

# FTSE RAFI (Research Affiliates Fundamental Index) Low Volatility Index Series

v2.5



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# Contents

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Section 1 Introduction .....	3
Section 2 Management responsibilities .....	5
Section 3 FTSE Russell Index policies .....	6
Section 4 Eligible securities .....	7
Section 5 Periodic review of constituents .....	10
Section 6 FTSE RAFI QSR methodology .....	13
Section 7 Changes to constituent companies.....	14
Section 8 Corporate actions and events .....	15
Section 9 FTSE RAFI QSR Index Series calculation .....	16
Appendix A Index series opening and closing hours.....	17
Appendix B Status of indices .....	18
Appendix C Further information .....	19

## Section 1

# Introduction

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## 1. Introduction

- 1.1 This document sets out the Ground Rules for the construction and management of the FTSE RAFI Low Volatility Index Series, which is calculated in association with Research Affiliates, LLC.
- 1.2 The FTSE RAFI Low Volatility Index Series is designed to reflect the performance of a low volatility set of stocks, where constituent weightings are determined using specific fundamental factors (see rule 4.5.1), rather than market capitalisation.
- 1.3 The FTSE RAFI Low Volatility Index Series does not take account of ESG factors in its index design.
- 1.4 The following indices are calculated:
- Global and regional indices:
- FTSE RAFI All-World Low Volatility Index\*
  - FTSE RAFI Developed Low Volatility Index\*
  - FTSE RAFI Developed Ex US Low Volatility Index\*
  - FTSE RAFI Developed Ex UK Low Volatility Index\*
  - FTSE RAFI Developed Europe Low Volatility Index\*
  - FTSE RAFI Emerging Low Volatility Index\*
- Country indices:
- FTSE RAFI US Low Volatility Index\*
  - FTSE RAFI UK Low Volatility Index\*
- 1.5 Price, total return and net of tax indices are calculated on an end-of-day and real-time(\*) basis. The total return indices include income based on ex-dividend adjustments.
- 1.6 The following variants are, or if requested may be, calculated for certain indices within the index series:
- capital and total return indices;
  - net total return indices based on specified withholding tax rates;
  - indices calculated in currencies other than the base currency (USD); and
  - currency hedged indices.
- Additional customised variants can be calculated on request including indices with industry, country and sector exclusions. Selected indices are calculated and disseminated on a real-time basis.
- 1.7 The base currency of the benchmark is US Dollars (USD). Index values may also be published in other currencies.

1.8 These Ground Rules should be read in conjunction with the FTSE Global Equity Index Series Ground Rules, which are available at [www.lseg.com/en/ftse-russell/](http://www.lseg.com/en/ftse-russell/).

1.9 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.

1.10 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;
- any inaccuracies in these Ground Rules;
- any non-application or misapplication of the policies or procedures described in these Ground Rules; and/or
- any inaccuracies in the compilation of the index or any constituent data.

**1.11 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.

## Section 2

# Management responsibilities

## 2. Management responsibilities

### 2.1 FTSE International Limited (FTSE)

2.1.1 FTSE is the benchmark administrator of the index series<sup>1</sup>.

2.2 FTSE is responsible for the daily calculation, production and operation of the FTSE RAFI Low Volatility 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 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; and
- disseminate the indices.

### 2.3 Research Affiliates (RAFI)

2.3.1 Research Affiliates is responsible for calculating the RAFI Low Volatility Score of companies based on FTSE Russell's universes at the annual review.

### 2.4 Status of these Ground Rules

2.4.1 These Ground Rules set out the methodology and provide information about the publication of the FTSE RAFI Low Volatility Index Series.

### 2.5 Amendments to these Ground Rules

2.5.1 These Ground Rules shall be subject to regular review 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.

2.5.2 As provided for in the Statement of Principles for FTSE Russell Equity Indices, where FTSE Russell determines that the Ground Rules are silent or do not specifically and unambiguously apply to the subject matter of any decision, any decision shall be based as far as practical on the Statement of Principles. After making any such determination, FTSE Russell shall advise the market of its decision at the earliest opportunity. Any such treatment will not be considered as an exception or change to the Ground Rules, or to set a precedent for future action, but FTSE Russell will consider whether the Ground Rules should subsequently be updated to provide greater clarity.

