

INDEX GUIDELINE

*Solactive Broad Canadian Bond Universe Index
Family*

Version 1.3

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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 specified in Section 5.5. 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 text uses defined terms which are formatted with "SMALL CAPS". Such Terms shall have the meaning assigned to them as specified in Section 6 (Definitions).

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 – 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 a Short Term Bond Universe index. 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 Solactive Broad Canadian Short Term Bond Universe TR Index is a sub-index tracking the performance of debt with a TIME TO MATURITY between 1 and 5 years.

The indices are calculated with LAST EVALUATED MID PRICE and are rebalanced on a monthly basis. New issuances are added on a daily basis, provided that they fulfill the selection criteria, there is an available price from the PRICING PROVIDER, and the issue date is not greater than one (1) day from the review date.

To be eligible, bonds needs to be denominated in Canadian Dollars (CAD) and have been issued in the Canadian Market. Eligible bonds must have a TMX ADJUSTED AMOUNT outstanding greater than CAD 150 million on SELECTION DATE as well as a TIME TO MATURITY not shorter than 12 months from REBALANCING DATE. Bonds issued by foreign issuers in the Canadian market, as well as supranationals (SNATs) will be included provided that they are available for purchase in the Canadian market. MAPLE BONDS will be deemed as eligible if they have been underwritten by a bank domiciled in Canada. For the Short Term Bond Universe index, bonds should not have a TIME TO MATURITY greater than 5 years from REBALANCING DATE.

1.2. IDENTIFIERS AND PUBLICATION

The INDEX is published under the following identifiers:

Name	ISIN	Currency	Type	RIC	BBG ticker
Solactive Broad Canadian Bond Universe TR Index	DE000SLA9SF5	CAD	TR	.SOLBCATR	SOLBCATR
Solactive Broad Canadian Short Term Bond Universe TR Index	DE000SLA9SJ7	CAD	TR	.SOLBCSTR	N/A

*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: <https://www.solactive.com/documents/bond-index-methodology/>

Each INDEX is published on the website of the INDEX ADMINISTRATOR (www.solactive.com) and is, in addition, available via the price marketing services of Boerse Stuttgart GmbH and may be distributed to all of its affiliated vendors. Each vendor decides on an individual basis as to whether it will distribute or display 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/>.

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. The index levels prior to the LIVE DATE have been back-tested.

1.4. PRICES AND CALCULATION FREQUENCY

The INDEX is calculated and distributed once every BUSINESS DAY based on the PRICE CONVENTION of the INDEX COMPONENTS. Bonds added in a rebalancing (see Section 3) are included the INDEX at the PRICE CONVENTION FOR ADDING 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 PRICE CONVENTION FOR EXITING on the relevant REBALANCE DAY. INDEX analytical values are calculated each BUSINESS DAY using the PRICE CONVENTION FOR ANALYTICS based on FIXING TIME. Prices of INDEX COMPONENTS not listed in the INDEX CURRENCY are converted using the 4 p.m. London WM Fixing quoted by Reuters.

Should there be no current 4 p.m. WM Fixing available on Reuters the most recent WM Fixing on Reuters for the preceding BUSINESS DAY is used in the calculation.

1.5. LICENSING

Licenses to use the INDEX as the underlying value for financial instruments, investment funds and financial contracts may be issued to stock exchanges, banks, financial services providers and investment houses by Solactive AG.

1.6. CONFLICTS OF INTEREST

There are no conflicts of interest identified for this index.



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.

On a daily basis, member amount increases (re-openings) and new issuances will be reviewed for eligibility. New issuances will be added to the index on the day they 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 each 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 1st mortgages), inflation linked bonds, flat trading, hybrid and defaulted bonds are explicitly excluded. For the avoidance of doubt, bonds issued by Financial Institutions which may be converted to equity only on the decision of the Office of the Superintendent of Financial Institutions (OSFI) in the case of a non-viability of the Issuer (so called Non-Viable Contingent Capital) are explicitly included in the index.
- > 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.

(the "INDEX COMPONENT REQUIREMENTS")

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.

3. REBALANCE

3.1. 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/>

3.2. EXTRAORDINARY REBALANCE

The INDEX is not rebalanced extraordinarily.



4. CALCULATION OF THE INDEX

4.1. INDEX FORMULA

The INDEX is calculated as a Total Return index.

The calculation is performed according to the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>.

