

Ground Rules



FTSE ESG Index Series

v2.0



Contents

1.0	Introduction.....	3
2.0	Management Responsibilities.....	5
3.0	FTSE Russell Index Policies	6
4.0	Eligible Securities	8
5.0	Index Construction	11
6.0	Periodic Review of Constituents	17
7.0	Changes to Constituent Companies	18
8.0	Corporate Actions and Events.....	19
9.0	Indexes Algorithm and Calculation Method	20
	Appendix A: Further Information	22



Section 1

Introduction

1.0 Introduction

- 1.1 This document sets out the Ground Rules for the construction and management of the FTSE ESG Index Series. Copies of the Ground Rules are available from www.ftserussell.com.
- 1.2 The FTSE ESG Index Series is designed to reflect the performance of stocks representing a specific set of ESG characteristics.

These Ground Rules should be read in conjunction with the FTSE Global Equity Index Series Ground Rules, the Corporate Actions and Events Guide for Non Market Capitalisation Weighted Indexes, the Russell U.S. Equity Indexes Construction and Methodology, the FTSE UK Index Series Ground Rules, the FTSE Global Factor Index Series Ground Rules, the FTSE4Good Index Series Ground Rules, FTSE Global Climate Index Series Ground Rules and FTSE Green Revenues Index Series Ground Rules

which are available at www.ftserussell.com.

- 1.3 Price and Total Return Indexes will be calculated on an end of day basis.

Total return indexes include income based on ex dividend adjustments. All dividends are applied as declared in the FTSE Total Return Index.

1.4 FTSE Russell

FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and MTSNext Limited), Mergent, Inc., FTSE Fixed Income LLC, The Yield Book Inc and Beyond Ratings.

1.5 **Statement of Principles for FTSE Russell Non Market Capitalisation Weighted 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 Governance Board.

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

[Statement of Principles Non-Market Cap Equity Indexes.pdf](#)

- 1.6 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.
- 1.7 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, 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 series 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 periodic index 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 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 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).



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 Queries and Complaints

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

http://www.ftse.com/products/downloads/Queries_and_Complaints_Policy.pdf

3.2 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](#)

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

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](#)

3.4 Recalculation Policy and Guidelines

3.4.1 The FTSE ESG Index is recalculated whenever errors or distortions occur that are deemed to be significant. Users of the FTSE ESG Index are 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](#)

3.5 Recalculation Policy and Guidelines – ESG Data and Ratings

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](#)

3.6 **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](#)

3.7 **FTSE Russell Governance Framework**

3.7.1 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 ensure compliance with the IOSCO Principles for Financial Benchmarks² and the European benchmark regulation³. 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



Section 4

Eligible Securities

4.0 Eligible Securities

4.1.1 Constituent securities of the underlying eligible universe as outlined in rule 4.3 are eligible for inclusion in the FTSE ESG Index Series.

4.2 Multiple Lines

4.2.1 All lines of the same company that are eligible securities are eligible for inclusion in the relevant FTSE ESG Index.

4.3 FTSE ESG, SDG-Aligned and Target Exposure Indexes

The FTSE ESG Index Series consists of the following ESG, SDG-Aligned and Target Exposure indexes. The base currency for all indexes is USD.

Table 1: FTSE ESG Indexes

FTSE ESG Index	Eligible Universe	Maintenance Universe
FTSE Developed ESG Index	FTSE Developed Index	FTSE Developed All Cap Index
FTSE Emerging ESG Index ⁴	FTSE Emerging Index	FTSE Emerging All Cap Index
Russell 1000 ESG Index	Russell 1000 Index	Russell 3000 Index
FTSE All-Share ESG Index	FTSE All-Share ex Investment Trusts Index	FTSE All-Share ex Investment Trusts Index
FTSE Developed SDG-Aligned Index	FTSE Developed Index ex Controversial Weapons and ex UN Controversies	FTSE Developed All Cap Index
FTSE Indonesia ESG Index	FTSE Indonesia Index	FTSE Indonesia All Cap Index
FTSE Developed Europe ESG Low Carbon Emissions Target Exposure Index	FTSE Developed Europe	N/A
FTSE Developed Europe ex UK ESG Low Carbon Emissions Target Exposure Index	FTSE Developed Europe ex UK	N/A
FTSE Asia ex Japan ESG Low Carbon Emissions Target Exposure Index	FTSE Asia ex Japan	N/A
FTSE Japan ESG Low Carbon Emissions Target Exposure Index	FTSE Japan	N/A
FTSE UK ESG Low Carbon Emissions Target Exposure Index	FTSE UK	N/A
FTSE USA ESG Low Carbon Emissions Target Exposure Index	FTSE USA	N/A
FTSE Developed ESG Low Carbon Emissions Target Exposure Index	FTSE Developed	N/A
FTSE Emerging ESG Low Carbon Emissions Target Exposure Index	FTSE Emerging	N/A

