

FTSE Goldman Sachs US High-Yield Corporate Bond Index

v1.7



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Section 1

Introduction

1. Introduction

1.1 FTSE Goldman Sachs US High-Yield Corporate Bond Index

1.1.1 The FTSE Goldman Sachs US High-Yield Corporate Bond Index is a US Dollar-denominated index that measures the performance of high-yield debt issued by corporations where Country is assigned as Australia, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States. The index aims to provide a broad measure of the US high-yield corporate bond market while excluding issuers with the highest debt service and leverage and optimizing for enhanced returns using carry and roll down.

1.1.2 The index is created from the FTSE US High-Yield Market Index ("Base Index"), which includes cash-pay, deferred-interest securities, and debt issued under Rule 144A in unregistered form. The universe is then ranked within their respective industries based on fundamental indicators. Bonds from the lowest ranked 10% of issuers are excluded. The index is formed by the remaining bonds from the 90% of issuers with high operating margin and low leverage. The remaining bond subset, along with bonds of issuers that have neither fundamental indicator available are included in the final bond subset. An optimization process is then used to select securities relative to the Base Index to determine weights such that projected return is maximized across the term structure while the weights of the maturity sectors are adjusted to match the weighted average effective duration of the Base Index. Furthermore, an issuer capping is performed to help manage the concentration risk where issuer weights are capped at 3% for issuers with fundamental indicators and 2% for issuers where fundamental indicators are not observable.

1.2 The FTSE Goldman Sachs US High-Yield Corporate Bond Index does not take account of ESG factors in its design.

1.3 FTSE Russell

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1.4 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.

- 1.4.1 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, 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.

Section 2

Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index.¹

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.
- 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 [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 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 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 fi.index@lseg.com.

[Fixed Income Recalculation Policy and Guidelines.pdf](#)

3.4 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](#)

3.5 FTSE Russell Governance Framework

3.5.1 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

- 4.1 The FTSE Goldman Sachs US High-Yield Corporate Bond Index does not take account of ESG factors in its design.
- 4.1.1 Figure 1 details the design criteria and calculation assumptions for the FTSE US High-Yield Market Index. Additional design criteria and calculation assumptions for the FTSE Goldman Sachs US High-Yield Corporate Bond Index are outlined in Figure 2.

Figure 1. Design criteria and calculation assumptions for the FTSE US High-Yield Market 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.
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 only
Weighting	Market capitalization
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 ⁵ .
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 ⁶ . Each year's scheduled fixing dates are published on the website.
Pricing	Refinitiv 4:00 p.m. E.T. mid-market price FTSE prices used for historical calculations (from February 29, 2016 to May 31, 2021)

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

⁶ 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.

Reconstitution	<p>Each month, the bond universe is screened by two fundamental indicators reported by the issuers: (1) debt service and (2) leverage, both determined quarterly at the end of February, May, August, and November. Debt service is measured by debt to earnings before interest, tax, depreciation and amortization (Debt to EBITDA⁷), while leverage is measured by debt to enterprise value (Debt to EV)⁸. The issuers are ranked within their respective industry (Finance, Industrial, and Utility) negatively by debt service and leverage, accounting for market capitalization. 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 excluded and the index is formed by the remaining 90% of bonds.</p> <p>The remaining bond subset, along with bonds of issuers that have neither fundamental indicator available are included in the final bond subset. The bond subset is market capitalization weighted to form the index.</p> <p>For the non-quarter-end months, newly issued bonds from the qualified issuers of the most recent quarterly rebalancing will be included. The monthly profiles will reflect the latest par amount and market value of all included bonds.</p> <p>The final index is then subject to a carry and roll down optimization (detailed in next section) where issuer weights are capped at 3% for issuers with fundamental indicators and 2% for issuers where fundamental indicators are not observable.</p>
Reconstitution/Optimization	<p>Each month eligible bonds are divided into country and maturity sectors based on their weighted average life (WAL) in years as of the Month End Date ("Maturity Sectors") as follows: 1-3, 3-5, 5-7, 7-10, 10-20, and 20+.</p> <p>The bond weights are optimized with a goal to maximize projected one-month return. Projected returns for each security are computed by setting the settlement date forward by one month and assuming constant yield curve and OAS.</p> <p>The optimization selection constraints include:</p> <ol style="list-style-type: none"> 1. Each maturity sector's (e.g. 1-3 years) market value can vary from 50%-200% relative to the corresponding maturity sector of the Base Index; 2. Allocations to the bonds within a maturity bucket is weighted in proportion to the security's market capitalization; 3. Index return variance (weekly over the prior year) is not to exceed 125% of that of the Base Index; and 4. The modified duration and total market value of the Index is set to the Base Index. <p>In the case where the optimization produces lack feasible results, constraints will be loosened to achieve a solution. First the volatility cap will be repeatedly increased by multiplying by 1.02. If that optimization fails to find a feasible result, the sector caps are repeatedly increased by 0.05% until a viable solution is found.</p> <p>Optimization utilizes pricing and amounts outstanding of the base index in order to reconstruct index holdings and weights.</p>
Transaction costs⁹	<p>Transaction costs are calculated at the security level, as the product of the increase in market value (compared to the previous months market value) times a Cost Factor of the relevant WAL bucket for the bond. The Cost Factor is assessed on an annual basis, each December by averaging the relative spread between bid price and ask price of securities in the index profile in that month and applied in subsequent rebalances.</p> <p>Cost Factor may be periodically reviewed and adjusted for market conditions.</p>
Capping	<p>3% for issuers with fundamental indicators</p> <p>2% for issuers where fundamental indicators are not observable</p>
Index base date¹⁰	February 29, 2016

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.

⁷ Pre-tax income is used instead of EBITDA when calculating the debt service ratio for financial institution issuers.

⁸ Fundamental Indicators based on Worldscope data from Refinitiv.

⁹ Transaction costs were not considered in the optimization prior to the December 2021 profile.

¹⁰ Back tested data from 2/29/2016 through 5/30/2021. Live data from 5/31/2021 through present.

4.3 Index quality

- 4.3.1 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.

4.4 Defaults

- 4.4.1 When an issuer defaults, or 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.

4.5 Return computation

- 4.5.1 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 capitalization weighted using the security's beginning-of-period market value (see Figure 4).

Figure 4. 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.

Ticker for the FTSE Goldman Sachs US High-Yield Corporate Bond Index

Ticker	Index
CFIIUSHY	FTSE Goldman Sachs US High-Yield Corporate Bond Index, in USD terms

Chronological summary of events

FTSE Goldman Sachs US High-Yield Corporate Bond 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.
2021	September: Eligible countries of issue expanded to include Australia, Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States of America 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:

[Glossary of terms FTSE Fixed Income.pdf \(ftserussell.com\)](#)

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/

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