INDEX GUIDELINE

Solactive USD High Yield Corporates Total Market Index Family

Version 1.0

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TABLE OF CONTENTS

INTRODUCTION

This document (the "GUIDELINE") is to be used as a guideline with regard to the composition, calculation and maintenance of the Solactive USD High Yield Corporates Total Market Index Family (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 USD High Yield Corporates Total Market Index Family consists of four core indices, which are rules-based and market value weighted:

1) The Solactive USD High Yield Corporates Total Market Index
2) The Solactive USD High Yield Corporates Total Market 0-5 Year Index
3) The Solactive USD High Yield Corporates Total Market High Beta Index
4) The Solactive USD High Yield Corporates Total Market Low Beta Index

Solactive USD High Yield Corporates Total Market Index

- This index is designed to mirror the performance of High Yield rated corporate bonds denominated in USD.
- The index is a Total Return index (i.e. coupons/any cash payments will be reinvested into the index on each REBALANCE DAY)
- The index has 2 currency versions in CAD and AUD, 1 Price Return version (i.e. coupons/cash payments will not be reinvested into the index), and 1 Currency-Hedged version which is hedged to CAD.

The Solactive USD High Yield Corporates Total Market 0-5 Year Index

- This index is designed to mirror the performance of High Yield rated corporate bonds denominated in USD, with a time to maturity between 0-5 years.

- The index is a Total Return index (i.e. coupons/any cash proceeds will be reinvested into the index on each REBALANCE DAY)

The Solactive USD High Yield Corporates Total Market High Beta Index
- This index is designed to mirror the performance of the higher yielding segment of the High Yield corporate bond market denominated in USD.
- The index is a Total Return index (i.e. coupons/any cash payments will be reinvested into the index on each REBALANCE DAY).

The Solactive USD High Yield Corporates Total Market Low Beta Index
- This index is designed to mirror the performance of the lower yielding segment of the High Yield corporate bond market denominated in USD.
- The index is a Total Return index (i.e. coupons/any cash proceeds will be reinvested into the index on each REBALANCE DAY).

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	Calculation Formula*	RIC	BBG ticker
Solactive USD High Yield Corporates Total Market Index	DE000SLA2M23	USD	TR	Periodic	.SOLHYCTM	SOLHYCTM
Solactive USD High Yield Corporates Total Market 0-5 Year Index	DE000SLA3DM6	USD	TR	Periodic	.SOLHYCST	SOLHYCST
Solactive USD High Yield Corporates Total Market High Beta Index	DE000SLA3ZE6	USD	TR	Periodic	.SOLHYCHB	SOLHYCHB
Solactive USD High Yield Corporates Total Market Low Beta Index	DE000SLA3ZF3	USD	TR	Periodic	.SOLHYCLB	SOLHYCLB
Solactive USD High Yield Corporates Total Market AUD Index	DE000SL0BTD6	AUD	TR	Periodic	.SOLHYCTA	-
Solactive USD High Yield Corporates Total Market in CAD TR Index	DE000SLA4551	CAD	TR	Periodic	.SOLHYCCA	-
Solactive USD High Yield Corporates Total Market PR Index	DE000SLA44N5	USD	PR	Periodic	.SOLHYCPR	-

Solactive USD High Yield Corporates Total Market AUD Hedged Index	DE000SL0BTK1	AUD	CH	Standard	.SOLHYTAH	
Solactive USD High Yield Corporates Total Market Hedged to CAD TR Index	DE000SLA4569	CAD	CH	Standard	.SOLHYCCH	SOLHYCCH

*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/

*PR means that the INDEX is calculated as Price 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/

Each INDEX in the family 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

The initial level of the Solactive USD High Yield Corporates Total Market Index on August 31st, 2016 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from August 31st, 2016 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market 0-5 Year Index on December 30th, 2011 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from December 30th, 2011 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market High Beta Index on August 31st, 2016 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from August 31st, 2016 is 1000 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market Low Beta Index on August 31st, 2016 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from August 31st, 2016 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market AUD Index on March 15th, 2022 is 1000.4. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from March 15th, 2022 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market in CAD TR Index on December 29th, 2017 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from December 29th, 2017 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market PR Index on January 2nd, 2018 is 1001.95. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from January 2nd, 2018 will be recorded in accordance with Article 8 of the BMR.

