

Custom FTSE All-World Climate Minimum Variance Index

v1.5



Contents

Section 1 Introduction	3
Section 2 Management responsibilities	5
Section 3 FTSE Russell Index policies	6
Section 4 Eligible securities	8
Section 5 Sustainable investment (SI) data inputs	9
Section 6 Index construction	11
Section 7 Periodic review of constituents	12
Section 8 Changes to constituent companies	13
Section 9 Corporate actions and events	14
Section 10 Indexes algorithm and calculation method	15
Appendix A Exclusions	16
Appendix B Further information	17

Section 1

Introduction

1. Introduction

- 1.1 This document sets out the Ground Rules for the construction and management of Custom FTSE All-World Climate Minimum Variance Index. Copies of the Ground Rules are available from www.lseg.com/en/ftse-russell/.
- 1.2 The Custom FTSE All-World Climate Minimum Variance Index is designed to reflect the performance of stocks, taking into account a specific set of risk reduction and climate characteristics.
- 1.3 The Custom FTSE All-World Climate Minimum Variance Index takes account of ESG factors in its index design.
- 1.4 These Ground Rules should be read in conjunction with the following index rules and guides, which are available at www.lseg.com/en/ftse-russell/:
- FTSE Global Minimum Variance Index Series Ground Rules
 - The Corporate Actions and Events Guide for Non Market Capitalisation Weighted Indexes
 - FTSE Global Equity Index Series Ground Rules
 - FTSE Global Climate Index Series Ground Rules
 - FTSE Green Revenues Index Series Ground Rules
- 1.5 Price and total return indexes will be calculated on an end-of-day basis. The base currency of all indexes is US Dollars (USD) and may also be published in other currencies. Total return indexes include income based on ex-dividend adjustments. All dividends are applied as declared in the FTSE Total Return Index.
- 1.6 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.
- 1.7 FTSE Russell hereby notifies users of the index series that it is possible that circumstances, including external events beyond the control of FTSE Russell, may necessitate changes to, or the cessation of, the index series and therefore, any financial contracts or other financial instruments that reference the index series or investment funds which use the index series to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index series.

- 1.8 Index users who choose to follow this index series or to buy products that claim to follow this index series should assess the merits of the index series 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 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 series 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, 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 periodic index reviews of the index and apply the changes resulting from the reviews as required by the Ground Rules;
- publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews; and
- disseminate the indexes.

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 continue to best reflect the aims 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 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:

3.1 Statement of Principles for FTSE Russell Equity Indexes (the Statement of Principles)

Indexes 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, 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 FTSE Russell's Index Governance Board.

The Statement of Principles can be accessed using the following link:

[Statement_of_Principles.pdf](#)

3.2 Queries and Complaints

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

[FTSE_Russell_Benchmark_Determination_Complaints-Handling_Policy.pdf \(ftserussell.com\)](#)

3.3 Index Policy for Trading Halts and Market Closures

Guidance for the treatment of index changes in the event of trading halts or market closures can be found using the following link:

[Index_Policy_for_Trading_Halts_and_Market_Closures.pdf](#)

3.4 Index Policy in the Event Clients are Unable to Trade a Market or a Security

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 Recalculation Policy and Guidelines

3.5.1 Where an inaccuracy is identified, FTSE Russell will follow the steps set out in the FTSE Russell Index Recalculation Guidelines when determining whether an index or index series should be recalculated and/or associated data products reissued. Users of the Custom FTSE All-World Climate Minimum Variance Index will be notified through appropriate media.

For further information, please refer to the FTSE Russell Recalculation Policy and Guidelines document, which is available on the FTSE Russell website using the link below:

[Recalculation_Policy_and_Guidelines_Equity_Indexes.pdf](#)

3.6 Recalculation Policy and Guidelines – ESG data and scores

Where an inaccuracy in an ESG data product is identified, FTSE Russell will follow the guidelines set out in this document when determining if an ESG data product should be recalculated.

[Recalculation Policy and Guidelines ESG Products.pdf](#)

3.7 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](#)

3.8 FTSE Russell Governance Framework

3.8.1 To oversee its indexes, 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

Eligible securities

4. Eligible securities

4.1 The Custom FTSE All-World Climate Minimum Variance Index will include constituents in the FTSE All-World Index and exclude companies in the exclusion lists (see appendix A).

4.2 **Multiple lines**

4.2.1 All lines of the same company that are eligible securities are eligible for inclusion in the index.

Section 5

Sustainable investment (SI) data inputs

5. Sustainable investment (SI) data inputs

5.1 SI data inputs

5.1.1 Further information on SI data provided by FTSE Russell and third parties used in this index (index series) can be found in the following guide:

[Guide to FTSE and Third Party Sustainable Investment Data used in FTSE Russell Indices](#)

The following sustainable investment datasets are used in the construction of the Custom FTSE All-World Climate Minimum Variance Index.

5.2 The Transition Pathway Initiative (TPI)

5.2.1 TPI assesses companies' progress on the transition to a low-carbon economy on two dimensions: management quality and carbon performance.