The maintenance universe is used to manage intra-review deletions. Additional information on the role of the maintenance universe is provided in Section 7.

- 4.3.1 The Controversial Weapons (CW) exclusions list includes companies that manufacture or provide specific parts for anti-personnel mines, cluster munitions, chemical and biological weapons. The controversial weapon (CW) exclusions will be reviewed semi-annually in March and September.

⁴ Saudi Arabia was assigned Secondary Emerging market status in March 2019. Securities will be eligible for inclusion in the FTSE ESG Index Series from March 2020.

China A Shares (available under the Northbound China Stock Connect Scheme) were assigned Secondary Emerging market status beginning in June 2019. Securities will be eligible for inclusion in the FTSE ESG Index Series from March 2020.

4.3.2 The UN Controversies exclusion list includes companies that potentially breach the United Nations Global Compact (UNGC) principles. The principles are classified into four categories; Human Rights, Labour, Environment and Anti-corruption. FTSE Russell conducts its own research in addition to using third party data including media and press, NGO sources, company reports, and regulatory filings. The UN Controversies exclusions will be reviewed quarterly in March, June, September and December.

Section 5

Index Construction

5.0 Index Construction

5.1 ESG Scores and SDG-Aligned ESG Scores

- 5.1.1 The ESG Scores are derived from the FTSE ESG ratings as detailed in the FTSE4Good Index Series Ground Rules. The data cut-off date for the availability of ESG scores is the close of business on the last business day of the month prior to the review month.
- 5.1.2 The ESG Scores are used in the construction of the FTSE ESG Indexes.
- 5.1.3 The SDG-Aligned ESG Scores are used for the SDG-Aligned Indexes.
- 5.1.4 The SDG-Aligned ESG Score is calculated as the exposure weighted average Theme Score:

$$F_i = \frac{\sum_j Exp_{i,j} * Theme_{i,j}}{\sum_j Exp_{i,j}} \quad (1)$$

where F_i is SDG-Aligned ESG Score and $Exp_{i,j}$ and $Theme_{i,j}$ are the Theme Exposure and ESG Theme score of the i^{th} stock and j^{th} theme respectively. The applicable individual ESG themes are shown in Table 2. The Theme Score measures the quality of a company's management of the issues related to each Theme; Theme Exposure measures the relevance of each Theme.

5.1.5 The SDG-Aligned ESG themes are drawn from the FTSE Russell ESG data models included in Table 2.

Table 2: SDG Matrix

		Decent Work & Economic Growth	Responsible Consumption & Production	Climate Action	Peace, Justice & Strong Institutions
Environmental	Biodiversity		✓		
	Climate Change			✓	
	Pollution & Resource		✓		
	Supply Chain (Environmental)		✓		
	Water Use				
Social	Customer Responsibility				
	Health & Safety				
	Human Rights & Community				✓
	Labor Standards	✓			
	Supply Chain (Social)	✓			
Governance	Anti-Corruption				✓
	Corporate Governance				
	Risk Management				
	Tax Responsibility				

5.1.6 ESG Scores and SDG-Aligned ESG Scores are normalised cross-sectionally to create Z-Scores within each eligible universe according to:

$$Z_i = (F_i - \mu) / \sigma \quad (2)$$

where F_i is ESG Score or SDG-Aligned ESG Score of the i^{th} stock and μ and σ are the cross-sectional mean and standard deviation respectively. Z-Scores that are greater (less) than three (minus three) are truncated to a value of three (minus three). Post-truncation, individual Z-Scores are renormalized by the re-application of equation (2). All Z-Scores, including truncated ones are included in this re-application. This process is repeated until all Z-Scores lie in a range between plus and minus three. Stocks with missing ESG ratings are allocated a neutral Z-Score of zero after the application of the normalisation procedure detailed in Rule 5.1.6.

