

# INDEX GUIDELINE

Solactive UBS Development Bank Bond Index Family

Version 3.1

20 February 2019



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# INDEX GUIDELINE

Introduction

Version 3.1 – 20 February 2019



# INTRODUCTION

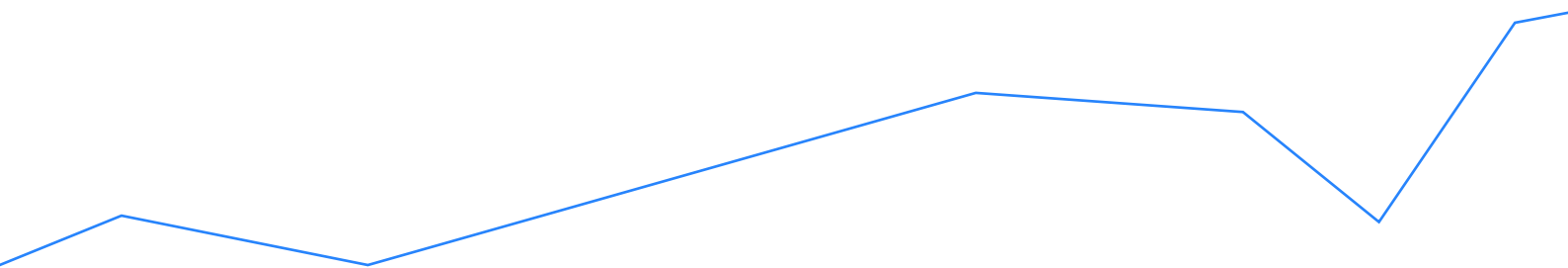
This document (the "Guideline") is to be used as a guideline with regard to the composition, calculation and maintenance of Solactive UBS Development Bank Bond Index Family. Any changes made to the Guideline are initiated by the Committee specified in Section 1.6. The Index is calculated and published by Solactive AG. The name "Solactive" is trademarked.

It contains the underlying principles and rules regarding the structure and operation of the Solactive UBS Development Bank Bond Index Family (the "Index"). Solactive AG shall make every effort to implement the applicable regulations. Solactive AG does not offer any explicit or tacit guarantee or assurance, neither pertaining to the results from the use of the Index nor the Index value at any certain point in time nor in any other respect. The Index is merely calculated and published by Solactive AG and it strives to the best of its ability to ensure the correctness of the calculation. There is no obligation for Solactive AG – irrespective of possible obligations to issuers – to advise third parties, including investors and/or financial intermediaries, of any errors in the Index. The publication of the Index by Solactive AG does not constitute a recommendation for capital investment and does not contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on this Index.



# INDEX GUIDELINE

Index Specifications



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# 1 INDEX SPECIFICATIONS

- > The Solactive UBS Development Bank Bond USD TR Index is a rules-based, market value weighted index engineered to mirror the performance of the USD-denominated bonds issued by entitled development banks. The Solactive UBS Development Bank Bond CHF TR Index, the Solactive UBS Development Bank Bond GBP TR Index, the Solactive UBS Development Bank Bond EUR TR Index are versions of the Solactive UBS Development Bank Bond USD TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS Development Bank Bond USD 1-5 TR Index is a maturity subindex of the Solactive UBS Development Bank Bond USD TR Index. The Index is designed to replicate the 1 to 5 years maturity band of the base index. Solactive UBS Development Bank Bond CHF 1-5 TR Index, Solactive UBS Development Bank Bond GBP 1-5 TR Index, Solactive UBS Development Bank Bond EUR 1-5 TR Index are versions of the Solactive UBS Development Bank Bond USD 1-5 TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS Development Bank Bond USD 5-10 TR Index is a maturity subindex of the Solactive UBS Development Bank Bond USD TR Index. The Index is designed to replicate the 5 to 10 years maturity band of the base index. The Solactive UBS Development Bank Bond CHF 5-10 TR Index, the Solactive UBS Development Bank Bond GBP 5-10 TR Index, the Solactive UBS Development Bank Bond EUR 5-10 TR Index are versions of the Solactive UBS Development Bank Bond USD 5-10 TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS Global Multilateral Development Bank Bond USD TR Index is a rules-based, market value weighted index engineered to mirror the performance of the USD-denominated bonds issued by entitled multilateral development banks. Solactive UBS Global Multilateral Development Bank Bond CHF TR Index, Solactive UBS Global Multilateral Development Bank Bond GBP TR Index, Solactive UBS Global Multilateral Development Bank Bond EUR TR Index are versions of the Solactive UBS Global Multilateral Development Bank Bond USD TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index is a maturity subindex of the Solactive UBS Global Multilateral Development Bank Bond USD TR Index. The Index is designed to replicate the 1 to 5 years maturity band of the base index. The Solactive UBS Global Multilateral Development Bank Bond CHF 1-5 TR Index, the Solactive UBS Global Multilateral Development Bank Bond GBP 1-5 TR Index, the Solactive UBS Global Multilateral Development Bank Bond EUR 1-5 TR Index are versions of the Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index is a maturity subindex of the Solactive UBS Global Multilateral Development Bank Bond USD TR Index. The Index is designed to replicate the 5 to 10 years maturity band of the base index. The Solactive UBS Global Multilateral Development Bank Bond CHF 5-10 TR Index, the Solactive UBS Global Multilateral Development Bank Bond GBP 5-10 TR Index, the Solactive UBS Global Multilateral Development Bank Bond EUR 5-10 TR Index are versions of the Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index converted to CHF, GBP and EUR, respectively.