5.3 Product involvement data

5.3.1 Product and activity involvement data are collected from publicly available information by FTSE Russell analysts. Where data is not obtained by FTSE Russell analysts, external sources are used to supplement the data including from Sustainalytics.

5.3.2 All data undergo several layers of quality control including consistency checks over time, sector relative checks and knowledge checks. Where discrepancies are found, analysts refer to primary data sources.

5.3.3 Where possible, the definitions for the products and activities refer to international standards and agreements such as the Convention on Cluster Munitions, Ottawa Treaty and the Biological Weapons Convention.

5.3.4 Further information as to the definitions for product and activity screening can be found here: [FTSE Global Choice Screening Definitions](#)

5.4 Green Revenues⁵

5.4.1 Information on the FTSE Green Revenues dataset can be found here: [Green Revenues Data Model.pdf](#)

5.4.2 To construct the FTSE Green Revenues dataset, information is collected from publicly available reports by FTSE Russell analysts. Companies are also invited to provide more detailed information where the subsegmental revenue breakdown in their annual reports is not granular enough to facilitate the green revenues assessment.

5.4.3 To ensure data quality, new green revenues assessments are reviewed by senior analysts and automated checks are applied.

5.4.4 The FTSE Green Revenues data model does not currently utilise international standards in its construction but can be used to determine the degree to which companies are exposed to sustainable activities.

⁵ This index uses minimum disclosed green revenue data.

5.5 Carbon data

- 5.5.1 Operational carbon emissions and fossil fuel reserves data are subject to regular checks to identify discrepancies and ensure accuracy. These checks include trend analysis to assess data quality and detailed review of underlying data for significant changes in data values.
- 5.5.2 The carbon data does not currently utilise international standards in its construction.

5.6 Index back-histories

- 5.6.1 The annual fossil fuel reserves, operational carbon emissions and annual sales data prior to June 2017 are lagged by one year.
- 5.6.2 TPI data as of September 2018 is used in the index review process prior to 2018.

Section 6

Index construction

6. Index construction

6.1.1 The Custom FTSE All-World Climate Minimum Variance Index is constructed using optimisation as described in FTSE Global Minimum Variance Index Series with below parameters:

FTSE index	Upper stock limit	Diversification target	ICB group sector limit
Custom FTSE All-World Climate Minimum Variance Index	1.0%	1900	20%

The currency of the covariance matrix is USD.

6.1.2 In addition to constraints described in the FTSE Global Minimum Variance Index Series, the Custom FTSE All-World Climate Minimum Variance Index is subject to the climate constraints below using FTSE All-World Index as the underlying benchmark.

- Index fossil fuel reserve intensity is no more than 50% of the underlying benchmark's fossil fuel reserves intensity. Index fossil fuel reserve intensity is defined as the weighted average of company fossil fuel reserves.
- Index operational carbon emission intensity is no more than 50% of the underlying benchmark's operational carbon emission intensity. Index operational carbon emission intensity is defined as total scope 1 and 2 emissions divided by total revenue.
- Index weighted average operational carbon emission intensity is no more than 50% of the underlying benchmark's weighted average operational carbon emission intensity.
- The proportion of index Green Revenue is at least double the amount of the underlying benchmark. Index Green Revenue is defined as the weighted average of company Green Revenue ratios.

6.1.3 The definition of carbon reserve intensity and operational carbon emissions are detailed in FTSE Global Climate Index Series Ground Rules. Green Revenue is the ratio of revenues as classified by the FTSE Green Revenues Classification System to total revenue.

Section 7

Periodic review of constituents

7. Periodic review of constituents

7.1 Review dates

- 7.1.1 The Custom FTSE All-World Climate Minimum Variance Index will be reviewed semi-annually in March and September using fossil fuel reserve, operational carbon emission, Green Revenue and TPI data as of the last business day in February and August respectively.
- 7.1.2 Any changes to the status of excluded companies as defined in appendix A are applied using data as at the close of the last business day the month prior to review effective date, with the exception of the custom controversial weapons and cannabis list.
- 7.1.3 The custom controversial weapons and cannabis list will be applied using data sent by PPF by no later than the Monday after the first Friday of the review month.
- 7.1.4 Index reviews will use stock prices available as at the close of business on the Wednesday before the first Friday of the review month (price cut-off date) and use shares and free float adjustment as of effective date.
- 7.1.5 The review will be implemented after the close of business on the third Friday of the review month.

7.2 Review of exclusions lists

The exclusions lists will be reviewed as shown below:

Thermal coal	Semi-annual
Oil and gas	Semi-annual
Controversial weapons and cannabis	Quarterly

Section 8

Changes to constituent companies

8. Changes to constituent companies

8.1 Intra-review additions

8.1.1 The Custom FTSE All-World Climate Minimum Variance Index will not accept intra-review additions. Additions to the corresponding underlying index will be considered for inclusion at the next semi-annual review of the index.

