

FTSE Canada High Yield Bond Index

v4.0



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An LSEG Business

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Section 1

Introduction

1. Introduction

1.1 FTSE Canada High Yield Bond Index

- 1.1.1 The FTSE Canada High Yield Bond Index is designed to be a broad measure of the Canadian non-investment grade fixed income market. Returns are calculated daily, and are weighted by market capitalization, so that the return on a bond influences the return on the index in proportion to the bond's market value. The FTSE Canada High Yield Bond Index has been published since 1994. It is intended to be a transparent index, with individual security holdings disclosed electronically each day.

The criteria have changed over time to reflect the evolving nature of the Canadian High Yield Bond Market. When it was created in 1994, constituents included single A & lower rated securities. In the late 1990's, the FTSE Canada High Yield Bond Index included BBB and lower rated securities, and as we entered the 21st century, the criteria evolved again to include only BBB (mid) and lower- rated securities. The latest development, as outlined in this document, is effective December 31, 2004 and moves away from investment grade securities completely, including only non-investment grade securities rated less than BBB (low) but greater than D in the FTSE Canada High Yield Bond Index.

1.1.2 Industry sub-indices

The FTSE Canada High Yield Bond Index is divided into sub-indices as shown below

- FTSE Canada High Yield Communication Bond Index
- FTSE Canada High Yield Energy Bond Index
- FTSE Canada High Yield Financial Bond Index
- FTSE Canada High Yield Industrial Bond Index
- FTSE Canada High Yield Real Estate Bond Index

- 1.2 The FTSE Canada High Yield Bond Index does not take account of ESG factors in its index design.

1.3 IOSCO

FTSE International Limited (FTSE) considers that the FTSE Canada High Yield Bond Index meets 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](#).

- 1.3.1 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.
- 1.3.2 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
- 1.4 These Ground Rules**
- 1.4.1 This document sets out the Ground Rules for the construction and management of the FTSE Canada High Yield Bond Index.
- 1.5 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.
- 1.6 Credit rating categories**
- 1.6.1 The FTSE Canada High Yield Bond Index is restricted to securities rated below BBB (low), and above D. It thus can include bonds rated BB, B, CCC, CC, and C. Inclusion is based on publicly available credit ratings information from Dominion Bond Ratings Service, Moody's Investor Service, Standard and Poors' and Fitch. The FTSE Canada Bond Indices do not distinguish between minor ratings notches; only the broad letter-rating categories are used. Thus, ratings of BB (high), BB (mid), and BB (low) are viewed as equivalent for index classification purposes. 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. Unsolicited ratings will not be used when determining index-rating categories.
- 1.7 Index ratings¹**
- 1.7.1 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
- 1.7.2 An issuer rating may be applied for bonds classified as Government or Financial if security-level ratings are not available.
- 1.8 Capital Index (also known as the Price Index or the Clean Price Index)**
- 1.8.1 The capital index tracks the notional weighted average change in the prices of the index constituents and is calculated every business day.

¹ Effective 15 April 2019.

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

1.9.1 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.

1.9.2 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)

1.10 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.²

2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE Canada Universe Bond 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 High Yield Bond 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. 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 Rules should subsequently be updated to provide greater clarity.

² 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) and [The Benchmarks \(Amendment and Transitional Provision\) \(EU Exit\) Regulations 2019](#) (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 Ground 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 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](#)

3.5 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](#)

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 Benchmarks³, the European benchmark regulation⁴ and the UK benchmark regulation⁵. The FTSE Russell Governance Framework can be accessed using the following link:

[FTSE Russell Governance Framework.pdf](#)

³ IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013.

⁴ 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.

⁵ The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019.

Section 4

Eligibility criteria

4. Eligibility criteria

4.1 Eligible bonds

4.1.1 In order to be eligible for the FTSE Canada High Yield Bond Index, bonds must meet the following criteria:

Currency 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
Index Rating:	Non-investment grade rated below BBB and above D, as defined in Rule 6.2.2.
Number of Institutional Buyers	At least 10 institutional buyers at issue ⁶

Effective 1 March 2019, newly issued securities that contain a step-up schedule with predetermined fixed-rates will be eligible for the FTSE Canada High Yield Index.

4.2 Inclusions

4.2.1 The indices include semi-annual pay bullet securities, callable bonds, extendible/retractable bonds, sinking funds, exchangeables, junior subordinated bonds/hybrids, 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 of these Ground Rules.

