## Contents

1.0 Introduction ........................................................................................................3  
2.0 Management Responsibilities ...........................................................................5  
3.0 FTSE Russell Index Policies .............................................................................6  
4.0 Eligible Securities .............................................................................................7  
5.0 Index Qualification Criteria .............................................................................9  
6.0 Periodic Review of Constituents ....................................................................10  
7.0 Changes to Constituent Companies .................................................................11  
8.0 Currency Hedging ............................................................................................12  

**Appendix A:** Details of Indexes Calculated .........................................................14  
**Appendix B:** Exchanges Approved by MPFA .........................................................16  
**Appendix C:** Currency Hedging Methodology ....................................................18  
**Appendix D:** Further Information ......................................................................22
Section 1

Introduction

1.0 Introduction

1.1 This document sets out the Ground Rules for the construction and maintenance of the FTSE MPF Index Series. Copies of these Ground Rules are available from FTSE Russell (see Appendix D) and www.ftserussell.com.

1.2 The FTSE MPF Index Series is designed to create a family of Indexes to be used as performance benchmarks for the Hong Kong Mandatory Provident Fund (MPF).

1.3 The FTSE MPF Index Series does not take account of ESG factors in its index design.

1.4 The FTSE MPF Index Series is based on the FTSE All-World Index Series. The following indexes are calculated on a hedged and unhedged basis. Full details are contained Section 8 and Appendix A:

- FTSE MPF Hong Kong Index
- FTSE MPF Domestic Hong Kong Index
- FTSE MPF China Index
- FTSE MPF Greater China Index
- FTSE MPF Japan Index
- FTSE MPF USA Index
- FTSE MPF Asia Pacific ex Japan Index
- FTSE MPF Asia Pacific ex Japan & Hong Kong Index
- FTSE MPF Asia Pacific ex Japan, Australia & New Zealand Index
- FTSE MPF Asia Pacific ex Japan incl. HSBC Index
- FTSE MPF Europe Index
- FTSE MPF North America Index
- FTSE MPF All-World Index
- FTSE MPF All-World ex US Index
- FTSE MPF Developed Index
- FTSE MPF Emerging Index
- FTSE MPF Emerging Markets Index

1 FTSE MPF Emerging Markets Index excludes China stocks listed on eligible exchanges approved by MPFA as listed in Appendix B.
1.5 The FTSE MPF Index Series is currency hedged back into Hong Kong dollars, as required to meet the regulations of the Mandatory Provident Fund. Full details of the currency hedging methodology are contained in Appendix C.

1.6 The FTSE MPF Index Series is calculated daily.

1.7 The base currency of the benchmark is Hong Kong dollars. Index values may also be published in other currencies.

1.8 Capital and Total Net Return indexes are available. The Total Net Return indexes are calculated based on actual tax rates applicable to MPF schemes. For details on the tax rates used for each country, please contact FTSE Russell.

1.9 **FTSE Russell**


1.10 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.

1.11 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.²

2.1.2 FTSE is responsible for the daily calculation, production and operation of the index series and will:

- maintain records of the index weightings of all constituents;
- make changes to the constituents and their weightings in accordance with the Ground Rules;
- carry out the periodic reviews of the index series and apply the changes resulting from the reviews as required by the Ground Rules;
- publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
- disseminate the 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 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 FTSE is not the benchmark administrator of the Index Series as the term administrator is defined in the 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

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

Benchmark_Determination_Complaints_Handling_Policy.pdf

3.2 Index Policy for Trading Halts and Market Closures

3.2.1 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

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

3.3.1 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

3.4 Policy for Benchmark Methodology Changes

3.4.1 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 Each security must be a current constituent of the FTSE All-World Index. Some country or regional indexes in the FTSE MPF Index Series will include the Hong Kong listed line of the same company included in the FTSE All-World Index. Please refer to Appendix A for details.

4.2 A newly eligible P Chip whose associated N Share is already a constituent of the FTSE All-World Index will be eligible for inclusion in the FTSE MPF Index Series at the next quarterly review after a minimum 3-month trading period.

4.3 The investability weighting of an individual constituent is the same as in the FTSE All-World Index, based on the appropriate investment screens and free float weighting of that Index (see Rule 6.4 for constituent capping).

4.4 Please refer to the FTSE Global Equity Index Series Ground Rules available from FTSE Russell for more information on the FTSE All-World Index.

