Ground Rules

July 2024

FTSE Canada 1-3 Year Laddered Floating Rate Note Index

v3.6



lseg.com/en/ftse-russell

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Section 1 Introduction

1. Introduction

1.1 FTSE Canada 1–3 Year Laddered Floating Rate Note Index

- 1.1.1 FTSE International Limited (FTSE) considers that the FTSE Canada 1–3 Year Laddered Floating Rate Note Index (the Index) meets the IOSCO Principles for Financial Benchmarks as published in July 2013.
- 1.2 The FTSE Canada 1–3 Year Laddered Floating Rate Note Index does not take account of ESG factors in its index design.
- 1.2.1 FTSE hereby notifies users of the index that it is possible that circumstances, including external events beyond the control of FTSE, may necessitate changes to, or the cessation of, the index and therefore, any financial contracts or other financial instruments that reference the index or investment funds which use the index to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index.
- 1.2.2 Index users who choose to follow this Index or to buy products that claim to follow this Index should assess the merits of the Index's 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 Index or any constituent data

1.3 These Ground Rules

1.3.1 This document sets out the Ground Rules for the construction and management of the FTSE Canada 1–3 Year Laddered Floating Rate Note Index.

1.4 FTSE Russell

1.4.1 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. and FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, FTSE (Beijing) Consulting Limited, Refinitiv Benchmark Services (UK) Limited, Refinitiv Limited and Beyond Ratings.

1.5 Index objectives

1.5.1 The FTSE Canada 1–3 Year Laddered Floating Rate Note Index measures the return of a 1–3 year Floating Rate Note Ladder in Government Notes (rated A or higher). Selected securities are placed into three maturity buckets. Maturity buckets are 1–1.99 years, 2–2.99 years, and 3–3.99 years. The Index was created as of December 31, 2013 with equal weights for each security in each respective maturity bucket.

1.6 Credit ratings

1.6.1 Bonds in the index are classified based on information from Dominion Bond Rating Service, Standard and Poor's Corporation, Moody's Investors Service and Fitch. The Index 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. As well, 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.

In cases where the agencies do not agree on the credit rating, the bond 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
- 1.6.2 An issuer rating may be applied for bonds classified as Government or Financial if security-level ratings are not available.
- **1.7 Capital Index** (also known as the Price Index or the Clean Price Index)
- 1.7.1 The Capital Index tracks the notional weighted average change in the prices of the Index constituents and is calculated every business day.
- **1.8 Total Return Index** (also known as the Performance Index)
- 1.8.1 The Total Return Index takes into account the price changes and interest accrual and payments of each Index constituent.
- 1.9 The base currency of the benchmark is Canadian Dollars (CAD).

1.10 Index analytics

- 1.10.1 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)

Section 2 Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)

- 2.1.1 FTSE is the benchmark administrator of the index.¹
- 2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE Canada 1–3 Year Laddered Floating Rate Note Index 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 1–3 Year Laddered Floating Rate Note Index.

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 (at least once a year) by FTSE Russell to ensure that they continue to best reflect the aims of the index. 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.

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.

The term administrator is used in this document in the same sense as it is defined in <u>Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on</u> indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the European Benchmark Regulation) and <u>The</u> Benchmarks (Amendment and Transitional Provision) (EU Exit) <u>Regulations 2019</u> (the UK Benchmark Regulation).

Section 3 FTSE Russell index policies

3. 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:

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 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 <u>fi.index@lseg.com</u>.

Fixed_Income_Recalculation_Policy_and_Guidelines.pdf

3.4 Policy for Benchmark Methodology Changes

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

Policy_for_Benchmark_Methodology_Changes.pdf

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

3.5.1 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

3.6 FTSE Russell Governance Framework

3.6.1 To oversee its indices, FTSE Russell employs a governance framework that encompasses product, service and technology governance. The framework incorporates the London Stock Exchange Group's three lines of defence risk management framework and is designed to meet the requirements of the IOSCO Principles for Financial Benchmarks², the European benchmark regulation³ and the UK benchmark regulation⁴. The FTSE Russell Governance Framework can be accessed using the following link:

FTSE Russell Governance Framework.pdf

² IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013.

