

Ground Rules



FTSE Canada Universe Bond Index FTSE Canada Maple Bond Index FTSE Canada Universe and Maple Bond Index

v4.1



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Section 1

Introduction

1.0 Introduction

1.1 FTSE Canada Universe Bond Index, FTSE Canada Maple Bond Index, FTSE Canada Universe and Maple Bond Indices.

1.1.1 The FTSE Canada Universe Bond Index, FTSE Canada Maple, and FTSE Canada Universe and Maple Bond Indices comprise of a series of benchmarks which are designed to track the performance of the bonds denominated in Canadian Dollars (CAD).

1.2 The FTSE Canada Universe Bond Index, FTSE Canada Maple Bond Index, FTSE Canada Universe and Maple Bond Indices do not take account of ESG factors in their index design.

1.3 IOSCO

1.3.1 FTSE International Limited (FTSE) considers that the FTSE Canada Universe Bond Index, FTSE Canada Maple, and FTSE Canada Universe and Maple Bond Indices meet the IOSCO Principles for Financial Benchmarks as published in July 2013.

Full details can be accessed at www.iosco.org.

Details of FTSE Russell's Statement of Compliance with respect to the IOSCO Principles can be accessed using the following link:

[IOSCO Statement of Compliance](#).

1.4 FTSE hereby notifies users of the indices that it is possible that circumstances, including external events beyond the control of FTSE, may necessitate changes to, or the cessation of, the indices and therefore, any financial contracts or other financial instruments that reference the indices or investment funds which use the indices to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the indices.

1.5 Index users who choose to follow these indices or to buy products that claim to follow these indices should assess the merits of the indices' rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise is accepted by FTSE nor its subsidiary undertakings (or any person concerned with the preparation or publication of these Ground Rules) for any losses, damages, claims and expenses suffered by any person as a result of:

- any reliance on these Ground Rules, and/or
- any inaccuracies in these Ground Rules, and/or
- any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
- any inaccuracies in the compilation of the Indices or any constituent data.

1.6 These Ground Rules

- 1.6.1 This document sets out the Ground Rules for the construction and management of the FTSE Canada Universe Bond Index, FTSE Canada Maple Bond Index and the FTSE Canada Universe and Maple Bond Indices.

1.7 FTSE Russell

FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc., FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, The Yield Book Inc and Beyond Ratings.

1.8 Index Objectives

- 1.8.1 The indices are designed to be a broad measure of the Canadian investment-grade fixed income market, covering government, quasi-government and corporate bonds. They are transparent indices and are designed to be replicable with individual security holdings and prices disclosed electronically each day.

The index returns are calculated daily, and are weighted by market capitalisation, so that the return on a bond influences the return on the index in proportion to its market value.

1.9 Major Sub-Indices

- 1.9.1 A sub-index will be created if a sufficient number of eligible constituents for that sub-index exist. All indices have the following three maturity sub-indices:

- Short (5 years and under)
- Mid (5– 10 years)
- Long (over 10 years)

Additionally, the Federal Government sector is also broken down into the following maturity sub-indices (1-3, 3-5, 5-7, 7-10, 10-15, 15-25, 25+).

- 1.9.2 The indices may also be split into sub-indices based on the issuer classification of each bond. The government segment (which also includes bonds that are not explicitly guaranteed by the government where majority of funding is provided by the government), for example, is divided into Federal, Provincial and Municipal sectors. The Corporate segment is divided into sub-sectors based on major industry groups: Financial, Communication, Industrial, Energy, Infrastructure, Real Estate, and Securitization. The full classification schema is detailed in Appendix A.

Additionally, the indices may be screened based on the issuer classifications:

- Universe XM (ex-Municipal)
- Universe XPPP (ex-Public Private Partnership)
- Corporate XFinancial (ex-Financial)

- 1.9.3 The corporate sub-indices are further broken down into rating categories, as defined in Rule 4.4:

- AAA/AA
- A
- BBB

- ex-BBB

1.9.4 The indices may be split into sub-indices based on multiple screening criteria.

- 1-10 Year Corporate BBB
- 1-10 Year Corporate A+

1.10 Capital Index (also known as the Price Index or the Clean Price Index)

1.10.1 The capital index tracks the notional weighted average change in the prices of the index constituents and is calculated every business day.

1.11 Total Return Index (also known as the Performance Index)

1.11.1 A total return index is calculated for all the indices. A total return index takes into account the price changes and interest accrual and payments of each index constituent.