4.5 In order to reflect the Mandatory Provident Fund Schemes Authority (MPFA) Guidelines III.2 on Equities and Other Securities and Schedule 1 to the Mandatory Provident Fund Schemes (General) Regulation, FTSE Russell will apply the following screens to determine the eligible securities to be included in the FTSE MPF Index Series.

4.6 Securities admitted to trading and listing on Stock Exchanges that are not approved by the Mandatory Provident Fund Schemes Authority (MPFA) will be excluded from the calculation of the FTSE MPF Index Series. Please see MPFA Guideline III.4 for a list of Approved Exchanges. The list of Approved Exchanges as at June 2018 is reproduced in Appendix B. The list published by MPFA on its website is the definitive list of Approved Exchanges for the purpose of these Ground Rules.

4.7 Fully-paid up shares listed on an Approved Exchange will be eligible for inclusion.

4.8 All stapled securities, including paired shares, split shares, linked units or any other terms conventionally used in local markets, which represent an arrangement under which two or more securities are quoted jointly will not be eligible for index inclusion unless the securities themselves are permissible under Section 8(1) of Schedule 1 to the MPFS General Regulation.
Real Estate Investment Trusts (REITs) will be eligible for inclusion provided they are authorised by the Hong Kong Securities and Futures Commission (SFC). In addition, REITs listed on an approved exchange in the countries of Australia, the United Kingdom or the United States of America will be eligible provided they meet all the other eligibility requirements in this Section.

A List of SFC authorised REITs is available at:


Securities which are receipts or certificates entitling the holders to the economic benefits (which may or may not include voting rights) of ownership of the underlying shares of a single company will be eligible if

i) the receipts or certificates are fully paid up and do not require further or future payment, and

ii) the underlying shares of the company are fully-paid up, and

iii) both the receipts/certificates and the underlying shares of the company are listed on Approved Exchanges.

Fully-paid up depository receipts (certificaten van aandelen) listed on Euronext Amsterdam and non-voting equity securities (NES) issued by Roche Holdings Limited listed on SIX Swiss Exchange are eligible as these are approved securities under the MPFA Guidelines.

American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) which are listed on an Approved Exchange will be eligible for inclusion if the respective underlying shares are fully-paid up and are themselves listed on an Approved Exchange.

CHESS Depository Interest (CDIs) listed on the Australian Securities Exchange will be eligible for inclusion if the respective underlying shares are fully-paid up and are listed on a foreign (i.e. outside Australia) Approved Exchange.

Non-Voting Depository Receipts (NVDRs) listed on the Stock Exchange of Thailand will be eligible for inclusion if the respective underlying shares (but not warrants or transferable subscription rights) are fully-paid up and are listed on the same stock exchange.

Unit trusts, mutual funds, and any collective closed-end or open-end investment schemes will not be eligible for inclusion as they are not fully permissible under the MPF regulation.
Section 5

Index Qualification Criteria

5.0 Index Qualification Criteria

5.1 Companies are included in the appropriate FTSE MPF Indexes based on the same criteria as the FTSE All-World Index, if they pass the eligibility screening in Section 4.

5.2 A full description of the FTSE MPF Indexes is listed in Appendix A.
Section 6

Periodic Review of Constituents

6.0 Periodic Review of Constituents

6.1 The FTSE MPF Index Series is usually reviewed semi-annually in March and September, on a region by region basis as part of the reviews of the FTSE All-World Index Series on the same dates, based on data after the close of business on the last business day of December and June.

6.2 Any constituent changes resulting from the semi-annual reviews are implemented after the close of business on the third Friday (i.e. effective Monday) of March and September.

6.3 IPOs from all regions (which failed to qualify as fast entrants) will be reviewed in June and December, besides being reviewed at semi-annual reviews. Any constituent changes resulting from the June and December reviews are implemented after the close of business on the third Friday (i.e. effective Monday) of June and December.

6.4 All FTSE MPF Indexes are subject to a 9% capping so that no constituent accounts for more than 9% of the index on a monthly basis. This is in line with the SFC Code on Unit Trusts and Mutual Funds.