<sup>1</sup> 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 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 Capitalisation Weighted Indices 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 Indices (the Statement of Principles)

3.3.1 Indices need to keep abreast of changing markets and the Ground Rules cannot anticipate every eventuality. Where the Ground Rules do not fully cover a specific event or development, FTSE Russell will determine the appropriate treatment by reference to the Statement of Principles, which summarises the ethos underlying FTSE Russell's approach to index construction. The Statement of Principles is reviewed annually and any changes proposed by FTSE Russell are presented to the FTSE Russell Policy advisory board for discussion before approval by the FTSE Russell Index governance board.

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

[Statement of Principles.pdf](#)

### 3.4 Queries, Complaints and Appeals

3.4.1 A constituent or prospective constituent company (or professional adviser acting on behalf of the company), a national organisation or a group of no fewer than 10 users of the indices from different organisations acting in their professional capacity may appeal against decisions taken by FTSE Russell.

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

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

FTSE Russell's appeal process can be accessed using the following link:

[Appeals Against Decisions.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 or a Security

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 or a Security.pdf](#)

### **3.7 Recalculation Policy and Guidelines**

- 3.7.1 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 FTSE RAFI Low Volatility Index Series will be 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](mailto:info@ftserussell.com).

[Recalculation Policy and Guidelines Equity Indices.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](#)

### **3.9 FTSE Russell Governance Framework**

- 3.9.1 To oversee its indices, FTSE Russell employs a governance framework that encompasses product, service and technology governance. The framework incorporates the London Stock Exchange Group's three lines of defence risk management framework and is designed to meet the requirements of the IOSCO Principles for Financial Benchmarks<sup>2</sup>, the European benchmark regulation<sup>3</sup> and the UK benchmark regulation<sup>4</sup>. The FTSE Russell Governance Framework can be accessed using the following link:

[FTSE Russell Governance Framework.pdf](#)

### **3.10 Real Time Status Definitions**

- 3.10.1 Please refer to the following guide for details of real time status definitions for indices which are calculated in real time.

[Real Time Status Definitions.pdf](#)

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<sup>2</sup> IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013

<sup>3</sup> 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

<sup>4</sup> The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019

## Section 4

# Eligible securities

## 4. Eligible securities

### 4.1 FTSE RAFI global universe

4.1.1 The eligible securities of each global or regional FTSE RAFI Low Volatility Index are determined by selecting companies by cumulative fundamental weight from the relevant regional and or country FTSE Global Total Cap Index. The determination of a stock's fundamental weight is detailed in rule 5.5.1.

Companies ranked within the top 86% of each regional or country FTSE index, as specified in table 1, by fundamental weight adjusted for free-float and the liquidity limits detailed in rule 5.6 form the relevant FTSE RAFI global universe.

4.1.2 Existing constituents of a FTSE RAFI global universe ranked within the top 92% by free-float adjusted fundamental weight will remain eligible for inclusion in the relevant FTSE RAFI global universe.

**Table 1: FTSE RAFI global universe**

FTSE RAFI global universe	FTSE regional or country index
US	FTSE USA Total Cap
Japan	FTSE Japan Total Cap
Developed Europe	FTSE Developed Europe Total Cap
Other developed	FTSE Developed Total Cap ex US, Japan and Developed Europe
Emerging	FTSE Emerging Total Cap
Developed	FTSE Developed Total Cap
All-world	FTSE Global Total Cap

### 4.2 FTSE RAFI country universe

The eligible securities of each FTSE RAFI Low Volatility country index are defined by the relevant FTSE RAFI country index component universe.

**Table 2: FTSE RAFI country universe**

FTSE RAFI global universe	FTSE regional or country index
US	FTSE USA Total Cap
UK	FTSE UK All-Share Index



4.2.1 The following FTSE RAFI Low Volatility indices are calculated:

**Table 3: FTSE RAFI Low Volatility Indices**

<b>FTSE RAFI Low Volatility Index</b>
<b>Global indices</b>
FTSE RAFI All-World Low Volatility Index
FTSE RAFI Developed Low Volatility Index
FTSE RAFI Developed ex US Low Volatility Index
FTSE RAFI Developed ex UK Low Volatility Index
FTSE RAFI Developed Europe Low Volatility Index
FTSE RAFI Emerging Low Volatility Index
<b>Country indices</b>
FTSE RAFI US Low Volatility Index
FTSE RAFI UK Low Volatility Index

## Section 5

# Periodic review of constituents

## 5. Periodic review of constituents

5.1 The FTSE RAFI Low Volatility Index Series is based on the same fundamental weighting methodology as the FTSE RAFI Index Series. Fundamental weights are determined annually based on data as at the close of business on the Monday four weeks prior to the March annual review effective date, taking into account any additions and deletions planned in the underlying indices. The determination of fundamental weights follows the process detailed in rule 5.5.1.

