



FTSE Smart Sustainability Index Series

v2.0



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Section 1

Introduction

1.0 Introduction

- 1.1 This document sets out the Ground Rules for the construction and management of the FTSE Smart Sustainability Index Series. Copies of these Ground Rules are available from www.ftserussell.com.
- 1.2 The FTSE Smart Sustainability Index Series is designed to reflect the performance of stocks representing a specific set of factor characteristics, climate change considerations and or ESG practices.
- 1.3 The FTSE Smart Sustainability Index Series takes account of ESG and Sustainable Investment characteristics in the index design. Please see Section 5 for further details.
- 1.4 These Ground Rules should be read in conjunction with the:
- FTSE Global Factor Index Series Ground Rules
 - FTSE ESG Index Series Ground Rules
 - FTSE Global Climate Index Series Ground Rules
 - FTSE Green Revenues Index Series Ground Rules
 - FTSE Russell Corporate Actions and Events Guide for Non Market Cap Weighted Indexes
- which are available at www.ftserussell.com.
- 1.5 Price, Total Return and Net of Tax Indexes will be calculated on an end of day basis.
- 1.6 For the FTSE China Quality Dividend Sustainable Prosperity Index, a Net of Tax Index is also calculated in real time on an intra-second streaming basis.
- 1.7 For the FTSE Taiwan Target Exposure ESG Index, a Price Index is also calculated in real time (every 5 seconds).
- 1.8 The base currency of each benchmark is US Dollars except for the FTSE China Quality Dividend Sustainable Prosperity Index (HK Dollars) and the FTSE Taiwan Target Exposure ESG Index (New Taiwan Dollars). Index values may also be published in other currencies.
- 1.9 **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 MTSNext Limited), Mergent, Inc., FTSE Fixed Income LLC, The Yield Book Inc and Beyond Ratings.

- 1.9.1 FTSE Russell hereby notifies users of the index 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 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.
- 1.10 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, and/or
 - any errors or 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 errors or inaccuracies in the compilation of the index or any constituent data.



Section 2

Management Responsibilities

2.0 Management Responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index series.¹

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 reviews of the index series 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;
- disseminate the index series.

2.1.3 These Ground Rules set out the methodology and provide information about the publication of the FTSE Smart Sustainability 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. 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 Product Governance Board before approval is granted.

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).

2.2.2 As provided for in the Statement of Principles for FTSE Russell Equity Indexes, 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.



Section 3

FTSE Russell Index Policies

3.0 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 Corporate Actions and Events Guide

3.2 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](#)

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

3.3.1 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 the FTSE Russell Product Governance Board.

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

[Statement of Principles.pdf](#)

3.4 Queries and Complaints

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

[Benchmark Determination Complaints Handling Policy.pdf](#)

3.5 Index Policy for Trading Halts and Market Closures

3.5.1 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](#)

3.6 **Index Policy in the Event Clients are Unable to Trade a Market**

3.6.1 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.pdf](#)

3.7 **Recalculation Policy and Guidelines**

3.7.1 The FTSE Smart Sustainability Index Series is recalculated whenever errors or distortions occur that are deemed to be significant. Users of the FTSE Smart Sustainability Index Series are notified through appropriate media.

For further information refer to the FTSE Russell Recalculation Policy and Guidelines document which is available from the FTSE Russell website using the link below or by contacting info@ftserussell.com.

[Recalculation Policy and Guidelines Equity Indexes.pdf](#)

3.8 **Policy for Benchmark Methodology Changes**

3.8.1 Details of FTSE Russell's policy for making benchmark methodology changes can be accessed using the following link:

[Policy for Benchmark Methodology Changes.pdf](#)

1.1 **FTSE Russell Governance Framework**

1.1.1 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

4.0 Eligible Securities

4.1.1 The eligible securities of each FTSE Smart Sustainability Index are the constituents of the corresponding underlying universe.

4.1.2 Securities that are members of the applicable exclusion list are not eligible for membership of the relevant FTSE Smart Sustainability Index.

4.2 Multiple Lines

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

4.3 Underlying Indexes and Exclusions Lists

4.3.1 FTSE Smart Sustainability Indexes consist of constituents of the corresponding underlying index universe in the table below. A summary of exclusion categories is provided below, and a complete version of exclusion definitions can be found in Appendix B.

