FTSE Time-Weighted US Fallen Angel Bond Select Index

v1.7



Contents

Section 1 Introduction	
Section 2 Management responsibilities	5
Section 3 FTSE Russell index policies	
Section 4 Composition and design criteria	8
Appendix A Further information	

Introduction

1. Introduction

1.1 FTSE Time-Weighted US Fallen Angel Bond Select Index

- 1.1.1 The FTSE Time-Weighted US Fallen Angel Bond Select Index is designed to measure the performance of "fallen angels" bonds that were previously rated investment grade but were subsequently downgraded to high yield¹. The index is based on the FTSE Time-Weighted US Fallen Angel Bond Index, which includes US Dollar-denominated bonds issued by corporations² domiciled in the US or Canada that meet the inclusion criteria described in figures one and two. Any such bonds with a rating changed from investment grade to high yield in the previous month are eligible for inclusion in the index and will be held in the index for a period of 60 months³ from inclusion provided they continue to meet the inclusion criteria. If a bond exits and then re-enters the index, the inclusion period is reset.
- 1.1.2 Unlike traditional indices where constituent weights are based on market value, the constituent weights of the FTSE Time-Weighted US Fallen Angel Bond Index are determined based on the time from inclusion in the index. Higher weights are assigned to bonds that have more recently become fallen angels. This time-based weighting approach aims to capture the potential price rebound effect that fallen angels may experience soon after their initial downgrade to high yield. From 2021, the index will apply time weighting that additionally takes into account the market values adjusted pro-rata across the bonds for an issuer.
- 1.1.3 For the FTSE Time-Weighted US Fallen Angel Bond Select Index, to limit concentration in any one issuer of the index, the following caps are applied monthly to the time-based weights.
 - No single issuer can make up more than 5% of the index.
 - Constituents' time-based weights are capped at three times their respective market value-based weights.
- 1.1.4 The index provides an alternatively weighted benchmark for the North American high-yield bond market.
- 1.1.5 The FTSE Time-Weighted US Fallen Angel Bond Select 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 that 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.

FTSE Russell 3 of 12

¹ The index also includes bonds that were originally rated high yield, subsequently rated investment grade, then downgraded again to high yield.

² Includes industrial, utility and finance sectors.

The inclusion period for each bond is measured in terms of consecutive months. The maximum inclusion period rule will be suspended should the number of issuers in the index fall below 10 to mitigate issuer concentration risk. Such suspension of the rule will be maintained until at least 10 issuers are eligible for inclusion in 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.

FTSE Russell 4 of 12

Management responsibilities

Management responsibilities

2.1 FTSE Fixed Income LLC (FTSE)

- 2.1.1 FTSE is the benchmark administrator of the index series4.
- 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.
- 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.

FTSE Russell 5 of 12

⁴ 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). 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.

FTSE Russell index policies

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 fi.index@lseg.com. These policies are reviewed annually and any changes are approved by the FTSE Russell Index 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 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

3.2 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

FTSE Russell 6 of 12

FTSE Time-Weighted US Fallen Angel Bond Select Index, v1.7, October 2023

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 Benchmarks⁵, the European benchmark regulation⁶ and the UK benchmark regulation⁷. The FTSE Russell Governance Framework can be accessed using the following link:

FTSE Russell Governance Framework.pdf

FTSE Russell 7 of 12

⁵ IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013.

⁶ 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 Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019.

Composition and design criteria

4. Composition and design criteria

Figure 1: design criteria and calculation assumptions⁸ for the FTSE Time-Weighted US Fallen Angel Bond Index

Coupon	Fixed-rate, fixed-to-floating rate and zero coupon
Currency	USD
Minimum maturity	At least one year. Fixed-to-floating rate bonds are removed one year prior to the fixed-to-floating rate start date.
Maximum inclusion period	60 months ⁹
Minimum issue size	USD 300 million
Credit quality	Maximum quality: BB+ by index quality Minimum quality: B- by index quality (excludes defaulted bonds) For more information on how the index quality is defined, please refer to the index quality section for more details.
Composition	Cash-pay, zero-to-full (ZTF), pay-in-kind (PIK), step-coupon bonds and rule 144A bonds issued by corporations domiciled in the United States or Canada.
Weighting	Constituent weights are based on the time from inclusion of the newly eligible bond in the index with higher weights assigned to bonds that have more recently become fallen angels. Please refer to the weighting methodology section for more details.
Rebalancing	Once a month at the end 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 ¹⁰ .
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.

¹⁰ Prior to 1 November 2022, reinvestment income was included in the total return calculation.

FTSE Russell 8 of 12

For more details on the FTSE Time-Weighted US Fallen Angel Bond Index, please see the index guide on the website at www.yieldbook.com/m/indices/.

