

FTSE Goldman Sachs US Broad Bond Market Index

v1.9

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Section 1

Introduction

1. Introduction

1.1 FTSE Goldman Sachs US Broad Bond Market Index

1.2 The FTSE Goldman Sachs US Broad Bond Market Index (the index) tracks the performance of US Dollar-denominated investment-grade debt and provides a broad representation of the market through a combination of bonds across five (5) sectors. Using the FTSE US Broad Investment-Grade Index (USBIG) as a starting universe (the Base Index), the index includes US Treasury, government sponsored, asset-backed securities (ABS), mortgage-backed securities (MBS) and credit, where credit consists of corporates, non-US sovereign and provincial sectors.

1.2.1 The index aims to deliver stable performance for a given level of risk consistent with the USBIG index. This is achieved through a series of screen and weight allocation adjustments aimed at return enhancements and/or volatility minimization for two of the larger components of the Base Index, namely the US corporate and MBS sectors. Securities in each of these two sectors are selected and their weights are adjusted in accordance with methodology relevant to that sector. The US corporate and MBS sectors are duration adjusted and reweighted to match the Base Index in the resulting composition. The US Treasury, government sponsored, non-US sovereign and provincial, and ABS sectors are market capitalization weighted consistent with the USBIG index.

1.3 The FTSE Goldman Sachs US Broad Bond Market 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.), FTSE Fixed Income LLC, FTSE (Beijing) Consulting Limited.

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

2. 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.
- 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 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

4.1 The FTSE Goldman Sachs US Broad Bond Index is comprised of five fixed income asset class sectors that follow the design criteria and calculation methodology for each of the sectors described in this methodology document – US Treasury, government sponsored, asset-backed securities, mortgage-backed securities, and credit, where credit consists of corporates, non-US sovereign and provincial sectors. For each sector, the composition, minimum issue size, pricing source and weighting reconstitution methodology are detailed in figures two through four.

4.1.1 After each sector is adjusted, the overall index is then composed in accordance with the detail outlined in figure one.

Figure one: FTSE Goldman Sachs US Broad Bond Market Index design criteria and calculation assumptions

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.
Minimum credit quality	BBB- by S&P or Baa3 by Moody's
Redemption features	Bullet, sinking fund, putable, extendable or callable
Minimum denomination	Par value: USD 1,000
Weighting	Market capitalization, subject to the adjustments for the US corporate and MBS sectors. Once each of the sectors are adjusted per the methodology specified, the sector weights are adjusted to match the relevant sector weight in the Base Index.
Rebalancing	Once a month on the last business day of the month (pricing as of the last business day of the monthly 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 .
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 Base Index constituents are fixed on the profile fixing date ⁶ . Each year's scheduled fixing dates are published on the website. The index is fixed on fixing date+1.
Pricing	Index adjustments and weight calibrations are undertaken using same price and amounts as in the Base Index. Each sector in the index is then priced in accordance with the methodology detailed in figures two through four.

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.

4.2 Corporate

4.2.1 The corporate sector tracks the performance of US Dollar-denominated investment-grade corporate debt and selects securities from the starting universe of the USBIG Corporate Index (Base Corporate Index) to provide 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. Issuers are screened based on amount outstanding and issuance to represent the more liquid portion of the market, then reweighted by applying fundamental indicators, and lastly issuers are capped to reduce concentration risk.

4.2.2 The more liquid bonds are ranked within their respective industries based on fundamental indicators. Bonds from the lowest ranked 10% of issuers are reweighted where their initial market capitalizations are reduced by half. The market capitalizations of the remaining 90% of issuers with high operating margin and low leverage, along with bonds of issuers that satisfy the issuer minimum bonds outstanding 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 Corporate Index, after which the weights of the maturity buckets are adjusted to match the weighted average effective duration of the Base Corporate Index. Within each maturity bucket, constituents are assigned weights in proportion to adjusted market capitalizations. Issuer weights are then capped at 5% for issuers with fundamental indicators and 3% for issuers where fundamental indicators are not observable.

Figure two: design criteria and calculation assumptions for the corporate sector

Coupon	Fixed rate, fixed-to-floating rate and zero coupon
Currency	USD
Minimum maturity	At least one year
Minimum issue size and bond count	USD 250 million amount outstanding per issue Minimum two bonds per issuer
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.
Weighting	Market capitalization subject to capping and duration adjustments as described in reconstitution.
Term buckets	One to seven years and seven+ years
Capping	Issuer weight is capped at: 5% for issuers with fundamental indicators; and 3% for issuers where fundamental indicators are not observable
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. 1. 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) ⁷ . 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 half ⁸ , 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. 2. Duration adjustment – bonds are divided into two maturity buckets based on weighted average life of the Base Corporate Index, after which the weights of the maturity buckets are adjusted to match the weighted average effective duration of the Base Corporate Index.