³ 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.

⁴ The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019.

Section 4 Eligibility criteria

4. Eligibility criteria

4.1 Eligible securities

- 4.1.1 The FTSE Canada 1–3 Year Laddered Floating Rate Note Index consists of Floating Rate Notes issued by the Government of Canada, Agencies, and Provinces, rated A or higher.
- 4.1.2 Eligible securities must be constituents of the FTSE Canada Floating Rate Note Index and have remaining term to maturity of 1 to 3.99 years at the time they are added to the index.

4.2 Minimum issue size

4.2.1 Bonds must have a minimum issue size of \$1 billion CAD.

4.3 Index rating

4.3.1 Bonds must have an index rating of single A or higher.

Section 5 Price sources

5. 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 4:00 pm (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 Periodic changes to the portfolios

6. Periodic changes to the portfolios

6.1 Rebalancing the Indices

6.1.1 The FTSE Canada 1–3 Year Laddered Floating Rate Note Index is rebalanced annually on the last business day of June using price data as of 15 June or previous business day if 15 June is a non-business day.

6.2 Rolling buckets

6.2.1 Floating Rate Notes roll out to the next lower bucket on the rebalance date. Floating Rate Notes with less than 1 year to maturity roll out of the first bucket at mid-market prices on that day. The Index will reinvest the full market value of all roll out securities into the longest bucket. The securities selected for reinvestment into the longest bucket will have equal market value assignments as of the day of the rebalance.

6.3 Addition of constituents

- 6.3.1 On the Index inception date, each of the three maturity buckets will be populated with a maximum of 20 eligible floating rate notes. These notes will be weighted equally. On every subsequent annual rebalancing, only the longest maturity bucket (3–3.99 year) will be re-populated. The process by which the 20 securities are selected is described below.
- 6.3.2 During the selection process, all the securities in each bucket are ranked in descending order of maturity. The securities with the longest maturities are selected in order, until all the eligible securities have been selected, or the maximum of 20 securities has been selected.

6.4 Removal of constituents

- 6.4.1 Floating Rate Notes are removed from the Index at the annual rebalance when their remaining effective term to maturity has declined to under one calendar year, whether that year has 365 or 366 days. In the case that any constituent bond is downgraded below the minimum rating for the Index, it will be removed on the first day of the following month. In the case that a constituent bond is called, it will be removed from the Index on the call date. Any removal will result in re-weighting of the remaining constituents.
- 6.4.2 If the call date or downgrade replacement date of a constituent bond falls on a weekend or holiday, the removal will be implemented on the last business day prior to the call date or downgrade replacement date.

Appendix A Index calculations

The following notation is used in the following calculations:

Pi,t	clean price of a constituent bond i on valuation day t
Ai,t	accrued interest of a constituent bond i as of valuation day t
Ni,t	nominal value of a constituent bond i on valuation day t
Coupon _i	coupon rate of a constituent bond i
yi,t	yield to maturity of a constituent bond i as of valuation day t
MacDur _{i,t}	Macaulay duration of a constituent bond i as of valuation day t
ModDur _{i,t}	Modified duration of a constituent bond i as of valuation day t
Dval01 _{i,t}	Dollar duration of a constituent bond i as of valuation day t
Convexity _{i,t}	Convexity of a constituent bond i as of 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 (PI) or capital index is given by

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

$$PI_{i,t} = PI_{i,t-1} \times \frac{\sum_{i} P_{i,t} \times N_{i,t-1}}{\sum_{i} P_{i,t-1} \times N_{i,t-1}}$$

Total Return Index

The total return index (TRI) is given by

$$TRI_{i,0} = 100$$
$$TRI_{i,t} = TRI_{i,t-1} \times \frac{\sum_{i}(P_{i,t} + A_{i,t} + C_{i,t}) \times N_{i,t-1}}{\sum_{i}(P_{i,t-1} + A_{i,t-1}) \times N_{i,t-1}}$$

Appendix B 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 1–3 Year Laddered Floating Rate Note Index Ground Rules please visit <u>www.lseg.com/en/ftse-russell/</u> or e-mail <u>fi.index@lseg.com</u>. Contact details can also be found on this website.

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