The inclusion period for each bond is measured in terms of consecutive months. The maximum inclusion period rule will be suspended should the number of issuers in the index falls below 10 to mitigate issuer concentration risk. Such suspension of the rule will be maintained until at least 10 issuers are eligible for inclusion in the index.

Figure 2: additional design criteria and calculation assumptions for the FTSE Time-Weighted US Fallen Angel Bond Select Index

Pricing	IDC mid-market price
Weighting	Time-based weights are adjusted on an issuer basis pro-rata by market value.
	The following caps are applied monthly to the time-based:
	 no single issuer can make up more than 5% of the index; and
	 constituents' time-based weights are capped at three times their respective market value- based weights.
Rebalancing	Based on the published preliminary profile fixing of the FTSE Time-Weighted US Fallen Angel Bond Index. Bonds that are called or defaulted between the fixing date and end of the month-end will be excluded from the index and no adjustment is made to the par amounts of the remaining bonds.
Index base date	31 December 2010

4.1 Weighting methodology

- 4.1.1 Unlike traditional indices where constituent weights are based on market value, the index's constituent weights are determined based on the time from inclusion in the index. Any bond entering the index is given a predefined time score. Starting from the 13th month upon entering the index, the time score is gradually reduced. On each monthly rebalance, the time scores for all bonds in the index are normalised to weights that sum up to 100%. The time-based weighting methodology aims to assign higher weights to bonds that have more recently become fallen angels. From 2021, the time-weights will be adjusted to account for the market value distribution within a given issuer, where bonds previously were equally weighted within the time weighting. The time-weighted adjustment for market value allows for a more practical allocation.
- 4.1.2 Furthermore, for the FTSE Time-Weighted US Fallen Angel Bond Select Index, in order to limit concentration in any one issuer of the index, the following caps are applied to the time-based weights at each month-end:
 - no single issuer can make up more than 5% of the index; and
 - constituents' time-based weights are capped at three times their respective market value-based weights.

4.2 Holiday

4.2.1 Indices are calculated Monday through Friday except Christmas Day (observed) and New Year's Day (observed). When a market observes a holiday, the closing prices from the previous available day are used as the closing prices for index calculations on such holiday for that market.

4.3 Maturity sectors

In addition to the broad categories published, sub-sector breakdowns are also provided for many of the fixed income indices. The maturity sector buckets are defined by including all underlying issues with a remaining average life at least equal to the lower bound, but less than the upper bound of the particular category. For example, the one- to three-years sector of the FTSE Time-Weighted US Fallen Angel Bond Select Index includes all securities with a remaining average life of at least one year, but less than three years. The set of bonds is then held constant for the calculation month, even though the average life declines.

4.4 Index quality

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.

FTSE Russell 9 of 12

4.5 Defaults

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 are market capitalisation weighted using the security's beginning-of-period market value (see figure four).

Figure 1. 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 (%)

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

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 inaccuracies inherent in computer floating-point arithmetic, the last digit in any reported value may sometimes be off by one from its true value.

FTSE Russell 10 of 12

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 fi.index@lseg.com.

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

FTSE Russell 11 of 12

Disclaimer

© 2023 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) FTSE Fixed Income Europe Limited ("FTSE FI Europe"), (5) FTSE Fixed Income LLC ("FTSE FI"), (6) The Yield Book Inc ("YB") and (7) Beyond Ratings S.A.S. ("BR"). All rights reserved.

The FTSE Time-Weighted US Fallen Angel Bond Select Index is calculated by or on behalf of FTSE Fixed Income LLC or its affiliate, agent or partner. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB and BR. "FTSE®", "Russell®", "FTSE Russell®", "FTSE4Good®", "ICB®", "The Yield Book®" "Beyond Ratings®" and all other trademarks and service marks used herein (whether registered or unregistered) are trade marks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB or BR.

All information is provided for information purposes only. Every effort is made to ensure that all information given in this publication is accurate, but no responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for any errors or for any loss from use of this publication or any of the information or data contained herein.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of FTSE Time-Weighted US Fallen Angel Bond Select Index or the fitness or suitability of the Index for any particular purpose to which it might be put.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing in this document should be taken as constituting financial or investment advice. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any representation regarding the advisability of investing in any asset. A decision to invest in any such asset or whether such investment creates any legal or compliance risks for the investor. Indexes cannot be invested in directly. Inclusion of an asset in an index is not a recommendation to buy, sell or hold that asset nor confirmation that any particular investor may lawfully buy, sell or hold the asset or an index containing the asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group index data and the use of their data to create financial products require a licence with FTSE, Russell, FTSE Canada, FTSE FI, FTSE FI Europe, YB, BR and/or their respective licensors.