⁷ The source data for fundamental indicators uses Worldscope data from Refinitiv.

⁸ Prior to 1 February 2025, issuers with the lowest 10% composite ranking were screened from the index.

	<p>Within each maturity bucket, constituents are assigned weights in proportion to their market capitalization.</p> <ol style="list-style-type: none"> Issuer capping – issuer weights are capped at 5% for issuers with fundamental indicators and 3% for issuers where fundamental indicators are not observable. An iterative process of steps 2 and 3 are repeated until both criteria are met. 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. <p>Reweighting utilizes pricing and amounts outstanding of the Base Index in order to reconstruct index holdings and weights.</p>
Pricing	LSEG Pricing Service mid-market 16:00 (New York)

4.3 Mortgage-backed securities

- 4.3.1 The MBS sector of the FTSE USBIG Mortgage Index (Base Mortgage Index) comprises of 30-year and 15-year to be announced (TBA) deliverable pass-through mortgage-backed securities guaranteed by the Federal Home Loan Mortgage Corporation (FHLMC or Freddie Mac), the Federal National Mortgage Association (FNMA or Fannie Mae), and the Government National Mortgage Association (GNMA or Ginnie Mae). The MBS sector is represented by cohorts that are constructed by aggregating mortgage pools by coupon, agency, program and origination year, and is rebalanced each month to reflect new issuance and principal pay-downs. Freddie Mac Uniform Mortgage Back Securities and Freddie Mac Participation Certificates are tracked by separate index cohorts.
- 4.3.2 The MBS selection seeks to mitigate prepayment risk by reducing the weight of the bottom 10% of the issues based on convexity where the most negatively or least convex bonds are reduced in market capitalization by half. After reweighting, the index is duration adjusted to match the duration of the Base Mortgage Index.

Figure three: design criteria and calculation assumptions for the mortgage-backed securities sector

Minimum issue size	<p>Entry: USD 1 billion minimum amount outstanding per origination year generic when the coupon has a minimum amount outstanding of USD 5 billion.</p> <p>Exit: an origination year generic will exit when its amount outstanding falls below USD 1 billion. If the amount outstanding for the coupon falls below USD 2.5 billion, all corresponding origination year generics will be removed from the index.</p> <p>Minimum amount outstanding thresholds based on coupon for Freddie Mac cohorts are applied across both Freddie Mac PCs and UMBS.</p>
Composition	30-year and 15-year TBA deliverable pass-through MBS guaranteed by Freddie Mac, Fannie Mae and Ginnie Mae
Index cohort construction	Index cohorts are constructed by aggregating mortgage pools by coupon, agency, program and origination year. Freddie Mac UMBS and Freddie Mac PCs are tracked by separate index cohorts.
Weighting	Market capitalization subject to capping and duration adjustments as described in reconstitution.
Reconstitution	<p>Each month, MBS securities are reweighted based on convexity. Following the reweighting process, securities are divided by agency and reweighted again according to market capitalization to match the duration of each agency in the base MBS index.</p> <ol style="list-style-type: none"> Convexity reweight – a convexity reweight is applied where the market capitalization of the bottom 10% of the most negatively or least convex securities per agency group are reduced by half⁹. Weight calibration – the weight of each agency group is adjusted to match the weighted average effective duration of the corresponding agency group in the Base Mortgage Index. The weight of each issuer agency bucket is further adjusted to match the relative weight of that agency in the Base Mortgage Index. Within each group, constituents are assigned weights in proportion to their market capitalization. <p>Reweighting utilizes pricing and amounts outstanding of the Base Index in order to reconstruct index holdings and weights.</p>
Pricing	LSEG Pricing Service bid-side 15:00 (New York)

⁹ Prior to 1 February 2025, a total of 10% of the index was screened, first determined by securities with a loan age of six month or less, followed by securities with the least convexity.

4.4 FTSE US Mortgage index pricing

4.4.1 Same-day settlement prices from LSEG Pricing Service for individual MBS pools are averaged based on each pool's current amount outstanding to arrive at an index cohort price. The price for all the pools that underlie a given cohort, including both specified and non-specified pools, are included in the average. The amount outstanding each pool contributes to the average index price are updated on the same cycle as the index factor updates. Prices represent a 15:00 (New York) bid-side valuation.