A total return index seeks to replicate the overall return from holding an index portfolio, thus considering both coupon payments and Corporate Action proceeds in addition to the price changes adjusted for any accrued interest. Coupon and other cash payments will be reinvested on a daily basis.

The direct reinvestment formula implies a daily reinvestment in the INDEX of proceeds resulting from corporate actions and coupon payments in respect of the INDEX COMPONENTS on the effective date of such events. The reinvestment will be undertaken proportionately to the weights of the INDEX COMPONENTS. The direct reinvestment index formula stipulates further that the level of the INDEX changes based on the change of the prices of its INDEX COMPONENTS taking into account their weight in the INDEX.

A more detailed description of the mechanics of the direct reinvestment formula can be found in the Bond index Methodology under Section 1.2.1 which is available on the SOLACTIVE website:

<https://www.solactive.com/documents/bond-index-methodology/>.

4.2. ACCURACY

The level of the INDEX will be rounded to 2 decimal places. The amount outstanding per bond instrument will be rounded to 0 decimal places. Foreign exchange rates will be rounded to six decimal places.

4.3. ADJUSTMENTS

Under certain circumstances, an adjustment of the INDEX may be necessary between two regular REBALANCE DAYS. Basically, such adjustment is needed to be made if a corporate action (as specified in Section 4.4 below) in relation to an INDEX COMPONENT occurs. Such adjustment may need to be done in relation to an INDEX COMPONENT and/or may also affect the number of INDEX COMPONENTS and/or the weighting of certain INDEX COMPONENTS and will be made in compliance with the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>.

SOLACTIVE will announce the INDEX adjustment giving a notice period of at least two BUSINESS DAYS (with respect to the affected INDEX COMPONENT) on the SOLACTIVE website under the Section "Announcements", which is available at <https://www.solactive.com/news/announcements/>. The INDEX adjustments will be implemented on the effective day specified in the respective notice.



4.4. 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. Corporate actions will be implemented from the cum-day to the ex-day of the corporate action, so that the adjustment to the INDEX coincides with the occurrence of the price effect of the respective corporate action.

Adjustments to the INDEX to account for corporate actions will be made in compliance with the Bond Index Methodology, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/bond-index-methodology/>. This document contains for each corporate action a brief definition and specifies the relevant adjustment to the INDEX variables.

While SOLACTIVE aims at creating and maintaining its methodology for treatment of corporate actions as generic and transparent as possible and in line with regulatory requirements, it retains the right in accordance with the Bond Index Methodology to deviate from these standard procedures in case of any unusual or complex corporate action or if such a deviation is made to preserve the comparability and representativeness of the INDEX over time.

Solactive considers following, but not conclusive, list of corporate actions as relevant for INDEX maintenance:

- > Early Redemption (an event that leads to a redemption of a bond before the regular maturity date)
- > Flat Trading (e.g. a bond ISSUER fails to meet its coupon payment obligation)
- > Bond Default (e.g. when the ISSUER fails to meet its coupon payment obligation or repay the principal at maturity)
- > Tender Offers (a holder of a bond is invited to tender the bond for a specific price at a specific time before the regular maturity date)
- > Exchange Offers (type of a tender offer where the ISSUER offers its bondholders to exchange their existing bonds for an asset other than cash)
- > Distressed Debt Exchange (form of debt exchange when bondholders agree to reduce the principal amount of debt securities in order to obtain higher payment priority in the form of secured debt)
- > Bond Funge (bond issue that is attached to an existing one (parent bond). On a defined date the parent bond absorbs the funged bond)
- > New Issuances (new bond issues will be added to the index between REBALANCE DAYS as soon as a price is available, and its issue date is not greater than one (1) day from the review date)
- > Re-Openings (re-opening outstanding issues and increasing the notional amount will be reflected in the index on a daily basis. i.e. the weight of the specific component will increase on the respective



ex-date, or as soon as the information becomes available after the ex-date. For the avoidance of doubt other events affecting the amount outstanding other than the ones mentioned above are not considered between REBALANCE DAYS)

4.5. RECALCULATION

SOLACTIVE makes the greatest possible efforts to accurately calculate and maintain its indices. However, errors in the determination process may occur from time to time for variety reasons (internal or external) and therefore, cannot be completely ruled out. SOLACTIVE endeavors to correct all errors that have been identified within a reasonable period of time. The understanding of "a reasonable period of time" as well as the general measures to be taken are generally depending on the underlying and is specified in the Solactive Correction Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/correction-policy/>.