Index Name	Index Type	Underlying Universe	Exclusion List
FTSE All-World ex CW Climate Balanced Factor Index	Target Exposure	FTSE All-World Index	Controversial Weapons (see Rule 4.3.2) Thermal Coal (25%) (see Rule 4.3.4)
FTSE All-World ex CW Climate Balanced Factor (Mar) Index	Target Exposure	FTSE All-World Index	Controversial Weapons (see Rule 4.3.2) Thermal Coal (25%) (see Rule 4.3.4)
FTSE All-World ex CW Climate Balanced Factor (Sep) Index	Target Exposure	FTSE All-World Index	Controversial Weapons (see Rule 4.3.2) Thermal Coal (25%) (see Rule 4.3.4)
FTSE Developed ESG/2Val Factor Index	Fixed Tilt	FTSE Developed Index	Not Applicable
FTSE Developed Climate, Balanced Low Volatility Focused Factor Index	Fixed Tilt	FTSE Developed Index	Not Applicable
FTSE All-World Climate Balanced Comprehensive Factor Index	Fixed Tilt/Target Exposure	FTSE All-World Index	Not Applicable

Index Name	Index Type	Underlying Universe	Exclusion List
FTSE All-World ex CW ex FF Climate Balanced Factor Index	Fixed Tilt	FTSE All-World Index	Controversial Weapons (see Rule 4.3.2) Fossil Fuel
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index	Fixed Tilt	Russell 1000	Fossil Fuel Weapons Tobacco Controversies
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/Size/Val/ 5% Capped Factor Index	Fixed Tilt	Russell 1000	Fossil Fuel Weapons Tobacco Controversies
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index	Fixed Tilt	Russell 1000	Fossil Fuel Weapons Tobacco Controversies
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/2Qual/2Vol 5% Capped Factor Index	Fixed Tilt	Russell 1000	Fossil Fuel Weapons Tobacco Controversies
FTSE China Quality Dividend Sustainable Prosperity Index	Target Exposure	A Shares (with constant 25% inclusion factor), H Shares and Red Chips in the FTSE China Index	Not Applicable
FTSE Taiwan Target Exposure ESG Index	Target Exposure	FTSE Taiwan Index	Not Applicable
FTSE Developed Eurozone Low Carbon Comprehensive Equal Factor Risk Contribution Target Exposure Index	Target Exposure	FTSE Developed Eurozone	Not Applicable

- 4.3.2 The Controversial Weapons (CW) exclusion list includes companies that manufacture or provide specific parts for anti-personnel mines, cluster munitions, chemical and biological weapons. The Controversial Weapons exclusion list is reviewed semi-annually in March and September.
- 4.3.3 The Fossil Fuel, Weapons, Tobacco, and Controversies exclusion lists are reviewed quarterly in March, June, September, and December. Any changes to the exclusion lists are applied using data as at the close of business on the Monday 4 weeks prior to review effective date.
- 4.3.4 Thermal Coal (25%) exclusion list includes companies with 25% or more revenue from thermal coal extraction and/or electricity. The Thermal Coal (25%) exclusion list is reviewed quarterly in March, June, September, and December. Any changes to the exclusion lists are applied using data as at the close of business on the Monday 4 weeks prior to review effective date.



Section 5

Sustainable Investment Data Inputs

5.0 Sustainable Investment Data Inputs

The following Sustainable Investment datasets are used in the construction of the FTSE Smart Sustainability Index Series.

5.1 FTSE ESG Ratings

5.1.1 An introduction to the FTSE ESG Ratings can be found here: [FTSE ESG Ratings](#).

Further details on the use of FTSE Sustainable Investment data can be found in the following guide: [Guide to FTSE Sustainable Investment Data used in FTSE Russell Indexes.pdf](#)

5.2 Sustainable Investment Metrics

1.1.2 Please see the FTSE Russell [Sustainable Investment Metrics](#) website for the ratings, scores and values of the environmental, social and governance (ESG) factors for the benchmarks within this index family as stipulated by the annex to the Commission Delegated Regulation (EU)* supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

*regulation number to follow

5.3 Product activity screening for index exclusions

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 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.

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

5.4 **Green Revenues**

5.4.1 An introduction to the FTSE Green Revenues dataset can be found here: [Green Revenues Data Model](#)

5.4.2 Further details on the use of Green Revenues data can be found in the following guide:

[Guide to FTSE Sustainable Investment Data used in FTSE Russell Indexes.pdf](#)

5.5 **Carbon data**

5.5.1 Further details regarding the carbon emissions data used in the construction of this index can be found in the following guide:

[Guide to Third Party Sustainable Investment Data used in FTSE Russell Indexes.pdf](#)

5.5.2 Further details regarding the fossil fuel reserves data used in the construction of this index can be found in the following guide:

[Guide to FTSE Sustainable Investment Data used in FTSE Russell Indexes.pdf](#)

5.6 **The Transition Pathway Initiative (TPI)**

TPI assesses companies' progress on the transition to a low-carbon economy on two dimensions: Management Quality and Carbon Performance.