1.12 Index Analytics

1.12.1 In addition to the capital index and total return index, the following index analytics are also calculated:

- Average Coupon
- Average Yield to Maturity
- Average Time to Maturity
- Value of 01
- Average Macaulay Duration
- Average Modified Duration
- Average Convexity
- The sum of the nominal value of all bonds in each index
- The number of bonds in each Index, and
- The weight of the index in relation to its relevant aggregated index (when applicable).

The formulae to calculate the capital and total return indices, and the index analytics are available in Appendix B.

1.13 The base currency of the benchmark is Canadian Dollars (CAD).



Section 2

Management Responsibilities

2.0 Management Responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index series.¹

2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE Canada Universe and Maple Bond Indices and will:

- maintain records of all the constituents;
- be responsible for the addition and deletion of bonds and changes of nominal amounts, in accordance with the Ground Rules.

2.1.3 These Ground Rules set out the methodology and provide information about the publication of the FTSE Canada Universe and Maple Bond Indices.

2.2 FTSE Canada Fixed Income Advisory Committee

2.2.1 The FTSE Canada Fixed Income Advisory Committee is established by FTSE Russell.

2.2.2 The purpose of the Committee is to provide a forum for FTSE Russell to interact with index users and other stakeholders with a view to enhancing the underlying methodologies of FTSE Russell indices.

2.2.3 The Terms of Reference of the FTSE Canada Fixed Income Advisory Committee are set out on the FTSE Russell website and can be accessed using the following link:

[FTSE_Canada_Fixed_Income_Advisory_Committee.pdf](#)

2.3 Amendments to these Ground Rules

2.3.1 These Ground Rules shall be subject to regular review by FTSE Russell to ensure that they continue to best reflect the aims of the index series. Any proposals for significant amendments to these Ground Rules will be subject to consultation with FTSE Russell advisory committees and other stakeholders if appropriate. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.

¹ The term administrator is used in this document in the same sense as it is defined in [Regulation \(EU\) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds](#) (the European Benchmark Regulation).

2.3.2 As provided for in the Statement of Principles for FTSE Fixed Income Indices, where FTSE Russell determines that the Ground Rules are silent or do not specifically and unambiguously apply to the subject matter of any decision, any decision shall be based as far as practical on the Statement of Principles. After making any such determination, FTSE Russell shall advise the market of its decision at the earliest opportunity. Any such treatment will not be considered as an exception or change to the Ground Rules, or to set a precedent for future action, but FTSE Russell will consider whether the Ground Rules should subsequently be updated to provide greater clarity.

Section 3

FTSE Russell Index Policies

3.0 FTSE Russell Index Policies

These Ground Rules should be read in conjunction with the following policy documents which can be accessed using the links below:

3.1 Queries and Complaints

FTSE Russell's complaints procedure can be accessed using the following link:

[FTSE Russell Benchmark Determination Complaints Handling Policy.pdf](#)

3.2 Statement of Principles for FTSE Fixed Income Indices (the Statement of Principles)

Indices need to keep abreast of changing markets and the Ground Rules cannot anticipate every eventuality. Where the Rules do not fully cover a specific event or development, FTSE Russell will determine the appropriate treatment by reference to the Statement of Principles for FTSE Fixed Income Indices which summarises the ethos underlying FTSE Russell's approach to index construction. The Statement of Principles is reviewed annually and any changes proposed by FTSE Russell are presented to the FTSE Russell Policy Advisory Board for discussion before approval by the FTSE Russell Index Governance Board.

The Statement of Principles for Fixed Income Indices can be accessed using the following link:

[Statement of Principles Fixed Income Indices.pdf](#)

3.3 Index Policy in the Event Clients are Unable to Trade a Market or a Security

Details of FTSE Russell's treatment can be accessed using the following link:

[Index Policy in the Event Clients are Unable to Trade a Market or a Security.pdf](#)

3.4 Recalculation Policy and Guidelines

The Recalculation Policy and Guidelines for Fixed Income Indices document is available from the FTSE Russell website using the link below or by contacting fi.index@lseg.com.