5.2 Fixed Tilt ESG Index Construction

5.2.1 Normalised ESG and SDG-Aligned Z-Scores are mapped to a score S_i^{ESG} or $S_i^{SDG} \in [0,1]$, using the cumulative normal distribution with mean zero and standard deviation one. The creation of S-scores follows the process described in FTSE Global Factor Index Series Ground Rules.

5.2.2 A set of FTSE ESG or SDG-Aligned Index weights, w_i , are calculated for each index:

$$w_i = \frac{v_i}{\sum_j v_j} \quad (3)$$

where:

$$v_i = w_i' \times A_i^{ESG} \times A_i^{Climate} \times A_i^{GreenRev} \quad (4)$$

and

- w_i' is the market capitalisation weight of stock i in the eligible universe
- A_i^{ESG} is the ESG or SDG-Aligned regional industry adjustment of stock i (see Rules 5.2.3-5.2.5)
- $A_i^{Climate}$ is the Climate adjustment for stock i (see Rule 5.3.2)
- $A_i^{GreenRev}$ is the Green Revenue adjustment (see Rule 5.3.2)

5.2.3 The ESG or SDG-Aligned regional industry neutral adjustment for stock i is defined as:

$$A_i^{ESG} = (S_i^{ESG})^T \times \frac{w_k'}{w_k} \quad (5)$$

where T is detailed in Table 3 (Rule 5.3.1), k is the ICB⁵ regional industry of stock i , w_k' is the free float adjusted market capitalization regional industry weight of the eligible universe and w_k is the regional industry weight determined by applying a tilt using the S-score (S_i^{ESG} or S_i^{SDG})^T to the free float adjusted market capitalization stock weights of the eligible universe.

5.2.4 The FTSE Developed ESG and FTSE Developed SDG-Aligned Indexes split the eligible universe into the following regions: North America, Developed Europe, Japan and Developed Asia-Pacific ex Japan.

5.2.5 The FTSE Emerging ESG Index splits the eligible universe into the following regions: Europe, Asia Pacific ex China & India, China, India, Latin America and Middle East & African regions.

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

5.3 ESG, Climate and Green Revenue Tilts

5.3.1 The table below summarizes the ESG, Climate and Green Revenue tilts applied to each index:

Table 3: Applicable Tilts

FTSE ESG and SDG-Aligned Indexes	ESG Tilt	Fossil Fuel Reserve Tilt	Operational Emissions Tilt	Green Revenue Tilt
FTSE Developed ESG Index	1			
FTSE Emerging ESG Index	1			
Russell 1000 ESG Index	1			
FTSE All-Share ESG Index	1			
FTSE Developed SDG-Aligned Index	2	0.5	0.5	0.5
FTSE Indonesia ESG Index	1			

5.3.2 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 ratio 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. Fossil Fuel Reserves Tilt follows Reserves Rule 2 detailed in the FTSE Global Climate Index Series Ground Rules.

5.4 Maximum Stock Level Capacity Ratio

5.4.1 A maximum stock level capacity ratio of 5x is applied to the FTSE ESG Indexes and 20x to the FTSE Developed SDG-Aligned Index. Any stock level capacity ratio that is greater than the max stock level capacity ratio will be set to max capacity ratio. The resulting excess weight will be redistributed pro rata amongst the remaining constituents. Stock level capacity ratios are recalculated and those over the max capacity ratio are set to the max capacity ratio. This process repeats iteratively until all stocks have a capacity ratio less than or equal to max capacity ratio

5.4.2 The capacity ratio of stock i is defined as $CR_i = w_i/w'_i$ where w_i and w'_i are the FTSE ESG Index or FTSE Developed SDG-Aligned Index weights and the free float market capitalization weights of the underlying eligible universe.