- > The Solactive UBS World Bank Bond USD TR Index is a rules-based, market value weighted index engineered to mirror the performance of the USD-denominated bonds issued by the International Bank for Reconstruction and Development (IBRD). The Solactive UBS World Bank Bond CHF TR Index, the Solactive UBS World Bank Bond GBP TR Index, the Solactive UBS World Bank Bond EUR TR Index are versions of the Solactive UBS World Bank Bond USD TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS World Bank Bond USD 1-5 TR Index is a maturity subindex of the Solactive UBS World Bank Bond USD TR Index. The Index is designed to replicate the 1 to 5 years maturity band of the base index. The Solactive UBS World Bank Bond CHF 1-5 TR Index, the Solactive UBS World Bank Bond GBP 1-5 TR Index, the Solactive UBS World Bank Bond EUR 1-5 TR Index are versions of the Solactive UBS World Bank Bond USD 1-5 TR Index converted to CHF, GBP and EUR, respectively.
- > The Solactive UBS World Bank Bond USD 5-10 TR Index is a maturity subindex of the Solactive UBS World Bank Bond USD TR Index. The Index is designed to replicate the 5 to 10 years maturity band of the base index. The Solactive UBS World Bank Bond CHF 5-10 TR Index, the Solactive UBS World Bank Bond GBP 5-10 TR Index, the Solactive UBS World Bank Bond EUR 5-10 TR Index are versions of the Solactive UBS World Bank Bond USD 5-10 TR Index converted to CHF, GBP and EUR, respectively.
- > Solactive UBS Development Bank Bond CHF 1-5 PR Index, Solactive UBS Development Bank Bond CHF 5-10 PR Index, Solactive UBS Development Bank Bond CHF PR Index, Solactive UBS Development Bank Bond EUR 1-5 PR Index, Solactive UBS Development Bank Bond EUR 5-10 PR Index, Solactive UBS Development Bank Bond EUR PR Index, Solactive UBS Development Bank Bond GBP 1-5 PR Index, Solactive UBS Development Bank Bond GBP 5-10 PR Index, Solactive UBS Development Bank Bond GBP PR Index, Solactive UBS Development Bank Bond USD 1-5 PR Index, Solactive UBS Development Bank Bond USD 5-10 PR Index, Solactive UBS Development Bank Bond USD PR Index, Solactive UBS Global Multilateral Development Bank Bond CHF 1-5 PR Index, Solactive UBS Global Multilateral Development Bank Bond CHF 5-10 PR Index, Solactive UBS Global Multilateral Development Bank Bond CHF PR Index, Solactive UBS Global Multilateral Development Bank Bond EUR 1-5 PR Index, Solactive UBS Global Multilateral Development Bank Bond EUR 5-10 PR Index, Solactive UBS Global Multilateral Development Bank Bond EUR PR Index, Solactive UBS Global Multilateral Development Bank Bond GBP 1-5 PR Index, Solactive UBS Global Multilateral Development Bank Bond GBP 5-10 PR Index, Solactive UBS Global Multilateral Development Bank Bond GBP PR Index, Solactive UBS Global Multilateral Development Bank Bond USD 1-5 PR Index, Solactive UBS Global Multilateral Development Bank Bond USD 5-10 PR Index, Solactive UBS Global Multilateral Development Bank Bond USD PR Index, Solactive UBS World Bank Bond CHF 1-5 PR Index, Solactive UBS World Bank Bond CHF 5-10 PR Index, Solactive UBS World Bank Bond CHF PR Index, Solactive UBS World Bank Bond EUR 1-5 PR Index, Solactive UBS World Bank Bond EUR 5-10 PR Index, Solactive UBS World Bank Bond EUR PR Index, Solactive UBS World Bank Bond GBP 1-5 PR Index, Solactive UBS World Bank Bond GBP 5-10 PR Index, Solactive UBS World Bank Bond GBP PR Index, Solactive UBS World Bank Bond USD 1-5 PR Index, Solactive UBS World Bank Bond USD 5-10 PR Index, Solactive UBS World Bank Bond USD PR Index are price return versions of the corresponding indices outlined above.



- > Solactive UBS Global Multilateral Development Bank Bond USD 25% Issuer Capped TR Index is a version of Solactive UBS Development Bank Bond USD TR Index with additional constraints: issuer weight is capped at 25%. Depending on the number of issuers, the following capping will be implemented:

Number of issuers	Capping issuer level	Capping issue level
More than 4	25%	Minimum amount of 6 different issues is required
4	30%	Minimum amount of 6 different issues is required
3	40%	Individual issue cannot exceed 30%, and minimum amount of 6 different issues is required
2	60%	Individual issue cannot exceed 30%, and minimum amount of 6 different issues is required
1	n.a.	Individual issue cannot exceed 30%. and minimum amount of 6 different issues is required

- > The Solactive UBS Global Multilateral Development Bank Bond USD 40% 1-5 Year 60% 5-10 Year TR Index (MDBS46) is derived from the Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index (MDBS5) and the Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index (MDBS10). The MDBS46 subindex restricts a total weight of constituents of MDBS5 to 40% and of MDBS10 to 60%, respectively. The weight within the splits is distributed on pro rata basis.
- > The hedged version of the index is available. For the hedging methodology, please consult the "Currency-hedged Indices Methodology" document, which is available on the <http://www.solactive.com> web site.

## 1.1 SHORT NAME AND ISIN

The Index series is distributed under the following identifiers:

Index	ISIN	RIC	Bloomberg Ticker
Solactive UBS Development Bank Bond USD TR Index	DE000SLA5SZ1	.DEVS	DEVS Index