Further details on the use of TPI data can be found in the following guide:

[Guide to Third Party Sustainable Investment Data used in FTSE Russell Indexes.pdf](#)



Section 6

Periodic Review of Constituent Companies

6.0 Periodic Review of Constituent Companies

6.1 Review Dates

6.1.1 FTSE Smart Sustainability Indexes derived from FTSE underlying indexes will be reviewed in March and/or September. The Index review will be implemented after the close of business on the third Friday of the review month.

FTSE Smart Sustainability Indexes derived from Russell underlying indexes will be reviewed according to the Russell implementation dates in June or June and December.

FTSE Smart Sustainability Indexes	Index Type	Review Month
FTSE All-World ex CW Climate Balanced Factor Index*	Target Exposure	March and September
FTSE All-World ex CW Climate Balanced Factor (Mar) Index	Target Exposure	March
FTSE All-World ex CW Climate Balanced Factor (Sep) Index	Target Exposure	September
FTSE Developed ESG/2Val Factor Index	Fixed Tilt	March
FTSE Developed Climate Balanced Low Volatility Focused Factor Index	Fixed Tilt	September
FTSE All-World Climate Balanced Comprehensive Factor Index	Fixed Tilt/Target Exposure	March and September
FTSE All-World ex CW ex FF Climate Balanced Factor Index	Fixed Tilt	March and September
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index	Fixed Tilt	June
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/Size/Val/ 5% Capped Factor Index	Fixed Tilt	June and December
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index	Fixed Tilt	June

FTSE Smart Sustainability Indexes	Index Type	Review Month
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/2Qual/2Vol 5% Capped Factor Index	Fixed Tilt	June and December
FTSE China Quality Dividend Sustainable Prosperity Index	Target Exposure	March and September
FTSE Taiwan Target Exposure ESG Index	Target Exposure	March and September
FTSE Developed Eurozone Low Carbon Comprehensive Equal Factor Risk Contribution Target Exposure Index	Target Exposure	March and September

* Phased implementation - see (Rule 7.1).

6.1.2 For FTSE Smart Sustainability indexes derived from a Russell underlying index, the June index review will be implemented on the same date as the Russell annual reconstitution in June. For details of the implementation dates of Russell Index, please refer to the [Russell U.S. Equity Indexes Construction and Methodology](#).

6.2 Data Dates

- 6.2.1 Index reviews will use Factor, Green Revenue, Carbon and ESG characteristics data as at the last business day of the month prior to the review month (the data cut-off date).
- 6.2.2 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) with the exception of the Russell annual reconstitution in June, when stock prices available at the close of business on the Wednesday before the second Friday of the review month will be used.
- 6.2.3 Index reviews will incorporate constituent changes associated with index reviews of the underlying universe.



Section 7

Index Construction

7.0 Index Construction

7.1 FTSE All-World ex CW Climate Balanced Factor Index – Phased Rebalance

7.1.1 The FTSE All-World ex CW Climate Balanced Factor Index employs a phased rebalance and consists of a combination of two annually reviewed indexes - the FTSE All-World ex CW Climate Balanced Factor (Mar) Index and the FTSE All-World ex CW Climate Balanced Factor (Sep) Index. The two indexes do not employ a phased rebalance and are reviewed annually in March and September respectively, and a set of constituent review weights determined following Rules 7.2 to 7.6. The effective weight of each constituent in the FTSE All-World ex CW Climate Balanced Factor Index is calculated as an equal combination of both annually reviewed indexes:

$$w_{i,t}^* = 0.5 \times w_{i,t}^{Mar} + 0.5 \times w_{i,t}^{Sep}$$

Where:

$w_{i,t}^{Mar}$ is the weight of stock i in the FTSE All-World ex CW Climate Balanced Factor (Mar) Index.

$w_{i,t}^{Sep}$ is the weight of stock i in the FTSE All-World ex CW Climate Balanced Factor (Sep) Index.

$w_{i,t}^*$ is the effective weight of stock i in the FTSE All-World ex CW Climate Balanced Factor Index.