4.5 US Treasury, government sponsored, non-US sovereign and provincial, and ABS

4.5.1 The US Treasury, government sponsored sector is market capitalization weighted and provides exposure to US agencies and supranationals. The bonds are comprised of the constituents of the FTSE USBIG Government Sponsored Index.

4.5.2 The US Treasury sector is market capitalization weighted¹⁰.

4.5.3 The non-US sovereign and provincial sector is market capitalization weighted.

4.5.4 The asset-backed securities sector is market capitalization weighted and made up of the constituents of the FTSE USBIG Asset-Backed Securities Index.

Figure four: design criteria for government sponsored, non-US sovereign and provincial, and asset-backed securities

Minimum issue size	US Treasury: USD 5 billion public amount outstanding (excludes Federal Reserve holdings). US agencies and supranationals: USD 1 billion Non-US sovereign and provincial: USD 500 million Asset-backed: USD 250 million
Composition	US agencies (excluding callable zeros and bonds callable less than one year from issue date); supranationals.
Weighting	Market capitalization
Pricing	LSEG Pricing Service mid-market 16:00 (New York)

For more information on the FTSE USBIG Index, please see the [FTSE Fixed Income Index Guide](#).

4.6 Index holiday calendars

4.6.1 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.

4.7 Index quality

4.7.1 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.

4.8 Defaults

4.8.1 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

¹⁰ Prior to 1 February 2025, the US Treasury sector utilized an optimization process to select securities and determine weights such that projected return for a given level of risk was maximized.

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.

4.9 Return computation

4.9.1 For treasury, government-sponsored, corporate and ABS securities, 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. Total return is market capitalization weighted using the security's beginning-of-period market value (see figure seven).

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

4.10 FTSE US Mortgage Index return methodology

4.10.1 The principal payment component of the total rate-of-return computation for the FTSE USBIG Mortgage Index includes both scheduled principal amortization and unscheduled principal prepayment. The FTSE USBIG Mortgage Index accounts for all mortgage payments (principal plus interest) at the end of each month to reflect the monthly cash flow characteristics inherent in the instruments.

4.10.2 For example, during the January measurement period, most mortgage securities generate cash flow (principal and interest). The index assumes that cash flow is reinvested at the monthly average of the daily one-month Euro deposit rate. For the January returns, information on the January pay-down, applicable to a December 31 to January 31 holding period is available by the third week of January.

Return calculation for mortgage securities

Total rate of return (%)

$$\left[\frac{(C+X)x \left(1 + \frac{(R_m)}{200} \times N \right) + (EP+EA)x \left(1 - \frac{X}{100} \right)}{(BP+BA)} - 1 \right] \times 100$$

BP: Beginning price
 EP: Ending price
 BA: Beginning accrued interest
 EA: Ending accrued interest
 X: Principal payment as percent of beginning balance
 C: Coupon rate/12
 R_m: Reinvestment rate on intra-month payment (average of daily one-month Eurodeposit rate)
 N: Number of days between date of receipt of coupon and principal payment and calendar month-end

Ticker for the FTSE Goldman Sachs US Broad Bond Market Index

Ticker	Index
CFIIGCOR	FTSE Goldman Sachs US Broad Bond Market Index, in USD terms

FTSE Goldman Sachs US Broad Bond Market Index summary of event

Year	Highlight
2025	January: For the US corporate sector, bonds subject to a fundamental screen are now subject to a 50% reweight. For the MBS sector, a seasoning screen is no longer applied and bonds subject to a convexity screen are now subject to a 50% reweight. For the US Treasury sector, a seasoning screen and optimization is no longer applied.
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 source from IDC to Refinitiv and snap time used for pricing.

Appendix A

FTSE corporate sector classification

Industrial manufacturing	Aerospace/defense, auto manufacturers, building products, chemicals, conglomerate/diversified manufacturing, electronics, information/data technology, machinery, metals/mining, paper/forest products, textiles/apparel/shoes, vehicle parts and manufacturing – other
Industrial energy	Gas – pipelines, oil and gas, and oilfield machinery and services
Industrial service	Cable/media, gaming/lodging/leisure, healthcare supply, pharmaceuticals, publishing, restaurants, retail – food/drugs, retail stores – other, and service – other
Industrial transportation	Airlines, railroads and transportation – other
Industrial consumer	Beverage/bottling, consumer products, food processors and tobacco
Industrial other	Industrial – other
Utility	Electric, power, telecommunications, gas – local distribution and utility – other
Finance	Banking, independent finance, life insurance, mortgage banking, property and casualty, REITs, securities and finance – other

Appendix B

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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