Solactive UBS Development Bank Bond CHF TR Index	DE000SLA5S16	.DEVSCHF	
Solactive UBS Development Bank Bond GBP TR Index	DE000SLA5S24	.DEVSGBP	
Solactive UBS Development Bank Bond EUR TR Index	DE000SLA5S32	.DEVSEUR	
Solactive UBS Development Bank Bond USD 1-5 TR Index	DE000SLA5S40	.DEV5	DEV5 Index
Solactive UBS Development Bank Bond CHF 1-5 TR Index	DE000SLA5S57	.DEVSCH5	
Solactive UBS Development Bank Bond GBP 1-5 TR Index	DE000SLA5S65	.DEV5GBP	
Solactive UBS Development Bank Bond EUR 1-5 TR Index	DE000SLA5S73	.DEV5EUR	
Solactive UBS Development Bank Bond USD 5-10 TR Index	DE000SLA5S81	.DEV510	DEV510 Index
Solactive UBS Development Bank Bond CHF 5-10 TR Index	DE000SLA5S99	.DEV5CHF	
Solactive UBS Development Bank Bond GBP 5-10 TR Index	DE000SLA5TA2	.DEV5GBP	
Solactive UBS Development Bank Bond EUR 5-10 TR Index	DE000SLA5TB0	.DEV5EUR	
Solactive UBS Global Multilateral Development Bank Bond USD TR Index	DE000SLA5TC8	.MDBS	MDBS Index
Solactive UBS Global Multilateral Development Bank Bond CHF TR Index	DE000SLA5TD6	.MDBSCHF	
Solactive UBS Global Multilateral Development Bank Bond GBP TR Index	DE000SLA5TE4	.MDB5GBP	
Solactive UBS Global Multilateral Development Bank Bond EUR TR Index	DE000SLA5TF1	.MDB5EUR	
Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index	DE000SLA5TG9	.MDB5	MDB5 Index
Solactive UBS Global Multilateral Development Bank Bond CHF 1-5 TR Index	DE000SLA5TH7	.MDBSCH5	
Solactive UBS Global Multilateral Development Bank Bond GBP 1-5 TR Index	DE000SLA5TJ3	.MDB5GBP	
Solactive UBS Global Multilateral Development Bank Bond EUR 1-5 TR Index	DE000SLA5TK1	.MDB5EUR	
Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index	DE000SLA5TL9	.MDB510	MDB510 Index



Solactive UBS Global Multilateral Development Bank Bond CHF 5-10 TR Index	DE000SLA5TM7	.MDBSC10	
Solactive UBS Global Multilateral Development Bank Bond GBP 5-10 TR Index	DE000SLA5TN5	.MDBSG10	
Solactive UBS Global Multilateral Development Bank Bond EUR 5-10 TR Index	DE000SLA5TP0	.MDBSE10	
Solactive UBS World Bank Bond USD TR Index	DE000SLA5TQ8	.WBANK	WBANK Index
Solactive UBS World Bank Bond CHF TR Index	DE000SLA5TR6	.WBANKCH	
Solactive UBS World Bank Bond GBP TR Index	DE000SLA5TS4	.WBANKGB	
Solactive UBS World Bank Bond EUR TR Index	DE000SLA5TV8	.WBANKEU	
Solactive UBS World Bank Bond USD 1-5 TR Index	DE000SLA5TW6	.WBANK5	WBANK5 Index
Solactive UBS World Bank Bond CHF 1-5 TR Index	DE000SLA5TX4	.WBANKC5	
Solactive UBS World Bank Bond GBP 1-5 TR Index	DE000SLA5KY1	.WBANKG5	
Solactive UBS World Bank Bond EUR 1-5 TR Index	DE000SLA5KZ8	.WBANKE5	
Solactive UBS World Bank Bond USD 5-10 TR Index	DE000SLA5K06	.WBANK10	WBANK10 Index
Solactive UBS World Bank Bond CHF 5-10 TR Index	DE000SLA5K14	.WBANKC1	
Solactive UBS World Bank Bond GBP 5-10 TR Index	DE000SLA5K22	.WBANKG1	
Solactive UBS World Bank Bond EUR 5-10 TR Index	DE000SLA5K30	.WBANKE1	
Solactive UBS Development Bank Bond USD PR Index	DE000SLA5L39	.DEVSP	
Solactive UBS Development Bank Bond CHF PR Index	DE000SLA5L47	.DEVSCP	
Solactive UBS Development Bank Bond GBP PR Index	DE000SLA5L54	.DEVSGP	
Solactive UBS Development Bank Bond EUR PR Index	DE000SLA5L62	.DEVSEP	
Solactive UBS Development Bank Bond USD 1-5 PR Index	DE000SLA5L70	.DEV5P	
Solactive UBS Development Bank Bond CHF 1-5 PR Index	DE000SLA5L88	.DEV5C5P	
Solactive UBS Development Bank Bond GBP 1-5 PR Index	DE000SLA5L96	.DEV5G5P	
Solactive UBS Development Bank Bond EUR 1-5 PR Index	DE000SLA5MA7	.DEV5E5P	
Solactive UBS Development Bank Bond USD 5-10 PR Index	DE000SLA5MC3	.DEV5I0P	



Solactive UBS Development Bank Bond CHF 5-10 PR Index	DE000SLA5MD1	.DEVSC1P	
Solactive UBS Development Bank Bond GBP 5-10 PR Index	DE000SLA5ME9	.DEVSG1P	
Solactive UBS Development Bank Bond EUR 5-10 PR Index	DE000SLA5J25	.DEVSE1P	
Solactive UBS Global Multilateral Development Bank Bond USD PR Index	DE000SLA5J33	.MDBSP	
Solactive UBS Global Multilateral Development Bank Bond CHF PR Index	DE000SLA5J41	.MDBSCP	
Solactive UBS Global Multilateral Development Bank Bond GBP PR Index	DE000SLA5J58	.MDBSGP	
Solactive UBS Global Multilateral Development Bank Bond EUR PR Index	DE000SLA5J66	.MDBSEP	
Solactive UBS Global Multilateral Development Bank Bond USD 1-5 PR Index	DE000SLA5J74	.MDBS5P	
Solactive UBS Global Multilateral Development Bank Bond CHF 1-5 PR Index	DE000SLA5J82	.MDBSC5P	
Solactive UBS Global Multilateral Development Bank Bond GBP 1-5 PR Index	DE000SLA5J90	.MDBSG5P	
Solactive UBS Global Multilateral Development Bank Bond EUR 1-5 PR Index	DE000SLA5KA1	.MDBSE5P	
Solactive UBS Global Multilateral Development Bank Bond USD 5-10 PR Index	DE000SLA5KB9	.MDBS10P	
Solactive UBS Global Multilateral Development Bank Bond CHF 5-10 PR Index	DE000SLA5KC7	.MDBSC1P	
Solactive UBS Global Multilateral Development Bank Bond GBP 5-10 PR Index	DE000SLA5KD5	.MDBSG1P	
Solactive UBS Global Multilateral Development Bank Bond EUR 5-10 PR Index	DE000SLA5KE3	.MDBSE1P	
Solactive UBS World Bank Bond USD PR Index	DE000SLA5KF0	.WBP	
Solactive UBS World Bank Bond CHF PR Index	DE000SLA5KG8	.WBSP	
Solactive UBS World Bank Bond GBP PR Index	DE000SLA5KH6	.WBGP	
Solactive UBS World Bank Bond EUR PR Index	DE000SLA5KJ2	.WBEP	



