Ground Rules

FTSE US TMI Series
v2.4
## Contents

1.0 Introduction ........................................................................................................ 3  
2.0 Management Responsibilities ........................................................................ 5  
3.0 FTSE Russell Index Policies ........................................................................... 7  
4.0 Eligible Securities ............................................................................................. 9  
5.0 Index Qualification Criteria ........................................................................... 11  
6.0 Periodic Review of Constituents ..................................................................... 13  
7.0 Changes to Constituent Shares ...................................................................... 15  
8.0 Index Calculation ............................................................................................ 17  
Appendix A: Prices ............................................................................................... 18  
Appendix B: Other Indexes .................................................................................. 19  
Appendix C: Fundamental Data Items ................................................................. 20  
Appendix D: Determining Style Ranking ............................................................. 22  
Appendix E: Normalizing Process ....................................................................... 23  
Appendix F: Further Information ......................................................................... 25
Section 1

Introduction

1.0 Introduction


1.2 The FTSE US TMI Series (the “Index Series”) is a family of indexes that includes all equity securities of listed US companies that meet minimum size and eligibility criteria. This Index Series provides investors with a comprehensive representation of the structure and performance of the United States equity market.

1.3 The FTSE US TMI Series is made up of the following core indexes:
   - FTSE US TMI
   - FTSE US TM Large Cap Index
   - FTSE US TM Mid Cap Index
   - FTSE US TM Small Cap Index
   - FTSE US TM Micro Cap Index

1.4 Further custom indexes can be created from the above indexes.

1.5 All indexes are calculated in USD. Price and Total Return versions will be calculated for each index. The FTSE US TMI Series is calculated at the end of each business day.

1.6 FTSE Russell


1.7 FTSE Russell hereby notifies users of the index series that it is possible that circumstances, including external events beyond the control of FTSE Russell, may necessitate changes to, or the cessation of, the index series and therefore, any financial contracts or other financial instruments that reference the index series or investment funds which use the index series to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the index series.

1.8 Index users who choose to follow this index or to buy products that claim to follow this index should assess the merits of the index’s rules-based methodology and take independent investment advice before investing their own or client funds. No liability whether as a result of negligence or otherwise
is accepted by FTSE Russell (or any 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 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.

2.1.2 FTSE is responsible for the daily calculation, production and operation of the FTSE US TMI 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;
- disseminate the indexes.

2.1.3 Constituent weightings in the real time indexes shall be used in the calculation of the end of day indexes.

2.2 Status of these Ground Rules

2.2.1 These Ground Rules set out the methodology and provide information about the publication of the FTSE US TMI Series.

2.3 Amendments to these Ground Rules

2.3.1 These Ground Rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they continue to meet the current and future requirements of investors and other index users. 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.
2.3.2 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

3.1.1 Full details of changes to constituent companies due to corporate actions and events can be accessed in the Corporate Actions and Events Guide using the following link:

Corporate_Actions_and_Events_Guide.pdf

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

3.2.1 Indexes need to keep abreast of changing markets and the Ground Rules cannot anticipate every eventuality. Where the 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:


3.3 Queries and Complaints

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

Benchmark_Determination_Complaints_Handling_Policy.pdf

3.4 Index Policy for Trading Halts and Market Closures

3.4.1 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

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

3.5.1 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
3.6 Recalculation Policy and Guidelines

3.6.1 The FTSE US TMI Series is recalculated whenever errors or distortions occur that are deemed to be significant. Users of the Index Series are notified.

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

3.7 Policy for Benchmark Methodology Changes

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

Policy_for_Benchmark_Methodology_Changes.pdf
Section 4

Eligible Securities

4.0 Eligible Securities

4.1 Securities of companies incorporated in the US and listed in the US are eligible.

4.2 Securities of companies not incorporated in the US but with a primary listing in the US and not listed in their countries of incorporation are eligible, with the exception of those detailed in Rule 4.4.