5.2 The FTSE RAFI Low Volatility Index Series will be reviewed annually at the close of business on the Wednesday before the first Friday in March.

5.3 Weighting changes and constituent additions and deletions arising from the annual review will be implemented in four stages, using data as of the close of business on the Wednesday before the first Friday in March, June, September and December. The mechanism by which the FTSE RAFI Low Volatility Index Series is rebalanced using the results of the annual March rebalance is the FTSE RAFI QSR methodology with phased deletions as set out in section 6.

5.4 Changes will be effective after the close on the third Friday of March, June, September and December each year.

Constituent securities of each FTSE RAFI Low Volatility index are determined by the valuation and risk measures detailed in rules 5.5.2 and 5.5.3 respectively. The weight of constituent securities is proportional to their fundamental weights, after the application of the maximum stock weight of 5% and the liquidity limits detailed in rule 5.6. Maximum stock weights and liquidity limits are applied simultaneously where the lower or more restrictive of the two limits is applicable. The minimum constituent weighting is 0.05%. Constituent weights below 0.05% are set to zero and the excess weight is distributed across the remaining index constituents in proportion to their existing index weight.

### 5.5 Determination of fundamental weights

5.5.1 Constituents of the FTSE RAFI Low Volatility Index Series are weighted by the fundamental measures of company size using the following items drawn from a company's annual financial statements:

- A. Sales = company sales averaged over the prior five years.
- B. Cash flow = company cash flow averaged over the prior five years.
- C. Book value = latest company book value at the review date.
- D. Dividends = total dividend distributions averaged over the last five years.

Where a company has less than five years of available financial data, fundamental weights are calculated by averaging as many years of data as are available.

Four fundamental ratios are calculated for each security:

- E. The representation of each security in the universe as a percentage of sales.
- F. The representation of each security in the universe as a percentage of cash flow.

G. The representation of each security in the universe as a percentage of book value.

H. The representation of each security in the universe as a percentage of dividends. If a stock has not paid a dividend in the past five years, it will have a percentage representation of zero.

The RAFI fundamental value is defined as the average of the four percentage representation figures above. However, for a stock with a zero-dividend percentage, its RAFI fundamental value is defined as the average of the three remaining percentage representation figures (sales, cash flow and book value).

The fundamental value is calculated for each company, rather than for individual securities issued by the company. Where a company is represented within the FTSE RAFI Low Volatility Index Series by two or more lines of stock, the company's RAFI fundamental value is allocated between these lines of stock in proportion to their investable market capitalisations.

Companies will be ineligible for the FTSE RAFI Low Volatility Indices if fundamental data is unavailable. For example, companies such as recent listings, recently merged companies or investment entities that do not report the necessary fundamental data will be ineligible.

### 5.5.2 Valuation ratio

A valuation screen is applied to eligible securities detailed in rule 4. Securities for which the ratio of full market capitalisation weight to the fundamental weight is greater than 1.5 are excluded from the relevant FTSE RAFI Low Volatility index. The market capitalisation to fundamental weight comparison is conducted within each industry (ICB)<sup>5</sup> country group.

### 5.5.3 Risk measure

Eligible securities passing rule 5.5.2 are ranked in ascending order of risk. Risk is calculated as the variance (var) of a company's daily total USD-hedged excess return over five years explained by country, global industry and global equity level USD-hedged excess returns.

$$r_{i,t} = \alpha_i + \beta_{G,i} r_{G,t} + \beta_{C,i} r_{C,t} + \beta_{I,i} r_{I,t}$$

$$\text{risk measure} = R^2 \text{var}(r_{i,t}) / \text{var}(r_{G,t})$$

Where  $r_G$ ,  $r_C$ ,  $r_I$  are the daily USD hedged excess total return of the global equity market index (FTSE All-World), the relevant country (e.g. FTSE Japan) and global industry (e.g. FTSE All-World Basic Materials) respectively on business days that are common to each component of regression.  $R^2$  is the coefficient of determination from the OLS regression specified above. USD hedged returns are chosen for ease of calculation, however the choice of currency numeraire does not influence the hedged excess return used in the regression.