5.5 Minimum Stock Weight

5.5.1 A minimum security level weight of 2 basis points is applied to the FTSE ESG Indexes and 0.5 basis points for the FTSE SDG-Aligned Indexes. Any security level index weight that is less than the minimum weight threshold is treated as having a zero weight in the relevant FTSE ESG or SDG-Aligned Index.

5.6 Target Exposure Index Construction

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

5.6.2 The weights of each Target Exposure index satisfy:

$$W_{Fi} = \frac{S_{ESG,i}^n \times S_{Em,i}^p \times C_i \times I_i \times \Phi_i \times W_{Mi}}{\sum_j S_{ESG,j}^n \times S_{Em,j}^p \times C_j \times I_j \times \Phi_j \times W_{Mj}} \quad (6)$$

where $S_{ESG,i}^n$ and $S_{Em,i}^p$ are ESG and Emissions tilts of strengths n and p respectively, C_i and I_i are country and industry tilts, Φ_i is a max capacity/max company weight tilt and W_{Mi} are the free-float adjusted market capitalization weights.

5.6.3 The ESG and Carbon Emissions targets are given by:

$$\sum_i W_{Fi} E_i = 1.2 * \sum_i W_{Mi} E_i \quad \text{and} \quad \sum_i W_{Fi} OE_i = 0.5 * \sum_i W_{Mi} OE_i \quad (7)$$

where E_i is the ESG rating and OE_i are the Operational Carbon Emissions.

5.6.4 Country and Industry tilts are chosen so that the resultant ICB country and industry weightings are equal to those of the underlying market capitalization weighted index.

5.6.5 Max capacity/max company weight tilt is chosen so that:

$$\frac{W_{Fi}}{W_{Mi}} \leq 20 \quad \text{for all } i \quad (8)$$

and the maximum weight of a company is less than or equal to 10%.

5.6.6 The tilts in equation (6) 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.

5.6.7 A minimum security level weight threshold is applied to each final factor index. Any security level factor index weight that is less than the minimum weight threshold is treated as having a zero weight in the relevant Target Exposure index. Any resulting excess weight will be redistributed amongst the remaining constituents and may cause small changes in the active weights and exposures of the final index.

5.6.8 Table 4 summarizes the ESG rating and Operational Carbon Emissions targets and constraints applied to each index.

Table 4: Targets and Constraints for Target Exposure Indexes

Index	Targets		Constraints			
	ESG Ratings Increase	Carbon Emissions Reduction	Country	Industry	Max Company Weight (%)	Min Stock Weight (b.p.)
FTSE Developed Europe ESG Low Carbon Emissions Target Exposure Index	20%	50%	Neutral	Neutral	10	0.5
FTSE Developed Europe ex UK ESG Low Carbon Emissions Target Exposure Index	20%	50%	Neutral	Neutral	10	0.5
FTSE Asia ex Japan ESG Low Carbon Emissions Target Exposure Index	20%	50%	Neutral	Neutral	10	0.5
FTSE Japan ESG Low Carbon Emissions Target Exposure Index	20%	50%	-	Neutral	10	0.5
FTSE UK ESG Low Carbon Emissions Target Exposure Index	20%	50%	-	Neutral	10	0.5
FTSE USA ESG Low Carbon Emissions Target Exposure Index	20%	50%	-	Neutral	10	0.5
FTSE Developed ESG Low Carbon Emissions Target Exposure Index	20%	50%	Neutral	Neutral	10	0.5
FTSE Emerging ESG Low Carbon Emissions Target Exposure Index	20%	50%	Neutral	Neutral	10	0.5

