Ground Rules

November 2022

FTSE High Yield (Treasury Rate-Hedged) Index

v1.4



lseg.com/en/ftse-russell

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Section 1 Introduction

1. Introduction

1.1 FTSE High Yield (Treasury Rate-Hedged) Index

- 1.1.1 The FTSE High Yield (Treasury Rate-Hedged) Index is a US Dollar-denominated index that measures the performance of high-yield debt issued by corporations domiciled in the US or Canada. The index consists of a long position in high-yield bonds and a duration-matched short position in US Treasury bonds.
- 1.1.2 The high-yield portion of the index includes more liquid, cash-pay bonds, including Rule 144A bonds issued by corporations. Only two issues per parent issuer are included and each issuer is limited to 2% of the market value of the index.
- 1.1.3 The FTSE High Yield (Treasury Rate-Hedged) Index does not take account of ESG factors in its design.

1.2 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. and FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, The Yield Book Inc. and Beyond Ratings.

- 1.2.1 FTSE Russell hereby notifies users of the index that it is possible that factors, including external factors beyond the control of FTSE Russell, 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 Russell for any losses, damages, claims and expenses suffered by any person as a result of:
 - any reliance on these ground rules;
 - any inaccuracies in these ground rules;
 - 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.

Section 2 Management responsibilities

2. Management responsibilities

2.1 FTSE Fixed Income LLC (FTSE)

- 2.1.1 FTSE is the benchmark administrator of the index series¹.
- 2.1.2 FTSE is responsible for the daily calculation, production and operation of the index series, and will:
 - maintain records of the index weightings of all constituents;
 - make changes to the constituents and their weightings in accordance with the ground rules;
 - carry out the periodic index reviews of the index series and apply the changes resulting from the reviews as required by the ground rules; and
 - disseminate the indices.

2.2 Amendments to these ground rules

- 2.2.1 These ground rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they best reflect the aim 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.
- 2.2.2 As provided for in the Statement of Principles for FTSE Russell 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) and <u>The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019</u> (the UK Benchmark Regulation). FTSE Fixed Income LLC administers the index series in line with the third country transitional provisions contained within Article 51(5) of the European Benchmark Regulation and the third country transitional provisions as amended by Article 42(5) of 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 or by contacting <u>fi.index@lseg.com</u>. These policies are reviewed annually and any changes are approved by the FTSE Russell Product Governance Board.

3.1 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 Index Advisory Board for discussion before approval by the FTSE Russell Product Governance Board.

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

Statement of Principles Fixed Income Indices.pdf

3.2 Queries and complaints

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

Benchmark Determination Complaints Handling Policy.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 Index policy in the event clients are unable to trade a market or a security

3.4.1 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

3.5 Policy for benchmark methodology changes

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 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 Composition and design criteria

4. Composition and design criteria

Design criteria and calculation assumptions for the high-yield portion of the FTSE High Yield (Treasury Rate-Hedged) Index

Coupon	Fixed rate and non-convertible	
Currency	USD	
Minimum maturity	At least one year	
Minimum issue size	The outstanding amount of an issue must total at least USD 1 billion in order to be considered eligible for inclusion.	
Number of issues	For each issuer, no more than two issues are included. The selection is first based on the largest par amount outstanding and then the most recent issue date.	
Issue date	The bonds in the index must be issued within the last five years. Furthermore, a bond downgraded from investment grade can enter the index if it was issued within the last four years.	
Minimum credit quality	Maximum rating: BB+ by S&P and Ba1 by Moody's Minimum rating: C by S&P and Ca by Moody's (excludes defaulted issues)	
Composition	Securities included: fixed-rate cash-pay bonds, including Rule 144A bonds, issued by corporations domiciled in the United States or Canada only. Securities excluded: pay-in-kind (PIK)	
Weighting	Market capitalisation prior to applying any capping constraints for diversification.	
Issuer cap	Market weight per issuer to be less than or equal to 2% of the market value of the index.	
Rebalancing	Once a month on the last business day of the month (pricing as of the last business day of the month and settlement as of the last calendar day of the month).	
Reinvestment of cash flows	Intra-month cash flows from interest and principal payments are not reinvested as part of monthly index total return calculations ⁵ .	
Pricing	For High-Yield Corporate Bonds: IDC bid-side 16:00 (New York) For US Treasury Bonds: Refinitiv bid-side 15:00 (New York)	
Calculation frequency	Daily	
Settlement date	Monthly: settlement is on the last calendar day of the month.	
	Daily: same-day settlement except if the last business day of the month is not the last calendar day of the month; then, settlement is on the last calendar day of the month.	
Fixing date	Each month, the upcoming month's index constituents are fixed on the profile fixing date. Each year's scheduled fixing dates are published on the website.	
Base date	31 March 2008	

⁵ Prior to 1 November 2022, reinvestment income was included in the total return calculation.

