

**Aurora Dynamic**

**Bloomberg Code: BNPIAUDY Index**

**Reuters Code: .BNPIAUDY**

**INDEX RULE BOOK**

**This Rule Book sets out the description of the Index and the Index Rules which are applied by the Index Sponsor and the Index Calculation Agent to determine the calculation of the Index from time to time.**

**Final Version: 5 January 2016**

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## I. Part A - Index Specific Rules

### 1. DESCRIPTION OF THE INDEX

The Aurora Dynamic (the "**Index**") is a euro ("**EUR**", the "**Index Currency**") denominated Index. The objective of the Index is to provide synthetic exposure to the performance of a basket of accumulation fund shares (each an "**Index Component**"), where the weight of each Index Component is rebalanced daily in accordance with a proprietary allocation algorithm aimed at maximizing return for a predetermined level of risk.

The Index was established based on historical backtesting on December 30<sup>th</sup>, 2014 (the "**Index Start Date**") with an initial level of 100.0 index points (the "**Initial Index Level**").

The methodology of the Index is set out in Section 6 (*Index Methodology*).

The Index is a "**Total Return**" index. As a consequence, the level of the index reflects a value assuming reinvestment of all dividends and distributions declared.

The Index is part of the Millenium Indices family of BNP Paribas indices.

The Index is calculated, maintained, rebalanced and published by BNP Paribas Arbitrage SNC (the "**Index Calculation Agent**") and sponsored by BNP Paribas (the "**Index Sponsor**"). The Index is calculated and published on a daily basis by the Index Calculation Agent. The Index Sponsor has not appointed an Index Investment Advisor in respect of the Index.

#### Volatility Control Mechanism

In order to control the volatility risks associated with the Index, a volatility control mechanism is built in. When the Index Calculation Agent determines that the volatility of the Index has exceeded the maximum volatility target (the "**Maximum Volatility Target**") of 10.00%, then the exposure of the Index to Index Components will be reduced and a corresponding portion of the Index will reference money market assets, with the aim of maintaining the volatility of the Index below the Maximum Volatility Target.

#### Composition of the Index

On the Index Start Date, the Index was comprised of Index Components of the type (each an "**Index Component Type**") and currency denomination set out in the table below:

n	Name	Index Component Type	ISIN	BBG	Currency	Exchange
1	THEAM Quant - Equity US Guru/Luxembourg P	Fund share	LU1049889469	TQEUSGP LX Equity	USD	Not Applicable
2	BNP PARIBAS L1	Fund share	LU0158988799	FOREQUI LX Equity	USD	Not Applicable

	EQUITY USA CORE					
3	PARVEST EQUITY BEST SELECTIO N EURO	Fund share	LU0823401 814	FOEBSEI LX Equity	EUR	Not Applicable
4	THEAM Quant Equity Europe Guru	Fund share	FR0010730 077	HARQEEA FP Equity	EUR	Not Applicable
5	BNP PARIBAS L1 EQUITY EUROPE	Fund share	LU0158838 390	FOREQEI LX Equity	EUR	Not Applicable
6	PARVEST EQUITY WORLD LOW VOLATILI TY	Fund share	LU0823418 115	INTEBEI LX Equity	EUR	Not Applicable
7	PARVEST EQUITY WORLD EMERGIN G	Fund share	LU0823413 744	FOEQWEI LX Equity	USD	Not Applicable
8	PARVEST BOND WORLD INFLATIO N-LINKED	Fund share	LU0249356 808	PAWDLIC LX Equity	EUR	Not Applicable
9	PARVEST BOND EURO GOVERNMENT	Fund share	LU0111549 050	PAREABI LX Equity	EUR	Not Applicable
10	PARVEST BOND EURO	Fund share	LU0102017 729	PAREBOI LX Equity	EUR	Not Applicable
11	PARVEST BOND EURO INFLATIO N-LINKED	Fund share	LU0190305 473	PAEILIC LX Equity	EUR	Not Applicable
12	BNP PARIBAS L1 BOND	Fund share	LU0159059 566	GBDRPIL LX Equity	EUR	Not Applicable

	WORLD PLUS					
13	PARVEST BOND EURO CORPORATE	Fund share	LU0131211178	PARECPI LX Equity	EUR	Not Applicable
14	PARVEST BOND EURO HIGH YIELD	Fund share	LU0823381016	FOCHYEI LX Equity	EUR	Not Applicable
15	PARVEST BOND WORLD HIGH YIELD	Fund share	LU0823388961	FLBHYIE LX Equity	EUR	Not Applicable
16	PARVEST BOND WORLD EMERGING LOCAL	Fund share	LU0823386593	FORBLIC LX Equity	USD	Not Applicable
17	PARVEST BOND WORLD EMERGING	Fund share	LU0102020947	PAREMBI LX Equity	USD	Not Applicable
18	PARVEST CONVERTIBLE BOND EUROPE	Fund share	LU0086913125	PARECBI LX Equity	EUR	Not Applicable
19	BNP PARIBAS L1 MULTI-ASSET INCOME	Fund share	LU1056595041	BMAINCI LX Equity	EUR	Not Applicable
20	BNPP Paribas USD EUR Forward Index	Custom Index	XEEXTIDX 0184	BNPIUSEU index	EUR	Not Applicable

To determine the Index Levels from the Index Start Date, values of the Index Components and the Index for a period between December 30<sup>th</sup>, 2013, the "**Index Initial Data Date**" and the Index Start Date were used to establish the necessary performance history required for the operation of the Index Rules. Not all values for the Index Components were available (or were deemed suitable) from the Index Initial Data Date. Consequently, at any given date prior to the Index Start Date, values for the Index Components and the Index may have been simulated or approximated by or from substitute assets obtained from sources deemed to be appropriate and may include other market indices and excess return versions of the Index Components when available.

On any day, the current composition of the Index will be available on <https://indices-globalmarkets.bnpparibas.com>.

## **2. ADJUSTMENTS TO INDEX COMPONENTS**

If any Index Component ceases to exist or is, or would be, subject to an adjustment pursuant to the provisions of any Appendix hereto, or if the Hedging Party informs the Index Sponsor that a Hedging Disruption Event has occurred in respect of that Index Component, the Index Sponsor (and, where applicable, following consultation with the Index Investment Advisor), acting in good faith and in a commercially reasonable manner, may: (a) require the Index Calculation Agent to (i) effect no change to the Index, (ii) adjust the Index in such manner as the Index Sponsor and, where applicable, the Index Investment Advisor, deem appropriate including, but not limited to, replacing such Index Component with a replacement Index Component, or (iii) continue to calculate and publish (as applicable) the Index without such Index Component or any replacement therefore, subject to the provisions of Section 6 (*Index Methodology*); or (b) if the Index Sponsor determines that none of subparagraphs (a)(i) through (iii) are appropriate or practicable, terminate the Index in accordance with its policies and procedures.

The aim of the Index Calculation Agent when making any such operational adjustments is to ensure that, so far as possible, the basis principles and economic effect of the Index are maintained.

## **3. CALCULATION OF THE INDEX LEVEL AND PUBLICATION OF THE INDEX LEVEL**

3.1 The Index is calculated on or in respect of each Index Level Calculation Date, as further described in Section 6 (*Index Methodology*), subject to the provisions of this Section 3 (*Calculation of the Index Level and Publication of the Index Level*) and Section 4 (*Non-Scheduled Trading Days, Disrupted Days and Non-Publication of an Index Component Level*). The Initial Index Level and the initial composition of the Index on the Index Start Date is set out in Section 1 (*Description of the Index*) and (*Composition of the Index*) respectively. Where an Index Component is denominated in a currency other than the Index Currency, the conversion of the level or price, as the case may be, for such Index Component into the Index Currency shall be determined by the Index Calculation Agent on the basis of the official fixing of the foreign exchange reference rates as published on Reuters page WMRSPOT01 based on the USD crossing, for the currency in which the relevant Index Component is denominated, or any other source that the Index Sponsor may deem appropriate.

3.2 Subject to Section 4 (*Non-Scheduled Trading Days, Disrupted Days and Non-publication of an Index Component Level*) of this Part A, on each Publication Date the Index Calculation Agent will publish the Index Level as at the last preceding Index Level Calculation Date (which is expected to be 2 Business Days prior to the Publication Date). The Index Level will be published by the Index Calculation Agent on Bloomberg Screenpage BNPIAUDY Index and Reuters Ticker .BNPIAUDY, or any successor pages thereto, and on any other data provider as the Index Sponsor deems appropriate. In the event of inconsistency between Index Levels published on Bloomberg or Reuters or any other data provider's system then the Index Level published on Bloomberg shall prevail.

## **4. NON-SCHEDULED TRADING DAYS, DISRUPTED DAYS AND NON-PUBLICATION OF AN INDEX COMPONENT LEVEL**

4.1 If any Business Day is a non-Scheduled Trading Day, is not a Reference Index Level Publication Day,

or is a Disrupted Day (as applicable) in respect of one or more Index Components (an "**affected Index Component(s)**"), then the Index Sponsor may :

- (i) deem such a day to be an Index Level Calculation Date and require the Index Calculation Agent to calculate and publish the Index Level in respect of such day (a) using the last value which was available in respect of the affected Index Component(s), or (b) using a good faith estimate of the value of the affected Index Component(s) or (c) deeming, for the purposes of calculating the Index Level, the value of any one or more of such affected Index Components to be equal to zero. The Index Sponsor may further determine that such date is not an Index Trading Day, notwithstanding that it is an Index Level Calculation Date; or
- (ii) deem such a day not to be an Index Level Calculation Date and as a consequence require the Index Calculation Agent not to calculate and publish the Index Level in respect of such day either (a) in the case of non-Scheduled Trading Days, until the next following Scheduled Trading Day; or (b) in the case of Disrupted Days, for a period not exceeding the Maximum Number of Days of Disruption provided that after the Maximum Number of Days of Disruption has elapsed, the Index Sponsor may require the Index Calculation Agent to either resume the calculation and publication of the Index Level in accordance with subsection (i) above or make such adjustment to the Index as the Index Sponsor and the Index Investment Advisor, where applicable, deems appropriate in accordance with Section 2 (*Adjustments to Index Components*) above, including, but not limited to, replacing such affected Index Component(s) with replacement Index Component(s).