4.3 Eligible Securities Include:

- Common Stocks
- REITs
- Master Limited Partnerships
- Royalty Trusts
- American Depositary Receipts (ADRs) – Where the underlying issue is unlisted
- OTC Bulletin Boards
- Business Development Companies (BDCs)

4.4 Ineligible Securities Include:

- Pink sheet shares
- Preferred shares
- Convertible preferred shares, convertible bonds
- American Depositary Receipts (ADRs) – Where the underlying issue is listed
- Closed-end mutual funds, Investment Trusts
- Units
- ETFs, ETNs
- Equity warrants, equity derivatives

The FTSE US TMI Series is a family of indexes that includes all equity securities of US companies that meet minimum size and eligibility criteria.

4.5 There are no liquidity requirements for entry to the FTSE US TMI Series.

4.6 All securities included in FTSE indexes are assigned a nationality in accordance with the rules as set out in the Nationality Statement.

Details can be accessed using the following link:

Determining_Nationality.pdf
Securities which are assigned a non-US nationality will not be eligible for the FTSE US TMI Index Series. For example, securities designated as China N-Shares by FTSE Russell will be assigned a nationality of China and hence will not be eligible for the FTSE US TMI Index Series.
Section 5

Index Qualification Criteria

5.0 Index Qualification Criteria

All securities in the ‘Eligible Universe’ mentioned above will be considered for index qualification. To be included in the index, a stock must pass the following screens:

5.1 Size

A. New entrants: Eligible securities with an investable market capitalization of at least USD 20 million of all companies whose total market capitalization is at least USD 25 million on the semi-annual review dates are added to the index.

B. Existing constituents whose (float) falls below USD 10 million on the review evaluation dates are removed from the Index Series. Existing index members with float greater than USD 10 million remain in the index, if they meet all the other eligibility criteria.

C. Where there are listed multiple lines of equity capital in a company, each line must meet the eligibility rules individually.

5.2 Investability Weighting

Constituents of the FTSE US TMI Series are adjusted for free float and foreign ownership limits.

Further details on free float restrictions can be accessed using the following link:
Free_Float_Restrictions.pdf

5.2.1 Initial Weighting

Free float will be calculated using available published information rounded to 12 decimal places. Companies with a free float of 5% or below are excluded from the index.

5.3 The FTSE US TMI Series will be made up of the following indexes:

5.3.1 FTSE US TMI

This is a broad US Index that includes all investable securities of companies that have a total market capitalization of at least USD 25 million on the index review evaluation date. Investable securities are those securities with an investable market capitalization of at least USD 20 million.

5.3.2 FTSE US TM Large Cap Index

This index will consist of all the companies in the top 70% ranked by full market value i.e. before the application of any investability weightings in the FTSE US TMI.
5.3.3 FTSE US TM Mid Cap Index

This index will consist of all the companies in the top 90% ranked by full market value i.e. before the application of any investability weightings in the FTSE US TMI, outside the FTSE US TM Large Cap Index.

5.3.4 FTSE US TM Small Cap Index

This index will consist of all the companies in the top 99.50% ranked by full market value i.e. before the application of any investability weightings in the FTSE US TMI, outside the FTSE US TM Large Cap Index and the FTSE US TM Mid Cap Index.

5.3.5 FTSE US TM Micro Cap Index

This index will consist of all the companies in the bottom 0.50% ranked by full market value i.e. before the application of any investability weightings in the FTSE US TMI.
Section 6

Periodic Review of Constituents

6.0 Periodic Review of Constituents

6.1 Review Dates and Size Segmentation and Buffers

6.1.1 The Index Series is reviewed semi-annually in June and December. Market data used in the review process is taken after the close of business of the Monday 4 weeks prior to the review effective date. These are known as the Review Evaluation Dates. Constituent changes will be implemented after the close of business of the third Friday (i.e. effective Monday) of June and December.

6.1.2 Size segment assignments are made on a company basis by ranking all the index eligible securities of an index eligible company by the total market capitalization of the company, that is, prior to application of free float factors. Companies are ranked from largest to smallest. Size segments are listed in the table below.