4.1 Hedging methodology

4.1.1 On fixing day, the duration dollars of the high yield bond position is calculated. Duration Dollars are defined as:

Duration Dollars = *DV*01 * *Par Amount*

where DV01 is the magnitude of the price change for the security when the yield curve moves one basis point.

4.1.2 The CTD of the two-, five- and 10-year US Treasury Bond Futures Contract is determined using The Yield Book's Treasury Future Option Model. Each bond within the high yield position is matched with a corresponding CTD security based on closest DV01 match. The par amount for this short position is the amount such that the duration dollars of the short position is equal to the duration dollars of the long position, as defined below:

DV01_{HY Position} * Par Amount_{HY Position} = DV01_{Treasury Position} * Par Amount_{Treasury Position}

4.1.3 After the par amount of the short position is determined, a cash equivalent security is added to represent the repo rate earned on the short position. The amount of the cash position is equal to the market value of the short position as of the fixing date.

4.2 Return calculation methodology

4.2.1 Returns are calculated based on the Dollar return of each position in the index. Any coupon paid during the month from the long position is not reinvested. The cash equivalent security is a zero coupon repo that is held within the index. The index assumes the cash equivalent is not reinvested. The overall index return is calculated based on the summation of the Dollar returns of each position divided by the beginning market value of the long position:

Dollar Return_{Long Position} + Dollar Return_{Short Position} + Dollar Return_{Cash Position} Beginning Market Value_{Long Position}

4.3 Holiday calendar

4.3.1 The index is calculated Monday through Friday except Christmas Day (observed) and New Year's Day (observed). Each local market will observe its own holiday calendar; if a local market is on holiday, the closing prices used for that day will be the closing prices from the previous day.

4.4 Index quality

4.4.1 An index quality is assigned to each index bond as of profile fixing. The quality is first mapped to the Standard & Poor's Financial Services LLC (S&P) rating. If a bond is not rated by S&P but it is rated by Moody's Investors Service, Inc (Moody's), the S&P equivalent of the Moody's rating is assigned to the index quality. If a bond is rated by neither S&P nor Moody's, the bond is not assigned an index quality. If a bond is rated as investment grade by one rating agency and high yield by the other, the S&P equivalent of the investment-grade rating is assigned to the index quality. These ratings remain unchanged for the entire performance month.

4.5 Defaults

4.5.1 When an issuer defaults, is assigned a D rating by S&P, regardless of whether that issuer has filed for bankruptcy protection or enters into Chapter 7 or Chapter 11 bankruptcy protection in the US (or equivalent in its local market), its bonds remain in the index until the end of the month. The bonds will be included in the calculation of the current month's average profile statistics of the index. The returns are calculated without coupon payment or accrued interest, where applicable.

4.6 Return computation

4.6.1 Total returns are computed on the assumption that each security is purchased at the beginning of the period and sold at the end of the period. An issue's total rate of return is the percentage change in its total value over the measurement period. The components of total return are price change, principal payments, coupon payments and accrued interest. The total returns use each individual security's beginning-of-period market value (see **Figure one**).

Figure one: total rate of return calculation methodology

Beginning-of-period value

(Beginning Price + Beginning Accrued) x Beginning Par Amount Outstanding

End-of-period value

[(Ending Price + Ending Accrued) x (Beginning Par Amount Outstanding – Principal Payments)] + Coupon Payments + Principal Payments

Total rate of return (%)

 $\left[\left(\frac{\text{End-of-Period Value}}{\text{Beginning-of-Period Value}}\right) \text{-1}\right] \times 100$

A note on precision: returns are computed to at least six decimal places but reported to a maximum of five. In addition, owing to rounding errors inherent in computer floating-point arithmetic, the last digit in any reported value may sometimes be off by one from its true value.

Ticker for the FTSE High Yield (Treasury Rate-Hedged) Index

Ticker	Index
CFIIHYHG	FTSE High Yield (Treasury Rate-Hedged) Index

4.7 Chronological summary of events

FTSE High Yield (Treasury Rate-Hedged) Index summary of event

Year	Monthly highlights
2022	November: intra-month cash flows from interest and principal payments are not reinvested as part of monthly index total return calculations.
2018	November: the pricing source for the US Treasuries is changed from Citi traders to Refinitiv.

Appendix A 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 contact details, please visit the FTSE Russell website or contact FTSE Russell client services at <u>fi.index@lseg.com</u>.

Website: www.lseg.com/en/ftse-russell/

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