4.2 In addition to the rights set out in Section 4.1 above, the Index Sponsor may require the Index Calculation Agent to delay or suspend the calculation and publication of the Index Level for a period not exceeding the Maximum Number of Days of Disruption, or discontinue the calculation and publication of the Index Level, if it determines that any event or circumstance has occurred and is continuing which would make the determination of the Index Level impossible or impracticable including, without limitation, any event or circumstance that does not result in a Disrupted Day and which is contemplated in Part B (*Index Component Adjustment Rules*) of these Index Rules or any event or circumstance that interrupts the ability of the Index Sponsor, the Index Investment Advisor, where applicable, or Index Calculation Agent to perform its duties in respect of the Index.

## 5. ADDITIONAL DEFINITIONS

5.1 In these Index Rules:

An "**Additional Extraordinary Reference Fund Event**" shall be deemed to occur if, at any time, the Hedge Provider, directly or indirectly, holds, owns or controls 20% or more (voting or non-voting) of the outstanding Reference Fund Shares of a Reference Fund (each as defined in Appendix 1) which is an Index Component;

"**Business Day**" means any week day except for 25 December and 1 January in each year.

**"Disrupted Day"** in respect of any Index Component has the meaning given to such term in the Appendix of these Index Rules for the relevant Index Component Type detailed in Section 1 (*Description of the Index*) of Part A.

**"Hedging Disruption Event"** means, in respect of any Index Component(s), the occurrence of any event that the Index Sponsor determines in good faith and in a commercially and reasonable manner would materially restrict any Hedge Provider from: (i) acquiring, establishing, re-establishing, substituting, maintaining, unwinding or disposing of asset(s), transaction(s) or any futures or option contracts on any asset to hedge any relevant price risk associated with entering into and performing its obligations in relation to a relevant Index Component(s); (ii) freely realising, recovering, receiving, repatriating, remitting or transferring the proceeds of hedge positions relating to a relevant Index Component between accounts within the jurisdiction of the hedge positions (the **"Affected Jurisdiction"**) or from accounts within the Affected Jurisdiction to accounts outside of the Affected Jurisdiction; (iii) determining a rate at which any currency relevant to the relevant Index Component(s) or hedge positions relating to the Index may be converted into the Index Currency; or (iv) converting any currency relevant to the Index Component(s) or the hedge positions relating to the Index or the Index Component(s) into another currency relevant to such hedge positions or Index Component(s).

**"Hedge Provider"** means a hypothetical party that would hedge an issuer's obligations in respect of a product linked to the Index.

**"Hedging Party"** means BNP Paribas S.A. or any of its affiliates hedging a transaction linked to the Index.

**"Index Level"** means the level of the Index on any relevant day.

**"Index Level Calculation Date"** means each Business Day on which the Index Calculation Agent determines that it is able to calculate the Index Level, based on the availability of the prices, levels or values of the Index Components and subject to the provisions of Section 4 of Part A of the Index Rules.

**"Index Rules"** means the rules in relation to the Index as set out in Parts A to C and each Appendix in respect of relevant Index Component Types (inclusive) hereto.

**"Index Trading Day"** means any Business Day on which a Hedging Party determines that it is able to acquire, establish, re-establish, substitute, maintain, unwind or dispose of any asset it deems necessary to hedge its obligations in respect of such Index.

**"Maximum Number of Days of Disruption"** means 20 Scheduled Index Business Days.

**"Publication Date"** means the Business Day following each Index Level Calculation Date.

**"Scheduled Index Business Day"** means any week day that is scheduled to be both an Index Level Calculation Date and an Index Trading Day.

**"Scheduled Trading Day"** in respect of any Index Component has the meaning given to such term in the Appendix of these Index Rules for the relevant Index Component Type detailed in Section 1 of Part A.

5.2 Unless a contrary indication appears any reference in the Index Rules to:



- 5.2.1 the "Index Calculation Agent", the "Index Sponsor", the "Index Investment Advisor", where applicable, and any other person shall be construed so as to include its successors in title, permitted assigns and permitted transferees;
- 5.2.2 any agreement or instrument is a reference to that agreement or instrument as amended, novated, supplemented, extended, replaced or restated;
- 5.2.3 a "**person**" includes any individual, firm, company, corporation, government, state or agency of a state or any association, trust, joint venture, consortium or partnership (whether or not having separate legal personality);
- 5.2.4 a "**regulation**" includes any regulation, rule, official directive, request or guideline (whether or not having the force of law) of any governmental, intergovernmental or supranational body, agency, department or regulatory, self-regulatory or other authority or organisation; and
- 5.2.5 a provision of law is a reference to that provision as amended or re-enacted.

5.3 Part, Section, and Appendix headings are for ease of reference only.

## 6. INDEX METHODOLOGY

### 6.1 Index Level Calculation

On any Index Level Calculation Date  $t$ ,

$$Index_{t+1} = Index_t + \sum_i Notional_{i,t}^{used} \times \left( \frac{Asset_{i,t+1}^{EUR}}{Asset_{i,t}^{EUR}} - 1 \right) + Notional_t^{cash} \times \left( \frac{Cash_{t+1}}{Cash_t} - 1 \right) \text{ with}$$

$$Cash_t = Cash_{t-1} \left( 1 + Eonia_{t-1} \times \frac{Act(t-1,t)}{360} \right)$$

$$Cash(0) = Index(0) = 100$$

Where:

$$\sum_i \quad \text{means} \quad \sum_{i=1}^{19}$$

$Index_0$  means 100, being the Initial Index Level;

$Notional_{i,t}^{used}$  Used Notional for Index Component  $i$ , determined in accordance with the provisions of Section 6.2 (*Used Notional Calculation*), below;

$Notional_t^{cash}$  Used Notional for Cash, determined in accordance with the provisions of Section 6.2 (*Used Notional Calculation*), below;

Eonia<sub>t</sub> means the Euro Overnight Index Average rate published at 19.00 Central European Time on Bloomberg Screenpage EONIA Index, on TARGET 2 Settlement Day t, provided that, if no rate is so published, the Index Calculation Agent will determine such rate from such other source as it in its absolute discretion may deem appropriate.

$Asset_{i,t}^{EUR}$  means:

- (i) in respect of Index Components 3 to 6, 8 to 15, 18 and 19, the Net Asset Value per Fund Share of Index Component i on Index Level Calculation Date t:

$$Asset_{i,t}^{EUR} = Asset_{i,t}^{Curr}$$

- (ii) in respect of Index Components 1, 2, 7, and 16, the Net Asset Value per Fund Share of Index Component i on Index Level Calculation Date t in the Index Currency, determined in accordance with the following formula:

$$Asset_{i,t+1}^{EUR} = Asset_{i,t}^{EUR} \times \frac{Asset_{i,t+1}^{Curr}}{Asset_{i,t}^{Curr}} \times \frac{FX_{t+1}^{Curr}}{FX_t^{Curr}};$$

- (iii) in respect of Index Component 17, the Net Asset Value per Fund Share of Index Component i on Index Level Calculation Date t in the Index Currency, determined in accordance with the following formula:

$$Asset_{i,t+1}^{EUR} = Asset_{i,t}^{EUR} \times \left( 1 + \frac{Asset_{i,t+1}^{Curr}}{Asset_{i,t}^{Curr}} \times \frac{FX_{t+1}^{Curr}}{FX_t^{Curr}} - \frac{Asset_{20,t+1}^{Curr}}{Asset_{20,t}^{Curr}} \right);$$

$$Asset_{i,0}^{EUR} = 100$$

where:

$Asset_{i,t}^{Curr}$  means Net Asset Value per Fund Share of Index Component i on Index Level Calculation Date t

$Asset_{20,t}^{Curr}$  means the daily official level of Index Component 20 on Index Level Calculation Date t, as determined by the Index Calculation Agent

and

$FX_t^{Curr}$  means the exchange rate at which the currency in which Index Component i is denominated on Index Level Calculation Date t may be exchanged for the Index Currency, determined in accordance with the provisions of Section 3.1.

## 6.2 Used Notional Calculation

### Used Notional Calculation

if  $t \neq pb(t,i)$

$$Notional_{i,t}^{used} = Notional_{i,t-1}^{used}$$

else

$$Notional_{i,t}^{used} = Notional_{i,t-lag(i)}^{target\_final}$$

and

$$Notional_t^{cash} = Index_t - \sum_i Notional_{i,t}^{used}$$

$$Notional_{i,0}^{used} = Notional_{i,1}^{used} = 0 \quad \text{for all } i = 1 \dots 19$$

### Target Notional Calculation

if  $t + lag(i) \neq pb(t + lag(i), i)$

$$Notional_{i,t}^{target\_final} = Notional_{i,t-1}^{target\_final}$$

else

$$Notional_{i,t}^{target\_final} = Notional_{i,t-1}^{target\_final} + \left[ W_{i,t}^{target\_final} \times Index_t - Notional_{i,t-1}^{target\_final} \right]_{-max\_move\_notional\_DOWN_{i,t}}^{max\_move\_notional\_UP_{i,t}}$$

with

$$max\_move\_notional\_UP_{i,t} = max\_move_i \times Index_t$$

$$max\_move\_notional\_DOWN_{i,t} = \max(max\_move_i \times Index_t, Notional_{i,t-lag\_set(i)}^{target\_final})$$

$$Notional_{i,0}^{target\_final} = 0 \quad \text{for all } i = 1 \dots 19$$

### Final Target Weight Calculation

if  $t + lag(i) \neq pb(t + lag(i), i)$

$$W_{i,t}^{target\_final} = W_{i,t-1}^{target\_final}$$

else

$$W_{i,t}^{target\_final} = \left[ Exposure_i \times W_{i,t}^{target\_aux} \right]_{floor_{i,t}^{final}}^{cap_{i,t}^{final}}$$

with

$$cap_{i,t}^{final} = \min(cap_i, W_{i,t-1}^{target\_final} + maxmove_i)$$

$$floor_{i,t}^{final} = \max(0, W_{i,t-l}^{target\_final} - maxmove_i)$$

$$W_{i,0}^{target\_final} = 0$$

where:

