

# INDEX GUIDELINE

Solactive Broad Canadian Bond Universe Index Family

Version 1.0

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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 Broad Canadian Bond Universe TR 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 Broad Canadian Bond Universe Index Family is composed by a Bond Universe index and other subindices build on top of it. The Solactive Broad Canadian Bond Universe TR Index (SOLBCATR) aims to track the performance of CAD denominated bonds issued in the Canadian market regardless of the origin of the issuing entity. The index provides a broad and liquid measure of the Canadian Investment Grade bond market including instruments issued by supranationals, government, quasi-government and corporate bonds. The Short Term Bond Universe indices track the performance of the subset of bonds with a TIME TO MATURITY between 1 and 5 years. The Float Adjusted Total Return indices track the total or price performance of the subset that adjusts for Bank of Canada holdings, depending on their index types. The Broad Maple Excluded Index track the total performance of the subset that excludes foreign issuers. The Responsible Broad Maple Excluded Index intends to track the performance of all the constituent securities in the parent index that also satisfy a set of responsible investing screening criteria defined by the INDEX ADMINISTRATOR. The INDEX ADMINISTRATOR evaluates all the issuers in the parent index based on the exclusion criteria outlined below, which evaluation is based on data provided by ISS ESG. The indices are rebalanced monthly.



#### 1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Туре	Calculation Formula*	RIC	BBG ticker
Solactive Broad Canadian Bond Universe TR Index	DE000SLA9SF5	CAD	TR	Direct	.SOLBCATR	SOLBCATR
Solactive Broad Canadian Short Term Bond Universe TR Index	DE000SLA9SJ7	CAD	TR	Direct	.SOLBCSTR	-
Solactive Broad Canadian Bond Universe Liquid ex MPL TR Index	DE000SL0AYJ5	CAD	TR	Direct	.SOLBCAEM	SOLBCAEM
Solactive Responsible Canadian Bond Universe Liquid ex MPL TR Index	DE000SL0BSW8	CAD	TR	Direct	.SOLRCAEM	-
Solactive Canadian Float Adjusted Universe Bond Index	DE000SL0BSB2	CAD	TR	Periodic	.SOLBCATF	SOLBCATF
Solactive Canadian Corporate Bond Index	DE000SL0BSC0	CAD	TR	Periodic	.SOLBCCTF	SOLBCCTF
Solactive Canadian Short Term Bond Index	DE000SL0BSD8	CAD	TR	Periodic	.SOLBCSTF	SOLBCSTF
Solactive Canadian Float Adjusted Universe Bond PR Index	DE000SL0BSE6	CAD	PR	Periodic	.SOLBCAPF	-
Solactive Canadian Corporate Bond PR Index	DE000SL0BSF3	CAD	PR	Periodic	.SOLBCCPF	-
Solactive Canadian Short Term Bond PR Index	DE000SL0BSG1	CAD	PR	Periodic	.SOLBCSPF	-

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

Each Index is published on the website of the Index Administrator (<a href="www.solactive">www.solactive</a>.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 each 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/.

<sup>\*</sup>PR means that the INDEX is calculated as a Price Return index as described in the Bond Index Methodology, which is available on the SOLACTIVE website: <a href="https://www.solactive.com/documents/bond-index-methodology/">https://www.solactive.com/documents/bond-index-methodology/</a>



#### 1.3. INITIAL LEVEL OF THE INDEX

The initial level of the INDICES above is as follows:

Index Name	Index RIC	Date	Initial Value
Solactive Broad Canadian Bond Universe TR Index	.SOLBCATR	2019/9/18	1000
Solactive Broad Canadian Short Term Bond Universe TR Index	.SOLBCSTR	2019/9/18	1000
Solactive Broad Canadian Bond Universe Liquid ex MPL TR Index	.SOLBCAEM	2020/7/30	1000
Solactive Responsible Canadian Bond Universe Liquid ex MPL TR Index	.SOLRCAEM	2021/10/8	1000
Solactive Canadian Float Adjusted Universe Bond Index	.SOLBCATF	2021/4/15	1000
Solactive Canadian Corporate Bond Index	.SOLBCCTF	2021/4/16	1000
Solactive Canadian Short Term Bond Index	.SOLBCSTF	2021/4/16	1000
Solactive Canadian Float Adjusted Universe Bond PR Index	.SOLBCAPF	2021/4/16	1000
Solactive Canadian Corporate Bond PR Index	.SOLBCCPF	2021/4/16	1000
Solactive Canadian Short Term Bond PR Index	.SOLBCSPF	2021/4/16	1000

Levels of the INDEX published for a period prior to this date have been back-tested. Historical values from earlier time will be recorded in accordance with Article 8 of the BMR.