6.5 The constituents of the FTSE MPF Indexes are capped monthly at 9% using prices adjusted for corporate actions as at the close of business on the second Friday of each month. The capping is implemented after the close of business on the third Friday of each month based on the constituents, shares in issue and free float on the next trading day following the third Friday of each month.
Section 7

Changes to Constituent Companies

7.0 Changes to Constituent Companies

7.1 Removal

7.1.1 If a constituent ceases to be a constituent of the FTSE All-World Index Series it will be removed from the FTSE MPF Index Series. The removal will be concurrent with its removal from the FTSE All-World Index. In addition, if a constituent becomes ineligible under the current or any new Hong Kong Mandatory Provident Fund regulations, it will be removed as soon as practical after giving users of the index sufficient notification of the changes before their implementation.

7.2 Additions

7.2.1 If a constituent is added to the FTSE All-World Index Series it will be included in the FTSE MPF Index Series if it passes the eligibility screening in Section 4. The inclusion in the FTSE MPF Index Series will be concurrent with its inclusion in the FTSE All-World Index.

7.3 New issues

7.3.1 All fast entries to the FTSE All-World Index Series will become members of the FTSE MPF Index Series if they pass the eligibility screening in Section 4. The constituent will be added to the FTSE MPF Index Series concurrent with its inclusion in the FTSE All-World Index.
Section 8

Currency Hedging

8.0 Currency Hedging

8.1 To comply with the Hong Kong Mandatory Provident Fund regulations, the FTSE MPF Index Series is hedged back into Hong Kong dollars, if necessary.

8.2 The regulations stipulate that at least 30% of a fund’s exposure must be to Hong Kong dollar risk assets. The index series will hedge non-Hong Kong dollar currency exposure in the indexes in excess of 65% to ensure they stay well within the regulations.

8.3 The percentage of a fund’s exposure to the Hong Kong dollar will be reviewed twice a year at the same time as the FTSE Asia Pacific Index review in March and September to determine if the index needs to be hedged in the coming six months. At each review if it is decided to hedge, a hedging factor (see Appendix C for definition) will also be calculated and then carried forward until the next review.

8.4 The following indexes do not require currency hedging since their exposure to Hong Kong dollar assets will normally exceed 30%:

- FTSE MPF Hong Kong Index
- FTSE MPF Domestic Hong Kong Index
- FTSE MPF China Index
- FTSE MPF Greater China Index

8.5 The following indexes will have their non-Hong Kong dollar exposure in excess of 65% hedged back into Hong Kong dollars, if necessary.

- FTSE MPF Japan Index
- FTSE MPF USA Index
- FTSE MPF Asia Pacific ex Japan Index
- FTSE MPF Asia Pacific ex Japan & Hong Kong Index
- FTSE MPF Asia Pacific ex Japan, Australia & New Zealand Index
- FTSE MPF Asia Pacific ex Japan incl. HSBC Index
- FTSE MPF Europe Index
- FTSE MPF North America Index
- FTSE MPF All-World Index
- FTSE MPF All-World ex US Index
- FTSE MPF Developed Index
- FTSE MPF Emerging Index
• FTSE MPF Emerging Markets Index\textsuperscript{3}

8.6 The currency hedged indexes are calculated daily using one-month forward currency rates. Due to the lack of liquidity in some Hong Kong dollar forward currency rates, all hedging is calculated as a two stage process. The respective foreign currency is first hedged into the United States dollar and then hedged from the US dollar to Hong Kong dollar.

8.7 For regional indexes currency hedging is calculated at the underlying country/currency level.

8.8 Full details of the currency hedging methodology is described in Appendix C.

\textsuperscript{3} FTSE MPF Emerging Markets Index excludes China stocks listed on eligible exchanges approved by MPFA as listed in Appendix B.
Appendix A: Details of Indexes Calculated

1.0 The FTSE MPF Index Series is based on the FTSE All-World Index Series. Some FTSE MPF indexes are identical to the FTSE All-World indexes; others have been adapted to meet the specific needs of the Mandatory Provident Funds, as follows:

2.0 FTSE MPF Hong Kong Index includes:
   - HSBC (the Hong Kong listed line)
   - Hong Kong Companies
   - Red Chips
   - P Chips*
   - H-shares

3.0 FTSE MPF Domestic Hong Kong Index includes:
   - HSBC (the Hong Kong listed line)
   - Hong Kong Companies

4.0 FTSE MPF China Index includes:
   - Red Chips
   - P Chips*
   - H-shares

5.0 FTSE MPF Greater China Index includes:
   - HSBC (the Hong Kong listed line)
   - Hong Kong Companies
   - Red Chips
   - P Chips*
   - H-shares
   - Companies listed on the Taiwan Stock Exchange