The initial level of the Solactive USD High Yield Corporates Total Market Hedged to CAD TR Index on December 29th, 2017 is 1000. Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from December 29th, 2017 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 EVALUATED BID PRICE of the INDEX COMPONENTS. Bonds added in a rebalancing (see Section 3) are included the INDEX at the EVALUATED ASK PRICE 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 EVALUATED BID PRICE on the relevant REBALANCE DAY. INDEX analytical values are calculated each BUSINESS DAY using the EVALUATED BID PRICE based on FIXING TIME. Prices of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the WM 10pm London Fixing 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. For AUD currency indices, this closing level is based on the CLOSING PRICES for the underlying index and 4:00 PM London WM Spot and Forward Fixings quoted by Reuters. If there is no 4:00 PM London WM Fixing for the relevant CALCULATION DAY, the last available 4:00 PM London WM Fixing will be used for the closing level calculation. For CAD currency indices, closing level is based on the CLOSING PRICES for the underlying index and 4:00 PM New York WM Spot and Forward Fixings quoted by Reuters. If there is no 4:00 PM New York WM Fixing for the relevant CALCULATION DAY, the last available 4:00 PM New York 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 for the indices in the index family, as well as any selection for a rebalance (as specified in Section 3) is determined using the following rules:

2.1.1 Solactive USD High Yield Corporates Total Market Index (Inclusive of its Currency and Price Return versions)

- **Issue Type**: Corporate debt only.
    - The following market types are excluded: Government debt, quasi-sovereign debt, debt guaranteed or backed by governments, REGS securities, municipal bonds, Brady bonds, restructured bonds, and private placements except 144A series.
- **Bond Type**: Fixed coupon bonds, step-up bonds driven by rating or where the coupon schedule is known at issuance, medium term note ("MTNs"), callable and puttable bonds, and 144A securities.
    - The following bond types are excluded: Zero coupon bonds, floating/variable coupon bonds, convertibles, inflation-linked bonds, perpetual bonds, accrued only bonds, Eurobonds, sinker, step-up bonds not driven by rating or step-up bonds where the coupon schedule is not known at issuance, Pay-in kind bonds, and covered bonds/notes.
- **Country of Risk**: Bonds with the following Country of Risk designations are eligible for inclusion: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, United States.
- **Time to Maturity**: Bonds must have at least 1 year to maturity from each REBALANCE DAY. Bonds newly added to the Index must have a time to maturity of at least 20 months from the REBALANCE DAY.
- **Time to Maturity at Issuance**: Bonds must have a time to maturity of 15 years or less at issuance.
- **Currency**: USD denominated.
- **Bond Amount Outstanding**: At least USD 400 Million.
- **Total Issuer Debt**: At least USD 1 Billion.
- **Credit Rating**: Must be rated by at least one of the following rating agencies: S&P, Moody's and Fitch. The composite rating between these 3 rating agencies must be sub-investment grade. This is between BB+ and C (both inclusive). Please see the "COMPOSITE AND AVERAGE RATING CALCULATION" portion of Section 5 of this GUIDELINE (Definitions) for the composite rating calculation.

- **Full Call/Tender Rule**: All bonds for which a full call or a full tender offer is announced with an effective date within the upcoming month will be excluded from the index composition on the SELECTION DAY. For the avoidance of doubt, bonds which will not be fully redeemed (due to a call/tender) during the next month and meet all other index criteria are eligible to join the INDEX on the REBALANCE DAY.
- **Price Availability**: A price from the PRICING PROVIDER must be available for each INDEX COMPONENT on the SELECTION DAY.

2.1.2 Solactive USD High Yield Corporates Total Market 0-5 Year Index

- The selection criteria for this INDEX are the same as the Solactive USD High Yield Corporates Total Market Index, with the exception of the below criteria:
    - **Time to Maturity**: Bonds must have a remaining time to maturity of 5 years or less from the REBALANCE DAY. For further clarity, bonds are allowed to mature within the index. New bonds entering the index must have a remaining time to maturity of at least 6 months from the REBALANCE DAY.
    - **Price Availability**: A price greater than 20 from the PRICING PROVIDER must be available for each INDEX COMPONENT on the SELECTION DAY.

2.1.3 Solactive USD High Yield Corporates Total Market High Beta Index

- Bonds must be a part of the upcoming composition for the Solactive USD High Yield Corporates Total Market Index.
- Bonds must have a valid sector classification assigned to them on the SELECTION DAY.
- The *average yield-to-worst (YTW) for each bond must be available on the SELECTION DAY. If this cannot be calculated on the SELECTION DAY, then the bond is not considered for the INDEX.
    - *Average yield-to-worst (YTW) is equal to the 30-day moving average of the bond's YTW.
- The average YTW of each bond must be higher than the median average YTW of the bond's respective sector on each SELECTION DAY.
    - For example, if the median average YTW of all the bonds classified in the Energy sector is 6.95%, any bond that has an average YTW greater than this will be included in the INDEX.
- A bond will be removed from the INDEX in only two scenarios:
    - It is removed from the upcoming composition of the Solactive USD High Yield Corporates Total Market Index.
    - It's average YTW falls below 95% of the median average YTW of the respective bond's sector on the SELECTION DAY.