- t0 The Index Initial Data Date;
- pb(t,i) The last Business Day preceding Index Level Calculation Date t which is a Scheduled Trading Day (as appropriate) in respect of each Index Component i from 1 to 19;
- lag(i) 2 Scheduled Trading Days;
- lag\_set(i) 5 Scheduled Trading Days;
- maxmove<sub>i</sub> maximum weight increase between two consecutive Scheduled Trading Days (as appropriate) for Index Component i as stated in the table below
- cap<sub>i</sub> maximum weight for Index Component i as stated in the table below
- floor<sub>i</sub> minimum weight for Index Component i when calculating the Gross Weights in Section 6.2.3 as stated in the table below
- Gap<sub>i</sub> gap coefficient for Index Component i when calculating the Gross Weights in Section 6.2.3 as stated in the table below

Index Component i	floor	cap	maxmove	Gap
1	2.7500%	8.2500%	1.65%	20.00%
2	2.7500%	8.2500%	1.65%	20.00%
3	5.5000%	16.5000%	3.30%	20.00%
4	5.5000%	16.5000%	3.30%	20.00%
5	5.5000%	16.5000%	3.30%	20.00%
6	4.4000%	13.2000%	2.64%	20.00%
7	1.1000%	3.3000%	0.66%	25.00%
8	0.9625%	2.8875%	0.58%	16.70%
9	3.8500%	11.5500%	2.31%	10.00%
10	3.8500%	11.5500%	2.31%	10.00%
11	0.9625%	2.8875%	0.58%	16.70%
12	1.1250%	3.3750%	0.68%	14.30%
13	1.1250%	3.3750%	0.68%	14.30%
14	1.1250%	3.3750%	0.68%	16.70%
15	1.1250%	3.3750%	0.68%	16.70%

16	1.1250%	3.3750%	0.68%	20.00%
17	1.1250%	3.3750%	0.68%	20.00%
18	1.1250%	3.3750%	0.68%	16.70%
19	5.0000%	15.0000%	3.00%	16.70%

### 6.2.1 Exposure Calculation

$$\text{Exposure}_t = \min\left(1, \frac{\text{vol\_target}}{\max(\text{VolBsk}_t^{20}, \text{VolBsk}_t^{60})}\right)$$

where

$$\text{VolBsk}_t^{\text{n\_volbsk}} = \sqrt{252 \times \frac{\text{n\_volbsk}}{\text{n\_volbsk} - 1} \times \left[ \left( \frac{1}{\text{n\_volbsk}} \times \sum_{k=0}^{\text{n\_volbsk}-1} \ln(\text{RBsk}_{t,t-k}) \right)^2 - \left( \frac{1}{\text{n\_volbsk}} \times \sum_{k=0}^{\text{n\_volbsk}-1} \ln(\text{RBsk}_{t,t-k}) \right) \right]}$$

and

$$\text{RBsk}_{t,s} = 1 + \sum_i W_{i,t}^{\text{target\_aux}} \times \left( \frac{\text{Asset}_{i,s}^{\text{EUR}}}{\text{Asset}_{i,s-1}^{\text{EUR}}} - 1 \right)$$

with:

vol\_target                                      Maximum Volatility Target, as defined in Section 1 (*Description of the Index*)

### 6.2.2 Target aux Weight Calculation

The Target Weight shall be determined in accordance with the following provisions:

$$W_{i,t}^{\text{target\_aux}} = W_{i,t-1}^{\text{target\_aux}} \quad \text{if } t + \text{lag}(i) \neq \text{pb}(t + \text{lag}(i), i)$$

else

$$W_{i,t}^{\text{target\_aux}} = \left[ W_{i,t}^{\text{gross}} \right]_{\text{floor}_{i,t}^{\text{aux}}}^{\text{cap}_{i,t}^{\text{aux}}}$$

with

$$\text{cap}_{i,t}^{\text{aux}} = \min(\text{cap}_i, W_{i,t-1}^{\text{target\_aux}} + \text{maxmove}_i)$$

$$floor_{i,t}^{aux} = \max(0, W_{i,t-1}^{target\_aux} - maxmove_i)$$

$$W_{i,0}^{target\_aux} = 0$$

### 6.2.3 Gross Weight Calculation

The algorithm aims at maximising the Index return, while controlling its volatility. It is based on an optimisation technique used in the Capital Asset Pricing Model (“**CAPM**”) and Markowitz’s Modern Portfolio Theory and is used to determine whether to increase or reduce these weights allocated to each Index Component Type.

#### - Phase 1: Portfolio Calculation

The Index Calculation Agent calculates on each Index Level Calculation Date t, a Portfolio\_Target\_Return(t) and a Portfolio\_Volatility(t) for a finite number of weighted combinations of Index Components respecting the following constraints:

$$\sum_{i=1}^N W_{i,t}^{gross} \leq max\_sum\_weights$$

$$\sum_{i=1}^N W_{i,t}^{gross} \times Gap_i \leq max\_gap$$

for each i,  $1 \leq i \leq N$ ,  $floor_i \leq W_{i,t}^{gross} \leq cap_i$

where max\_sum\_weights is the maximum sum of weights targeted and is equal to 100% and max\_gap is the maximum gap targeted and is equal to 20%

On any Index Level Calculation Date subsequent to the Index Start Date:

$$abs(W_{i,t}^{gross} - W_{i,t-1}^{gross}) \leq maxmove_i \text{ for } 1 \leq i \leq N$$

#### - Phase 2: Volatility selection

Among all the weighted combinations found at the conclusion of Phase 1, the Index Calculation Agent will retain only those which meet the following criteria:

$$Portfolio\_Volatility(t) < vol\_target$$

If this cannot be achieved, vol\_target shall be increased in increments of 1% until at least one Portfolio meets the criteria.

#### - Phase 3: Portfolio selection

Among all the weighted combinations found at the conclusion of Phase 2, the Calculation Agent will retain the combination that maximizes the Portfolio\_Target\_Return (t)

where:

PV(t) = Portfolio\_Volatility (t): Historical 60 Business Days half-life volatility given by

$$PV(t) = \sqrt{t \mathbf{W}_t^{\text{gross}} \times \mathbf{Covar}(t) \times \mathbf{W}_t^{\text{gross}}}$$

where for any integer i,j in [1,N]

$$Covar_{i,j}(t) = \lambda_{n\_var} \times Covar_{i,j}(t-1) + (1 - \lambda_{n\_var}) \times 252 \times \left( \frac{Asset_{i,t}^{EUR}}{Asset_{i,t-1}^{EUR}} - 1 \right) \times \left( \frac{Asset_{j,t}^{EUR}}{Asset_{j,t-1}^{EUR}} - 1 \right)$$

with the initial covariance determined as follows:

$$Covar_{i,j}(0) = \begin{cases} \text{initial\_vol}^2 & \text{if } i = j \\ 0 & \text{else} \end{cases}$$

and for any integer n

$$\lambda_n = \left( \frac{1}{2} \right)^n$$

n\_var                      gross Portfolio covariance calculation length, equal to 60

initial\_vol                10%

and where:

PTR(t) = Portfolio\_Target\_Return(t) is given by

$$PTR(t) = \sum_i W_{i,t}^{\text{gross}} \times AR_{i,t}$$

where  $AR_{i,t}$  represents the expected return of  $Asset_i^{EUR}$  on Index Level Calculation Date t:

$$AR_{i,t} = \frac{1}{n\_asian} \sum_{j=0}^{n\_asian-1} \left[ \frac{Asset_{i,t-j}^{EUR}}{Asset_{i,t-j-n\_trend}^{EUR}} - 1 \right]$$

where

n\_asian                    number of days used to average the calculation of  $AR_{i,t}$  equal to 5

n\_trend

number of Index Level Calculation Dates for AR<sub>i,t</sub> calculation, equal to 126

## 7. INDEX ADJUSTMENT, SUSPENSION AND TERMINATION EVENTS

- 7.1 Upon the occurrence of an Index Increased Cost of Maintenance Event, the Index Sponsor shall take into account as it deems appropriate, any amendment, correction or any potential adjustment of the Index of whatsoever nature relating to the Index Increased Cost of Maintenance Event and may require the Index Calculation Agent to make adjustments to the Index to reflect the Index Increased Cost of Maintenance Event. In making any such adjustments the Index Sponsor may either i) require the Index Calculation Agent to substitute an existing component in the Index with a replacement component which it deems suitable and perform the necessary adjustments to the Index, or ii) where the Index Sponsor determines in good faith and a commercially reasonable manner that no such substitution is appropriate or practicable, terminate the Index in accordance with its policies and procedures.

Where:

An "**Index Increased Cost of Maintenance Event**" shall be deemed to have occurred if the Index Sponsor acting in good faith and a commercially reasonable manner deems that the amount of tax, duties, expenses, fees and rates (including without limitation any stock loan and/or stock borrowing and/or repo and/or replication costs or rates) of acquiring, establishing, re-establishing, substituting, maintaining, unwinding or disposing of any transactions or assets it deems necessary to enter into in order to compute, compile, hedge and/or maintain the Index has increased since the date the Index was launched.