7.2 FTSE All-World ex CW ex FF Climate Balanced Factor Index

7.2.1 The FTSE All-World ex CW ex FF Climate Balanced Factor Index excludes companies in the Fossil Fuel exclusion list (see 4.3.2) from the FTSE All-World ex CW Climate Balanced Factor Index. The weights of the remaining constituents are normalised to sum to 1.

7.3 FTSE All-World Climate Balanced Comprehensive Factor Index

7.3.1 The FTSE All-World Climate Balanced Comprehensive Factor Index applies fixed tilts and target exposure sequentially. The target exposure weighting takes place after fixed tilt weighting.

7.4 Fixed Tilt Index Construction

7.4.1 The unconstrained periodic review weight of each constituent of the relevant Fixed Tilt Index without a Phased Rebalance is:

$$w_i = \frac{v_i}{\sum_j v_j}$$

where:

$$v_i = w_i' \times \prod_{j=1}^K F_{i,j} \times \prod_{j=1}^N A_{i,j}$$

and

- w_i' is the weight of stock i in the underlying universe
- N (K) are the number of Climate and or ESG (Factor) tilts respectively
- $F_{i,j}$ is the j^{th} Factor tilt applied to stock i . See Rule 7.4.2 for details
- $A_{i,j}$ is the j^{th} Climate and or ESG tilt applied to stock i . See Rules 7.4.3 and 7.4.4 for the details of possible tilts.

7.5 Factor, ESG, Climate and Green Revenue Tilts

7.5.1 The Table below summarises the alternative Factor and Sustainability tilts applied to each Fixed Tilt index:

Fixed Tilt Index	Factor Tilts					Sustainability Tilts			
	V	Q	S	M	LV	ESG Ratings	Fossil Fuel Reserves	Operational Emissions	Green Revenue
FTSE Developed ESG/2Val Factor Index	2	-	-	-	-	1	-	-	-
FTSE Developed Climate Balanced Low Volatility Focused Factor Index	1	1	0.25	-	2	-	1	1	1
FTSE All-World Climate Balanced Comprehensive Factor Index	1	1	0.25	1	1	-	1	1	1
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index	2	-	2	-	-	0.2	-	-	-
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/Size/Val/ 5% Capped Factor Index	1	-	1	2	-	0.2	-	-	-
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index	-	2	-	-	2	0.2	-	-	-
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/2Qual/2Vol 5% Capped Factor Index	-	2	-	2	2	0.2	-	-	-

Numbers denote the strength of the factor or sustainability tilt. The tilt strength follows the definition used in the FTSE Global Factor Index Series Ground Rules.

7.5.2 Factor tilts are defined through the application of factor S-scores. The definition of each factor and the calculation of S-scores can be found in the FTSE Global Factor Index Series Ground Rules.

7.5.3 ESG tilts are defined through the application of S-scores based on the overall ESG ratings of the constituents with regional industry neutral adjustments. The ESG tilt follows the definition and methodology as detailed in FTSE ESG Index Series Ground Rules.

7.5.4 Fossil Fuel Reserves tilts, Operational Emissions tilts and Green Revenue tilts are based on the company fossil fuel reserve, operational carbon emission and the FTSE Green Revenues Factor respectively. These tilts follow the definitions and methodologies as detailed in FTSE Global Climate Index Series Ground Rules and the FTSE Green Revenues Index Series Ground Rules.

7.6 Narrowing

7.6.1 The FTSE Developed Climate Balanced Low Volatility Focused Factor Index is narrowed with respect to the product of the factor S-scores and the Climate and Green Revenue tilts:

$$P_i = \prod_{j=1}^K F_{i,j} \times \prod_{j=1}^N A_{i,j}$$

The Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index and the Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index are narrowed.

The narrowing methodology is detailed in the FTSE Global Factor Index Series Ground Rules.

7.7 Capacity, Constraints and Minimum Stock Weights

The maximum stock level capacity ratio and country and industry constraints are applied to the index without narrowing as detailed in the FTSE Global Factor Index Series Ground Rules, with the exception of the FTSE Developed Climate, Balanced Low Volatility Focused Factor Index where constraints are applied to the narrowed index.

The table below shows the minimum stock weight thresholds that are applied to the final indexes. Any stock weight that is less than the minimum weight threshold is treated as having a zero weight in the relevant index. Any resulting excess weight will be redistributed amongst the remaining constituents proportional to their index weights.