Solactive UBS World Bank Bond USD 1-5 PR Index	DE000SLA5KK0	.WB5P	
Solactive UBS World Bank Bond CHF 1-5 PR Index	DE000SLA5KL8	.WBC5P	
Solactive UBS World Bank Bond GBP 1-5 PR Index	DE000SLA5KM6	.WBG5P	
Solactive UBS World Bank Bond EUR 1-5 PR Index	DE000SLA5KN4	.WBE5P	
Solactive UBS World Bank Bond USD 5-10 PR Index	DE000SLA5KP9	.WB10P	
Solactive UBS World Bank Bond CHF 5-10 PR Index	DE000SLA5KQ7	.WBC1P	
Solactive UBS World Bank Bond GBP 5-10 PR Index	DE000SLA5KR5	.WBG1P	
Solactive UBS World Bank Bond EUR 5-10 PR Index	DE000SLA5KS3	.WBE1P	
Solactive UBS Global Multilateral Development Bank Bond USD 25% Issuer Capped TR Index	DE000SLA57J5	.MDBS25	MDBS25 Index
Solactive UBS Global Multilateral Development Bank Bond USD 40% 1-5 Year 60% 5-10 Year TR Index	DE000SLA6P75	.MDBS46	MDBS46 Index

## 1.2 INITIAL VALUE

Total Return versions of the Solactive UBS Development Bank Bond Index Family will be calculated every Business Day starting on the 13th of April 2018. Price Return versions of the Solactive UBS Development Bank Bond Index Family will be calculated every Business Day starting on the 25<sup>th</sup> of April 2018. Solactive UBS Global Multilateral Development Bank Bond USD 25% Issuer Capped TR Index will be calculated every Business Day starting on the 31<sup>st</sup> of July 2018. Before this date the index values are backfilled until the 30<sup>th</sup> of December 2011, with the index values based on 1000 as at the close of trading on 30<sup>th</sup> of December 2011. Solactive UBS Global Multilateral Development Bank Bond USD 40% 1-5 Year 60% 5-10 Year TR Index will be calculated every Business Day starting on the 1<sup>st</sup> of October 2018. Before this date the index values are backfilled until the 30<sup>th</sup> of December 2011, with the index values based on 1000 as at the close of trading on 30<sup>th</sup> of December 2011.

## 1.3 DISTRIBUTION

The Index is published via the price dissemination services of Boerse Stuttgart AG and is distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute/display the Index via its information systems.

## 1.4 PRICES AND CALCULATION FREQUENCY

The Index Levels are calculated on each Business Day based on the Evaluated Bid Prices of the Index Components. Newly added bonds are added at the Evaluated Ask Price. Index analytical values are calculated each Business Day using the Last Evaluated Price.



In the event that data cannot be provided to the pricing services of Boerse Stuttgart AG, the Index cannot be distributed.

## 1.5 WEIGHTING

The Index Components are weighted according to their respective Market Value in proportion to the aggregated Market Value of all Index Components in the index, whereas no additional weight constraints are applied. The exception is Solactive UBS Global Multilateral Development Bank Bond USD 25% Issuer Capped TR Index that imposes additional constraints: maximum of 25% allocated to a single issuer, 30% allocated to a single issue. In case any of the constraints stated are breached then weight is redistributed on the pro-rata basis to other constituents to meet the requirements outlined. Solactive UBS Global Multilateral Development Bank Bond USD 40% 1-5 Year 60% 5-10 Year TR Index restricts a total weight of constituents of Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index to 40% and total weight of constituents of Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index to 60%, respectively. The weight within the splits is distributed on pro rata basis.

## 1.6 OVERSIGHT

A Committee composed of staff from Solactive AG (the "Committee" or the "Index Committee") is responsible for decisions regarding the composition of the Index as well as any amendments to the rules.

Members of the Committee can recommend changes to the Guideline and submit them to the Committee for approval.

## 1.7 PUBLICATION

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

## 1.8 HISTORICAL DATA

Historical data will be maintained from the 30th of December 2011. Historical data for Solactive UBS Development Bank Bond subindices and Solactive UBS Global Multilateral Development Bank Bond subindices is calculated based on the fixed list of issuers. List for Solactive UBS Development Bank Bond subindices includes African Development Bank, Agence Francaise de Développement, Asian Development Bank, Council of Europe Development Bank, Development Bank of Latin America (former Corp Andina de Fomento), European Bank for Reconstruction & Development, European Investment Bank, Inter-American Development Bank, International Bank for Reconstruction and Development, International Development Association, International Finance Corporation, Islamic Development Bank, Netherlands Development Finance Company. List for Solactive UBS Global Multilateral Development Bank Bond subindices includes African Development Bank, Asian Development Bank, European Bank for Reconstruction & Development, Inter-American Development Bank, International Bank for Reconstruction and Development, International Development Association, International Finance Corporation.



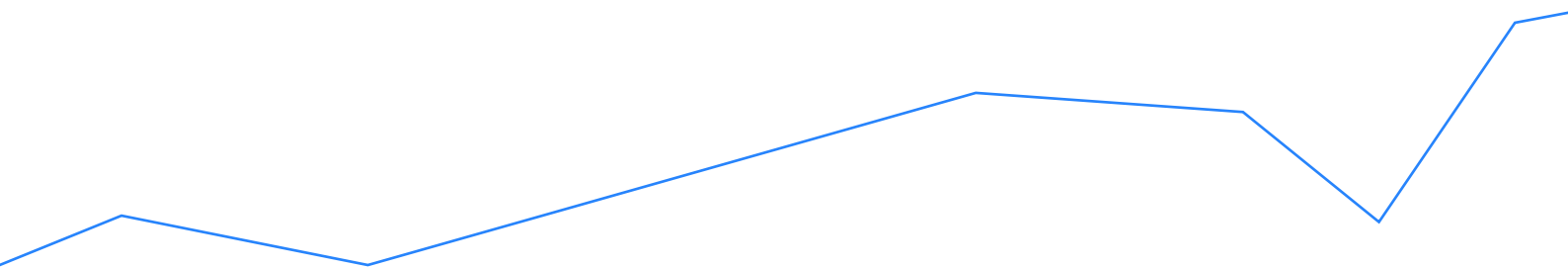
## 1.9 LICENSING

Licenses to use the Index as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Solactive AG.