* A newly eligible P Chip whose associated N Share is already a constituent of the FTSE All-World Index will be eligible for inclusion in the FTSE MPF Index Series at the next quarterly review after a minimum 3-month trading period.
6.0 FTSE MPF Emerging Markets Index includes:

- Brazil
- Greece\(^4\)
- India
- Malaysia
- Mexico
- Philippines\(^5\)
- South Africa
- Taiwan
- Thailand

FTSE MPF Emerging Markets Index excludes China stocks listed on eligible exchanges approved by MPFA as listed in Appendix B.

7.0 All constituents within the FTSE MPF Index Series must be listed on eligible exchanges approved by MPFA as listed in Appendix B.

8.0 All constituents within the FTSE MPF Index Series are subject to a 9% capping on a monthly basis so that no constituent accounts for more than 9% of the index.

\(^4\) Greece was reclassified from Developed to Advanced Emerging status on 21 March 2016.

\(^5\) Philippines added as an approved MPFA market in March 2015. The Philippine Stock Exchange will be eligible for inclusion in the FTSE MPF Index Series with effect from the September 2015 semi-annual review.
## Appendix B: Exchanges Approved by MPFA

### List of Approved Stock Exchanges

<table>
<thead>
<tr>
<th>Country</th>
<th>Stock Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Securities Exchange*</td>
</tr>
<tr>
<td>Austria</td>
<td>Vienna Stock Exchange*</td>
</tr>
<tr>
<td>Belgium</td>
<td>Euronext Brussels*</td>
</tr>
<tr>
<td>Brazil</td>
<td>BM&amp;FBOVESPA*</td>
</tr>
<tr>
<td>Canada</td>
<td>Toronto Stock Exchange*</td>
</tr>
<tr>
<td>Denmark</td>
<td>Nasdaq Copenhagen*</td>
</tr>
<tr>
<td>Finland</td>
<td>Nasdaq Helsinki*</td>
</tr>
<tr>
<td>France</td>
<td>Euronext Paris*</td>
</tr>
<tr>
<td>Germany</td>
<td>Frankfurt Stock Exchange*</td>
</tr>
<tr>
<td>Greece</td>
<td>Athens Stock Exchange*</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Stock Exchange of Hong Kong*</td>
</tr>
<tr>
<td>India</td>
<td>National Stock Exchange of India*</td>
</tr>
<tr>
<td></td>
<td>BSE</td>
</tr>
<tr>
<td>Ireland</td>
<td>Irish Stock Exchange*</td>
</tr>
<tr>
<td>Israel</td>
<td>Tel-Aviv Stock Exchange*</td>
</tr>
<tr>
<td>Italy</td>
<td>Borsa Italiana*</td>
</tr>
<tr>
<td>Japan</td>
<td>Tokyo Stock Exchange*</td>
</tr>
<tr>
<td></td>
<td>Nagoya Stock Exchange</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Luxembourg Stock Exchange*</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Bursa Malaysia*</td>
</tr>
<tr>
<td>Mexico</td>
<td>Mexican Stock Exchange*</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Euronext Amsterdam*</td>
</tr>
<tr>
<td>New Zealand</td>
<td>NZX*</td>
</tr>
<tr>
<td>Norway</td>
<td>Oslo Børs*</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Stock Exchange*</td>
</tr>
<tr>
<td>Portugal</td>
<td>Euronext Lisbon*</td>
</tr>
<tr>
<td>Singapore</td>
<td>Singapore Exchange Securities Trading*</td>
</tr>
<tr>
<td>South Africa</td>
<td>Johannesburg Stock Exchange*</td>
</tr>
<tr>
<td>South Korea</td>
<td>Korea Exchange*</td>
</tr>
</tbody>
</table>