Smart Sustainability Index	Minimum Weight
FTSE Developed ESG/2Val Factor Index	2bps
FTSE Developed Climate Balanced Low Volatility Focused Factor Index	0.5bps
FTSE All-World Climate Balanced Comprehensive Factor Index	0bps
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index	2bps
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/Size/Val/ 5% Capped Factor Index	2bps
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index	2bps
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/2Qual/2Vol 5% Capped Factor Index	2bps

7.8 Capping

7.8.1 The following maximum stock (company level) weights are applied to each index in table below. Company level capping is applied at the reviews of each index as specified in Rule 6.1.1 using stock prices available at the price cut off date as specified in Rule 6.2.2.

Maximum Stock Weights

Factor Indexes	Maximum Weight
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Size/2Val 5% Capped Factor Index	5%
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/Size/Val/ 5% Capped Factor Index	5%
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Qual/2Vol 5% Capped Factor Index	5%
Russell 1000 ex Fossil Fuels ex Weapons ex Tobacco ex Controversies ESG 2Mom/2Qual/2Vol 5% Capped Factor Index	5%

7.9 Target Exposure Index Construction

7.9.1 The detailed construction methodology for Target Exposure indexes is set out in the FTSE Global Factor Index Series Ground Rules.

7.9.2 The weight of each Target Exposure index satisfies:

$$w_i = \frac{v_i}{\sum_j v_j}$$

where:

$$v_i = w'_i \times \prod_{j=1}^K F'_{i,j} \times \prod_{j=1}^N A'_{i,j} \times C_i \times I_i \times \Phi_i \times \Psi_i$$

and

- w'_i is the weight of stock i in the underlying universe which is market capitalization weighted for all indexes except for the FTSE All-World Climate Balanced Comprehensive Factor Index which uses the weights achieved in 7.6.
- N (K) are the number of Climate and or ESG (Factor) tilts respectively
- $F'_{i,j}$ is the j^{th} Factor tilt applied to stock i . See Rule 7.8.3 for details
- $A'_{i,j}$ is the j^{th} Climate and or ESG tilt applied to stock i . See Rules 7.8.4 -7.8.7 for the details of possible tilts.
- C_i and I_i are country and industry tilts applied to stock i respectively
- Φ_i is the maximum stock capacity/maximum weight tilt applied to stock i
- Ψ_i is the maximum turnover tilt applied to stock i

7.9.3 Factor tilts are defined through the application of exponential function on factor Z-scores. The definition of each factor and the calculation of Z-scores can be found in the FTSE Global Factor Index Series Ground Rules.

7.9.4 ESG tilts are defined through the application of exponential function on ESG Z-scores based on the overall ESG ratings of the constituents. The creation of Z-scores follows the process described in the FTSE Global Factor Index Series Ground Rules.

7.9.5 Fossil Fuel Reserves tilts and Operational Emissions tilts are defined through the application of exponential function on Z-scores of Carbon Reserve Intensity and Operational Carbon Emissions respectively. The definition of Carbon Reserve Intensity and Operational Carbon Emissions can be found in the FTSE Global Climate Index Series Ground Rules. The creation of Z-scores follows the process described in the FTSE Global Factor Index Series Ground Rules.

7.9.6 Indexes employ TPI targets use TPI Carbon Performance score as a tilt. They also use TPI Carbon Performance adjusted emission Z-scores in their operational emission tilt. Company's operational emission is adjusted by a multiplier based on the company's TPI Carbon Performance Category.

TPI Carbon Performance Category	Emission Multiplier	Carbon Performance Score
1.5 degree aligned or better	0.1	2
2 degree aligned	0.4	1.5
Other alignment	1	0.8
Not aligned	1.5	0
Not assessed	1	1

The Carbon Performance score of 'not aligned' is set to 1 if a separate target is set for the not aligned emission reduction.

7.9.7 Green Revenues tilts are defined through the application of exponential function on Z-scores of Green Revenues Ratios. The definition of Green Revenues Ratio can be found in the FTSE Green Revenues Index Series Ground Rules. The creation of Z-scores follows the process described in the FTSE Global Factor Index Series Ground Rules.

7.9.8 Dividend Yield tilts are defined through the application of exponential function on yield factor Z-scores. The definition of each factor and the calculation of Z-scores can be found in the FTSE Global Factor Index Series Ground Rules.

7.9.9 The active non-factor exposure target is given by:

$$\sum_i (w_i - w'_i) \times T_i = \alpha \times \sum_i w'_i T_i$$

where α is the fixed percentage increase or reduction and T_i is the original measure of the non-factor exposure target, e.g. green revenue ratio, trailing 12-month dividend yield, etc.