- 7.2 Upon the occurrence of an Index CSR Event, the Index Sponsor may require the Index Calculation Agent to make any adjustments to the Index as it deems appropriate to account for the Index CSR Event. In making any such adjustments, the Index Sponsor may either i) require the Index Calculation Agent to substitute an existing Index Component with a replacement Index Component which it deems suitable and perform the necessary adjustments to the Index or ii) where the Index Sponsor determines in good faith and a commercially reasonable manner that no such substitution is appropriate or practicable, terminate the Index in accordance with its policies and procedures.

Where:

An "**Index CSR Event**" shall be deemed to have occurred if the Index Sponsor, acting in good faith and a commercially reasonable manner, determines that the inclusion or retention of any Index Component in the Index would result in the Index Sponsor breaching any corporate social responsibility policy maintained by the Index Sponsor or any of its affiliates.

- 7.3 Upon the occurrence of an Index Force Majeure Event, the Index Sponsor may suspend the Index until the end of the Index Force Majeure Event (the "**Index Suspension Period**"). If the Index Suspension Period exceeds one month the Index Sponsor may either i) require the Index Calculation Agent to adjust the Index taking into account as it deems appropriate, any amendment or potential adjustment of the Index of whatsoever nature relating to the Index Force Majeure Event and in making any such adjustments the Index Sponsor may advise the Index Calculation Agent to substitute an Index Component in the Index with a replacement component which it deems suitable and subsequently



perform the necessary adjustments to the Index or ii) where the Index Sponsor determines in good faith and a commercially reasonable manner that no such adjustment is appropriate or practicable, terminate the Index in accordance with its policies and procedures.

Where:

An "**Index Force Majeure Event**" shall be deemed to have occurred if the performance of the Index Sponsor and/or the Index Calculation Agent's obligations is prevented or materially hindered or delayed due to (a) any act, law, rule, regulation, judgment, order, directive, interpretation, decree or material legislative or administrative interference of any Government Authority or otherwise, or (b) the occurrence of civil war, disruption, military action, unrest, political insurrection, terrorist activity of any kind, riot, public demonstration and/or protest, or any other financial or economic reasons or any other causes or impediments beyond such party's control; or (c) any expropriation, confiscation, requisition, nationalization or other action taken or threatened by any Government Authority that deprives the Index Sponsor or Hedging Party (or any of their relevant affiliates), of all or substantially all of their assets in the relevant currency jurisdiction; and

"**Government Authority**" means any nation, state or government, any province or other political subdivision thereof, any body, agency or ministry, any taxing, monetary, foreign exchange or other authority, court, tribunal or other instrumentality and any other entity exercising, executive, legislative, judicial, regulatory or administrative functions of or pertaining to government.

- 7.4 Upon the occurrence of an Index Change in Law Event, the Index Sponsor may either i) require the Index Calculation Agent to adjust the Index taking into account as it deems appropriate, any amendment or potential adjustment of the Index of whatsoever nature relating to the Index Change in Law Event and in making any such adjustments the Index Sponsor may advise the Index Calculation Agent to substitute an existing component in the Index with a replacement component which it deems suitable and perform the necessary adjustments to the Index or ii) where the Index Sponsor determines in good faith and a commercially reasonable manner that no such adjustment is appropriate or practicable, terminate the Index in accordance with its policies and procedures.

Where:

An "**Index Change in Law Event**" shall be deemed to have occurred if, (a) due to the adoption of or any change in any applicable law or regulation (including, without limitation, in respect of tax, solvency or capital requirements), or (b) due to the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable law or regulation (including any action taken by a taxing or financial authority) or the combined effect thereof if occurring more than once, the Index Sponsor determines that it has become illegal to hold, acquire or dispose of any Index Components (or parts thereof) or any relevant hedge positions relating to the Index.

- 7.5 Upon the occurrence of an Index Tax Event, the Index Sponsor may review the composition of the Index and make such adjustments as it deems necessary.

"**Index Tax Event**" means any change in any applicable tax law or tax regulation, (b) the promulgation of or any change in the interpretation by any court, tribunal or regulatory authority with competent jurisdiction of any applicable tax law or tax regulation (including any action taken by a taxing authority)

affecting the Index, or (c) where there is a substantial likelihood of a change in any applicable tax or tax regulation and practice, save in each case in relation to taxes or stamp taxes which the Index Sponsor shall exclude for the purposes of this definition.

- 7.6 Upon the occurrence of a License Event, the Index Sponsor may either (i) review the composition of the index and make such adjustments as it deems necessary or (ii) terminate the Index.

Where:

A "**License Event**" shall be deemed to have occurred if any license or permission to use an index which is an Index Component (or sub-component of an Index Component) granted by a sponsor of such index is withdrawn, terminated or otherwise amended.

## **II. Part B - Index Component Adjustment Rules**

The adjustment and other provisions set out in Appendix 1 shall be applicable to Index Components which are 'Fund Share' Index Component Types as detailed in Section 1 of Part A of the Index Rules.

The adjustment and other provisions set out in Appendix 2 shall be applicable to Index Components which are 'Custom Index' Index Component Types as detailed in Section 1 of Part A of the Index Rules.

### **III. Part C - General Index Rules**

#### **1. ROLES OF THE INDEX CALCULATION AGENT AND THE INDEX SPONSOR AND THE INDEX INVESTMENT ADVISOR WHERE APPLICABLE**

##### **1.1 The Index Sponsor**

The Index Sponsor is responsible for devising the Index Rules, ensuring the Index level is published by the Index Calculation Agent in accordance with the Index Rules and making any required determinations. Whenever the Index Sponsor is required to act, it will do so in good faith and a commercially reasonable manner, however the Index Sponsor accepts no liability for errors or inaccuracies in the Index Rules or any determinations made in accordance therewith.

The Index Sponsor owns all intellectual property and other proprietary rights in these Index Rules, the Index and all associated materials, including the name of the Index, its composition and the calculation methodology of the Index in accordance with the Index Methodology (the "**Index Materials**"). No party to which Index Materials have been disclosed shall have any right to use the Index unless such party has been granted an express limited licence to use the Index Materials solely for the purposes of assessing relevant business needs.

##### **1.2 The Index Calculation Agent**

The Index Calculation Agent is responsible for the day to day calculation and publication of the Index. The Index Calculation Agent will act in good faith and will make all commercially reasonable efforts to ensure the accuracy of the composition, calculation, publication and adjustment of the Index in accordance with the Index Rules. However the Index Calculation Agent accepts no liability for errors or inaccuracies in prices, calculations and the publication of any Index Components or sub-components thereof made by third parties and shall not be responsible for any inaccuracies or errors in the Index resulting therefrom. If the Index Calculation Agent becomes aware of any inaccuracies or errors in the Index as a result of errors or inaccuracies in the prices, calculation or publication of any Index Components or sub-components thereof or otherwise, it shall inform the Index Sponsor of the same. If, in accordance with Section 4 (*Corrections to the level of the Index*) of this Part C, the Index Sponsor instructs the Index Calculation Agent to publish a correction in respect of the Index, it shall do so as soon as practicable thereafter.

##### **1.3 The Index Investment Advisor**

Where an Index Investment Advisor has been appointed, it shall be responsible for selecting the Index Components in good faith and a commercially reasonable manner in accordance with the terms of the Index Investment Advisor Agreement. The Index Investment Advisor accepts no liability for inaccuracies or errors in such selections due to inaccuracies or errors in the calculation or publication of the Index Level, any Index Components or sub-components thereof.

## **2. SUPPLEMENTS, AMENDMENTS, MODIFICATIONS AND WITHDRAWAL OF THE INDEX RULES**

The Index Sponsor, acting in good faith and a commercially reasonable manner, may supplement, amend in whole or in part, modify or withdraw these Index Rules at any time in accordance with its policies and procedures. Supplements, amendments, modifications and withdrawals may also lead to changes in the Index Rules and the way the Index is compiled or calculated or affect the Index in other ways. Any supplements, amendments or modifications to the Index Rules which are of a formal, minor or technical nature or are made to correct a manifest or proven error and do not conflict with the interests of any affected parties may be effected immediately and such supplements, amendments or modifications shall be made available to interested parties.

If the Index Sponsor deems that any supplement, amendment or modification to the Index Rules or withdrawal thereof may be in conflict with the interests of an affected party, the relevant supplement, amendment, modification or withdrawal shall not take effect until at least 15 calendar days have elapsed since its publication. The Index Sponsor accepts no liability for any losses resulting from supplementing, amending, modifying or withdrawing the Index Rules.

## **3. RULES FOR THE PERIODICAL ADJUSTMENT OF THE INDEX COMPOSITION**

Where so specified in Section 6 (*Index Methodology*), the composition of the Index may be reviewed and adjusted periodically. Any adjustments made by the Index Sponsor or the Index Investment Advisor, where applicable, will be made in good faith and in a commercially reasonable manner and in accordance with the relevant Index Rules.

The Index Sponsor and, where applicable, the Index Investment Advisor, disclaim any liability for any modification or change to the composition of the Index or the Index Methodology at any time.

## **4. CORRECTIONS TO THE LEVEL OF THE INDEX**

The calculation of the Index is based on the latest available market data relating to the Index Components (including but not limited to closing prices, levels, related dividends and corporate adjustments or other similar market data) as of the relevant Index Level Calculation Date. In the event any such market data changes subsequent to the calculation and publication of any Index Level, the Index Sponsor shall decide, in accordance with its policies and procedure, whether or not to require the Index Calculation Agent to take account of such changes in relation to previously published Index Levels or current Index Levels in order to maintain the stability and consistency of the Index, to the extent the relevant retrospective change is allowed by any applicable law or regulation.

## **5. DISCLAIMER IN RELATION TO THE INDEX**

### **5.1 Accuracy of the Index**

The Index Calculation Agent, the Index Sponsor and, where applicable, the Index Investment Advisor, will make all reasonable efforts to ensure the accuracy of the composition, calculation, publication and adjustment of the Index in accordance with the relevant Index Rules. This information is furnished by third parties and is believed to be reliable, but the accuracy and completeness thereof has not been verified by any of the Index Sponsor, the Index Calculation Agent or, where applicable, the Index Investment Advisor.