<table>
<thead>
<tr>
<th>Size Range</th>
<th>% TMI Total Cap</th>
<th>Cumulative TMI % Total Cap</th>
<th>Buffer Range</th>
<th>Upper Buffer</th>
<th>Lower Buffer</th>
<th>Review Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Cap</td>
<td>70.00</td>
<td>70.00</td>
<td>0.00 – 70.00</td>
<td>Large – Mid</td>
<td>68.00</td>
<td>72.00</td>
</tr>
<tr>
<td>Mid Cap</td>
<td>20.00</td>
<td>90.00</td>
<td>70.00 – 90.00</td>
<td>Mid – Small</td>
<td>88.00</td>
<td>92.00</td>
</tr>
<tr>
<td>Small Cap</td>
<td>9.50</td>
<td>99.50</td>
<td>90.00 – 99.50</td>
<td>Small – Micro</td>
<td>99.45</td>
<td>99.55</td>
</tr>
<tr>
<td>Micro</td>
<td>0.50</td>
<td>100.00</td>
<td>99.50 - 100.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMI Composite</td>
<td>100.00</td>
<td>100.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.1.3 **Size Segmentation Buffers** - A buffer rule has been implemented to reduce turnover between size segments. Using the table above the Large Cap Index is rebalanced semi-annually each June and December, while the Mid Cap and Small Cap Indexes are rebalanced annually each December. In the course of rebalancing the Large Cap and Mid Cap constituents could be affected. The table above lists the Upper Buffer and Lower Buffer ranges between each size segment.

6.1.4 **Size Segmentation Buffer Procedures** – All pre-review index stocks within the buffer ranges retain their size assignments provided that the percentage TMI Total Cap is met. For example, stocks in the 68-72% of cumulative total cap rank are in the Large Cap – Mid Cap buffer range. If all stocks within this buffer retain their pre-review size assignments and the Large Cap weight is lower than 70% then all new stocks within that range, if any, will be assigned to the Large Cap until the 70% of TMI Cap is reached. If after that step the weight is still lower than 70%, pre-review index stocks will
be reassigned to the Large Cap starting from the upper buffer 68% and working down until the 70% is reached. Conversely, if the Large Cap weight is higher than 70%, any new stocks in the buffer range would be assigned to the Mid Cap and if after that step the Large Cap is still over 70% we would reassign Large Cap stocks to Mid Cap stocks starting at the 72% lower buffer and work up until 70% is reached.

6.1.5 **FTSE US TM Micro Cap Index (Bottom)** - The FTSE US TM Micro Cap Index is designed to hold the bottom 0.50% of the FTSE US TMI and this is accomplished annually in December as a result of the steps described above in Rules 6.1.2, 6.1.3 and 6.1.4. At the semi-annual review dates, stocks of those companies that fall below US$ 10 million float cap are removed.

6.2 **Steps for Conducting a Review**

- Information on all constituents in the eligible universe is gathered.
- This information is screened using screen one and two as discussed in Rules 5.1 and 5.2.
- All the constituents that pass the screens will together form the FTSE US TMI.
- The constituents of the FTSE US TMI will be ranked in descending order of company gross market capitalization, i.e. market capitalization before the application of any investability weightings. All issues of a company are ranked together.
- Companies in the top 70% of total market value form the FTSE US TM Large Cap Index.
- Companies in the top 90% of total market value that are not in the FTSE US TM Large Cap Index form the FTSE US TM Mid Cap Index.
- Companies in the top 99.50% of total market value that are not in the FTSE US TMI Large Cap or not in the FTSE US TM Mid Cap Index form the FTSE US TM Small Cap Index.
- Companies in the bottom 0.50% of total market value form the FTSE US TM Micro Cap Index.
- Buffers will be implemented as stated in Rules 6.1.2 to 6.1.4.
### Section 7

**Changes to Constituent Shares**

#### 7.0 Changes to Constituent Shares

**7.1 Replacement of Stock**

7.1.1 In the event that one or more constituents are deleted from the FTSE US TM Large Cap Index, the FTSE US TM Mid Cap Index, the FTSE US TM Small Cap Index or the FTSE US TM Micro Cap Index during the period up to the next review, the constituent(s) will not be replaced. Similarly if newly listed stocks are added (see Rule 7.2.1), no stock will be deleted.