7.9.10 The tilts are chosen so that all targets and constraints are satisfied simultaneously. The relaxation rules should such a solution be infeasible are set out in FTSE Global Factor Index Series Ground Rules.

7.9.11 The following two tables below summarise the factor exposure and sustainability targets applied to each Smart Sustainability Target Exposure index.

Index	Active Factor Exposure Targets						Active non-Factor Exposure Targets				
	V	Q	S	M	LV	Y	ESG Ratings Increase	Fossil Fuel Reserves Reduction	Operational Emissions Reduction	Green Revenue Ratio Increase	Dividend Yield Increase
FTSE China Quality Dividend Sustainable Prosperity Index	0	0.5σ	0	0	0.5σ	0.5σ	-	-	-	100%	-
FTSE Taiwan Target Exposure ESG Index	0	0	0	0	0	-	20%	-	-	-	20%
FTSE All-World ex CW Climate Balanced Factor (Mar) Index	0.4σ	0.4σ	0.4σ	0	0.4σ	-	-	≥50%	≥30%	≥100%	-
FTSE All-World ex CW Climate Balanced Factor (Sep) Index	0.4σ	0.4σ	0.4σ	0	0.4σ	-	-	≥50%	≥30%	≥100%	-
FTSE All-World Climate Balanced Comprehensive Factor Index	-	-	-	-	-	-	-	70%	60%	70%	-
FTSE Developed Eurozone Low Carbon Comprehensive Equal Factor Risk Contribution Target Exposure Index	ERC Allocation					-	-	30%	30%	-	-

Active non-Factor Exposure Targets or Tilts: continued			
Index	TPI Management Quality improvement	TPI Carbon Performance: Tilt	TPI Carbon Performance: Not Aligned Emissions Reduction
FTSE China Quality Dividend Sustainable Prosperity Index	-	-	-
FTSE Taiwan Target Exposure ESG Index	-	-	-
FTSE All-World ex CW Climate Balanced Factor (Mar) Index	0.5	1-tilt	≥50%
FTSE All-World ex CW Climate Balanced Factor (Sep) Index	0.5	1-tilt	≥50%
FTSE All-World Climate Balanced Comprehensive Factor Index	-	-	-
FTSE Developed Eurozone Low Carbon Comprehensive Equal Factor Risk Contribution Target Exposure Index	-	-	-

Notes:

σ is the market capitalization weighted standard deviation of factor Z-scores.

ERC Allocation targeting 2.5%p.a. tracking error. See FTSE Global Factor Index Series Ground Rules for details.

TPI Management Quality improvement is measured in units of standard deviation

7.9.12 The table below summaries the constraints applied to each Smart Sustainability Target Exposure index.

Index	Constraints					
	Beta Banding	Country	Industry	Max 2-Way T/O (%) [*]	Max Stock Weight (%)	Min Stock Weight (b.p.)
FTSE China Quality Dividend Sustainable Prosperity Index	0.7 - 1.3	-	Banded	25	5	2
FTSE Taiwan Target Exposure ESG Index ^{^#}	0.7 - 1.3	-	Banded	40	30	2
FTSE All-World ex CW Climate Balanced Factor (Mar) Index	0.7 - 1.3	+/-3%	+/-3%	-	5	0.5
FTSE All-World ex CW Climate Balanced Factor (Sep) Index	0.7 - 1.3	+/-3%	+/-3%	-	5	0.5
FTSE All-World Climate Balanced Comprehensive Factor Index	-	Banded	Banded	-	-	2
FTSE Developed Eurozone Low Carbon Comprehensive Equal Factor Risk Contribution Target Exposure Index	0.7 - 1.3	Banded	Banded	-	5	0.5

Notes:

Banded – See FTSE Global Factor Index Series Ground Rules for details.

* Per review.

[^] Company level capping of 30% is applied to the underlying index at review.

[#] In addition to the company level weight constraint, additional capping is applied to the final index such that the aggregate provisional index weight of the five largest companies does not exceed 60%.

7.10 Index Back-Histories

7.10.1 The annual Fossil Fuel Reserves, Operational Carbon Emissions and annual sales data prior to September 2016 are lagged by one year.

7.10.2 The availability of factor data prior to August 2014 is simulated through the application of a six month lag on fundamental data. All index reviews prior to this date that utilise fundamental data incorporate a lag of six months.

7.10.3 For the FTSE China Quality Dividend Sustainable Prosperity Index, the A Shares in the underlying universe consisted of constituents of the FTSE China A Stock Connect CNY Index (with constant 25% inclusion factor) prior to March 2020 review.