[Fixed Income Recalculation Policy and Guidelines.pdf](#)

3.5 Policy for Benchmark Methodology Changes

3.5.1 Details of FTSE Russell's policy for making benchmark methodology changes can be accessed using the following link:

[Policy for Benchmark Methodology Changes.pdf](#)

Section 4

Eligibility Criteria

4.0 Eligibility Criteria

4.1 Eligible Bonds³

4.1.1 In order to be eligible for the FTSE Canada Universe and Maple Bond Indices, bonds must meet the following criteria:

Currency of Denomination:	Canadian Dollars (CAD)
Remaining Effective Term to Maturity:	Greater than one year
Coupon Type:	Fixed-rate, as defined in Rule 4.3
Minimum Issue Size:	\$100 million CAD, as defined in Rule 4.4
Minimum Rating:	Index rating must be BBB or higher, as defined in Rule 4.6
Number of Institutional Investors:	At least 10 institutional buyers at issue ²

4.1.2 Inclusions

The indices include semi-annual coupon bullet securities, callable bonds, extendible/retractable bonds, sinking funds, exchangeables, junior subordinated bonds/hybrid capital, semi-annual amortizing securities, and asset-backed securities (ABS) that are structured as semi-annual pay bullet bonds. Bonds with option features are assigned to index term sectors based on their effective maturity date (either the option exercise date or the final maturity date). Public issues and private issues that meet the above criteria are eligible for inclusion. In order to be eligible for the indices, bonds must have a price assigned from a price source as specified in Section 5.

4.1.3 Non-viability contingent capital bonds (NVCC) are eligible for inclusion effective 1 July 2017. NVCC debt issued and settling prior to 1 July 2017 are included in the index starting on 7 February 2018.

Senior and subordinated securities that are subject to a conversion to common shares or bail-in (full or partial) at the discretion of local regulators in a non-viability event are eligible for index inclusion, provided all other index criteria are met. Securities that exhibit equity conversion or write-down features (full or partial) based on explicit trigger mechanisms linked to an issuer's regulatory capital ratios or other solvency balance sheet metrics are not index eligible (such securities are sometimes labelled contingent capital CoCo). For the avoidance of doubt, Non Viability Contingent Capital (NVCC) falls into the former category as the bail-in mechanism is a discretionary option at the behest

² Effective 15 April 2019

³ All eligible bonds must meet index entry criteria at issue (except for bonds upgraded from the FTSE Canada High Yield Bond Index)

of the local regulator (office of the superintendent of financial institutions of Canada - OFSI) in a non-viability scenario.

4.2 Exclusions

- 4.2.1 The indices do not include floating-rate notes, convertible bonds (which convert to equity at the option of the holder), residential and commercial mortgage-backed securities (MBS and CMBS), other monthly-pay securities, other pre-payable securities, inflation-indexed securities, securities specifically targeted to the retail market and securities that do not have a price assigned as specified in Section 5.
- 4.2.2 Regulatory capital that counts towards Additional Tier 1 (AT1) debt for deposit taking institutions, Tier 1 capital for life insurers, and Category B capital for property and casualty, and mortgage insurers is excluded.

4.3 Coupon Type

- 4.3.1 Bonds must have a fixed-rate coupon, payable semi-annually.
- 4.3.2 Fixed-to-variable³ bonds, defined as a security with a coupon structure that includes a subsequent reset to a rate that is not predetermined at issuance and based on a prescribed formula, are eligible for including during their initial fixed-rate period. For purposes of index rebalancing, the initial rate reset date for these securities is set as the effective maturity date and they will not be reconsidered for index inclusion after their exit.
- 4.3.3 Coupon bonds may have odd first and/or last coupon/principal payments:
- Short last shall mean a bond with scheduled semi-annual payments, where only the last coupon / principal payment date is less than 6 months in term from the previous scheduled semi-annual payment date;
 - Long last shall mean a bond with scheduled semi-annual payments, where only the last coupon / principal payment date is greater than 6 months but less than 12 months in term from the previous scheduled semi-annual payment date;
 - Prior to 15 February 2011, issues with short and/or long last coupon / principal payments were not eligible for index inclusion;
 - Bonds with odd first coupon payments remain eligible under the definition of semi-annual.
- 4.3.4 Effective 1 March 2019, newly issued securities that contain a step-up schedule with predetermined fixed-rates are eligible.

4.4 Minimum Issuance Size

- 4.4.1 Corporate and government bonds must have a minimum issue size of \$100 million CAD.
- 4.4.2 These dollar amounts include the original issue amount plus re-openings. For the purpose of calculating returns and risk measures, index holdings are adjusted to reflect buybacks, amounts held by the Bank of Canada, and the stripping and reconstitution of securities, but these adjustments do not affect index inclusion or exclusion.
- 4.4.3 The following minimum sizes were applied for FTSE Canada Universe Bond Index inclusion, from 15 July 2003 up to and including 31 December 2018:
- CAD \$100 million for Corporate bonds
 - CAD \$50 million for Government bonds, including municipal and provincial bonds

For the Maple Bond Index, the minimum issuance size is \$100 million CAD for all sectors.