6 As at June 2018.
8 India added to the FTSE MPF Indexes as an approved MPFA market in March 2010
9 Philippines added to the FTSE MPF Indexes as an approved MPFA market in September 2015.
<table>
<thead>
<tr>
<th>Country</th>
<th>Stock Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>Madrid Stock Exchange*</td>
</tr>
<tr>
<td>Sweden</td>
<td>Nasdaq Stockholm*</td>
</tr>
<tr>
<td>Switzerland</td>
<td>SIX Swiss Exchange*</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Stock Exchange*</td>
</tr>
<tr>
<td>Thailand</td>
<td>Stock Exchange of Thailand*</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>London Stock Exchange*</td>
</tr>
<tr>
<td></td>
<td>NYSE American*</td>
</tr>
<tr>
<td></td>
<td>Cboe BZX Exchange*</td>
</tr>
<tr>
<td></td>
<td>Nasdaq Stock Market*</td>
</tr>
<tr>
<td></td>
<td>New York Stock Exchange*</td>
</tr>
<tr>
<td>United States of America</td>
<td>NYSE Arca</td>
</tr>
<tr>
<td></td>
<td>Nasdaq PHLX</td>
</tr>
</tbody>
</table>

Source: MPFA website

*Eligible exchange in the FTSE All-World Index, the underlying index of the FTSE MPF Index Series
Appendix C: Currency Hedging Methodology

The FTSE Russell currency hedging methodology, as explained in Rule 8.2, allows exposure to non-Hong Kong dollar risk assets in the Index to behave like an investment fund hedged in accordance with the Hong Kong Mandatory Provident Fund regulations.

The indexes hedge each currency in two stages. The first stage calculates the impact of hedging for each country; the second stage applies this calculation to the hedged index.

The index series is calculated daily.

**Impact of Hedging**

\[
\text{Impact of Hedging} = \frac{\sum_{i} (\text{Mcap}_i \text{C}_{i+1} \times HF \times (\frac{S_{i+1}}{FIR} - \frac{S_{i+2}}{S_{i+2}}))}{\sum_{i} \text{Mcap}_i \text{C}_{i+1}}
\]

The impact of hedging weights each country by market capitalisation and calculates the hedged gain or loss at the current calculation date.

Where:-

- \( \text{Mcap}_i \text{C}_{i+1} \) = Country index market capitalisation at the close of the previous hedging period
- \( S_{i+1} \) = Spot exchange rate at the close of the previous hedging period
- \( S_{i+2} \) = Spot exchange rate at the close of the current calculation date
- \( FIR \) = Forward interpolated rate
- \( HF \) = Hedging factor. This is the proportion of the country index market capitalisation to be hedged as determined in the semi-annual review. It is defined as follows:

\[
\text{Hedging Factor} = \frac{\max(0.35 - W_{HKE}, 0)}{1 - W_{HKE}}
\]

Where:

- \( W_{HKE} \) = Aggregate Hong Kong dollar exposure of the index as of the semi-annual review. It is calculated using prices as of close of the day before the last business day of the review month and index constituents available after the close of business on the last business day of the review month.
Hedged Capital Index

Hedged Capital Index = \( HI_{t+1} \times \left( \frac{UI_{t+2}}{UI_{t+1}} + IH \right) \)

The capital hedged index is derived from the unhedged capital index performance (as outlined in the Guide to Calculation for the FTSE Global Equity Index Series) and the impact of hedging at the current calculation date.

Where:-

- \( HI_{t+2} \) = Hedged Capital index at the close of the previous hedging period
- \( UI_{t+1} \) = Unhedged Capital index at the close of the previous hedging period
- \( UI_{t+2} \) = Unhedged Capital index at the close of the current calculation date
- \( IH \) = Impact of hedging

Hedged Total Net Return Index

Hedged Total Net Return index = \( HTRI_{t+1} \times \left( \frac{UTRI_{t+2}}{UTRI_{t+1}} + IH \right) \)

The hedged Total Net Return index is derived from the unhedged Total Net Return index performance (as outlined in the Guide to Calculation for the FTSE Global Equity Index Series) and the impact of hedging at the current calculation date.

Where:-

- \( HTRI_{t+1} \) = Hedged Total Net Return index at the close of the previous hedging period
- \( UTRI_{t+1} \) = Unhedged Total Net Return index at the close of the previous hedging period
- \( UTRI_{t+2} \) = Unhedged Total Net Return index at the close of the current calculation date
- \( IH \) = Impact of hedging

Forward Rates and Spot Rates

FTSE Russell will use one month WM Reuters 16:00 hours London Time mid price forward rates in its currency hedged indexes calculation. All rates are the last working day of the relevant market month direct USD quotes. Spot rates that are used in the currency hedging calculation are WM/Reuters Closing Spot Rates, compiled by Thomson Reuters.