#### 7.2 New Issues

7.2.1 Newly listed issues, including Initial Public Offerings (IPO's) will be added to the FTSE US TMI if it is at least twice the full market capitalization of the smallest company that falls wholly within the top 68% of TMI Cap. The addition of a new security to the index will be implemented after the close of business on the fifth day of trading.

7.2.2 Newly listed issues which do not qualify through Rule 7.2.1 are added to the index series on a monthly basis provided they meet the size rules as defined under Rules 5.1 and 5.2. Changes will be made after the close of business on the third Friday of the following month. All new issues will be considered for inclusion at the month end.

**Example:**

All New Issues from the 1 December 2009 – 31 December 2009 will be considered for inclusion on the 15 January 2010. Similarly, the below table illustrates other examples:

<table>
<thead>
<tr>
<th>New Issues in Period</th>
<th>Date considered for addition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 31 Jan 2010</td>
<td>19 Feb 2010</td>
</tr>
<tr>
<td>1 – 28 Feb 2010</td>
<td>19 Mar 2010</td>
</tr>
</tbody>
</table>

If the new issue meets the cut off points for the FTSE US TM Large Cap Index, the FTSE US TM Mid Cap Index, the FTSE US TM Small Cap Index or the FTSE US TM Micro Cap Index as at the date of the last review, the issue will be included in the respective market size index.

#### 7.3 Index Deletions

7.3.1 A constituent is removed from the index when it is delisted. A constituent may be removed when it is subject to a declared wholly unconditional takeover offer where acceptance levels are legally binding.
7.3.2 A constituent that is already in the index, and is forced to trade as pink sheets, will stay in the index until the next review.

7.4 Corporate Actions and Events

Full details of changes to constituent companies due to corporate actions and events can be accessed in the Corporate Actions and Events Guide using the following link: Corporate_Actions_and_Events_Guide.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 Russell will provide notice advising of the timing of the change.

7.5 Shares in Issue

7.5.1 Changes to the number of shares in issue for constituent securities are covered in the Corporate Actions and Events Guide.

7.6 Investability Weightings

7.6.1 Changes to free float for constituent securities are covered in the Corporate Actions and Events Guide.

7.7 Changes Due to Country Classification

7.7.1 The FTSE Nationality Advisory Committee determines the nationality of a constituent for all issues in the FTSE Global Equity Index Series. If FTSE changes the nationality of a constituent that affects the FTSE US TMI, then the FTSE US TMI will adopt the same change on the date that the change affects the FTSE Global Equity Index Series.

7.8 Suspension of Dealing

Suspension of dealing rules can be found within the Corporate Actions and Events Guide.

7.9 Takeovers, Mergers and Demergers

The treatment of takeovers, mergers and demergers can be found within the Corporate Actions and Events Guide.
Section 8

Index Calculation

8.0 Index Calculation

8.1 Prices

8.1.1 The FTSE US TMI Series will use actual last trade prices, where available, for securities as detailed in Appendix A.

8.2 Calculation Frequency

8.2.1 The FTSE US TMI Series will be calculated at the end of each day.

8.3 Index Calculation

8.3.1 The FTSE US TMI Series will be displayed to two decimal points.

8.3.2 The FTSE US TMI Series is calculated using the following formula:

\[
\sum_{i=1}^{N} \left( \frac{p_i \times e_i \times s_i \times f_i}{d} \right)
\]

Where,

- \( i = 1, 2, \ldots, N \)
- \( N \) 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.
Appendix A: Prices

NYSE, NYSE Arca and NASDAQ - Prices are from Thomson Reuters at 21:20 (UK Time).