³ This includes, but is not limited to, securities with coupon types referred to as Fixed-to-Float, Fixed-to-Fixed and Fixed-to-Resetable.

4.4.4 Prior to 15 May 2014, index holdings were also adjusted to reflect the amounts held by the Caisse de dépôt et placement.

4.5 Index Assignment

4.5.1 In order to be assigned to the Universe Bond Index, the bond must be issued by any one of the following entities:

- Government of Canada (including both non-agency, agency / crown corporations);
- Supranational entities where a Canadian Government is a member of the Supranational, Provincial, Territorial, or Municipal Government of Canada, including those that have guarantees;
- Canadian Federal, Provincial or Territorial corporations, incorporated under respective jurisdiction including Schedule 1, Schedule 2 and Schedule 3 entities under the Canada Bank Act;
- Special Purpose Vehicles (SPV), or non-operating holding companies, utilized and fully and unconditionally guaranteed by Canadian Corporations that are Federally Regulated Entities (FREs) by the Office of the Superintendent of Financial Institutions Canada (OSFI), where the SPV, or non-operating holding company, is a financing vehicle for the Corporation in question;
- Issues are reviewed for eligibility on an individual basis

4.5.2 Any bonds which meet the eligibility criteria referenced in Rules 4.1, 4.2 and 4.4, but are not issued by the entities referenced in Rule 4.5.1 will be assigned to the Maple Bond Index.

4.6 Index Ratings⁴

4.6.1 Bonds must have an index rating of at least investment grade, in order to be eligible for the indices.

The index rating for each bond is based on the publicly available ratings from Dominion Bond Rating Service, Standard and Poor's, Moody's Investors Service and Fitch. In cases where the agencies do not agree on the credit rating, the index rating will be classified according to the following rules:

- If two agencies rate a security, use the lower of the two ratings;
- If three agencies rate a security, use the middle of the three ratings;
- If four agencies rate a security, use the middle of the three lowest ratings

This means that a bond rated by two or more agencies must have at least two investment grade credit ratings in order to be eligible for the Universe Bond Index, and at least three investment grade credit ratings if rated by all four rating agencies. For example, a new issue rated BBB- by S&P and BB+ by DBRS would be assigned an index rating of BB, and would not be eligible for inclusion in the index.

4.6.2 The index ratings are classified into broad credit rating categories of AAA/AA, A, and BBB. The index rating does not distinguish between minor ratings notches, such as plus or minus signs or their equivalent within a broad letter category. Thus, the ratings A+, A-, and A are viewed as equivalent for the purposes of the index.

4.6.3 The index does not take into account a rating agency's outlook for a credit rating, or whether a particular rating may be under review by an agency.

4.6.4 An issuer rating may be applied for bonds classified as Government or Financial if security-level ratings are not available.

⁴ Effective 15 April 2019



Section 5

Price Sources

5.0 Price Sources

- 5.1 Constituents prices are provided by CanDeal Data and Analytics (“CanDeal DNA”) in accordance with its Composite pricing methodology.⁵
- 5.2 Prices in the FTSE Canada Bond Index Series represent a mid-side price as of 4:00pm (Toronto time), unless otherwise stated in published index methodologies.
- 5.3 **Verification and price challenges**
 - 5.3.1 Statistical techniques are used to identify pricing anomalies based on day-over-day changes and comparisons across peer groups by maturity, asset type, etc.
 - 5.3.2 Any price challenges from index users and possible outliers from the verification process are reviewed with our third-party pricing provider.
 - 5.3.3 In the event that an issue is not able to be resolved in a timely manner, FTSE Russell may exercise expert judgement and roll prices from the previous day. Any exercise of expert judgement is recorded.

⁵ The change from the use of the FTSE Canada Multi Dealer Pricing Methodology to use the CanDeal DNA composite pricing methodology was announced on 22 January 2022 and effective from 17 May 2022

Section 6

Index Rebalancing

6.0 Index Rebalancing

6.1 Rebalancing the Indices

6.1.1 The indices are rebalanced on a daily basis.

6.2 Addition of Constituents

6.2.1 A new issue enters the index on/after the day it is issued or auctioned (when all eligibility criteria are verified). The bond is included in the calculation of index risk statistics such as duration on the day of issue, though it does not affect the return on the index until the following business day. The new security does not begin to accrue interest until the new issue settlement date. The cut-off time for inclusion on the day of issue is 3:00pm EST.