#### 1.4. PRICES AND CALCULATION FREQUENCY

The Broad, Short, and Maple Excluded universe Indices are calculated and distributed once every Business Day based on the Last Evaluated Mid Price of the Index Components. Bonds added in a rebalancing (see Section 3) are included the Index at the Last Evaluated Mid Price at 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 Mid price at the relevant Rebalance Day. Index analytical values are calculated each Business Day using the Last Evaluated Mid Price based on Fixing Time.

The floating universe INDICES are calculated and distributed once every BUSINESS DAY based on the Last Evaluated Mid Price of the INDEX COMPONENTS. Bonds added in a rebalancing (see Section 3) are included the INDEX at the Last Evaluated Ask Price at 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 price at the relevant Rebalance Day. INDEX analytical values are calculated each BUSINESS DAY using the Last Evaluated Mid Price based on FIXING TIME.

## 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 an 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.

For SOLBCATR, SOLBCSTR, SOLBCAEM, SOLRCAEM member amount increases (re-openings) and new issuances will be reviewed for eligibility daily. New issuances will be added to the index on the day the fulfill the selection criteria, meaning that if a bond is eligible, but no pricing is available, the bond will only become an index member on the day a price is provided, as long as the issue date is not greater than (1) day from the review date. Similarly, amount re-openings (i.e. amount increases) for bonds that are current members of the index will be taken into account, leading to daily adjustments of the composition.

#### 2.1. SELECTION OF THE INDEX COMPONENTS

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

- Government, supranational and corporate bonds denominated in CAD
- The minimum TMX ADJUSTED AMOUNT outstanding should be of at least CAD 150 Million
- The minimum Time To Maturity on Selection Day should be of 1 year from Rebalance Day
- > Bonds should be available in the Canadian Market, regardless of the country of the issuer
- MAPLE BONDS will be eligible provided that at least one of their underwriters is a bank domiciled in Canada.
- Only bonds with semi-annual coupons and the following coupon types are eligible: FIXED RATE BONDS (lifetime), FIX TO FLOAT and FIX TO VARIABLE bonds, provided they are within the FIX COUPON PERIOD and not less than one year prior to the reset date.
- Zero coupon bonds, pay in kind bonds, ABS, repackaged bonds, convertible bonds, MBS (except 1<sup>st</sup> mortgages), inflation linked bonds, flat trading, hybrid and defaulted bonds are excluded.
- The NVCC is eligible in general except for LRCN and preferred shares. P3 is also excluded.
- > Bonds with a bullet, callable, puttable, extendible and perpetual maturity type are eligible.
- The average rating of the bonds must be investment grade (BBB- or above). The average rating is calculated by summing up the numerical score of all available ratings from S&P, DBRS and Moody's and dividing it by the number of available ratings. If only one rating is available, it must be IG. If two or more ratings are available, the average must be IG.
- There must be an available price on Selection Date
- In the event that identical bonds qualify for the index, the following criteria will be used to select only one issuance:
  - 1. Canadian issues are preferred (as identified with a Canadian ISIN)
  - 2. Private Placements are excluded



- 3. RegS issues are preferred over 144a
- 4. Series 1A issues are preferred over other series
- 5. Bonds issued with a series are preferred over bonds issued without one.

For SOLBCSTR, the following requirements rules are applied in addition to the SOLBCATR rules:

The Time To Maturity of a bond is greater than or equal to 1 year but less than 5 years.

For SOLBCAEM the following requirements rules are applied in addition to the SOLBCATR rules:

- Bonds must be issued in the Canadian market by Canadian companies (Country of risk or country of incorporation must be Canada). This includes domestic issued bonds as well as global issued bonds as well as private placements which have an ISIN beginning with the CA characters.
- The minimum TMX ADJUSTED AMOUNT outstanding should be of at least CAD 200 Million.

For SOLRCAEM the following the following requirements rules are applied in addition to the SOLBCAEM rules:

On each monthly Selection Date, the potential constituents are drawn from the Solactive Broad Canadian Bond Universe Liquid ex MPL TR (ISIN: DE000SL0AYJ5). The potential constituents must pass the Issuer-based screening using data from ISS-ESG, as described in the table below. The ISSESG data is updated monthly.