# INDEX GUIDELINE

Composition of the Index



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## 2 COMPOSITION OF THE INDEX

### 2.1 SELECTION OF THE INDEX COMPONENTS

At the launch of the index, all financial instruments which meet the requirements of the Selection Pool are eligible for inclusion in the index. Instruments issued prior to the Selection Day and which meet the criteria of the Selection Pool as defined below will be added on the monthly Adjustment Day to the Selection Pool. Additionally, on the monthly Selection Day, the Index Committee will evaluate whether all current Index Components still meet the requirements of the Selection Pool. Any Index Components that do not pass this screen will be removed from the Index on the next Adjustment day.

The "Selection Pool" comprises bonds that fulfill the following conditions:

- (a) Issuer requirements for the Solactive UBS Development Bank Bond subindices:
  - 1. The issuer must be a Development Bank.
  - 2. The issuer must have a rating of AA- (S&P) or Aa3 (Moody's) and higher. If several ratings are available, the lowest rating is considered.
  - 3. The issuer requirements are reviewed on the annual basis. The issuer selection will be performed during October with the changes effective on the corresponding Adjustment Day (November Selection Pool will be based on the new issuer list).
- (b) Issuer requirements for the Solactive UBS Global Multilateral Development Bank Bond subindices:
  - 1. The issuer must be a Multilateral Development Bank.
  - 2. The issuer must have a rating of AA- (S&P) or Aa3 (Moody's) and higher. If several ratings are available, the lowest rating is considered.
  - 3. The issuer requirements are reviewed on the annual basis. The issuer selection will be performed during October with the changes effective on the corresponding Adjustment Day (November Selection Pool will be based on the new issuer list).
- (c) Issuer requirements for the Solactive UBS World Bank Bond subindices:
  - 1. The only eligible Issuer is The International Bank for Reconstruction and Development (IBRD).
- (d) Bonds should be denominated in US dollars (USD).
- (e) Minimum amount outstanding of 500 million USD is required.
- (f) Fixed rated bonds are eligible for inclusion. For the avoidance of doubt only bonds that have a fix constant coupon over the lifetime of the bond are eligible while bonds that have a fixed coupon schedule with different coupon values are excluded (e.g. step up bonds).
- (g) Dual currency notes, convertible bonds and inflation linked bonds are excluded.





## Index Guideline

- (h) Domestic market bonds and private placements are excluded.
- (i) Maturity types eligible for inclusion are "Bullet" and "Callable".
- (j) Time to Maturity is required to be not less than 12 months.

For the all subindices with maturity span of 1-5 (Solactive UBS Development Bank Bond USD 1-5 TR Index, Solactive UBS Development Bank Bond CHF 1-5 TR Index, Solactive UBS Development Bank Bond GBP 1-5 TR Index, Solactive UBS Development Bank Bond EUR 1-5 TR Index, Solactive UBS Global Multilateral Development Bank Bond USD 1-5 TR Index, Solactive UBS Global Multilateral Development Bank Bond CHF 1-5 TR Index, Solactive UBS Global Multilateral Development Bank Bond GBP 1-5 TR Index, Solactive UBS Global Multilateral Development Bank Bond EUR 1-5 TR Index, Solactive UBS World Bank Bond USD 1-5 TR Index, Solactive UBS World Bank Bond CHF 1-5 TR Index, Solactive UBS World Bank Bond GBP 1-5 TR Index, Solactive UBS World Bank Bond EUR 1-5 TR Index as well as corresponding PR versions) time to maturity should be not less than 1 year and below 5 years.

For all subindices with maturity span of 5-10 (Solactive UBS Development Bank Bond USD 5-10 TR Index, Solactive UBS Development Bank Bond CHF 5-10 TR Index, Solactive UBS Development Bank Bond GBP 5-10 TR Index, Solactive UBS Development Bank Bond EUR 5-10 TR Index, Solactive UBS Global Multilateral Development Bank Bond USD 5-10 TR Index, Solactive UBS Global Multilateral Development Bank Bond CHF 5-10 TR Index, Solactive UBS Global Multilateral Development Bank Bond GBP 5-10 TR Index, Solactive UBS Global Multilateral Development Bank Bond EUR 5-10 TR Index, Solactive UBS World Bank Bond USD 5-10 TR Index, Solactive UBS World Bank Bond CHF 5-10 TR Index, Solactive UBS World Bank Bond GBP 5-10 TR Index, Solactive UBS World Bank Bond EUR 5-10 TR Index as well as corresponding PR versions) time to maturity should be not less than 5 years and below 10 years.

For Solactive UBS Global Multilateral Development Bank Bond USD 40% 1-5 Year 60% 5-10 Year TR Index time to maturity should be not less than 1 year and below 10 years.

- (k) If two or more identical bonds qualify the following rules are considered in order to avoid double-inclusion:
  1. RegS issues are preferred over 144A
  2. Series 1A issues are preferred over other series
  3. Bonds issued with a series are preferred over bonds without a specific series

"Development Bank" is any government related or government backed financial institution with a focus on official development assistance and a minimum loan book exposure published or reported by the issuer of 25% to a portfolio of diversified Emerging Market countries. Emerging Market country will be defined



separately in the annex of the guideline as every country that is not defined as Developed Country by Solactive or not part of the Eurozone.

"Multilateral Development Bank" is a Development Bank whose shareholders list includes among other members all G7 countries.

