

# **GROUND RULES FOR THE MANAGEMENT OF THE FTSE MPF INDEX SERIES**



---

## TABLE OF CONTENTS

---

- 1.0 Introduction
- 2.0 Index Management
- 3.0 Eligible Securities
- 4.0 Index Qualification Criteria
- 5.0 Periodic Review of Constituents
- 6.0 Changes to Constituent Companies
- 7.0 Currency Hedging

### Appendices

- A Details of Indices Calculated
- B Exchanges Approved by MPFA
- C Currency Hedging Methodology
- D Further Information

---

## SECTION 1

---

### 1.0 INTRODUCTION

- 1.1 This paper sets out the Ground Rules for the management of the FTSE MPF Index Series. Copies of these Ground Rules are available from FTSE (see Appendix D) and [www.ftse.com](http://www.ftse.com).
- 1.2 The FTSE MPF Index Series is designed to create a family of indices to be used as performance benchmarks for the Hong Kong Mandatory Provident Fund (MPF).
- 1.3 The FTSE MPF Index Series are based on the FTSE All-World Index Series. The following indices are calculated. Full details are contained in Appendix A:-
- FTSE MPF Hong Kong
  - FTSE MPF Domestic Hong Kong
  - FTSE MPF China
  - FTSE MPF Greater China
  - FTSE MPF Japan
  - FTSE MPF USA
  - FTSE MPF Asia Pacific ex Japan
  - FTSE MPF Asia Pacific ex Japan & Hong Kong
  - FTSE MPF Asia Pacific ex Japan, Australia & New Zealand
  - FTSE MPF Asia Pacific ex Japan incl. HSBC
  - FTSE MPF Europe
  - FTSE MPF North America
  - FTSE MPF All-World
  - FTSE MPF Emerging Markets
- 1.4 The FTSE MPF Index Series are 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.
- 1.5 The FTSE MPF Index Series is calculated daily. The base currency of the Index Series is Hong Kong dollars.
- 1.6 Capital and Total Net Return Indices are available. The Total Net Return Indices are calculated based on actual tax rates applicable to MPF schemes. For details on the tax rates used for each country, please contact FTSE.

---

## **SECTION 2**

---

### **2.0 INDEX MANAGEMENT**

- 2.1 The FTSE MPF Index Series is managed by the FTSE Asia Pacific Regional Committee of the FTSE Equity Indices Committee.
- 2.2 The FTSE Asia Pacific Regional Committee is responsible for undertaking the review of the Index Series and for approving changes to the constituents. The FTSE Asia Pacific Regional Committee may also approve changes to the Ground Rules.
- 2.3 FTSE is responsible for the calculation of the Index Series. FTSE will maintain records of the market capitalisation of all constituents and will make changes to the constituents and their weightings in accordance with the Ground Rules. FTSE will implement the resulting constituent changes from the annual review or as otherwise required by the Ground Rules.

---

## SECTION 3

---

### 3.0 ELIGIBLE SECURITIES

- 3.1 Each security must be a current constituent of the FTSE All-World Index.
- 3.2 The share 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 5.3 for constituent capping).
- 3.3 Ground Rules for the FTSE All-World Index are available from FTSE.
- 3.4 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 Appendix B for Stock Exchanges approved by MPFA.
- 3.5 Stapled securities, an arrangement under which different securities are quoted jointly, will not be eligible for inclusion.
- 3.6 Real Estate Investment Trusts (REITs) will be eligible for inclusion if they are authorised by Hong Kong's Securities and Futures Commission (SFC). A List of SFC authorised REITs is available at:  
<http://www.invested.hk/ProductList/searchProduct/REIT.do?lang=EN>

---

## **SECTION 4**

---

### **4.0 INDEX QUALIFICATION CRITERIA**

- 4.1 Companies are included in the appropriate FTSE MPF Indices based on the same criteria as the FTSE All-World Index.
- 4.2 A full description of the FTSE MPF Indices is listed in Appendix A.