Forward Interpolated Rates

Forward Interpolated Rates = \( F_{t+1} = F_{t+1} + \left( \frac{(S_{t+1} - F_{t+1}) (N_{d-t-1})}{N_d} \right) \)

Forward interpolated rates enable FTSE Russell to value a forward contract on a particular inter month period. They do this by calculating the spot/forward discount/premium at the beginning of the contract period, and then discount this over the life of the contract.

- \( N_{d,t} \) = Number of days left of forward contract
- \( N_d \) = Number of days of forward contract
- \( F_{t+1} \) = The forward contract (rate) bought at the close of the previous hedging period
- \( S_{t+1} \) = Spot rate at the close of the previous hedging period
In the example below an index has been created that comprises of Canada, and the United States. The example is a capital index in Hong Kong Dollars where each country is 35% hedged into Hong Kong Dollars. The index is based on a period of one calendar month.

<table>
<thead>
<tr>
<th>Unhedged Index Values (Hong Kong Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unhedged Index</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country Index Market Capitalisation (HKDm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-10-2003</td>
</tr>
<tr>
<td>Canada</td>
</tr>
<tr>
<td>USA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spot Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD/HKD</td>
</tr>
<tr>
<td>USD/HKD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forward Interpolated Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-11-2003</td>
</tr>
<tr>
<td>CAD/HKD</td>
</tr>
<tr>
<td>USD/HKD</td>
</tr>
</tbody>
</table>

Impact of Hedging (inter month calculation)

The example below is based on calculating the impact of hedging for the 14 November.

\[
\text{Impact of Hedging} = \sum_{i=1}^{n} \left( \frac{Mcap_{i+1} \times 0.35 \times \left( S_{i+1} FIR - S_{i+1} \right)}{\sum_{i=1}^{n} Mcap_{i+1}} \right)
\]

Where:

\[
\begin{align*}
33509673560 \times 0.35 \times \left[ 0.1697 - 0.1697 \right] + 78576567320 \times 0.35 \times \left[ 0.1288 - 0.1288 \right]
\end{align*}
\]

\[
\frac{-14,660.667213357632}{3,350,9673560 - 78,576,567320} = 0.0001
\]

Forward Interpolated Rates (inter month calculation)

\[
\text{Forward Interpolated Rates} = F_{i+1} + \left( \frac{S_{i+1} - F_{i+1}}{N_{d-t}} \right)
\]

Where:

\[
\begin{align*}
N_{d-t} &= 14 \\
N_d &= 28 \\
F_{i+1} &= \text{CAD/HKD} 0.1701 \\
S_{i+1} &= \text{CAD/HKD} 0.1697
\end{align*}
\]

\[
\text{Forward Interpolated Rates} = 0.1704 \left( \frac{0.1697 - 0.1701}{28} \right) = 0.1699
\]
Hedged Index (inter month calculation)

\[ \text{Hedged Index} = HI_{t+1} \times \left( \frac{UL_{t+2}}{UL_{t+1}} + IH \right) \]

\[ = 100.0000 \times \left( \frac{999985}{1000000} + 0.000 \right) \]

\[ = 100.0085 \]

Impact of Hedging (end of month calculation)

The impact of hedging calculation below is based on the last working day of the calendar month.

\[ \text{Impact of Hedging} = \sum_{i=1}^{n} \left( \text{McapC}_{t+1} * 0.35^* \left( \frac{S_{t+i}}{FTR} - S_{t+i} \right) \right) \]

\[ \sum_{i=1}^{n} \text{McapC}_{t+1} \]

Where:

\[ \left( 33506735600.35^* \left( \begin{array}{cc} 0.1697 & 0.1697 \\ 0.1701 & 0.1674 \end{array} \right) + \left( 78576673220.35^* \left( \begin{array}{cc} 0.1288 & 0.1288 \\ 0.1289 & 0.1288 \end{array} \right) \right) \right) \]

\[ = \frac{3350673560 - 21335763}{3350673560 - 7857667322} = -0.005 \]

Hedged Index (end of month calculation)

\[ \text{Hedged Index} = HI_{t+1} \times \left( \frac{UL_{t+2}}{UL_{t+1}} + IH \right) \]

\[ = 100.0000 \times \left( \frac{1009567}{1000000} + 0.000 \right) \]

\[ = 100.9067 \]
Appendix D: 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 MPF Index 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