## 2.2 ORDINARY ADJUSTMENT

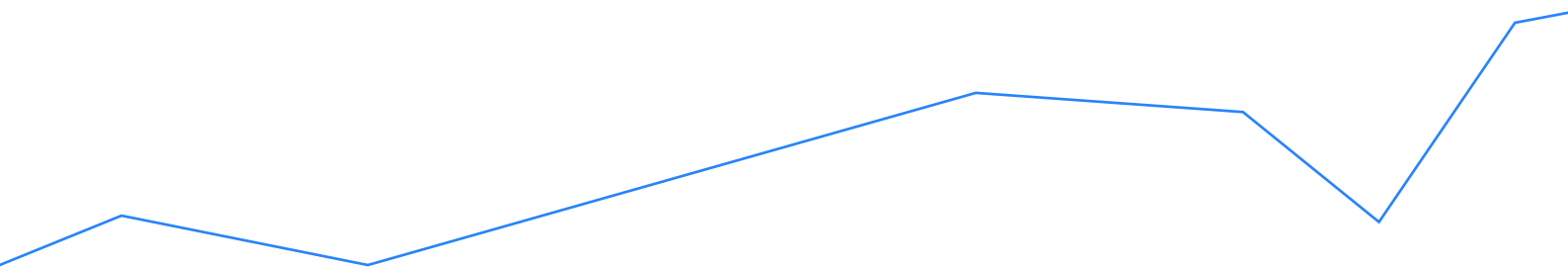
The composition of the Index is ordinarily adjusted on the Adjustment Day, which falls on the last calendar day of each month, with the exception of December. Additionally, any income (e.g. resulting from coupon payments or corporate actions) is stored as a cash component and reinvested proportionately across all constituents on the next Adjustment Day.

The composition of the Index is ordinarily reviewed on the monthly Selection Day. The monthly Selection Day is 6 Business Days prior to the Adjustment Day. The weight adjustment is carried out on the business day following the Selection Day and becomes effective on the Adjustment Day.



# INDEX GUIDELINE

Calculation of the Index



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# 3 CALCULATION OF THE INDEX

## 3.1 INDEX FORMULA

The Solactive UBS Development Bank Bond Index Family incorporates Total Return Indices and Price Return Indices.

Formula for Total Return Indices is as follows:

$$Index_t = Index_n \cdot \frac{MarketValue_t + Cash_t}{BaseValue_n}$$

$$BaseValue_t = \sum_{i=1}^a (Price_{i,n} + AI_{i,n} + Cap_{i,n} + CPAdj_{i,n}) \cdot SinkFactor_{i,n} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,n}$$

$$MarketValue_t = \sum_{i=1}^a (Price_{i,t} + AI_{i,t} + Cap_{i,t} + CPAdj_{i,t}) \cdot SinkFactor_{i,t} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

$$Cash_t = CashCoupon_t + CashSink_t + CashCA_t$$

$$CashCoupon_t = \sum_{i=1}^a CashCoupon_{i,t-1} + \sum_{i=1}^a Coupon_{i,t}/100 \cdot SinkFactor_{i,t} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

$$CashSink_t = \sum_{i=1}^a CashSink_{i,t-1} + \sum_{i=1}^a SinkPayment_{i,t}/100 \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

$$CashCA_t = \sum_{i=1}^a CashCA_{i,t-1} + \sum_{i=1}^a (RedemptionPrice_{i,t} + AI_{i,t} + CAP_{i,t} + CPAdj_{i,t})/100 \cdot$$

$$\cdot SinkFactor_{i,t-1} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

Formula for Price Return Indices is as follows:

$$Index_t = Index_n \cdot \frac{MarketValue_t + Cash_t}{BaseValue_n}$$

$$BaseValue_t = \sum_{i=1}^a Price_{i,n} \cdot SinkFactor_{i,n} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,n}$$

$$MarketValue_t = \sum_{i=1}^a Price_{i,t} \cdot SinkFactor_{i,t} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

$$Cash_t = CashSink_t + CashCA_t$$

$$CashSink_t = \sum_{i=1}^a CashSink_{i,t-1} + \sum_{i=1}^a SinkPayment_{i,t}/100 \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$



$$CashCA_t = \sum_{i=1}^a CashCA_{i,t-1} + \sum_{i=1}^a RedemptionPrice_{i,t}/100 \cdot$$

$$\cdot SinkFactor_{i,t-1} \cdot Amt_{i,SD} \cdot CF_{i,SD} \cdot FX_{i,t}$$

Whereas:

$AI_{i,t}$	Accrued Interest of the bond i on day t
$Amt_{i,t}$	Amount Outstanding of bond i on day t
$Cap_{i,t}$	Capitalization rate of bond i on day t (only relevant for capitalizing bonds, otherwise the default value is 0)
$Cash_t$	Aggregated cash consisting of all payments made by index members up to and including day t, which is between two regular Adjustment Days. In Price Return indices, the Cash term includes cash derived from Corporate Actions and sink cash, while Total Return indices reflect coupon payments in addition to that. On the next Selection Day, Cash is reinvested into the index and is set to 0
$CashCA_t$	Aggregated value of all extraordinary repayments resulting from Corporate Actions effective up to and including day t
$CashCoupon_{i,t}$	Aggregated value of all coupon payments made by index members up to and including day t
$CashSink_t$	Aggregated value of all early repayments of sinkable bonds up to and including day t
$CF_{i,SD}$	Capping factor of bond i on the last Selection Day. It is used to scale the weight of bond i defined on the last Selection Day
$Coupon_{i,t}$	Coupon value of bond i on day t
$CPAdj_{i,t}$	Variable coupon adjustment factor of bond i on day t. If the bond enters the index during the ex-dividend period, the factor is 0. If the bond is already in the index during the ex-dividend period, the variable coupon adjustment factor equals the coupon amount
$FX_{i,t}$	Foreign exchange rate of bond i on day t
$Index_t$	Value of the Index on day t
$n$	Last Rebalancing Day
$Price_{t,i}$	Clean price of bond i on day t
$RedemptionPrice_{i,t}$	Price at which bond i is redeemed due to a Corporate Action effective on day t
$SD$	Last Selection Day



$SinkFactor_{i,t}$	Sinking fund factor of bond i on day t (only relevant for sinkable bonds, otherwise default value is 1)
$SinkPayment_{i,t}$	Value of the early repayment of sinkable bond I on day t, which is a sink date. Sink Payment is calculated as $(SinkFactor_{t-1} - SinkFactor_t) \cdot 100$
$t$	Business Day t which is between two regular Adjustment Days

## 3.2 ACCURACY

The displayed value of the Indices will be rounded to 2 decimal places.