## **5.2 Suspension and interruption in the publication of the Index**

Although the Index Sponsor and the Index Calculation Agent shall act in good faith and a commercially reasonable manner in calculating, publishing or disseminating the Index (as applicable), they disclaim all liability for any suspension or interruption in the calculation, publication or dissemination of the Index that may occur at any time. Details of any such suspension or interruption in the publication of the Index will be displayed by the Index Calculation Agent on Bloomberg Screenpage BNPIAUDY Index and Reuters Ticker .BNPIAUDY, or any successor pages thereto, and on any other data provider as the Index Sponsor deems appropriate.

## **5.3 Index Level**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor, accept no liability in connection with the use of the Index Level at any given time or for any loss whatsoever, whether directly or indirectly related to the Index.

# **6. OTHER IMPORTANT INFORMATION**

## **6.1 Transactions involving the Index Components**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor and their affiliates may from time to time engage in transactions involving any Index Component(s) (and/or sub-components thereof) for their proprietary accounts and for accounts under their management. Such transactions may have a positive or negative effect on the value or level of such Index Component(s) (and/or sub-components thereof) and consequently upon the Index Level, and in engaging in such transactions none of the Index Sponsor, Index Calculation Agent or, where applicable, the Index Investment Advisor nor their affiliates shall be under any obligation to act in the interests of parties exposed to products referencing the Index.

## **6.2 Acting in other capacities and potential conflicts of interest**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor or any of their affiliates may from time to time act in multiple capacities with regard to the Index or any products referencing the Index, including, but not limited to, Index Calculation Agent, Index Investment Advisor or calculation agent thereof. The Index Sponsor has policies and procedures to identify, consider and manage such potential conflicts of interest.

The Index Sponsor, Index Calculation Agent and the Index Investment Advisor, where applicable, may also engage in trading activities (including hedging activities) relating to the Index Components for their proprietary accounts or for other accounts under their management. The Index Sponsor and its affiliates may also issue other derivative instruments in respect of the Index Components or act as underwriter in connection with future offerings of shares or as financial advisor to certain companies or companies whose shares or other securities are Index Components or in a commercial banking capacity for such companies.

In respect of Index Component Types which are Fund Shares or ETPs, the Index Sponsor or one or more of its Affiliates may from time to time engage in business with the relevant Fund or ETP, as the case may be, or companies in which a Fund or ETP, as the case may be, invests, including among other

things, extending loans to, or making investments in, or providing advisory services to them, including merger and acquisition advisory services, engaging in activities that may include prime brokerage business, financing transactions or entry into derivative transactions. A Fund or ETP may pay a portion of its fees to the Index Sponsor or any of its Affiliates for the provision of such services.

### **6.3 Derivative instruments in respect of the Index Components**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor or any of their affiliates may issue, enter into, create, purchase, sell or distribute derivative instruments (whether securitized or otherwise) in respect of the Index or any Index Component(s) (and/or sub-components thereof) and the introduction of such products into the marketplace may affect the Index Level, due to hedging activities associated with such derivative instruments.

### **6.4 Market-Making for the Index Components**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor may, in certain cases, act as a market-maker or sponsor for any Index Component(s) (or sub-components thereof). By such market-making or sponsoring, the Index Sponsor, the Index Calculation Agent, or, where applicable, the Index Investment Advisor may, to a large extent, determine the price of such Index Component(s) (or sub-components thereof), and consequently influence the Index Level.

### **6.5 Obtaining of non-public information**

The Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor or any of their affiliates may acquire non-public information with respect to any Index Component(s) (or sub-components thereof), and neither the Index Sponsor, Index Calculation Agent, nor the Index Investment Advisor where applicable, nor any of their affiliates undertakes to disclose any such information to any party exposed to products referencing the Index. In addition, one or more affiliates of the Index Sponsor, Index Calculation Agent or, where applicable, the Index Investment Advisor may publish research reports with respect to such Index Component(s) (or sub-components thereof). Research may be modified from time to time without notice and may express opinions or provide recommendations that are inconsistent with the objectives of the Index. Such activities could present certain conflicts of interest and could influence the value of the Index.

## **7. FORM OF DISCLAIMER TO BE USED ON TERM SHEETS AND ISSUANCE DOCUMENTATION FOR PRODUCTS LINKED TO THE INDEX**

The following disclaimer wording should be used on term sheets and issuance documentation for products linked to the Index:

*"The methodology of and rules governing the index (the "Index Methodology" and the "Index") are proprietary and may not be reproduced or disseminated without the permission of the sponsor of the Index (the "Index Sponsor"), the index calculation agent (where such party is not also the Index Sponsor, the "Index Calculation Agent") nor, where applicable, the index Investment Advisor (the "Index Investment Advisor"). None of the Index Sponsor, the Index Calculation Agent nor, where applicable, the Index Investment Advisor guarantees that there will be no errors or omissions in computing or disseminating the Index.*

*The Index Methodology is based on certain assumptions, certain pricing models and calculation methods adopted by the Index Sponsor, the Index Calculation Agent and, where applicable, the Index Investment Advisor,*

*and may have certain inherent limitations. Information prepared on the basis of different models, calculation methods or assumptions may yield different results. You have no authority to use or reproduce the Index Methodology in any way, and neither BNP Paribas nor any of its affiliates shall be liable for any loss whatsoever, whether arising directly or indirectly from the use of the Index or Index Methodology or otherwise in connection therewith.*

*The Index Sponsor reserves the right to amend or adjust the Index Methodology from time to time in accordance with the rules governing the Index and accepts no liability for any such amendment or adjustment. Neither the Index Sponsor nor the Index Calculation Agent is under any obligation to continue the calculation, publication or dissemination of the Index and accept no liability for any suspension or interruption in the calculation thereof which is made in accordance with the rules governing the Index. None of the Index Sponsor, the Index Calculation Agent nor, where applicable, the Index Investment Advisor accept any liability in connection with the publication or use of the level of the Index at any given time.*

*BNP Paribas and its affiliates may enter into derivative transactions or issue financial instruments (together, the "Products") linked to the Index. The Products are not in any way sponsored, endorsed, sold or promoted by the sponsor of any index component (or part thereof) which may comprise the Index (each a "Reference Index") that is not affiliated with BNP Paribas (each such sponsor, a "Reference Index Sponsor"). The Reference Index Sponsors make no representation whatsoever, whether express or implied, either as to the results to be obtained from the use of the relevant Reference Index and/or the levels at which the relevant Reference Index stands at any particular time on any particular date or otherwise. No Reference Index Sponsor shall be liable (whether in negligence or otherwise) to any person for any error in the relevant Reference Index and the relevant Reference Index Sponsor is under no obligation to advise any person of any error therein. None of the Reference Index Sponsors makes any representation whatsoever, whether express or implied, as to the advisability of purchasing or assuming any risk in connection with the Products. BNP Paribas and its affiliates have no rights against or recourse to any Reference Index Sponsor should any Reference Index not be published or for any errors in the calculation thereof or on any other basis whatsoever in relation to any Reference Index, its production, or the level or constituents thereof. BNP Paribas and its affiliates shall have no liability to any party for any act or failure to act by any Reference Index Sponsor in connection with the calculation, adjustment or maintenance of the relevant Reference Index and have no affiliation with or control over any Reference Index or the relevant Reference Index Sponsor or the computation, composition or dissemination of any Reference Index. Although the Index Calculation Agent will obtain information concerning each Reference Index from publicly available sources that it believes reliable, it will not independently verify this information. Accordingly, no representation, warranty or undertaking (express or implied) is made and no responsibility is accepted by BNP Paribas or any of its affiliates nor the Index Calculation Agent as to the accuracy, completeness and timeliness of information concerning any Reference Index.*

*BNP Paribas and/or its affiliates may act in a number of different capacities in relation to the Index and/or products linked to the Index, which may include, but not be limited to, acting as market-maker, hedging counterparty, issuer of components of the Index, Index Sponsor and/or Index Calculation Agent. Such activities could result in potential conflicts of interest that could influence the price or value of a Product."*

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#### IV. APPENDIX 1 - ADJUSTMENTS FOR INDEX COMPONENT TYPE "FUND SHARE"

The following provisions shall apply in respect of any Index Component in respect of which the Index Component Type is "Fund Share", any shares or units comprising such Index Component being the "**Reference Fund Shares**".

##### 1. Adjustments

Following the declaration by a Reference Fund of the terms of any Reference Fund Share Potential Adjustment Event, the Index Sponsor will determine whether such Reference Fund Share Potential Adjustment Event has a diluting or concentrative effect on the theoretical value of the relevant Reference Fund Shares and, if so, will require the Index Calculation Agent to (i) make the corresponding adjustment(s), if any, to the Index that the Index Sponsor determines appropriate to account for that diluting or concentrative effect (provided that no adjustments will be made to account solely for changes in volatility, expected dividends, stock loan rate or liquidity relative to the relevant Reference Fund Share) and (ii) determine the effective date(s) of the adjustment(s).

##### 2. Determination of Extraordinary Reference Fund Events

The Index Sponsor will determine if an Extraordinary Reference Fund Event has occurred acting in good faith and in a commercially reasonable manner. Where the occurrence of an event or set of circumstances results in more than one Extraordinary Reference Fund Event potentially being triggered, the Index Sponsor may determine which Extraordinary Reference Fund Event(s) have been triggered.

In considering whether the occurrence of an event or set of circumstances triggers an Extraordinary Reference Fund Event, the Index Sponsor may have regard to the combined effect, from the Index Start Date, of any event or set of circumstances, as the case may be, if such event or set of circumstances occurs more than once.