Section 8

Changes to Constituent Companies

8.0 Changes to Constituent Companies

8.1 Intra-review Additions

8.1.1 Additions into the FTSE Smart Sustainability Indexes will be considered for inclusion at the next periodic review.

8.2 Intra-review Deletions

8.2.1 A constituent will be removed from the FTSE Smart Sustainability Indexes if it is also removed from the relevant underlying index. The deletion will be concurrent with its deletion from the underlying index and its weight will be distributed pro-rata amongst the remaining constituents in the corresponding FTSE Smart Sustainability Index.

8.2.2 A constituent will be removed from the FTSE Smart Sustainability Indexes if it is added to the relevant exclusion list. The deletion will be concurrent with its addition to the exclusion list.

Section 9

Corporate Actions and Events

9.0 Corporate Actions and Events

- 9.1 If a constituent 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, the constituent's weighting in the relevant FTSE Smart Sustainability Index remains 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 Indexes.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. These include the following:

- Capital Repayments
- Rights Issues/Entitlement Offers
- Stock Conversion
- Splits (sub-division) / Reverse splits (consolidation)
- 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 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

Treatment of Dividends

10.0 Treatment of Dividends

- 10.1 Declared dividends are used to calculate the FTSE Smart Sustainability Index Series. All dividends are applied as at the ex-div date.
- 10.2 For the FTSE China Quality Dividend Sustainable Prosperity Index, a net of tax total return index is calculated based on the maximum withholding tax rates applicable to dividends received by international investors who are not resident in the same country as the remitting company and who do not benefit from double taxation treaties. For each of the rest Smart Sustainability Indexes, a net of tax total return index is calculated based on dividends received following deduction of withholding tax at the rates applicable to a UK pension fund that benefits from double-taxation treaties.

Withholding tax rates used in the net-of-tax indexes can be accessed using the following link:

[Withholding Tax Service](#)

Please also refer to the FTSE Russell Withholding Tax Guide which can be accessed using the following link:

[FTSE_Russell_Withholding_Tax_Guide.pdf](#)



Section 11

Indexes Algorithm and Calculation Method

11.0 Index Algorithm and Calculation Method

11.1 Prices

11.1.1 The FTSE Smart Sustainability Index Series 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](#)

11.2 Calculation Frequency

11.2.1 The FTSE Smart Sustainability Index Series will be calculated on an end of day basis and displayed to eight decimal points.

11.2.2 For the FTSE China Quality Dividend Sustainable Prosperity Index, a Net of Tax Index is also calculated in real time on an intra-second streaming basis.

11.2.3 For the FTSE Taiwan Target Exposure ESG Index, a Price Index is also calculated in real time (every 5 seconds).

11.3 Exchange Rates

11.3.1 The foreign exchange rates used in the intra-day calculation of the FTSE China Quality Dividend Sustainable Prosperity Index are Reuter's real time spot rates. The real time foreign exchange rates are used throughout the period of calculation (see Appendix A). Therefore foreign exchange rate movements are taken into account in the index calculation for each constituent even though the underlying market for that constituent may be closed.

11.3.2 The foreign exchange rates received from Reuters at the closing time of the FTSE China Quality Dividend Sustainable Prosperity Index (see Appendix A) are used to calculate the end of day index values.

11.3.3 The foreign exchange rates received from Reuters at the closing time of the FTSE Taiwan Target Exposure ESG index (see Appendix A) are used to calculate the end of day index values.

11.3.4 For FTSE Smart Sustainability Indexes other than the FTSE China Quality Dividend Sustainable Prosperity Index and the FTSE Taiwan Target Exposure ESG Index, the WM/Reuters Closing Spot Rates™ collected at 16:00 London time, are used to calculate the end of day index values.

11.4 Index Calculation

The FTSE Smart Sustainability Index Series are 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 Weight Adjustment Factor (WAF) 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: Index Opening and Closing Hours

Index	Open	Close
FTSE China Quality Dividend Sustainable Prosperity Index	01:30	08:00
FTSE Taiwan Target Exposure ESG Index	01:00	05:35

All times are GMT hours

The FTSE China Quality Dividend Sustainable Prosperity Index is calculated whenever at least one exchange is trading. The Index will not be calculated on 1 January.