## 3.3 ADJUSTMENTS

Indices need to be adjusted for market structure changes once they become effective. The Committee will regularly review the indices to determine if they need to be adjusted to take into account any market changes.

The following Extraordinary Events will result in changes or adjustments to an index as indicated below between Adjustment Days:

- 1) Early Redemption or Full Call: Any any cash proceeds will be held as "Paid Cash" and reinvested into the index on the following Adjustment Day. For the avoidance of doubt a Tender must be mandatory, the pure offer to tender a bond will not lead to an adjustment of the index.
- 2) Flat Trading: A bond is flat trading if the bond issuer is not expected to 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 be removed on the next Adjustment Day, if it is identified as Flat Trading on selection date.
- 3) 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.
- 4) Exchange Offers:
  - a) Optional Exchange Offers: Optional Exchange Offers will not result in an adjustment of the index\*
  - b) Mandatory Exchanges Offers:



- i. In the case when less than 90% of the Amount Outstanding is exchanged the exchange will not be considered to be an event that affects the relevant bond's position in the index.
    - ii. In case more than 90% of the Amount Outstanding is exchanged the exchange will be considered in the index calculation by exchanging the relevant bonds, so that the new bond will receive the weight of the old exchanged bond.
- 5) The treatment of events for Fungible Bonds depends on whether:
  - a) The parent bond and the sub-tranche are both index constituents: Both bonds are kept in the index until the next Adjustment Day. On the next Adjustment Day, the new bond will be removed and the Amount Outstanding of the parent bond will be increased by the amount of the new bond issue.
  - b) The parent bond is an index constituent and the sub-tranche is not: on the next Adjustment Day the Amount Outstanding of the parent bond will be increased by the amount of the sub-tranche.
  - c) The parent bond is not an index constituent but the sub-tranche is. The fund will be treated as an exchange into the parent bond, if it meets the index eligibility criteria with an amount equal to that of the sub-tranche. On the next Adjustment Day, the amount of the parent bond will be updated to include its full amount as of the index Selection Day. If the parent bond does not fulfil the selection criteria, the fund will be treated as a deletion and the sub-tranche will be removed from the index at the latest available price.
- 6) Payment-in-Kind Bonds: These bonds pay interest in additional bonds rather than in cash. Assuming the additional bonds will be sold immediately, payments-in-kind are therefore considered as cash in all Total Return calculations.
- 7) Ex-dividend Bonds: "Ex-dividend" means that the next coupon is detached from the bond several days in advance of the coupon payment date. Between ex-date and pay-date a buyer of the bond does not get the right to receive the next coupon. Therefore, accrued interest is negative during that period. However, the coupon will be paid to the original bondholder, i.e. if a bond is already in the index the next coupon payment is held separate in the Variable Coupon Adjustment Factor  $CPAdj_{i,t}$ . If the bond enters the index during the ex-dividend period  $CPAdj_{i,t}$  is zero as the next coupon payment will not accrue to the index.

\*For the avoidance of doubt, an optional tender or exchange offer may lead to an index adjustment after the end of the submission period. In case the tender or exchange has been successful for at least 90% of the amount outstanding, the bond will be removed from the index/exchanged into the relevant bond.



In case of an Extraordinary Event that is not covered by the standard treatments mentioned above the Committee will meet and decide on how to treat the Extraordinary Event in the index based on the information available. An extraordinary adjustment will only be implemented if the majority of the Committee supports the suggested treatment. As soon as a decision has been taken all parties related to the index are informed about the Extraordinary Event as well as the decided treatment and date of implementation.

## 3.6 MISCELLANEOUS

### 3.6.1 Recalculation

Solactive AG makes the greatest possible efforts to accurately calculate and maintain its indices. However, the occurrence of errors in the index determination process cannot be ruled out. In such cases Solactive AG adheres to its publicly available [Correction Policy](#).

### 3.6.2 Market Disruption

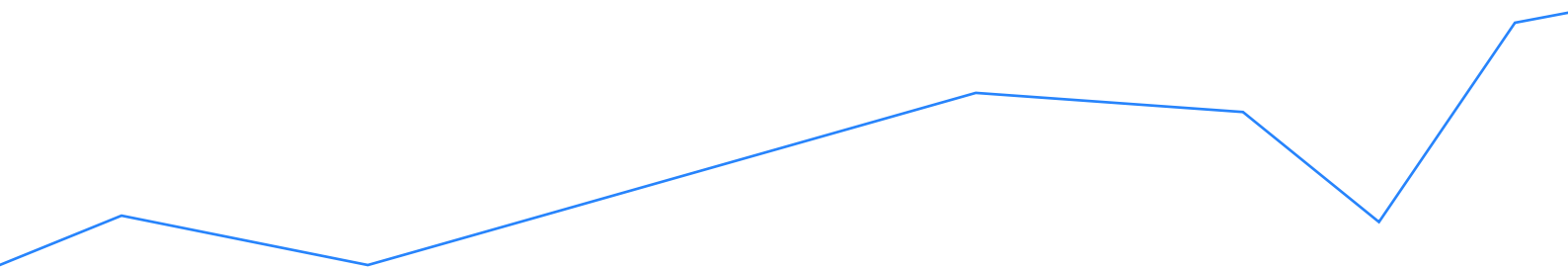
In periods of market stress Solactive AG calculates its indices following predefined and exhaustive arrangements set out in its publicly available [Disruption Policy](#).





# INDEX GUIDELINE

## Definitions



Version 3.1 – 20 February 2019



## 4 DEFINITIONS

"Adjustment Day" is the last Business Day of each month.

"Amount Outstanding" is the face value of the respective bond.