##### 3. Consequences of Extraordinary Reference Fund Events

If the Index Sponsor determines, in respect of any Reference Fund and/or Reference Fund Shares, that an Extraordinary Reference Fund Event exists, it may require the Index Calculation Agent to adjust the Index in such manner that the Index Sponsor deems appropriate in accordance with Section 2 of Part A of the Index Rules. Such adjustments will only occur once the Hedge Provider has received the full redemption proceeds following redemption orders placed following the Extraordinary Reference Fund Event.

##### 4. Consequences of Disrupted Days

If any Business Day is a Disrupted Day in respect of a Reference Fund Share, the provisions set out in Section 4 of Part A of the Index Rules shall apply in relation to the Index.

##### 5. Definitions

"**Affiliate(s)**" means in relation to any entity (the "**First Entity**"), any entity controlled, directly or indirectly, by the First Entity, any entity that controls, directly or indirectly, the First Entity or any entity directly or indirectly under common control with the First Entity. For these purposes "control" means

ownership of a majority of the voting power of an entity;

"**AUM Level**" means EUR 50,000,000.

"**Basket Trigger Event**" means that an Extraordinary Reference Fund Event occurs in respect of one or more Reference Funds comprising the Fund Basket which has or, in the event that an Extraordinary Reference Fund Event has occurred in respect of more than one Reference Fund, together have, an Index Weighting in the Fund Basket equal to or greater than the Basket Trigger Level;

"**Basket Trigger Level**" means 50 per cent;

"**Calculation Date**" means each day which is a Reference Fund Business Day;

"**Currency Business Day**" means, in respect of any Reference Fund Share, any day on which commercial banks are open for business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre for currency of denomination of such Reference Fund Share. In respect of any Reference Fund Share denominated in euro, any day on which the Trans-European Automated Real-time Gross settlement Express Transfer (TARGET2) system is open shall be a Currency Business Day;

"**Disrupted Day**" means, with respect to any Reference Fund Share, any day on which a Reference Fund Disruption Event has occurred or is continuing;

"**Extraordinary Dividend**" means any dividend or portion thereof characterised as an Extraordinary Dividend by the Index Sponsor.

"**Extraordinary Reference Fund Event**" means, in the determination of the Index Sponsor, the occurrence at any time on or after the Index Start Date of any of the following events:

**Global Events:**

- 5.1 the Reference Fund or any Reference Fund Service Provider (i) ceases trading and/or, in the case of a Reference Fund Service Provider, ceases administration, portfolio management, investment services, custodian, prime brokerage, or any other relevant business (as applicable) (ii) is dissolved or has a resolution passed, or there is any proposal, for its dissolution, winding-up, official liquidation (other than pursuant to a consolidation, amalgamation or merger); (iii) makes a general assignment or arrangement with or for the benefit of its creditors; (iv) (1) institutes or has instituted against it, by a regulator, supervisor or any similar official with primary insolvency, rehabilitative or regulatory jurisdiction over it in the jurisdiction of its incorporation or organisation or the jurisdiction of its head or home office, a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation by it or such regulator, supervisor or similar official, or (2) has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights, or a petition is presented for its winding-up or liquidation, and such proceeding or petition is instituted or presented by a person or entity not described in sub-clause (iv) (1) above and either (x) results in a judgment of insolvency or bankruptcy or the entry of an order for relief or the making of an order for its winding-up or liquidation or (y) is not immediately dismissed, discharged, stayed or restrained; (v) seeks or becomes subject to the appointment of an administrator, provisional liquidator, conservator,

receiver, trustee, custodian or other similar official for it or for all or substantially all its assets; (vi) has a secured party take possession of all or substantially all its assets or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all its assets and such secured party maintains possession, or any such process is not immediately dismissed, discharged, stayed or restrained; or (vii) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an effect analogous to any of the events specified in sub-clauses (i) to (vi) above; or

5.2 the occurrence of a Merger Event or Tender Offer;

**Litigation/Fraudulent Activity Event:**

5.3 there exists any litigation against the Reference Fund or a Reference Fund Service Provider which in the sole and absolute discretion of the Index Sponsor could materially affect the value of the Reference Fund Shares or the rights or remedies of any investor in such Reference Fund Shares; or

5.4 (i) an allegation of criminal or fraudulent activity is made in respect of the Reference Fund, or any Reference Fund Service Provider, or any employee of any such entity, or the Index Sponsor reasonably determines that any such criminal or fraudulent activity has occurred, or (ii) any investigative, judicial, administrative or other civil or criminal proceedings is commenced or is threatened against the Reference Fund, any Reference Fund Service Provider or any key personnel of such entities if such allegation, determination, suspicion or proceedings could, in the sole and absolute discretion of the Index Sponsor, materially affect the value of the Reference Fund Shares or the rights or remedies of any investor in such Reference Fund Shares;

**Reference Fund Service Provider/Key Person Events:**

5.5 (i) a Reference Fund Service Provider ceases to act in such capacity in relation to the Reference Fund and is not immediately replaced in such capacity by a successor acceptable to the Index Sponsor and/or (ii) any event occurs which causes, or will with the passage of time (in the opinion of the Index Sponsor) cause, the failure of the Reference Fund and/or any Reference Fund Service Provider to meet or maintain any obligation or undertaking under the Reference Fund Documents which failure is reasonably likely to have an adverse impact on the value of the Reference Fund Shares or on the rights or remedies of any investor in such Reference Fund Shares; or

5.6 one or more of the key individuals involved with, or having supervision over, the Reference Fund or a Reference Fund Service Provider ceases to act in such capacity, and the relevant Reference Fund Service Provider fails to appoint a replacement having similar qualifications to those of the key individual or individuals ceasing to act;

**Modification Events:**

5.7 a material modification of or deviation from any of the investment objectives, investment restrictions, investment process or investment guidelines of the Reference Fund (howsoever

described, including the underlying type of assets in which the Reference Fund invests), from those set out in the Reference Fund Documents, or any announcement regarding a potential modification or deviation, except where such modification or deviation is of a formal, minor or technical nature;

- 5.8 a material modification, cancellation or disappearance (howsoever described), or any announcement regarding a potential future material modification, cancellation or disappearance (howsoever described), of the type of assets (i) in which the Reference Fund invests, or (ii) the Reference Fund purports to track;
- 5.9 a material modification, or any announcement regarding a potential future material modification, of the Reference Fund (including but not limited to a material modification of the Reference Fund Documents or to the Reference Fund's liquidity terms) other than a modification or event which does not affect the Reference Fund Shares or the Reference Fund or any portfolio of assets to which the Reference Fund Share relates (either alone or in common with other Reference Fund Shares issued by the Reference Fund);
- 5.10 the creation by the Reference Fund of any illiquid share class or unit howsoever described;
- 5.11 the currency denomination of the Reference Fund Shares is amended from that set out in the Reference Fund Documents so that the NAV per Reference Fund Share is no longer calculated in the same currency as it was as at the Index Start Date;
- 5.12 if applicable, the Reference Fund ceases to be an undertaking for collective investments under the legislation of its relevant jurisdiction; or
- 5.13 following the issue or creation of a new class or series (howsoever described in the Reference Fund Documents) of shares or units by the Reference Fund, the Index Sponsor determines taking into consideration the potential cross-liability between classes of shares or units (howsoever described in the Reference Fund Documents) that such new class or series has or may have an adverse effect on the hedging activities of the Hedge Provider in relation to the Index;

**NAV per Reference Fund Share/AUM Level Events:**

- 5.14 a material modification of the method of calculating the NAV per Reference Fund Share;
- 5.15 any change in the periodicity of the calculation or the publication of the NAV per Reference Fund Share;
- 5.16 any suspension of the calculation or publication of the NAV per Reference Fund Share;
- 5.17 the occurrence of any event affecting a Reference Fund Share that, in the sole and absolute discretion of the Index Sponsor, would make it impossible or impracticable for the Index Sponsor to determine the NAV per Reference Fund Share;

- 5.18 any of the Reference Fund, any Reference Fund Service Provider or any other party acting on behalf of the Reference Fund fails for any reason to calculate and publish the NAV per Reference Fund Share within the Number of NAV Publication Days following any date scheduled for the determination of the valuation of the Reference Fund Shares unless the cause of such failure to publish is of a technical nature and outside the immediate and direct control of the entity responsible for such publication;
- 5.19 any Reference Fund Service Provider uses asset prices provided by the investment manager (howsoever described in the Reference Fund Documents) to calculate the NAV per Reference Fund Share when such asset prices could have been obtained from independent sources and the asset prices from independent sources materially diverge from the asset prices provided by the investment manager (howsoever described in the Reference Fund Documents);
- 5.20 the assets under management of the Reference Fund falls below the AUM Level;
- 5.21 the Index Sponsor determines, at any time, that (i) the NAV per Reference Fund Share is inaccurate, or (ii) the reported net asset value of the Reference Fund Shares misrepresents the net asset value of the Reference Fund Shares;
- 5.22 a NAV Trigger Event occurs;
- 5.23 (i) the audited net asset value of the Reference Fund and/or the NAV per Reference Fund Share is different from the audited net asset value of the Reference Fund and/or the NAV per Reference Fund Share communicated by the relevant Reference Fund Service Provider in respect of the same date, (ii) the auditors of the Reference Fund qualify any audit report, or refuse to provide an unqualified audit report, in respect of the Reference Fund, and/or (iii) the Index Sponsor, in its sole and absolute discretion, does not deem the audited net asset value of the Reference Fund and/or the NAV per Reference Fund Share to be representative of the actual net asset value of the Reference Fund and/or the NAV per Reference Fund Share;
- 5.24 any change in the periodicity of redemption and/or subscription orders, or any change in the notice period which the Reference Fund or any Reference Fund Service Provider requires in respect of redemption and/or subscription orders for any Reference Fund Share;
- 5.25 the occurrence of any event which in the determination of the Index Sponsor has or may have an adverse impact on the Reference Fund or investors in the Reference Fund, (including, without limitation, the suspension of the NAV per Reference Fund Share), in each case other than a modification or event which does not affect the Reference Fund Shares or the Reference Fund or any portfolio of assets to which the Reference Fund Share relates (either alone or in common with other Reference Fund Shares issued by the Reference Fund);
- 5.26 the occurrence of any event affecting a Reference Fund Share that, in the determination of the Index Sponsor, would make it impossible or impracticable for the Index Sponsor to determine the value of the relevant Reference Fund Share, and such event continues for at least seven (7) calendar days;