5.7 Index Back-Histories

- 5.7.1 Prior to September 2014, FTSE4Good constituent weights are used to proxy the Fixed Tilt FTSE ESG Indexes. The FTSE4Good Index constituents are allocated the FTSE4Good index weights. Stocks that are excluded from the relevant FTSE4Good Index are allocated their underlying free float market capitalisation index weights (defined in 4.3). Index weights of the Fixed Tilt FTSE ESG Indexes are obtained by re-normalising these weights such that they sum to one.
- 5.7.2 The index history of the Fixed Tilt FTSE ESG Indexes prior to September 2014 is simulated by applying regional and ICB industry neutrality to the stock weights calculated using Rule 5.2.3.
- 5.7.3 The annual Fossil Fuel Reserves, Operational Carbon Emissions and annual sales data used in the FTSE SDG-Aligned index histories prior to June 2017 are lagged by one year.
- 5.7.4 The annual Operational Carbon Emissions and annual sales data used in the Target Exposure Indexes' histories prior to March 2017 are lagged by one year.



Section 6

Periodic Review of Constituents

6.0 Periodic Review of Constituents

6.1 Review Dates

- 6.1.1 FTSE Developed, FTSE Emerging, and FTSE Indonesia ESG Indexes will be reviewed annually in March. The FTSE All-Share and Russell 1000 ESG Indexes will be reviewed annually in June.
- 6.1.2 FTSE Developed, FTSE Emerging, FTSE All-Share and FTSE Indonesia ESG Index reviews will be implemented after the close of business on the third Friday of the review month.
- 6.1.3 The Russell 1000 ESG Index review will be implemented on the same date as the Russell annual reconstitution. For details of the implementation dates of Russell 1000, please refer to the Russell U.S. Equity Indexes Construction and Methodology available at [Russell-US](#)
- 6.1.4 The FTSE SDG-Aligned indexes will be reviewed annually in September and implemented after the close of business on the third Friday of the review month.
- 6.1.5 FTSE Developed Europe, FTSE Developed Europe ex UK, FTSE Asia ex Japan, FTSE Japan, FTSE UK, FTSE USA, FTSE Developed and FTSE Emerging ESG Low Carbon Emissions Target Exposure Indexes will be reviewed annually in March.
- 6.1.6 FTSE Developed Europe, FTSE Developed Europe ex UK, FTSE Asia ex Japan, FTSE Japan, FTSE UK, FTSE USA, FTSE Developed and FTSE Emerging ESG Low Carbon Emissions Target Exposure Index reviews will be implemented after the close of business on the third Friday of the review month.



Section 7

Changes to Constituent Companies

7.0 Changes to Constituent Companies

7.1 Intra-review Additions

7.2 The FTSE ESG Index Series will not accept intra-review additions. Additions to the FTSE Global All Cap Index Series, Russell 1000 Index and the FTSE All-Share Index will be considered for inclusion at the next review of the relevant FTSE ESG or SDG-Aligned Index.

7.2.1 The Target Exposure Indexes will follow the rules set out in FTSE Global Factor Index Series Ground Rules.

7.3 Intra-review Deletions

7.3.1 A constituent will be removed from the relevant FTSE ESG or SDG-Aligned Index if it is removed from its corresponding maintenance universe outlined in Rule 4.3. The deletion will be concurrent with the deletion from the maintenance universe and its weight will be distributed pro-rata amongst the remaining constituents of the relevant FTSE ESG or SDG-Aligned Index.

7.3.2 A stock that is added to an exclusion list will be considered for inclusion (if eligible) at the next periodic review.

7.3.3 The Target Exposure Indexes will follow the rules set out in FTSE Global Factor Index Series Ground Rules.

Section 8

Corporate Actions and Events

8.0 Corporate Actions and Events

8.1 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, the constituent's weighting in the corresponding FTSE ESG or SDG-Aligned Index will remain unchanged pre and post such an event.

8.2 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)
- 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.

8.3 Suspension of Dealing

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

8.4 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 9

Indexes Algorithm and Calculation Method

9.0 Indexes Algorithm and Calculation Method

9.1 Prices

9.1.1 The FTSE ESG 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](#)

9.2 Calculation Frequency

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

9.3 Index Calculation

9.3.1 The FTSE ESG and SDG-Aligned Indexes 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 to be applied to a security to correctly weight that security in the index. The Weight Adjustment 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: Further Information

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

Further information on the FTSE ESG Index Series 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.ftserussell.com

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