A "Business Day" in relation to the index is each day, Monday to Friday, except common European banking holidays and banking holidays as defined by the New York Stock Exchange (NYSE) and SIFMA. Common European banking holidays are Good Friday, Easter Monday, Christmas Day, Boxing Day and New Years Day. The MDBS46 index is following the same holiday calendars as mentioned above except for the common European banking holidays.

"Call" means that a bond with a callable feature will be redeemed before the actual maturity date of the bond. The callable feature allows the issuer of the bond to retain the privilege of redeeming the bond before the actual maturity date.

"Convertible Bonds" are bonds that can be converted into a predetermined amount of the company's equity at certain times during its life.

"Covered Bonds" are bonds backed by cash flows or mortgages or public sector loans.

A "Credit Event" is the suspension of debt service, insolvency or failure to pay on time.

"Early Redemption" includes every event that leads to a redemption of a bond before the actual maturity date.

"Ex-dividend" means that the next coupon is detached from the bond several days in advance of the coupon payment date.

"Exchange Offer" means that the holder of a bond is invited to exchange the existing bond to another debt security.



In particular an "Extraordinary Event" is

- > an early redemption of the bond
- > a credit event

"Emerging Market Country" is every country that is not defined as Developed Country by Solactive and is not a part of the Eurozone. Solactive Country Classification can be found under the following link: <https://www.solactive.com/documents/>

"Evaluated Ask Price" is the last available Ask Price evaluated by the designated Pricing Provider.

"Fixed Coupon Bonds" are bonds with a fixed coupon rate, as opposed to floating rate coupons.

A bond is marked as "Flat Trading" if the bond issuer will not meet its coupon payment obligation. This means that the buyer of a bond is not responsible for paying the interest that has accrued since the last payment.

"Floating Rate Bonds" are bonds with a variable or floating interest rate, i.e. coupons fluctuate in line with the underlying level of interest rates, as opposed to fixed-rate coupons.

A "Fungible Bond" is a new issue that has all the same specifications as an existing issue (bonds with the same parameters can be issued in different tranches). At a specific date, the tranches will be combined into one bond. After this date, the parent tranche will include the Amount Outstanding of all new tranches.

A bond is "In Default" when the issuer is not able to fulfil its bond payment obligations anymore after the 30 days grace period.

"Index Components" are all bonds in the Selection Pool.

The "Index Currency" is USD, EUR, CHF or GBP (see different index versions)

"Inflation-linked Bonds" are bonds whose principal is indexed to inflation.



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

"Last Evaluated Price" generally is (aside from the rules referred to in "Extraordinary Events") the last available Evaluated Bid Price.

"Paid Cash" is either the value of the coupon payments between Adjustment Days or the resulting payment when a bond is removed from the index between Adjustment Days. On the next Adjustment Day "Paid Cash" will be reinvested in the index.

"Payment-In-Kind Bonds" are a type of bonds that pay interest in additional bonds rather than in cash.

"Preferred Securities" combine both debt and equity characteristics.

"Securitized Bonds" are bonds secured against specific assets or receivables (ABS), mortgages (MBS) or cash flows.

"Selection Day" is a Business Day 6 Business Days prior to the Adjustment Day. If the Selection Day happens to be Christmas Eve the new composition is fixed 1 Business Day in advance.

"Sinking Fund 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.

"Step-Up Coupon Bonds" are bonds whose coupons increase while the bond is outstanding. The coupon amounts are determined at issuance.

"Tender Offer" means that a holder of a bond is invited to tender the bond for a specific price at a specific time before the actual maturity date.

A "Total Return Index" measures the performance of the index components by assuming that all distributions are reinvested into the index, i.e. the index does not only reflect pure price movements.

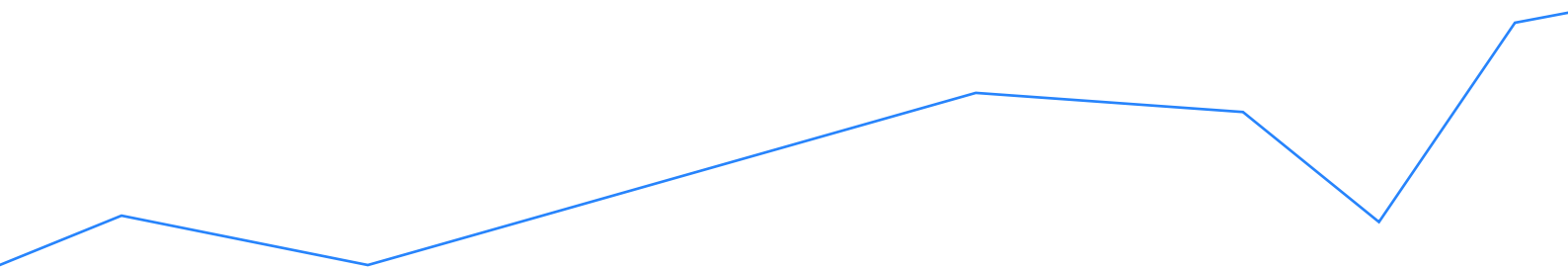
"Zero Coupon Bonds" do not pay interest but are issued at a discount.





# INDEX GUIDELINE

## Appendix



Version 3.1 – 20 February 2019



# 5 APPENDIX

## 5.1 CONTACT DATA

Solactive AG  
German Index Engineering  
Guillettstr. 54  
60325 Frankfurt am Main  
Germany

Tel.: +49 (0) 69 719 160 00

Fax: +49 (0) 69 719 160 25

Email: [info@solactive.com](mailto:info@solactive.com)

## 5.2 CHANGES IN CALCULATION METHOD

The application by the Index Calculator of the method described in this document is final and binding. The Index Calculator shall apply the method described above for the composition and calculation of the Index. However, it cannot be excluded that the market environment, supervisory, legal, financial or tax reasons may require changes to be made to this method. The Index Calculator may also make changes to the terms and conditions of the Index and the method applied to calculate the Index that it deems to be necessary and desirable in order to prevent obvious or demonstrable error or to remedy, correct or supplement incorrect terms and conditions. The Index Calculator is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the Index Calculator will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.