6.3 Removal of Constituents

6.3.1 A bond is removed from the index on the day its remaining effective term to maturity declines to one calendar year, whether that year has 365 or 366 days. For example, on 1 December 2012, the index sells a bond maturing in one year, 1 December 2013, at the 4:00pm mark-to-market price. This bond therefore contributes to the return on the index from 30 November to 1 December 2012. It does not contribute to index duration and other risk statistics calculated at the close on 1 December 2012.

Analogous rules apply for the movement of bonds from one term sub-index to another, e.g. from Long to Mid. For a bond with embedded option features, the rule for moving from one term category to another, and for rolling out of the index, is based on effective term (either the option exercise date, or the final maturity date), since these bonds are classified into index term categories according to effective term. Realized coupon and redemption income, is reinvested daily across all bonds in the index in proportion to their market values.

6.3.2 When a bond defaults or is downgraded below BBB, it is removed from the index 30 days after the initial default or downgrade. Removal is delayed to help ensure that the full price impact of the default/downgrade is reflected in the Index before the bond is removed. If the bond were instead removed from the index before the full price decline had happened, and a portfolio continued to hold the bond, index returns would tend to be biased upward relative to actual portfolio returns. When a bond is downgraded or upgraded from one investment grade category to another, for example from A to BBB, the change is made to the index when the rating adjustment information has been verified.

6.4 Alterations to Constituents

6.4.1 The following events are implemented on their effective date:

- Unscheduled redemptions or repurchases, including puts or calls
- Coupons which step up or down, for example rating driven bonds
- Bonds which funge into an existing bond

Appendix A: Index Family Structure

The table below describes the schema used to classify the index constituents and for the derivation of sub-indices:

Level 1	Level 2	Level 3
Corporate	Communication	Media
		Telecommunication
	Energy	Distribution
		Exploration
		Generation
		Integrated
		Pipelines
	Financial	Auto Finance
		Bank
		Insurance
	Industrial	Financial Services
		Consumer
		Diversified
		Manufacturing
		Resources
		Services
		Transportation
	Infrastructure	Health
		Transportation
Utility		
Real Estate	Education	
	NonREIT	
Securitization	REIT	
	ABS	
Government	Federal	CMBS
		Non-Agency
		Agency
	Municipal	Supranational
		-
		Alberta
		British Columbia
		Manitoba
		New Brunswick
		Newfoundland
Provincial	Nova Scotia	
Ontario		
PEI		
Saskatchewan		
Quebec		
Yukon		

Appendix B: Index Calculations

For further details on the index and bond level calculations, please see the Guide to Calculation Methods for the FTSE Fixed Income Indices which can be accessed using the following link:

[FTSE Fixed Income Index Guide to Calculation.pdf](#)

The following notation is used in the following calculations:

$P_{i,t}$	clean price of a constituent bond i on valuation day t
$A_{i,t}$	accrued interest of a constituent bond i as of valuation day t
$N_{i,t}$	nominal value of a constituent bond i on valuation day t
$C_{i,t}$	value of any coupon payment received from the bond i for the assumed settlement date at time t . If none the value = 0

Clean Price Index (Capital Index)

The clean price (P) or capital index is given by

$$PI_{i,0}=100$$

$$PI_{i,t}=PI_{i,t-1} \times \frac{\sum [P_{i,t} \times N_{i,t-1}]}{\sum [P_{i,t-1} \times N_{i,t-1}]}$$

Total Return Index

The total return index (TR) is given by

$$TRI_{i,0}=100$$

$$TRI_{i,t}=TRI_{i,t-1} \times \frac{\sum [(P_{i,t} + A_{i,t} + C_{i,t}) \times N_{i,t-1}]}{\sum [(P_{i,t-1} + A_{i,t-1}) \times N_{i,t-1}]}$$



Appendix C: Further Information

A Glossary of Terms used in FTSE Russell's Ground Rule documents can be found using the following link:
[Fixed Income Glossary of Terms.pdf](#)

For further information on the FTSE Canada Universe Index, FTSE Canada Maple Bond Index and FTSE Canada Universe and Maple Bond Index Series Ground Rules please visit www.ftserussell.com or e-mail fi.index@lseg.com. Contact details can also be found on this website.

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