NYSE (New York Stock Exchange) - Official Closing Price (Auction)
NYSE Arca - Official Closing Price (Auction)
NASDAQ National Market System - Official Closing Price (Closing Cross)

Every effort is made by FTSE Russell to ensure that the information contained in this Appendix is accurate. However, owing to the frequent changes in the close times and types of world stock exchanges, no responsibility or liability can be accepted by FTSE Russell for any errors in this information. If you have a query regarding this information, please contact FTSE Russell.
Appendix B: Other Indexes

1. The FTSE US TMI Series will also include the following Growth and Value Style Indexes:
   - FTSE US TM Large Cap Growth Index
   - FTSE US TM Mid Cap Growth Index
   - FTSE US TM Small Cap Growth Index
   - FTSE US TM Large Cap Value Index
   - FTSE US TM Mid Cap Value Index
   - FTSE US TM Small Cap Value Index

   For details on the methodology of these Growth and Value Style Indexes, please refer to Appendices C, D, E and F.
Appendix C: Fundamental Data Items

1. The source of data used in the following fundamental data definitions is Worldscope, with the exceptions of 2 year Forward sales estimates and 2 years Forward EPS estimates where the source is IBES, shares in issue, and share price are sourced from FTSE.

   **Value Measures**

   **Price to Book**
   Price to Book is a company's common/ordinary equity capital at the most recent fiscal year end divided by the company's market capitalization at the review date. Common/ordinary equity is generally as reported, but is adjusted to exclude minority interest, preferred stock and selected items as appropriate.

   **Sales to Price**
   Sales to Price is a company’s most recent annual sales value divided by the company’s market capitalization at the review date. (A more detailed definition of sales is provided under the “3 Year historic sales growth” heading.)

   **Dividend Yield**
   Dividend Yield reflects the dividend declared per share and/or paid for the security in question for the most recent fiscal year, divided by the share price. It excludes special dividends but includes extra dividends. It is based on the “gross” dividend of a security, including normal withholding tax but excluding the special tax credit available in some countries.

   **Cash Flow to Price**
   Cash Flow to Price is generally a company’s most recent Cash Flow for the year divided by the market capitalization of the company at the review date. If Cash Flow is not reported it is estimated based on net income plus depreciation and other non-cash items.

   **Growth Measures**

   **3 Year Historic Sales Growth**
   3 Year Historic Sales Growth reflects the average of the company’s three most recent consecutive absolute net sales or revenue annual growth values. The most recently reported sales value should be less than 18 months old (in developed markets). Sales values are for the 12 months to the company's fiscal year end and are generally as reported by the company. However, sales are generally adjusted to exclude excise taxes, sales from non-operating activities and discontinued operations in addition to sales generated by associated companies. If the company has changed its year end and a 12 month figure is not reported, the reported value is annualized. A sales value is also calculated for banks, insurance & financial companies and includes interest, investment & premium income in addition to commission & fees as appropriate.
3 Year Historic Earnings per Share Growth
3 Year Historic EPS Growth is the average of the company’s three most recent consecutive absolute EPS annual growth values. The most recent EPS value should be less than 18 months old (in developed markets). Annual earnings per share (EPS) is for the 12 months to fiscal year end. EPS is calculated as net income after taxes, minority interest and preferred dividends, but before amortization of intangibles and after-tax extraordinary items, divided by adjusted shares.

2 Year Forward Sales Growth
Sales estimates generally reflect sales derived from the company's core-operating activities. Generally transportation & non-operating costs are excluded from gross revenues for industrial corporations. Bank revenues include interest and non-interest income. Insurance revenues are comprised of net technical income and net financial income.

2 Year Forward Earnings per Share Growth
EPS estimates are generally based on net income from continuing operations divided by weighted average shares outstanding for the year.