4.6. MARKET DISRUPTION

In periods of market stress SOLACTIVE calculates its indices following predefined and exhaustive arrangements as described in the Solactive Disruption Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/disruption-policy/>. Such market stress can arise due to a variety of reasons, but generally results in inaccurate or delayed prices for one or more INDEX COMPONENTS. The determination of the INDEX may be limited or impaired at times of illiquid or fragmented markets and market stress.

5. MISCELLANEOUS

5.1. DISCRETION

Any discretion which may need to be exercised in relation to the determination of the INDEX (for example the determination of the INDEX COMPONENTS or any other relevant decisions in relation to the INDEX) shall be made in accordance with strict rules regarding the exercise of discretion or expert judgement established by the INDEX ADMINISTRATOR.

5.2. METHODOLOGY REVIEW

The methodology of the INDEX is subject to regular review, at least annually. In case a need of a change of the methodology has been identified within such review (e.g. if the underlying market or economic reality has changed since the launch of the INDEX, i.e. if the present methodology is based on obsolete assumptions and factors and no longer reflects the reality as accurately, reliably and appropriately as before), such change will be made in accordance with the Methodology Policy, which is incorporated by reference available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.



Such change in the methodology will be announced on the SOLACTIVE webpage under the Section "Announcement", which is available at <https://www.solactive.com/news/announcements/>. The date of the last amendment of this INDEX is contained in this GUIDELINE.

5.3. CHANGES IN CALCULATION METHOD

The application by the INDEX ADMINISTRATOR of the method described in this document is final and binding. The INDEX ADMINISTRATOR 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 ADMINISTRATOR 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 ADMINISTRATOR is not obliged to provide information on any such modifications or changes. Despite the modifications and changes, the INDEX ADMINISTRATOR will take the appropriate steps to ensure a calculation method is applied that is consistent with the method described above.

5.4. TERMINATION

SOLACTIVE makes the greatest possible efforts to ensure the resilience and continued integrity of its indices over time. Where necessary, SOLACTIVE follows a clearly defined and transparent procedure to adapt index methodologies to changing underlying markets (see Section 5.2 "Methodology Review") in order to maintain continued reliability and comparability of the indices. Nevertheless, if no other options are available the orderly cessation of the INDEX may be indicated. This is usually the case when the underlying market or economic reality, which the INDEX is set to measure or to reflect, changes substantially and in a way not foreseeable at the time of inception of the INDEX, the INDEX rules, and particularly the selection criteria, can no longer be applied coherently or the INDEX is no longer used as the underlying value for financial instruments, investment funds and financial contracts.

SOLACTIVE has established and maintains clear guidelines on how to identify situations in which the cessation of the INDEX is unavoidable, how stakeholders are to be informed and consulted and the procedures to be followed for a termination or the transition to an alternative index. Details are specified in the Solactive Termination Policy, which is incorporated by reference and available on the SOLACTIVE website: <https://www.solactive.com/documents/termination-policy/>.

5.5. OVERSIGHT

An oversight committee composed of staff from SOLACTIVE and its subsidiaries (the "OVERSIGHT COMMITTEE") is responsible for decisions regarding any amendments to the rules of the INDEX. Any such amendment, which may result in an amendment of the GUIDELINE, must be submitted to the OVERSIGHT COMMITTEE for prior



approval and will be made in compliance with the Methodology Policy, which is available on the SOLACTIVE website: <https://www.solactive.com/documents/methodology-policy/>.

6. 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): <http://iiac.ca/market-closure-schedule/>.

“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: <https://www.solactive.com/documents/bond-index-methodology/>].

“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.

"LIVE DATE" is September 17th, 2019.

"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.

"PRICE CONVENTION" is LAST EVALUATED MID PRICE.

"PRICE CONVENTION FOR ADDING" is LAST EVALUATED MID PRICE.

"PRICE CONVENTION FOR EXITING" is LAST EVALUATED MID PRICE.

"PRICE CONVENTION FOR ANALYTICS" is LAST EVALUATED MID PRICE.

"PRICE CONVENTION FOR WEIGHTING" is LAST EVALUATED MID PRICE.

"PRICING PROVIDER" is Intercontinental Exchange (ICE).

"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

"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.

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



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