8.2 Intra-review deletions

8.2.1 A constituent will be removed from a Custom FTSE All-World Climate Minimum Variance Index if it is also removed from its corresponding underlying index. The deletion will be concurrent with the deletion from the underlying index and its weight will be distributed pro-rata amongst the remaining constituents in their respective Custom FTSE All-World Climate Minimum Variance Index.

8.3 Intra-review changes to exclusion lists

8.3.1 A constituent will be removed from the Custom FTSE All-World Climate Minimum Variance Index if it is added to the corresponding exclusion lists detailed in appendix A. The deletion will be concurrent with its addition to the exclusion lists.

8.3.2 A stock that is removed from a relevant exclusion list detailed in appendix A will be considered for inclusion at the next periodic review.

Section 9

Corporate actions and events

9. Corporate actions and events

9.1 If a constituent in the underlying index has a stock split, stock consolidation, rights issue, bonus issue, a change in the number of shares in issue or a change in free float (with the exception of tender offers), the constituent's weighting in the Custom FTSE All-World Climate Minimum Variance Index will remain unchanged pre and post such an event.

9.2 Full details of changes to constituent companies due to corporate actions and events can be accessed in the Corporate Actions and Events Guide for Non Market Cap Weighted Indexes using the following link:

[Corporate Actions and Events Guide for Non Market Cap Weighted Indices.pdf](#)

A corporate action is an action on shareholders with a prescribed ex-date. The share price will be subject to an adjustment on the ex-date. The index will be adjusted in line with the ex-date.

These include the following:

- capital repayments;
- rights issues/entitlement offers;
- stock conversion;
- splits (sub-division)/reverse splits (consolidation); and
- scrip issues (capitalisation or bonus issue).

A corporate event is a reaction to company news (event) that may impact the index depending on the index rules. For example, a company announces a strategic shareholder is offering to sell their shares (secondary share offer) – this could result in a free float weighting change in the index. Where an index adjustment is required, FTSE Russell will provide notice advising of the timing of the change.

9.3 Suspension of dealing

Suspension of dealing rules can be found within the Corporate Actions and Events Guide for Non Market Cap Weighted Indexes.

9.4 Takeovers, mergers and demergers

The treatment of takeovers, mergers and demergers can be found within the Corporate Actions and Events Guide for Non Market Cap Weighted Indexes.

Section 10

Indexes algorithm and calculation method

10. Indexes algorithm and calculation method

10.1 Prices

10.1.1 The Custom FTSE All-World Climate Minimum Variance Index uses actual closing mid-market or last trade prices, where available, for securities with local market quotations. Further details can be accessed using the following link:

[Closing Prices Used For Index Calculation.pdf](#)

10.2 Calculation frequency

10.2.1 The Custom FTSE All-World Climate Minimum Variance Index will be calculated on an end-of-day basis and displayed to eight decimal points.

10.3 Index calculation

10.3.1 The Custom FTSE All-World Climate Minimum Variance Index is calculated using the algorithm described below:

$$\sum_{i=1}^N \frac{(p_i \times e_i \times s_i \times f_i \times c_i)}{d}$$

where:

- $i=1, 2, \dots, N$
- N is the number of securities in the index.
- p_i is the latest trade price of the component security (or the price at the close of the index on the previous day).
- e_i is the exchange rate required to convert the security's currency into the index's base currency.
- s_i is the number of shares in issue used by FTSE Russell for the security, as defined in these Ground Rules.
- f_i is the investability weighting factor to be applied to a security to allow amendments to its weighting, expressed as a number between 0 and 1, where 1 represents a 100% free float. This factor is published by FTSE Russell for each security in the underlying index.
- c_i is the weighting factor to be applied to a security to correctly weight that security in the index. This factor maps the investable market capitalisation of each stock to a notional market capitalisation for inclusion in the index.
- d is the divisor, a figure that represents the total issued share capital of the index at the base date. The divisor can be adjusted to allow changes in the issued share capital of individual securities to be made without distorting the index.

Appendix A

Exclusions

At each review, the Custom FTSE All-World Climate Minimum Variance Index will exclude companies from the underlying eligible universe of each index that meet the criteria in the table below. This data is provided by PPF as well as by the third-party data vendors Sustainalytics and TPI, and by FTSE Russell.

Exclusion categories	Involvement threshold for exclusions
Thermal coal	
Thermal coal extraction	Companies with 25% or more revenues from thermal coal extraction are excluded.
Companies generating electricity from thermal coal	Companies with 50% or more revenues from thermal coal power generation are excluded.
	Companies with 25% to 50% revenues and a TPI Management Quality score of less than three are excluded.
Oil and gas	
Oil and gas production	Companies with 50% or more revenues and a TPI Management Quality score of less than three are excluded.
Controversial weapons and cannabis	
Controversial weapons and cannabis	A custom list will be provided by PPF.

Appendix B

Further information

A Glossary of Terms used in FTSE Russell's Ground Rules documents can be found using the following link:

[Glossary – Sustainable Investment.pdf](#)

Further information on the Custom FTSE All-World Climate Minimum Variance Index is available from FTSE Russell.

For contact details, please visit the FTSE Russell website or contact FTSE Russell client services at info@ftserussell.com.

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

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