Theme		Exclusion criterion	
	Environment	Verified ongoing failure to respect established norms	
	Human Rights		
Norm-Based Research	Corruption		
	Labour Rights		
	Chemical weapons		
	Biological weapons	Verified ongoing involvement	
	Nuclear weapons		
Controversial Weapons	Depleted Uranium		
Research	Nuclear weapons outside the		
	NPT		
	Cluster munitions		
	Anti-personnel mines		
		50% Services, 5% Production, 5%	
	Fossil Fuel	Distribution or 5% Exploration	
Sector-Based Screening	Oil sands	0% Production, 0% Exploration	
Sector Based Screening	Military	50% Services, 5% Production or 5% Distribution	
	Pornography	5% overall, 0% Production	



Tobacco	50% Services, 0% Production or 5% Distribution
Gambling	50% Services, 5% Production or 5% Distribution
Alcohol	50% Services, 5% Production or 5% Distribution
Cannabis	50% Services, 5% Production or 5% Distribution
Explanation: % figures refer to revenue threshold (f	for degree of involvement) above which criterion

is breached

All companies violating any of the exclusion criteria above are excluded. Companies for

which an assessment is not possible due to missing or incomplete information are removed.

- Additionally, only companies are included that have at least one women of the management board or where a woman holds on of the following positions:
  - o CEO Chief Executive Officer
  - o CFO Chief Financial Officer
  - o COO Chief Operations Officer
  - o CMO Chief Marketing Officer
  - o CIO Chief Information Officer
  - o CHRO Chief Human Resources Officer
  - o CTO Chief Technology Officer
- The remaining securities are ranked within their respective sector according to their CARBON INTENSITY. Securities with the highest value receive the highest rank.
- The securities above the 75th percentile within each sector are excluded from the selection. The remaining securities are selected as INDEX COMPONENTS.

For the Float Adjusted Indices the following requirements rules are applied in addition to the SOLBCATR rules:

The minimum TMX AND FLOAT ADJUSTED AMOUNT outstanding should be of at least CAD 150 Million

(the "INDEX COMPONENT REQUIREMENTS")

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



#### 2.2. WEIGHTING OF THE INDEX COMPONENTS

On each Selection Day each Index Component is weighted using the market value based on the Price convention for Weighting and accrued interest as on the Selection Day in order to achieve the aim of the Index.

For SOLRCAEM, The INDEX COMPONENTs are weighted in the way to replicate the ratio of government to corporate issuers of the parent index Solactive Broad Canadian Bond Universe Liquid ex MPL TR Index .

#### 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 under the section "Announcement", which is available at

https://www.solactive.com/news/announcements/

#### 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

"ABS" are securities collateralized by a pool of assets.

"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 is any day other than a Saturday or Sunday or a day on which the Investment Industry Association of Canada (IIAC) recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in domestic bond and money markets. The IIAC recommended closings of the domestic Canadian bond and money



markets are set out on the following website (or any successor page): <a href="http://iiac.ca/market-closure-schedule/">http://iiac.ca/market-closure-schedule/</a>.

"CARBON INTENSITY" is provided by ISS-ESG on monthly basis and is calculated as:

CARBON INTENSITY = 
$$\frac{GHG}{TOTAL REVENUES}$$

"CLOSE OF BUSINESS" is a time stamp when an INDEX is calculated. This occurs at 22:30 CET every BUSINESS DAY.

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

"FIXED TO FLOAT" bonds pay a defined coupon for a stated period, and then they change what they pay based on some other criteria related to a spread over a reference rate specifically stated in the terms.

"FIXED TO VARIABLE" bonds pay a defined coupon for a stated period, and then they change what they pay based on some other criteria specifically stated in the terms.

**"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: <a href="https://www.solactive.com/documents/bond-index-methodology/">https://www.solactive.com/documents/bond-index-methodology/</a>.

"FIX COUPON PERIOD" is the period during which a FIXED TO FLOAT or a FIXED TO VARIABLE bond is paying a defined and unchanged coupon rate.

**"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".

"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.

"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 or Baa3 by Moody's Investors Service or BBB by DBRS.

"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.



"MAPLE BONDS" are all bonds issued by non-Canadian companies, denominated in CAD and available for purchase in the Canadian market

"Oversight Committee" shall have the meaning as defined in Section 5.5.

"PRICING PROVIDER" is CanDeal.ca Inc. (CanDeal).

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

"SELECTION DAY" is 7 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".

"START DATE" is January 3rd, 2012

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

"TIME TO MATURITY" represents the remaining life of a bond.

**"TMX ADJUSTED AMOUNT"** represents remaining amount outstanding of a bond after it has been adjusted for for the stripped amount as provided by TMX Group Limited. The adjustment represents the subtraction of the stripped amount from the outstanding amount of the bond.

"TMX AND FLOAT ADJUSTED AMOUNT" represents remaining amount outstanding of a bond after it has been adjusted for the stripped amount as provided by TMX Group Limited and for Central Bank of Canada Holdings. The adjustment represents the subtraction of the stripped amount and the amount of Central Bank of Canada Holdings from the outstanding amount of the bond.

"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	27 March 2024	Family Index Guideline creation (initial version)



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