The USD hedged excess returns of each security and index are calculated by subtracting the daily yield of the three-month US treasury bill.

Daily excess total returns greater than plus or minus two standard deviations of the mean, calculated over the five-year estimation period, are restricted to two standard deviations in the determination of the risk measure. A minimum of 510 daily return observations are required for the calculation of the company level risk metric and therefore for the company to be eligible for inclusion in the index.

### 5.5.4 Selection

The FTSE RAFI Low Volatility indices select low risk companies from two independent perspectives: the lowest-risk securities from the universe of eligible securities satisfying the valuation screen in 4.5.2; 20% by number from each country and ICB industry group are independently selected.

### 5.5.5 Banding

The valuation ratio and risk measure of existing constituents of the FTSE RAFI Low Volatility Index Series are decreased by 10% and 20%, respectively, prior to the application of rules 5.5.2, 5.5.3 and 5.5.4.

<sup>5</sup> FTSE indices migrated to the new ICB classification system in March 2021.

## 5.6 Application of liquidity limits

The following liquidity limits are applied to determine the eligible securities from each underlying FTSE universe as detailed in rule 4. Additionally, all companies passing the periodic review criteria detailed in rules 5.5.2 to 5.5.5 are subject to the reapplication of these liquidity limits and the maximum stock weight of 5%. For the FTSE RAFI UK Low Volatility index only, the maximum stock weight is 7%

Let  $FV_i$  be the RAFI fundamental value of the  $i^{\text{th}}$  company. The fundamental weight  $FW_i$  for company  $i$  is:

$$FW_i = FV_i / \sum_{i=1}^N FV_i$$

Let  $ADTV_i$  be the maximum of the 30-day and 90-day median daily traded value in USD as of the of the last business day of January. The liquidity weight  $LW_i$  for company  $i$  is:

$$LW_i = ADTV_i / \sum_{i=1}^N ADTV_i$$

The 30-day median traded value will be used where there is less than 90 days of historical data. Where there is less than 30 days of historical data, the stock will have a RAFI fundamental value of zero. Where there are multiple lines of equity capital in a company, the traded value will be the aggregation of all lines in the aforementioned company.

The liquidity ratio (LR) is defined as the ratio of fundamental weight to liquidity weight. The liquidity ratio for company  $i$  is:

$$LR_i = FW_i / LW_i$$

Where the liquidity ratio is more than four, the new fundamental value is calculated as:

$$\widehat{FV}_i = 4 \times LW_i \times \sum_{i=1}^N FV_i$$

After the fundamental values are updated for all companies using the above formula, new fundamental weights and liquidity ratios are calculated. The process is repeated until all liquidity ratios attain a value not exceeding four. Note that this process will only modify the fundamental values of stocks that exceed the liquidity limit. For the FTSE RAFI UK Low Volatility index only, the process is repeated until all liquidity ratios attain a value not exceeding six.

5.7 The fundamental values obtained after the application of the liquidity limits detailed in rule 5.6 and the maximum stock weights determine the annual weightings applied to index constituents determined under rules 5.5.2 to 5.5.5, subject to a minimum index weight or effective zero index weight of 0.05%. Constituents are weighted in proportion to these fundamental values.

## Section 6

# FTSE RAFI QSR methodology

## 6. FTSE RAFI QSR methodology

6.1.1 The FTSE RAFI QSR methodology  $I_{QSR}$  is comprised of four component indices  $I_{Mar}$ ,  $I_{Jun}$ ,  $I_{Sep}$  and  $I_{Dec}$ . Each sub-index is rebalanced annually in March, June, September and December using the constituents and fundamental weights of the FTSE RAFI Low Volatility index annual index review in March, updated for corporate events.

6.1.2 A weight adjustment factor  $WAF_i$ , is calculated for each security  $i$  at the sub-index review. For example, in June:

$$WAF_{i,Jun} = \frac{w_{i,Mar}^*}{w_{i,Jun}} \quad (1)$$

where  $w_{i,Mar}^*$  is the fundamental weight of security  $i$  in the underlying FTSE RAFI Low Volatility index reviewed annually in March (updated for corporate events) and  $w_{i,Jun}$  is the June investable market capitalisation weight of security  $i$ , using prices updated for corporate events on the review cut-off date and shares in issue and investability weights at the close on the third Friday of June.