Return on Equity * (1 - Payout Ratio)
Return on Equity is Earnings per Share (EPS) for the most recent fiscal year divided by the previous year’s book value per share. Payout ratio is Dividend per Share (DPS) divided by EPS. Values are again for the 12 months to the most recent fiscal year end. (More detailed EPS, Book Value and dividend per share definitions can be found under the “3 Year historic EPS growth”, “Price to Book”, “Dividend Yield” headings respectively).

2. The fundamental data for each of these items are determined and this is then used to calculate the Style Ranking for each company. The Style Ranking is assigned to each value and growth measure of a company and is then used to determine the Value and Growth Rankings (VR and GR respectively). The methodology for determining the Style Ranking and Value and Growth Rankings is given in Appendix D.

3. Once the Value and Growth Rankings have been calculated, they are then used to determine the Overall Style Ranking (OSR) for each index constituent. The Overall Style Ranking is used to determine the Value and Growth weighting for each constituent in the FTSE All-World Index Series. The methodology for determining the Overall Style Ranking can be found in Appendix D.
Appendix D: Determining Style Ranking

1.0  Determining Style Ranking
1.1  The Indexes rank Value and Growth on the same scale between 0 (Value) and 100 (Growth).
1.2  Extreme Growth stocks are allocated a ranking of 100 and extreme Value stocks are allocated a ranking of 0.
1.3  These rankings are allocated to each style measure (fundamental data item) accordingly.
1.4  Assuming that an individual company has all nine fundamental data items available the company will have nine “data rankings”.
1.5  To determine each data ranking all companies have each data item collated by using Worldscope and IBES and then a normalizing process is applied (see Appendix E) in order to determine the style ranking for each data item.

2.0  Determining Value Ranking (VR) and Growth Ranking (GR) for Each Company
2.1  In the case of each constituent the five growth data rankings are added and divided by five to give the constituent’s Growth Ranking (GR).
2.2  The same process is carried out for the four value items which after being summed and divided by four will give the Value Ranking (VR) for each constituent.
2.3  In the case of missing data, the divisor is changed to reflect the reduced number of data items. E.g., if a constituent has only three growth measures they are summed and divided by three to reach the Growth Ranking.

3.0  Determining Overall Style Ranking (OSR) for Each Company
3.1  After all constituents of the benchmark have had their Value and Growth Rankings calculated the two numbers are added and divided by two to give the Overall Style Ranking (OSR) for each constituent.
Appendix E: Normalizing Process

1.0 Normalizing Process Applied to Style Data Measures to Determine Style Rankings

1.1 The relevant fundamental data item is found for each constituent within a country.

1.2 Each figure for each fundamental data item is then plotted onto an x-axis. Therefore each country will have nine x-axes (four value and five growth) corresponding to each data item.

1.3 The data on each x-axis is then truncated (see below). Outliers beyond the truncation limits remain outside of the truncation limit itself. No data item is discarded.

1.4 Following truncation, the data on each x-axis then has three standard deviations applied. Again, any outliers beyond three standard deviations remain outside of the three standard deviation limit. No data is discarded.

1.5 The x-axis is then ranked so that 0 appears at the value end of the axis and 100 at the growth end. For the four value data items, the value measure is then found by identifying where on the x-axis each constituent lies and allocating that number as the value measure for each of the four value data items. The growth measures for the five growth data items are found in the same way. Those constituents which remain outside the truncation and standard deviation limits are then allocated the style rankings (either 0 or 100) dependant on which end of the x-axis they are.

1.6 In order to find the value ranking for each constituent the four value measures for the constituent are added and divided by four.

1.7 In order to find the growth measures for each constituent the five growth measures for the constituent are added and divided by five.

1.8 If one or more of the value or growth measures are missing the value or growth measure will be divided by the requisite number of data items available.

1.9 In order for the VR or GR to be calculated in this way data on at least one value date item and one growth data item must be available for the constituent. If this is not the case the constituent will have both value and growth rankings applied from its sub sector classification.