### **Reporting Events:**

- 5.27 any failure of the Reference Fund, or its authorised representative, to deliver or publish, or cause to be delivered or published, (i) information that the Reference Fund has agreed to deliver or publish, or agreed to cause to be delivered or published, to the Index Sponsor or Hedge Provider, or (ii) information that has been previously delivered to the Hedge Provider or the Index Sponsor, as applicable, in accordance with the Reference Fund's, or its authorised representative's, normal practice and that the Hedge Provider deems necessary for it or the Index Sponsor, as applicable, to monitor such Reference Fund's compliance with any investment guidelines, asset allocation methodologies or any other similar policies relating to the Reference Fund Share; or
- 5.28 any Reference Fund Service Provider fails to provide the Index Sponsor, within a reasonable time, with any information that the Index Sponsor has reasonably requested regarding the investment portfolio or other activities or undertakings of the Reference Fund;

### **Tax/Law/Accounting/Regulatory Events:**

- 5.29 there is a change in or in the official interpretation or administration of any laws or regulations relating to taxation that has or is likely to have a material adverse effect on any hedging arrangements entered into by any Hedge Provider in respect of the Index (a "**Tax Event**") and, subject as provided below, the Hedge Provider has, for a period of one calendar month following the day the relevant Tax Event became known to it, used reasonable efforts to mitigate the material adverse effect of the Tax Event by seeking to transfer such hedging arrangements to an affiliated company, provided that the Hedge Provider shall not under any circumstances be obliged to take any steps which would result in sustaining a loss or expense of any kind and the period set out above for such mitigation shall be deemed satisfied on any date it is or becomes apparent at any time that there is no practicable means of mitigating the Tax Event; or
- 5.30 (i) any relevant activities of or in relation to the Reference Fund or a Reference Fund Service Provider are or become unlawful, illegal or otherwise prohibited in whole or in part as a result of compliance with any present or future law, regulation, judgment, order or directive of any governmental, administrative, legislative or judicial authority or power, or in the interpretation thereof, in any applicable jurisdiction (including, but not limited to, any cancellation, suspension or revocation of the registration or approval of the Reference Fund by any governmental, legal or regulatory entity with authority over the Reference Fund), (ii) a relevant authorisation or licence is revoked, lapses or is under review by a competent authority in respect of the Reference Fund or a Reference Fund Service Provider or new conditions are imposed, or existing conditions varied, with respect to any such authorisation or licence, (iii) the Reference Fund is required by a competent authority to redeem any Reference Fund Shares, (iv) the Hedge Provider is required by a competent authority or any other relevant entity to dispose of or compulsorily redeem any Reference Fund Shares held in connection with any hedging arrangements relating to the Index and/or (v) any change in the legal, tax, accounting or regulatory treatment of the Reference Fund or any Reference Fund Service Provider that is reasonably likely to have an adverse impact on the value of the Reference Fund Shares or other activities or undertakings of the Reference Fund or on the rights or remedies of any investor in such Reference Fund Shares, including any Hedge

Provider;

**Dealing Events:**

- 5.31 (i) the non-execution or partial-execution by the Reference Fund for any reason of a subscription or redemption order in respect of any Reference Fund Shares (including, for the avoidance of any doubt, any non-execution by the Reference Fund pending completion of its fiscal audit) (ii) the Reference Fund suspends or refuses transfers of any of its Reference Fund Shares (including, without limitation, if the Reference Fund applies any gating, deferral, suspension or other similar provisions permitting the Reference Fund to delay or refuse redemption or transfer of Reference Fund Shares), (iii) the Reference Fund imposes in whole or in part any restriction (including, without limitation, any redemption in specie), charge or fee in respect of a redemption or subscription of its Reference Fund Shares by the Hedge Provider or exercises its right to claw back the proceeds already paid on redeemed Reference Fund Shares, if in any case it could in the sole and absolute determination of the Index Sponsor have an adverse impact on the Hedge Provider's rights or obligations in relation to its hedging activities in relation to the Index, or (iv) a mandatory redemption, in whole or in part, of the Reference Fund Shares is imposed by the Reference Fund or Reference Fund Service Provider on any one or more holders of Reference Fund Shares at any time for any reason;

**Hedging/Impracticality/Increased Costs Events:**

- 5.32 in connection with any hedging activities in relation to the Index, as a result of any adoption of, or any change in any law, order, regulation, decree or notice, howsoever described, after the Index Start Date, or issuance of any directive or promulgation of, or any change in the interpretation, whether formal or informal, by any court, tribunal, regulatory authority or similar administrative or judicial body of any law, order, regulation, decree or notice, howsoever described, after such date or as a result of any other relevant event (each a "**Relevant Event**") (i) it would become unlawful or impractical for the Hedge Provider to hold (including, without limitation, circumstances requiring the Hedge Provider to modify any reserve, special deposit, or similar requirement or that would adversely affect the amount of regulatory capital that would have to be maintained in respect of any holding of Reference Fund Shares or that would subject a holder of the Reference Fund Shares or the Hedge Provider to any loss), purchase or sell the relevant Reference Fund Shares or any underlying assets of or related to the Reference Fund or for the Hedge Provider to maintain such hedging arrangements and, (ii) subject as provided below, the Hedge Provider has, for a period of one calendar week following the day the Relevant Event became known to it, used reasonable efforts to mitigate the effect of the Relevant Event by seeking to transfer such hedging arrangements to an affiliated company, provided that the Hedge Provider shall not under any circumstances be obliged to take any steps which would result in sustaining a loss or expense of any kind and the period of one calendar week set out above shall be deemed satisfied on any date it is or becomes at any time apparent that there is no practicable means of mitigating the Relevant Event;
- 5.33 in connection with the hedging activities in relation to the Index, if the cost to the Hedge Provider in relation to the Index and the related hedging arrangements (including, but not limited to, new or increased taxes, duties, expenses or fees) would be materially increased or the Hedge Provider

would be subject to a material loss relating to the Index and the related hedging arrangements;

- 5.34 in connection with the hedging activities in relation to the Index, the Hedge Provider is unable or it becomes impractical for the Hedge Provider, to (i) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any transaction or asset it deems necessary to hedge the Index Sponsor's obligations under the Index or (ii) to realise, recover or remit the proceeds of any such transaction or asset, including, without limitation, where such inability or impracticability has arisen by reason of (A) any restrictions or increase in charges or fees imposed by the Reference Fund on any investor's ability to redeem a Reference Fund Share, in whole or in part, or any existing or new investor's ability to make new or additional investments in such Reference Fund Share, or (B) any mandatory redemption, in whole or in part, of such Reference Fund Share; or
- 5.35 at any time on or after the Index Start Date, the Index Sponsor and/or any of its Affiliates would incur an increased (as compared with circumstances existing on the Index Start Date) amount of tax, duty, capital and/or funding costs, expense or fee (other than brokerage commissions) to maintain the Index;

**Miscellaneous Events:**

- 5.36 in the case of Index linked to a Fund Basket, a Basket Trigger Event occurs;
- 5.37 the Reference Fund or any Reference Fund Service Provider defaults under, materially modifies, or terminates any rebate agreements in place with the Index Sponsor, the Hedge Provider or any of its Affiliates;
- 5.38 if the Reference Fund is part of an umbrella structure with more than one sub-fund, a cross-contamination or other failure to segregate the portfolio of assets held by the Reference Fund occurs between different series, classes and/or sub-funds;
- 5.39 any security granted by the Reference Fund or any Reference Fund Service Provider over any of its assets is enforced or becomes capable of being enforced or any arrangement which in the determination of the Index Sponsor is comparable to security over any such assets (including without limitation any repo or prime brokerage arrangement) becomes enforceable or capable of early termination or any derivatives, repo, securities lending or other trading or dealing arrangement relating to the assets of the Reference Fund becomes enforceable or terminable early by reason of any event of default (howsoever described) relating to the Reference Fund or the relevant Reference Fund Service Provider;
- 5.40 the long-term unsecured, unsubordinated and unguaranteed debt rating assigned to any Reference Fund Service Provider or any parent company (howsoever described) of the Reference Fund, by Moody's Investors Service Inc., or any successor to the ratings business thereof ("**Moody's**"), and/or Standard and Poor's Rating Group (a division of McGraw-Hill, Inc.), or any successor to the ratings business thereof ("**S&P**"), is downgraded below A (S&P) or A2 (Moody's) and/or the short-term unsecured, unsubordinated and unguaranteed debt rating assigned to any Reference



Fund Service Provider by Moody's or S&P is downgraded below A-1 (S&P) or P-1 (Moody's); or

5.41 the occurrence of an Additional Extraordinary Reference Fund Event.

**"Fund Basket"** means all Index Components of the Type "Fund Share";

**"Hedge Provider"** means, unless otherwise specified in Part A of these Index Rules, the party (being, *inter alia*, the Index Sponsor, its Affiliates or any third party) from time to time who hedges the Index Sponsor's obligations in respect of the Index, or where no party actually hedges such obligations, a Hypothetical Investor, who shall be deemed to enter into transactions as if hedging such obligations. The Hedge Provider will hold or be deemed to hold such number of Reference Fund Shares, or enter or be deemed to enter into any agreement to purchase or deliver or pay an amount linked to the performance of, such number of Reference Fund Shares as it (or in the case of an Hypothetical Investor, the Index Sponsor) consider would be held by a prudent counterparty as a hedge for its exposure under the relevant Index.