2.1.4 Solactive USD High Yield Corporates Total Market Low Beta Index

- Bonds must be a part of the upcoming composition for the Solactive USD High Yield Corporates Total Market Index.
- Bonds must have a valid sector classification assigned to them on the SELECTION DAY.
- The *average yield-to-worst (YTW) for each bond must be available on the SELECTION DAY. If this cannot be calculated on the SELECTION DAY, then the bond is not considered for the INDEX.
  - *Average yield-to-worst (YTW) is equal to the 30-day moving average of the bond's YTW.
- The average YTW of each bond must be lower than the median average YTW of the bond's respective sector on each SELECTION DAY.
  - For example, if the median average YTW of all the bonds classified in the Energy sector is 6.95%, any bond that has an average YTW lower than this will be included in the INDEX.
- A bond will be removed from the INDEX in only two scenarios:
  - It is removed from the upcoming composition of the Solactive USD High Yield Corporates Total Market Index.
  - It's average YTW rises above 105% of the median average YTW of the respective bond's sector on the SELECTION DAY.

(the "**INDEX COMPONENT REQUIREMENTS**")

2.1.5 SELECTION OF THE INDEX CURRENCY COMPONENTS

Based on the INDEX CURRENCY UNIVERSE, the initial composition of the Solactive USD High Yield Corporates Total Market Index (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 using the market value based on the EVALUATED BID PRICE and accrued interest as on the SELECTION DAY in order to achieve the aim of the INDEX. For the Price Return index in the family, accrued interest will not be considered in the market value calculation. The weighting of the INDEX COMPONENTS will be as follows:

- There is an issuer weighting cap of 3% for each index within the index family.
- The initial market value weighting of each bond is calculated (referred to as the Initial MV weight), and then aggregated on an issuer basis.

- If one or more issuers breach this 3% threshold, their bond weightings will be adjusted downwards to cap the issuer's aggregated weighting at 3%.
- Any excess weight will then be distributed on a pro rata basis to the bonds of the remaining issuers (referred to as the Bond Target Weight) who's aggregate weightings are under 3%.
- This processed is repeated iteratively until no issuer has a weighting greater than 3%.
- A cap factor is assigned to each to bond to achieve this re-weighting and the formula can be seen below. If no issuer capping is needed, each bond will have a cap factor of 1.

$$CapFactor_i = \frac{BondTargetWeight_i}{InitialMVWeight_i}$$

The cap factors used for Solactive USD High Yield Corporates Total Market Index are also used in its currency, price return, and currency hedged versions.

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

"Benchmark Regulation" shall have the meaning as defined in Section "Introduction".

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

"**Business Day**" is with respect to the Index each day Monday to Friday except the following sets of days:

- Any holidays defined by the New York Stock Exchange (XNYS)

"Close of Business" is a time stamp when an Index is calculated.

"Closing Price" in respect of an Index Component and a Trading Day is a security's final regular-hours Trading Price published by the Exchange and determined in accordance with the Exchange regulations. If the Exchange has no or has not published a Closing Price in accordance with the Exchange rules for an Index Component, the last Trading Price will be used.

"Composite and Average Rating Calculation" Bond ratings from Standard & Poor's, Fitch and Moody's are mapped to numerical ratings between 1 and 22 as below:

SP	Moody	Fitch	Numerical
AAA	Aaa	AAA	1
AA+	Aa1	AA+	2
AA	Aa2	AA	3
AA-	Aa3	AA-	4
A+	A1	A+	5
A	A2	A	6
A-	A3	A-	7
BBB+	Baa1	BBB+	8
BBB	Baa2	BBB	9
BBB-	Baa3	BBB-	10
BB+	Ba1	BB+	11
BB	Ba2	BB	12
BB-	Ba3	BB-	13
B+	B1	B+	14
B	B2	B	15
B-	B3	B-	16
CCC+	Caa1	CCC+	17
CCC	Caa2/Caa	CCC	18
CCC-	Caa3	CCC-	19
CC	Ca	CC	20
C	C	C	21
D/SD	D	D/SD	22

The composite numerical rating of a bond is calculated as the average of the numerical ratings from all available ratings, rounded to signal digit, with .5 rounded up. The composite numerical rating can then be mapped to a composite rating as below:

Letter Rating	Composite Numerical Rating
AAA	1
AA+	2
AA	3
AA-	4
A+	5
A	6
A-	7
BBB+	8
BBB	9
BBB-	10
BB+	11
BB	12
BB-	13
B+	14
B	15
B-	16
CCC+	17
CCC	18
CCC-	19
CC	20
C	21

"**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.

"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

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

“OVERSIGHT COMMITTEE” shall have the meaning as defined in the Bond Index Methodology.

“PRICING PROVIDER” is Intercontinental Exchange (“ICE”).

“REBALANCE DAY” is the last Business Day of each month.

“SELECTION DAY” is **3** BUSINESS DAYS before the scheduled REBALANCE DAY, disregarding any potential change of the REBALANCE DAY

“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.

“TRADING PRICES” in respect of an INDEX COMPONENT and a TRADING DAY is the most recent published price at which the INDEX COMPONENT was traded on the respective EXCHANGE.

“UNDERLYING INDEX COMPONENTS” is each security reflected in the composition of the UNDERLYING INDEX.

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	*17 June 2024*	Family Index Guideline creation (*initial version*)

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