6.1.3 The index weights of each sub-index are updated for price movements and corporate events for the next 12 months ( $ws_i$ ) until they are updated with new FTSE RAFI Low Volatility index annual weights.

6.1.4 At the quarterly review of the FTSE RAFI Low Volatility index, the weight for each security  $i$  is calculated as the average of the four sub-index weights  $ws_i$ . The updated FTSE RAFI Low Volatility index  $WAF_{QSR,i}$  used in the calculation of the notional index market value is calculated as follows, using June as an example:

$$WAF_{QSR,i,Jun} = \left( \frac{ws_{i,Mar} + ws_{i,Jun} + ws_{i,Sep} + ws_{i,Dec}}{4} \right) / w_{i,Jun} \quad (2)$$

6.1.5 Further information of how the WAF is used in the index calculation can be found in the Corporate Actions and Events Guide for Non Market Capitalisation Weighted Indices

## Section 7

# Changes to constituent companies

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## 7. Changes to constituent companies

### 7.1 Additions

7.1.1 Additions to the FTSE RAFI Low Volatility Index Series occur only as part of the March annual review.

### 7.2 Deletions

7.2.1 There will be no intra-review deletions to the FTSE RAFI Low Volatility Index Series except in the event of corporate actions and events covered in section 8 or of securities that are subject to surveillance by stock exchanges. Such securities will be deleted in line with their removal from the underlying index.

## Section 8

# Corporate actions and events

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## 8. Corporate actions and events

8.1 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 (with the exception of tender offers), the constituent's weighting in the FTSE RAFI Low Volatility Index Series 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 Capitalisation Weighted Indices 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. 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.

### 8.3 **Suspension of dealing**

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

### 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 Capitalisation Weighted Indices.

## Section 9

# FTSE RAFI QSR Index Series calculation

## 9. FTSE RAFI QSR Index series calculation

9.1 The formula for index calculation is:

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

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;
- $d$  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; and
- $c_i$  is the RAFI low volatility weight adjustment factor to be applied to a security to correctly weight that security in the index. This factor maps the free-float adjusted market capitalisation weight  $m_i$  of a stock  $i$  to its notional market capitalisation for inclusion in the Index according to the formula  $c_i = w_i / \hat{m}_i$  where  $\hat{m}_i = m_i / (\sum_{j=1}^N m_j)$ . This factor is published by FTSE Russell for each security in the index.

9.2 Reuter's real-time exchange rates are used in the index calculations which are disseminated in real-time. Exchange rates used in the end-of-day calculations are WM/Refinitiv Closing Spot Rates, collected at 16:00 UK time.



## Appendix A

# Index series opening and closing hours

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### Index open close

Index	Open	Close
FTSE RAFI All World Low Volatility Index	00:30	21:10
FTSE RAFI Developed Low Volatility Index	00:30	21:10
FTSE RAFI Developed ex US Low Volatility Index	00:30	21:10
FTSE RAFI Developed Europe Low Volatility Index	08:00	16:30
FTSE RAFI Emerging Low Volatility Index	00:30	21:10
FTSE RAFI US Low Volatility Index	14:30	21:10
FTSE RAFI UK Low Volatility Index	08:00	16:30

#### Notes:

Closing values at 21:10 will be disseminated at 21:30.

Timings are UK hours, from Monday to Friday.

WM/Refinitiv Closing Spot Rates compiled by The WM Company are used.

## Appendix B

# Status of indices

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Price indices are calculated on a real-time basis:

For further details of real time definitions please refer to the following guide:

[Real Time Status Definitions.pdf](#)

The official opening and closing hours of the Indices are set out in Appendix A. Variations to the official hours of the indices will be published by FTSE Russell.

## Appendix C

# Further information

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

[Glossary.pdf](#)

For further information on the FTSE RAFI Low Volatility Index Series, visit [www.lseg.com/en/ftse-russell/](http://www.lseg.com/en/ftse-russell/) or e-mail [info@ftserussell.com](mailto:info@ftserussell.com). Contact details can also be found on this website.

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