---

## SECTION 5

---

### 5.0 PERIODIC REVIEW OF CONSTITUENTS

- 5.1 The FTSE MPF Index Series is reviewed quarterly in March, June, September and December as part of the reviews of the FTSE All-World Index on the same dates.
- 5.2 Changes arising from the quarterly reviews are implemented after the close of business on the third Friday in March, June, September and December.
- 5.3 All FTSE MPF Indices are subject to a 10% capping so that no constituent accounts for more than 10% of the index on a daily basis. This is in line with the SFC Code (Securities and Futures Commission) on Unit Trusts and Mutual Funds. Any constituent with a weight of over 10% at the close of business will be capped at 10%.

---

## **SECTION 6**

---

### **6.0 CHANGES TO CONSTITUENT COMPANIES**

#### 6.1 Removal

- 6.1.1 If a constituent ceases to be a constituent of the FTSE All-World Index it will be removed from the FTSE MPF Index Series. The removal will be concurrent with its removal from the FTSE All-World Index.

#### 6.2 Additions

- 6.2.1 If a constituent is added to the FTSE All-World Index it will be included in the FTSE MPF Index Series if they pass the eligibility screening in Rules 3.4, 3.5 and 3.6. The inclusion in the FTSE MPF Index Series will be concurrent with its inclusion in the FTSE All-World Index.

#### 6.3 New Issues

- 6.3.1 All fast entries to the FTSE All-World Index will become members of the FTSE MPF Index Series if they pass the eligibility screening in Rules 3.4, 3.5 and 3.6. The constituent will be added to the FTSE MPF Index Series concurrent with its inclusion in the FTSE All-World Index.

---

## SECTION 7

---

### 7.0 CURRENCY HEDGING

- 7.1 To comply with the Hong Kong Mandatory Provident Fund regulations, the FTSE MPF Index Series are hedged back into Hong Kong dollars, if necessary.
- 7.2 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 indices in excess of 65% to ensure they stay well within the regulations.
- 7.3 The percentage of a fund's exposure to Hong Kong dollar will be reviewed once a year at the same time as the FTSE Asia Pacific review in March to determine if the index need to be hedged in the coming year.
- 7.4 The following indices do not require currency hedging since their exposure to Hong Kong dollar assets will normally exceed 30%:
- FTSE MPF Hong Kong
  - FTSE MPF Domestic Hong Kong
  - FTSE MPF China
  - FTSE MPF Greater China
- 7.5 The following indices all have 35% of their non-Hong Kong dollar exposure hedged back into Hong Kong dollars:
- FTSE MPF Japan
  - FTSE MPF USA
  - FTSE MPF Asia Pacific ex Japan
  - FTSE MPF Asia Pacific ex Japan & Hong Kong
  - FTSE MPF Asia Pacific ex Japan, Australia & New Zealand
  - FTSE MPF Asia Pacific ex Japan incl. HSBC
  - FTSE MPF Europe
  - FTSE MPF North America
  - FTSE MPF All-World
  - FTSE MPF Emerging Markets
- 7.6 The indices are currency hedged on a daily basis 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.
- 7.7 For regional indices currency hedging is calculated at the underlying country/currency level.
- 7.8 Full details of the currency hedging methodology is described in Appendix C.

---

## APPENDIX A

---

### DETAILS OF INDICES CALCULATED

- 1.0 The FTSE MPF Index Series are based on the FTSE All-World Index Series. Some indices are exactly the same as calculated within that Series. 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
  - 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
  - H-shares
- 5.0 FTSE MPF Greater China Index includes:
  - HSBC (the Hong Kong listed line)
  - Hong Kong Companies
  - Red Chips
  - H-shares
  - Companies listed on the Taiwan Stock Exchange
- 6.0 FTSE MPF Emerging Markets Index includes:
  - Brazil
  - India
  - Malaysia
  - Mexico
  - South Africa
  - Taiwan
  - Thailand
- 7.0 All FTSE MPF Index Series are subject to the eligible exchanges approved by MPFA as listed in Appendix B.
- 8.0 All FTSE MPF Index Series are subject to a 10% capping on a daily basis so that no constituent accounts for more than 10% of the index.

