

FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series

v1.4



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Section 1

Introduction

1. Introduction

1.1 The FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series

1.1.1 The FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series includes LRCN that are considered regulatory capital that counts towards AT1 (Additional Tier 1) debt for deposit taking institutions, Tier 1 capital for life insurers, and Category B capital for property and casualty, and mortgage insurers.

1.1.2 The FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series consists of the following:

- FTSE Canada Investment Grade LRCN Index
- FTSE Canada High Yield LRCN Index
- FTSE Canada LRCN Index

1.1.3 The FTSE Canada LRCN Index Series comprises a series of benchmarks which are designed to track the performance of the LRCNs denominated in Canadian Dollars (CAD).

1.2 IOSCO

1.2.1 FTSE International Limited (FTSE) considers that the FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series 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](#).

1.3 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.

1.4 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.

1.5 These Ground Rules

1.5.1 This document sets out the Ground Rules for the construction and management of the FTSE Canada LRCN Index, FTSE Canada Investment Grade LRCN Index and the FTSE Canada High Yield LRCN Index.

1.6 FTSE Russell

1.6.1 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.

1.7 Index objectives

1.7.1 The indices are designed to be a broad measure of the Canadian LRCN. 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 LRCN influences the return on the index in proportion to its market value.

1.8 Major sub-indices

1.8.1 A sub-index will be created if a sufficient number of eligible constituents for that sub-index exist.

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

- Investment Grade (BBB and above)
- High Yield (below BBB and above D)

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

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

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

1.10.1 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.

1.11 Index analytics

1.11.1 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.

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

Section 2

Management responsibilities

2. 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 LRCN Index Series 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 Limited Recourse Capital Notes (LRCN) Index Series.

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 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.

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.

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).

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:

[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 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@lseq.com.

[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](#)

Section 4

Eligibility criteria

4. Eligibility criteria

4.1 Eligible bonds

4.1.1 The FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series LRCN that are considered regulatory capital that counts towards AT1 (Additional Tier 1) debt for deposit taking institutions, Tier 1 capital for life insurers, and Category B capital for property and casualty, and mortgage insurers.

Figure 1. Universe of FTSE Canada LRCN Index

Index	Quality
FTSE Canada Investment Grade LRCN Index	IG
FTSE Canada High Yield LRCN Index	HY
FTSE Canada LRCN Index	IG+HY

4.1.2 In order to be eligible for the FTSE Canada LRCN Bond Indices, bonds must meet the following index eligibility criteria:

Currency of Denomination: Canadian Dollars (CAD)

Coupon Frequency: Fixed-rate coupons, payable annually, semi-annually, quarterly or monthly

Remaining Effective term to maturity: At least one business day²

Minimum Issue Size: \$100 million CAD, as defined in Rule 4.2

The rating needs to be BBB or higher for the Investment Grade LRCN Index;

The rating needs to be below BBB and above D for the High Yield LRCN Index;

The FTSE Canada Limited Recourse Capital Notes (LRCN) Index Series will include both Investment Grade and High Yield LRCN.

4.2 Index ratings³

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;

² All issue-level analytics are calculated to the nearer of next reset date or option exercise date. e.g. If an LRCN issued in 2020 has a final maturity date of 2080 with next reset date being 2025, the yields, durations, and all other analytics will be calculated to 2025 until the 2025 reset date. If the embedded call option is confirmed to be getting exercised, all issue-level analytics will be calculated to the option exercise date.

³ Effective 15 April 2019.

- 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 LRCN rated by two or more agencies must have at least two investment grade credit ratings in order to be eligible for the Investment Grade LRCN 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 Investment Grade LRCN Index.

The index ratings are classified into broad credit rating categories of AAA/AA, A, BBB, BB, B, CCC, CC, and C. 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.

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.

An issuer rating may be applied for LRCN classified if security-level ratings are not available.

- 4.2.1 A rating that is un-solicited at issuance is not used for the purpose of determining index eligibility; however, if a rating is changed from solicited to un-solicited, it will still be incorporated.
- 4.2.2 Private ratings are not used for the purpose of determining index eligibility.

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.⁴
- 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.

⁴ 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 January 2024.

Section 6

Index rebalancing

6. Index rebalancing

6.1 Rebalancing the indices

The indices are rebalanced on a daily basis.

6.2 Addition of constituents

A new issue enters the index on/after the day it is issued (when all eligibility criteria are verified). The LRCN 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 3:00 pm EST.

6.3 Removal of constituents

6.3.1 A security is removed from the index on the day its remaining effective term to maturity falls under T-1 day from its effective maturity date.

6.3.2 If a LRCN is getting called, it will be removed from the index on its call date.

6.3.3 If a LRCN is not getting called on the coupon reset date, it will remain in the index assuming all other eligibility criteria are met; its new fixed-rate coupon rate and new reset date will be reflected on the close of the reset date.

6.3.4 For FTSE Canada Investment Grade LRCN Index

When a LRCN defaults or is downgraded below BBB, it is removed from the index 30 days after the initial default or downgrade.

When a corporate 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 on the following business day (when all information can be verified).

This is consistent with the handling of downgrades in FTSE Canada Universe Bond Index.

6.3.5 For FTSE Canada High Yield LRCN Index

When a LRCN defaults, it is removed from the FTSE Canada High Yield LRCN Bond Index after 90 days.

In the event of a credit rating upgrade sufficient to raise the LRCN's index rating to BBB or higher, the LRCN will be removed from the FTSE Canada High Yield LRCN Index, and will enter the FTSE Canada Investment Grade LRCN Index, if the LRCN meets the criteria for this index.

This is consistent with the handling of downgrades in FTSE Canada High Yield Bond Index.

6.4 The following events are implemented on their effective date:

- Corporate actions
- Coupon resets.

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
		Financial Services
	Industrial	Consumer
		Diversified
		Manufacturing
		Resources
		Services
		Transportation
	Infrastructure	Health
		Transportation
		Utility
		Education
	Real Estate	NonREIT
		REIT
	Securitization	ABS
		CMBS

Level 1	Level 2	Level 3
Government	Federal	Non-Agency
		Agency
		Supranational
	Municipal	-
	Provincial	Alberta
		British Columbia
		Manitoba
		New Brunswick
		Newfoundland
		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 LRCN 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

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

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

Total Return Index

The total return index (TRI) 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 Limited Recourse Capital Notes (LRCN) Index Series Ground Rules please visit www.lseg.com/en/ftse-russell/ or e-mail fi.index@lseg.com. Contact details can also be found on this website.

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