Appendix B: Exclusion Definitions

Category	Definition
Tobacco	<p>Companies that produce tobacco products.</p> <p>This includes:</p> <ul style="list-style-type: none"> all companies that are classified in the Industry Classification Benchmark (ICB) Subsectors Tobacco (3785) (New ICB Tobacco Subsector 45103010 and Cannabis Producers 20103020)⁵ companies that are not classified in ICB Subsector Tobacco (3785) (New ICB Subsector Tobacco 45103010 and Cannabis Producers 20103020), but that are identified as having activity in this Subsector
Fossil Fuels	
Fossil Fuel Reserves - Coal, Oil & Gas	Companies that own proved or probable reserves in coal, oil or gas.
Oil and Gas - Production, supporting products and services	<p>Any company owning oil or gas reserves, and any company with primary business activity in</p> <ul style="list-style-type: none"> the exploration for and drilling, production, refining and supply of oil and gas products (as defined by the ICB subsector 0533 Exploration & Production) (New ICB Subsector Oil: Crude Producers 60101010 and Oil Refining and Marketing 60102020) the supply of equipment and services to oil fields and offshore platforms, such as drilling, exploration, seismic-information services and platform construction (ICB subsector 0573 Oil Equipment & Services) (New ICB Subsector 60101030 and Offshore Drilling and Other Services 60101015) the operations of pipelines carrying oil, gas or other forms of fuel (ICB subsector 0577 Pipelines; note that this excludes pipeline operators that derive the majority of their revenues from direct sales to end users) (New ICB Subsector 60101035) integrated oil and gas companies, providing a combination of the services listed above, including refining and marketing of oil and gas products (ICB subsector 0537 Integrated Oil & Gas) (New ICB Subsector 60101000)
Coal - Production, supporting products and services	Any company owning coal reserves, and any company with primary business activity in the exploration for or mining of coal (as defined by the ICB subsector 1771 Coal). (New ICB Subsector 60101040)
Weapons	
Chemical & Biological Weapons	Companies that produce chemical or biological weapons, or that produce specific and critical parts or services for chemical or biological weapons.
Cluster Munitions	Companies that produce cluster munitions as defined in the Convention on Cluster Munitions, or that produce specific and critical parts or services for cluster munitions.
Anti-Personnel Landmines	Companies that produce anti-personnel mines as defined in the "1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction", or that produce specific and critical parts or services for anti-personnel mines.
Nuclear Weapons	Companies that produce nuclear weapons systems, or that produce specific and critical parts or services for nuclear weapons systems.

⁵ FTSE indexes will migrate to the new ICB classification system in March 2021



Conventional Military Weapons	<p>Companies that produce other weapons for military use.</p> <p>This includes:</p> <ul style="list-style-type: none"> • munitions • vehicles designed to carry military weapons (mounted or demountable) • weapons delivery systems; including mounting and launching systems as well as targeting and guidance systems
Firearms	<p>Companies that produce firearms or ammunition for non-military use.</p> <p>This includes:</p> <ul style="list-style-type: none"> • handguns • shotguns • rifles • semi-automatic weapons
Chemical & Biological Weapons	<p>Companies that produce chemical or biological weapons, or that produce specific and critical parts or services for chemical or biological weapons.</p>
Controversies	
Anti-Corruption	<p>Controversies related to Principle 10 of the UN Global Compact, which is derived from the United Nations Convention Against Corruption.</p> <p>Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.</p>
Environment	<p>Controversies related to Principles 7, 8, and 9 of the UN Global Compact, which is derived from the Rio Declaration on Environment and Development.</p> <p>Principle 7: Businesses should support a precautionary approach to environmental challenges; Principle 8: undertake initiatives to promote greater environmental responsibility; and Principle 9: encourage the development and diffusion of environmentally friendly technologies.</p>
Human Rights	<p>Controversies related to Principles 1 and 2 of the UN Global Compact, which is derived from the Universal Declaration of Human Rights.</p> <p>Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: make sure that they are not complicit in human rights abuses.</p>
Labor	<p>Controversies related to Principles 3, 4, 5, and 6 of the UN Global Compact, which is derived from the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work.</p> <p>Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; Principle 4: the elimination of all forms of forced and compulsory labour; Principle 5: the effective abolition of child labour; and Principle 6: the elimination of discrimination in respect of employment and occupation.</p>



Appendix C: Further Information

A Glossary of Terms used in FTSE Russell's Ground Rule documents can be found using the following link [Glossary.pdf](#)

The FTSE Russell Sustainable Investment Metrics website can be found using the following link: [Sustainable Investment Metrics](#)

For further information on the FTSE Smart Sustainability Index Series visit www.ftserussell.com or e-mail info@ftserussell.com. Contact details can also be found on this website.

Website: www.ftserussell.com

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