## APPENDIX B

### EXCHANGES APPROVED BY MPFA

List of approved stock exchanges established in a place outside Hong Kong

Country	Stock Exchange
Australia	Australian Securities Exchange
Austria	Wiener Börse AG
Belgium	Euronext Brussels
Brazil	Sao Paulo Stock Exchange (BOVESPA)
Canada	Toronto Stock Exchange
Denmark	Copenhagen Stock Exchange
Finland	Helsinki Exchanges
France	Euronext Paris
Germany	Deutsche Börse AG
Greece	Athens Stock Exchange
India <sup>1</sup>	National Stock Exchange of India Bombay Stock Exchange
Ireland	Irish Stock Exchange
Israel	Tel-Aviv Stock Exchange
Italy	Italian Stock Exchange
Japan	Osaka Securities Exchange
	Tokyo Stock Exchange
	JASDAQ Securities Exchange
	Nagoya Stock Exchange
Luxembourg	Luxembourg Stock Exchange
Malaysia	Bursa Malaysia
Mexico	Mexican Stock Exchange
Netherlands	Euronext Amsterdam
New Zealand	New Zealand Exchange
Norway	Oslo Børs
Portugal	Euronext Lisbon
Singapore	Singapore Exchange
South Africa	JSE Limited
South Korea	Korea Exchange
Spain	Madrid Stock Exchange
Sweden	Stockholmsbörsen
Switzerland	SIX Swiss Exchange
Taiwan	Taiwan Stock Exchange
Thailand	Stock Exchange of Thailand
United Kingdom	London Stock Exchange
USA	NYSE Amex Equities
	NASDAQ Stock Market
	New York Stock Exchange
	NYSE Arca
	Philadelphia Stock Exchange

Source: MPFA website

[http://www.mpfa.org.hk/english/leg\\_reg/leg\\_reg\\_gui/leg\\_reg\\_gui\\_p3/files/Annex\\_A\\_to\\_III\\_4\\_e.pdf](http://www.mpfa.org.hk/english/leg_reg/leg_reg_gui/leg_reg_gui_p3/files/Annex_A_to_III_4_e.pdf)

<sup>1</sup> India added to the FTSE MPF Indices as an approved MPFA market in March 2010

---

## APPENDIX C

---

### CURRENCY HEDGING METHODOLOGY

The FTSE currency hedging methodology, as explained in Rule 7.2, 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 Indices 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

$$\text{Impact of Hedging} = \frac{\sum_{i=1}^n \left( Mcap_i C_{t+1} * 0.35 * \left( \frac{S_{t+1}}{FIR} - \frac{S_{t+1}}{S_{t+2}} \right) \right)}{\sum_{i=1}^n Mcap_i C_{t+1}}$$

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

Where: -

$Mcap_i C_{t+1}$	=	Country index market capitalisation at the close of the previous hedging period
$S_{t+1}$	=	Spot exchange rate at the close of the previous hedging period
$S_{t+2}$	=	Spot exchange rate at the close of the current calculation date
$FIR$	=	Forward interpolated rate

#### Hedged Capital Index

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

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

Where: -

$HI_{t+1}$	=	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

$$\text{Hedged Total Net Return Index} = HTRI_{t+1} * \left( \frac{UTRI_{t+2}}{UTRI_{t+1}} + IH \right)$$

## APPENDIX C

The hedged Total Net Return Index is derived from the unhedged Total Net Return Index performance (as outlined in the FTSE Global Guide to Calculation Method) 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 will use one month WM Reuters 16:00 hrs London Time mid price forward rates in its currency hedged indices 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 The WM Company.

### Forward Interpolated Rates

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

Forward interpolated rates enable FTSE 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.

Where: -

$N_{d-t}$	=	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 per cent hedged into Hong Kong Dollars. The index is based on a period of one calendar month.

Unhedged Index Values (Hong Kong Dollars)			
	31-11-2003	14-11-2003	28-11-2003
Unhedged Index	100.0000	99.9985	100.9567

Country Index Market Capitalisation (HKDm)	
	31-11-2003
Canada	3,350,967.3560
USA	78,576,567.7322

Spot Rates			
	31-11-2003	14-11-2003	28-11-2003
CAD / HKD	0.1697	0.1678	0.1674
USD / HKD	0.1288	0.1289	0.1288

## APPENDIX C

Forward Interpolated Rates		
	14-11-2003	28-11-2003
CAD/ HKD	0.1699	0.1701
USD/ HKD	0.1288	0.1289

### Impact of Hedging (inter month calculation)

The example below is based on calculating the impact of hedging for the 14<sup>th</sup> November.

