Emissions are reported by issuers or estimated by the ESG DATA PROVIDER in accordance with global or European standards, such as the Product Environmental Footprint (PEF), the Organisation Environmental Footprint (OEF) EN 16 EN methods¹¹, the Corporate Value Chain (Scope 3) Accounting and Reporting Standard¹², the EN ISO 14064 or the EN ISO 14069. . If the GHG Emissions is not computable for a company due to missing data, the company receives the median GHG Emissions of all the securities in the same industry.

"GHG Intensities" are the sum of Scope 1,2 and 3 Greenhouse Gas Emissions divided by the company EVIC as received from the ESG DATA PROVIDER.

If the GHG Intensities is not computable for a company due to missing data, the company receives the median GHG Intensities of all the securities in the same industry.

If the average EVIC of the BENCHMARK INDEX has increased or decreased during the last calendar year, the EVIC of an INDEX COMPONENT shall be adjusted by an adjustment factor. The factor is calculated as the average EVIC of the BENCHMARK INDEX at the end of the latest calendar year, divided by the average EVIC of the BENCHMARK INDEX at the end of the previous calendar year.



"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.

"INVESTABLE UNIVERSE" is the composition of the Solactive Euro IG Corporate Index.

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

"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.

"LAST EVALUATED MID PRICE" is the average between LAST EVALUATED ASK PRICE and LAST EVALUATED BID PRICE.

"LIVE DATE" is 2020-11-18.

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

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.

"PRICING PROVIDER" is the ICE

"PRIVATE PLACEMENT" A private placement involves the sale of securities to a relatively small number of select investors. Investors targeted include wealthy accredited investors, large banks, mutual funds, insurance companies and pension funds.

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

"SELECTION DAY" is 3 BUSINESS DAYS before the scheduled REBALANCE DAY, disregarding any potential change of the REBALANCE DAY.

"SELF-DECARBONIZATION TRAJECTORY": The INDEX will follow a self-decarbonization trajectory of at least 7% annually. Weighted GHG EMISSIONS are reduced in the January and July rebalancings.

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

"SPOT" is the spot foreign exchange rate to convert the currency of the INDEX COMPONENT into the denomination of the INDEX CURRENCY.

"TARGET NUMBER OF BONDS" is 1000.

"TARGET GHG EMISSIONS" is the weighted average GHG EMISSIONS level the INDEX has to achieve in order to comply with the Paris Aligned Benchmark Index requirements.





6. HISTORY OF INDEX CHANGES

Version	Date	Description
1.0	18 November 2020	Index Guideline creation (initial version)
1.01	24 August 2021	Clarification of exclusion criteria
1.1	13 January 2022	Update of BASE DATE due to Scope 3 GHG emission measurement methodology change of the ESG DATA PROVIDER; for more background see the announcement at https://www.solactive.com/methodology-change-all-solactiveowned-administered-eu-climate-transition-benchmarks-and-euparis-aligned-benchmarks-based-on-institutional-shareholderservices-iss-data-effective-date-05-01-2/ .
1.2	20 January 2023	New ESG related selection criteria have been added to section 2.1.
2.0	22 February 2024	Introduction of EVIC-based GHG intensities

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