2.0 Truncation Levels

2.1 The truncation levels for each fundamental data item are as follows:

<table>
<thead>
<tr>
<th>Value Measures</th>
<th>Lower Level</th>
<th>Upper Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price to Book</td>
<td>-20</td>
<td>20</td>
</tr>
<tr>
<td>Sales to Price</td>
<td>-30</td>
<td>30</td>
</tr>
<tr>
<td>Dividend Yield</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Cash Flow to Price</td>
<td>-200</td>
<td>200</td>
</tr>
<tr>
<td>Growth Measures</td>
<td>Lower Level</td>
<td>Upper Level</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>3 Year Historic Earnings per Share Growth</td>
<td>-200</td>
<td>200</td>
</tr>
<tr>
<td>3 Year Historic Sales Growth</td>
<td>-70</td>
<td>70</td>
</tr>
<tr>
<td>2 Year Forward Earnings per Share Growth</td>
<td>-200</td>
<td>200</td>
</tr>
<tr>
<td>2 Year Forward Sales Growth</td>
<td>-70</td>
<td>70</td>
</tr>
<tr>
<td>Return on Equity* (1 - Payout Ratio)</td>
<td>-300</td>
<td>300</td>
</tr>
</tbody>
</table>

2.2 Outliers beyond the above limits for each data item remain outside the limits at this stage. No data or constituents are removed due to being an outlier. The same methodology applies during the standard deviation process with any outliers remaining outside of the three standard deviation limit.

2.3 Following this process the data ranking is allocated to each stock for each data item using the following x-axis directions.

2.4 Value Measures shown in the table above:

2.4.1 The left hand side of the x-axis will be 100 (high growth) and the right hand side of the x-axis will be 0 (high value) for each data item.

2.5 Growth Measures shown in the table above:

2.5.1 The left hand side of the x-axis will be 0 (high value) and the right hand side of the x-axis will be 100 (high growth) for each data item.

2.6 Following this procedure the data ranking for each constituent can be ascertained.

3.0 Allocation of Value Ranking (VR) and Growth Ranking (GR) by Subsector

3.1 The allocation of VR and GR by sub sector only occurs when there is no data item available for value and no data item available for growth.

3.2 In this case both the VR and GR are calculated by taking the average of all of the value rankings and then the average of all of the growth rankings in the companies sub sector as defined by the Industry Classification Benchmark.

3.3 The universe to be used in calculating these averages is as follows:

3.3.1 The relevant sub sector in the company’s country (NB the Eurozone is treated as a country) will be used provided there are at least two companies in the sub sector excluding the company to be calculated.

3.3.2 If there are less than two constituents in the country then the region will be used.

3.3.3 If there are less than two constituents on a regional basis then the FTSE All-World Index will be used.
Appendix F: 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 US TMI Series Ground Rules 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](http://www.ftserussell.com)


The US TMI Series is calculated by or on behalf of FTSE International Limited or its affiliate, agent or partner. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI and YB. “FTSE®”, “Russell®”, “FTSE Russell®”, “MTS®”, “FTSE4Good®”, “ICB®”, “Mergent®”, “WorldBIG®”, “USBIG®”, “EuroBIG®”, “AusBIG®”, “The Yield Book®” and all other trademarks and service marks used herein (whether registered or unregistered) are trade marks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, FTSE Canada, Mergent, FTSE FI or YB.

All information is provided for information purposes only. Every effort is made to ensure that all information given in this publication is accurate, but no responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for any errors or for any loss from use of this publication or any of the information or data contained herein.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the results to be obtained from the use of the US TMI Series or the fitness or suitability of the Index Series for any particular purpose to which it might be put.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing in this document should be taken as constituting financial or investment advice. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any representation regarding the advisability of investing in any asset. A decision to invest in any such asset should not be made in reliance on any information herein. Indexes cannot be invested in directly. Inclusion of an asset in an index is not a recommendation to buy, sell or hold that asset. The general information contained in this publication should not be acted upon without obtaining specific legal, tax, and investment advice from a licensed professional.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group index data and the use of their data to create financial products require a licence with FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB and/or their respective licensors.