Ground Rules

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FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index

v1.7



lseg.com/en/ftse-russell

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Section 1 Introduction

1. Introduction

1.1 FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index

- 1.2 The FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index tracks the performance of US Dollar-denominated investment-grade corporate debt. The index provides a broad representation of the US investment grade corporate bond market while reducing the weight of issuers with the lowest operating margin and highest leverage.
- 1.2.1 The index is created from the FTSE US Broad Investment-Grade Corporate Bond Index with average life less than five years (Base Index), which includes US and non-US corporate securities issued in registered form and bonds issued under rule 144A with registration rights. The universe screens issuers based on minimum bonds outstanding to represent the more liquid portion of the market and by applying fundamental indicators. The bonds are then then ranked within their respective industries based on fundamental indicators. Bonds from the lowest ranked 10% of issuers are reweighted where their initial market capitalization are reduced by half. The market capitalization of the remaining 90% of issuers with high operating margin and low leverage, along with bonds of issuers that satisfy the liquidity criteria but have neither fundamental indicator available, are left unchanged. The bonds are then divided into two maturity buckets based on the weighted average life of the Base Index, after which the weights of each maturity bucket are adjusted to match the weighted average effective duration of the bonds in the Base Index. Within each maturity bucket, constituents are assigned weights in proportion to their market capitalization. Issuer weights are then capped at 5% for issuers with fundamental indicators and 3% for issuers where fundamental indicators are not observable.

For more information on the FTSE US Broad Investment-Grade Corporate Bond Index, please see the FTSE Fixed Income Index Guide.

1.3 The FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index does not take account of ESG factors in its design.

1.4 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, FTSE (Beijing) Consulting Limited, Refinitiv Benchmark Services (UK) Limited, Refinitiv Limited and Beyond Ratings.

- 1.5 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.
- 1.5.1 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 or any members of the FTSE Russell Policy Advisory Board (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;
- 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

Management responsibilities

2.1 FTSE International Limited (FTSE)

- 2.1.1 FTSE is the benchmark administrator of the index¹.
- 2.1.2 FTSE is responsible for the daily calculation, production and operation of the 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; 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).

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 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 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

3.2 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

3.7 Real Time Status Definitions

3.7.1 Please refer to the following guide for details of real time status definitions for indices that are calculated in real time.

Real Time Status Definitions.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

Figure one details the design criteria and calculation assumptions for the FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index.

Figure one: design criteria and calculation assumptions for the FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index

Currency	USD				
Coupon	Fixed rate, fixed-to-floating rate and zero coupon				
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 maturity	Five years				
Minimum issue size and bond count	USD 250 million minimum amount outstanding per issue Minimum two bonds per issuer				
Minimum credit quality	BBB- by S&P or Baa3 by Moody's				
Composition	US and non-US corporate securities issued in registered form and bonds issued under rule 144A with registration rights. Convertibles, private placements and fixed-rate perpetual bonds are excluded.				
Redemption features	Bullet, sinking fund, putable, extendable or callable				
Weighting	Market capitalization, subject to capping and duration adjustments as described in reconstitution.				
Rebalancing	Once a month at the end of the month.				
Reconstitution	Each month, after filtering for minimum issuer size based on minimum bonds outstanding, representing the more liquid portion of the market, securities are ranked, capped and weighted through an iterative process to make sure all criteria are met.				
	 Fundamental ranking and reweighting – the bond universe reweight is determined by two fundamental indicators reported by the issuers: improvement over the past year in (1) operating margin and (2) leverage, both determined quarterly at the end of February, May, August and November. Operating margin is measured by earnings before interest and taxes margin (EBIT margin), while leverage is measured by debt to enterprise value (debt to EV). The issuers are ranked within their respective industry (finance, industrial, and utility) positively by operating margin and negatively by leverage, accounting for market capitalization to determine the percentile ranking. The percentile rankings of individual indicators are combined to calculate each issuer's composite rank. When only a single indicator is available, that single indicator will be used to calculate the issuer's composite rank. The issuers within the lowest 10% composite rank are reweighted such that their market capitalizations are reduced by half⁵, while issuers in the remaining 90%, along with bonds of issuers that satisfy the liquidity criteria but have neither fundamental indicator available, are left unchanged. Duration adjustment – bonds are divided into two maturity buckets based on weighted average life of the Base Index, after which weights of each maturity bucket are adjusted to match the weighted average effective duration of the Base Index. Within each maturity bucket, constituents are assigned weights in proportion to their market capitalization. 				

⁵ Prior to 1 February 2025, issuers with the lowest 10% composite rank were screened from the index.

Base date ⁸	31 August 2009			
Pricing	LSEG Pricing Service mid-market pricing at 16:00 (New York)			
Fixing date	Each month, the upcoming month's index constituents are fixed on the profile fixing date ⁷ . The profile fixing dates for each year are available on the website at <u>fixed-income-indices</u> .			
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.			
Calculation frequency	Daily			
Reinvestment of cash flows	Intra-month cash flows from interest and principal payments are not reinvested as part of monthly index total return calculations ⁶ .			
Capping	5% for issuers with fundamental indicators 3% for issuers where fundamental indicators are not observable			
	holdings and weights.			
	 5. For the non-quarter-end months, bonds that no longer meet the liquidity, rating or maturity requirements are removed from the index. Newly issued bonds from the qualified issuers of the most recent quarterly rebalancing are included. The monthly profiles will reflect the latest par amount and market value of all included bonds. Reweight utilizes pricing and amounts outstanding of the base index in order to reconstruct index 			
	for issuers where fundamental indicators are not observable. 4. An iterative process of steps 2 and 3 are repeated until both criteria are met.			
	3. Issuer capping – issuer weights are capped at 5% for issuers with fundamental indicators and 3%			

4.1 Holiday calendar

4.1.1 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.

4.2 Index quality

4.2.1 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 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.

4.3 Defaults

4.3.1 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.

4.4 Return computation

4.4.1 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 (see figure two). The components of total return are price change, principal

⁶ Prior to 1 November 2023, reinvestment income was included in the total return calculation.

⁷ Fixing dates provide a clear reference point for index users to know in advance of any changes to the composition of the index for the upcoming month. On each fixing date,

publicly available securities information is used to determine index eligibility and indicative values for the following month's index profile.

⁸ Back-tested data from the base date up to and including 29 May 2020 was produced using pricing from Refinitiv 16:00 bid. From 1 June 2020 onwards, the price source is Refinitiv 15:00 mid.

payments, coupon payments and accrued interest. The total returns use each individual security's beginning-of-period market value.

Figure two: 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 (%)	-	[(End-of-period value/Beginning-of-period value) – 1] x 100

Ticker for the FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index

Ticker	Index
CFIIGSIG	FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index, in USD terms

Chronological summary of events

FTSE Goldman Sachs US Investment-Grade Corporate Bond 1-5 Years Index summary of event

Year	Monthly highlights
2025	January: bonds subject to a fundamental screen are now subject to a 50% reweight.
2022	November: intra-month cash flows from interest and principal payments are not reinvested as part of monthly index total return calculations.
2021	June: change in timing of pricing used in index.

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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