4.2.2 Non-viability contingent capital bonds (NVCC) are eligible for inclusion effective 1 July 2017. NVCC debt issued and settled 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 of the local regulator (office of the superintendent of financial institutions of Canada – OFSI) in a non-viability scenario.

⁶ Effective 15 April 2019.

4.3 Exclusions

- 4.3.1 The index does not include floating-rate notes, convertible bonds, monthly-pay residential and commercial mortgage-backed securities (CMBS and MBS), other monthly-pay securities, other prepayable securities, inflation-indexed securities, or securities specifically targeted to the retail market and securities that do not have a price assigned as specified in Section 5.
- 4.3.2 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.

4.4 Coupon type

- 4.4.1 Bonds must have a fixed-rate coupon, payable semi-annually.
- 4.4.2 Fixed-to-variable bonds⁷, 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 inclusion 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.
- 4.4.3 Coupon bonds may have odd first and/or last coupon/principal payment
- 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.
- 4.4.4 Effective 1 March 2019, newly issued securities that contain a step-up schedule with predetermined fixed-rates are eligible.

4.5 Minimum nominal issuance of a bond

- 4.5.1 This dollar amount includes the original issue amount plus re-openings. Note that 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.

⁷ This includes, but is not limited to, securities with coupon types referred to as Fixed-to-Float, Fixed-to-Fixed and Fixed-to-Resetable.

Section 5

Price sources

5. Price sources

5.1.1 Constituents prices are provided by CanDeal Data and Analytics (“CanDeal DNA”) in accordance with its Composite pricing methodology.⁸

5.1.2 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.

5.2 Verification and price challenges

5.2.1 Statistical techniques are used to identify pricing anomalies based on day-over-day changes and comparisons across peer groups by maturity, asset type, etc.

5.2.2 Any price challenges from index users and possible outliers from the verification process are reviewed with our third-party pricing provider.

5.2.3 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.

⁸ 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 change to the portfolios

6. Periodic change to the portfolios

6.1 Rebalancing the Indices

- 6.1.1 The FTSE Canada High Yield Bond Index is rebalanced on a daily basis. The securities in the FTSE Canada High Yield Bond Index are weighted by relative market capitalisation. Thus, the return on a bond influences the return on the index in proportion to the bond's market value. Market value of a bond equals the adjusted amount outstanding, multiplied by the gross price (market price plus accrued interest), with the gross price expressed as a percentage. The total amount outstanding of each issue is adjusted so that the portion of stripped securities is excluded and reconstituted securities are included.

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 3:00 pm EST.
- 6.2.2 In the event a credit rating downgrade from Investment Grade (BBB and above) to High Yield (below BBB), a bond that otherwise meets index eligibility requirements will enter the High Yield Index 30 days after the initial downgrade. The bond will remain in the relevant Investment Grade index for the 30 days after the initial downgrade.
- 6.2.3 In the event of a credit rating upgrade from default (D) to high yield, a bond that otherwise meets index eligibility requirements will enter the High Yield Index on the day the rating upgrade occurs.

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.
- 6.3.2 When a bond defaults, it is removed from the index after 90 days.
- 6.3.3 In the event of a credit rating upgrade sufficient to raise the bond's index rating to BBB or higher, the bond will be removed from the FTSE Canada High Yield Index, and will enter the FTSE Canada Universe Bond Index, if the bond meets the criteria for this index.

Appendix A

Index calculations

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
$Coupon_i$	coupon rate of a constituent bond i
$y_{i,t}$	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

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

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

Average Coupon

The index level average coupon (C) is given by

$$C_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times Coupon_i}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

Average Yield to Maturity

The index level average yield to maturity (Y) is given by

$$Y_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times y_{i,t}}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

Average Macaulay Duration

The index level average Macaulay duration (D) is given by

$$D_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times MacDur_{i,t}}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

Average Modified Duration

The index level average Modified duration (MD) is given by

$$MD_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times ModDur_{i,t}}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

Average Value of 01

The index level average value of Dval01 ($DV01$) is given by

$$DV01_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times Dval01_{i,t}}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

Average Convexity

The index level average convexity ($Conv$) is given by

$$Conv_x_t = \frac{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t} \times Convexity_{i,t}}{\sum_i (P_{i,t} + A_{i,t}) \times N_{i,t}}$$

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 High Yield Bond Index 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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