$$\text{Impact of Hedging} = \frac{\sum_{i=1}^n \left( \text{Mcap}_i C_{t+1} * 0.35 * \left( \frac{S_{t+1}}{\text{FIR}} - \frac{S_{t+1}}{S_{t+2}} \right) \right)}{\sum_{i=1}^n \text{Mcap}_i C_{t+1}}$$

Where: -

$$\frac{\left( 3,350,967.3560 * 0.35 * \left( \frac{0.1697}{0.1699} - \frac{0.1697}{0.1678} \right) \right) + \left( 78,576,567.7322 * 0.35 * \left( \frac{0.1288}{0.1288} - \frac{0.1288}{0.1289} \right) \right)}{3,350,967.3560 + 78,576,567.7322} =$$

$$\frac{-14,660.6776 + 21,335.7632}{3,350,967.3560 + 78,576,567.7322} = 0.0001$$

### Forward Interpolated Rates (inter month calculation)

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

Where: -

$$\begin{aligned} N_{d-t} &= 14 \\ N_d &= 28 \\ F_{t+1} &= \text{CAD/HKD } 0.1701 \\ S_{t+1} &= \text{CAD/HKD } 0.1697 \end{aligned}$$

$$\text{Forward Interpolated Rates} = 0.1701 + \left( \frac{(0.1697 - 0.1701)(14)}{28} \right) = 0.1699$$

### Hedged Index (inter month calculation)

$$\begin{aligned} \text{Hedged Index} &= HI_{t+1} * \left( \frac{UI_{t+2}}{UI_{t+1}} + IH \right) \\ &= 100.0000 * \left( \frac{99.9985}{100.0000} + 0.0001 \right) \\ &= 100.0085 \end{aligned}$$

---

## APPENDIX C

---

### Impact of Hedging (end of month calculation)

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

$$\text{Impact of Hedging} = \frac{\sum_{i=1}^n \left( \text{Mcap}_i C_{t+1} * 0.35 * \left( \frac{S_{t+1}}{\text{FIR}} - \frac{S_{t+1}}{S_{t+2}} \right) \right)}{\sum_{i=1}^n \text{Mcap}_i C_{t+1}}$$

Where: -

$$\begin{aligned} & \frac{\left( 3,350,967.3560 * 0.35 * \left( \frac{0.1697}{0.1701} - \frac{0.1697}{0.1674} \right) \right) + \left( 78,576,567.7322 * 0.35 * \left( \frac{0.1288}{0.1289} - \frac{0.1288}{0.1288} \right) \right)}{3,350,967.3560 + 78,576,567.7322} \\ &= \frac{-18,872.2674 + (-21,335.7632)}{3,350,967.3560 + 78,576,567.7322} = -0.0005 \end{aligned}$$

### Hedged Index (end of month calculation)

$$\begin{aligned} \text{Hedged Index} &= HI_{t+1} * \left( \frac{UI_{t+2}}{UI_{t+1}} + IH \right) \\ &= 100.0000 * \left( \frac{100.9567}{100.0000} - 0.0005 \right) \\ &= 100.9067 \end{aligned}$$

---

## APPENDIX D

---

### FURTHER INFORMATION

Further information on the FTSE MPF Index Series is available from FTSE, who will also welcome comments on these Ground Rules and on the Index.

For further details please visit the FTSE website at [www.ftse.com](http://www.ftse.com)

---

*Copyright © FTSE International Limited FTSE 2011. All rights reserved.*

*"FTSE™", "FT-SE®" and "Footsie®" are trademarks of the London Stock Exchange Plc and The Financial Times Limited and are used by FTSE International Limited under licence. The FTSE All-World Indices for the Hong Kong Mandatory Provident Funds Multinational indices are calculated by FTSE International in consultation with the Hong Kong Investment Funds Association. All rights in and to the FTSE All-World Indices for the Hong Kong Mandatory Provident Funds vest in FTSE International.*

*No part of this publication 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 FTSE International Limited. All information provided is for information purposes only and no warranty is made as to its fitness for purpose, satisfactory quality or otherwise. Every effort has been made to ensure that all information given is accurate, but no responsibility or liability (including in negligence) can be accepted by FTSE International Limited for errors or omissions or for any losses arising from the use of this information.*