**"Hypothetical Investor"** means, unless otherwise specified in Part A of these Index Rules, with respect to any Reference Fund Share, a hypothetical or actual investor (as determined by the Index Sponsor in the context of the relevant situation) in a Reference Fund Share which is deemed to have the benefits and obligations, as provided in the relevant Reference Fund Documents, of an investor holding a Reference Fund Share at the relevant time. The Hypothetical Investor may be deemed by the Index Sponsor to be resident or organised in any jurisdiction, and to be, without limitation, the Index Sponsor or any of its Affiliates (as determined by the Index Sponsor in the context of the relevant situation);

**"Merger Event"** means, in respect of any relevant Shares and Entity (as defined below), any (i) reclassification or change of such Shares that results in a transfer of or an irrevocable commitment to transfer all of such Shares outstanding to another entity or person, (ii) consolidation, amalgamation, merger or binding share/unit/interest exchange of an Entity with or into another entity or person (other than a consolidation, amalgamation, merger or binding share/unit/interest exchange in which such Entity, is the continuing entity and which does not result in a reclassification or change of all of such Shares outstanding), (iii) takeover offer, tender offer, exchange offer, solicitation, proposal or other event by any entity or person to purchase or otherwise obtain 100 per cent. of the outstanding Shares of an Entity that results in a transfer of or an irrevocable commitment to transfer all such Shares (other than such Shares owned or controlled by such other entity or person), or (iv) consolidation, amalgamation, merger or binding share/unit/interest exchange of an Entity or its subsidiaries with or into another entity in which the Entity is the continuing entity and which does not result in a reclassification or change of all such Shares outstanding but results in the outstanding Shares (other than Shares owned or controlled by such other entity) immediately prior to such event collectively representing less than 50 per cent. of the outstanding Shares immediately following such event. For the purposes of this definition "Merger Event" only, **"Shares"** shall mean the applicable Reference Fund Shares or the shares of any applicable Reference Fund Service Provider, as the context may require, and **"Entity"** shall mean the applicable Reference Fund or any applicable Reference Fund Service Provider, as the context may require.

**"NAV per Reference Fund Share"** means, with respect to the relevant Reference Fund Shares and the Reference Fund Reporting Date relating to such Reference Fund Shares, (i) the net asset value per Reference Fund Share as of the relevant Reference Fund Valuation Date, as reported on such Reference Fund Reporting Date by the Reference Fund Service Provider that generally publishes or reports such

value on behalf of the Reference Fund to its investors or a publishing service, or (ii) if the Reference Fund Service Provider of the Reference Fund publishes or reports only the aggregate net asset value of the Reference Fund Shares, the net asset value per Reference Fund Share calculated by the Index Sponsor on the basis of such aggregate net asset value of the Reference Fund Shares divided by the number of Reference Fund Shares issued and outstanding as of the relevant Reference Fund Valuation Date;

**"NAV Trigger Event"** means, in respect of the Reference Fund Shares, that (i) the NAV per Reference Fund Share has decreased by an amount equal to, or greater than, the NAV Trigger Percentage(s) at any time during the related NAV Trigger Period, or (ii) the Reference Fund has violated any leverage restriction that is applicable to, or affecting, such Reference Fund or its assets by operation of any law, any order or judgement of any court or other agency of government applicable to it or any of its assets, the Reference Fund Documents or any other contractual restriction binding on or affecting the Reference Fund or any of its assets;

**"NAV Trigger Percentage"** means 50 per cent.

**"NAV Trigger Period"** means 3 consecutive calendar months.

**"Number of NAV Publication Days"** means 5, being the maximum number of days after the due date for publication or reporting of the NAV per Share after which a Reference Fund Service Provider or any entity fulfilling such role, howsoever described in the Reference Fund Documents, or any other party acting on behalf of a Reference Fund may remedy any failure to publish or report the NAV per Share before the Index Sponsor may determine that an Extraordinary Reference Fund Event has occurred;

**"Redemption Notice Date"** means, with respect to any Reference Fund Share and any Index Level Calculation Date, unless otherwise specified in Part A of these Index Rules, the last date on which a Hypothetical Investor in such Fund Share would be permitted, pursuant to the Reference Fund Documents of the related Reference Fund, to submit a redemption notice that would be timely for a redemption as of the Scheduled Redemption Valuation Date occurring on such Index Level Calculation Date or, if no Scheduled Redemption Valuation Date is occurring on such Index Level Calculation Date, the immediately preceding Scheduled Redemption Valuation Date;

**"Redemption Proceeds"** means, with respect to the relevant number of Reference Fund Shares, the redemption proceeds that would be paid by the related Reference Fund to a Hypothetical Investor who, as of the relevant Redemption Valuation Date, redeems such amount of Reference Fund Shares; provided that (a) any such proceeds that would be paid in property other than cash shall be valued by the Index Sponsor and (b) if the Hypothetical Investor would be entitled to elect payment of such redemption proceeds to be made either in the form of cash or other property, then the Hypothetical Investor shall be deemed to have elected cash payment, except as otherwise specified in Part A of these Index Rules;

**"Redemption Valuation Date"** means, with respect to any Reference Fund Share and any Scheduled Redemption Valuation Date, the date as of which the related Reference Fund (or its Reference Fund Service Provider that generally determines such value) determines the net asset value of such Reference Fund Share for purposes of calculating the redemption proceeds to be paid to a Hypothetical Investor that has submitted a valid notice for redemption on or before the related Redemption Notice Date;

**"Reference Fund"** means the Reference Fund Issuer and any funds in which it invests any of its investible assets from time to time;

**"Reference Fund Business Day (All Fund Shares Basis)"** means, with respect to a Fund Basket, a date (i) that is a Reference Fund Valuation Date for all Reference Fund Shares comprised in the Fund Basket, (ii) for which there has been a corresponding Reference Fund Reporting Date in respect of each such Reference Fund and (iii) on which the Hedge Provider has, or could have, a subscription or redemption order for each such Reference Fund Share executed at the NAV per Reference Fund Share published on the relevant Reference Fund Reporting Date;

**"Reference Fund Disruption Event"** means, unless otherwise specified in Part A of the Index Rules, in respect of any Reference Fund Share the occurrence or existence of a Reference Fund Redemption Valuation Disruption as determined by the Index Sponsor on the relevant Index Level Calculation Date and at such other dates and times as contemplated herein or in Part A of these Index Rules or an Index Level Calculation Date not being an Index Trading Day;

**"Reference Fund Documents"** means with respect to any Reference Fund Share, the offering document of the relevant Reference Fund in effect on the Index Start Date or where a Reference Fund Share is added as an Index Component after the date of this Rule Book, on the date such Reference Fund Share becomes an Index Component specifying, among other matters, the terms and conditions relating to such Reference Fund Share and, for the avoidance of doubt, any other documents or agreements in respect of the Reference Fund, as further described in any Reference Fund Document;

**"Reference Fund Issuer"** means, in respect of a Reference Fund Share, the issuer of the relevant Reference Fund Share.

**"Reference Fund Redemption Valuation Disruption"** means, in respect of a Reference Fund Share, the failure of a Scheduled Redemption Valuation Date to be a Redemption Valuation Date or any continued postponement of such Redemption Valuation Date;

**"Reference Fund Reporting Date"** means, subject to the occurrence of an Extraordinary Reference Fund Event, in respect of any Reference Fund Share and a Reference Fund Valuation Date, the date on which, in accordance with the Reference Fund Documents, the relevant NAV per Reference Fund Share is reported or published in respect of such Reference Fund Valuation Date;

**"Reference Fund Service Provider"** means, in respect of any Reference Fund, any person who is appointed to provide services, directly or indirectly, to that Reference Fund, whether or not specified in the Reference Fund Documents, including any advisor, manager, administrator, operator, management company, depository, custodian, sub-custodian, prime broker, administrator, trustee, registrar and transfer agent, domiciliary agent and any other person as may be specified as such in Part A of these Index Rules;

**"Reference Fund Share(s)"** means an ownership interest issued to or held by an investor in a Reference Fund;

**"Reference Fund Share Potential Adjustment Event"** means, in respect of a Reference Fund Share, any of the following:

- (a) a subdivision, consolidation or reclassification of relevant Reference Fund Shares (unless resulting in a Merger Event), or a free distribution or dividend of any such Reference Fund Shares to existing holders by way of bonus, capitalization or similar issue;

- (b) a distribution, issue or dividend to existing holders of the relevant Reference Fund Shares of (A) such Reference Fund Shares, or (B) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of a Reference Fund equally or proportionately with such payments to holders of such Reference Fund Shares, or (C) share capital or other securities of another issuer acquired or owned (directly or indirectly) by a Reference Fund as a result of a spin-off or other similar transaction, or (D) any other type of securities, rights or warrants or other assets, in any case for payment (cash or other consideration) at less than the prevailing market price as determined by the Index Sponsor;
- (c) an Extraordinary Dividend;
- (d) a repurchase by a Reference Fund or any of its subsidiaries of relevant Reference Fund Shares whether out of profits or capital and whether the consideration for such repurchase is cash, securities or otherwise; or
- (e) any other event that may have a diluting or concentrative effect on the theoretical value of the relevant Reference Fund Shares;

**"Reference Fund Valuation Date"** means any date as of which, in accordance with the Reference Fund Documents, the Reference Fund (or the Reference Fund Service Provider that generally determines such value) is or, but for the occurrence of an Extraordinary Reference Fund Event, would have been scheduled to determine the NAV per Reference Fund Share;

**"Scheduled Redemption Payment Date"** means, unless otherwise specified in Part A of these Index Rules, with respect to any Reference Fund Share and any Scheduled Redemption Valuation Date, the date by which the related Reference Fund is scheduled to have paid, according to its Reference Fund Documents, all or a specified portion of the Redemption Proceeds to an investor that has submitted a timely and valid notice requesting redemption of such Reference Fund Share as of such Scheduled Redemption Valuation Date;

**"Scheduled Redemption Valuation Date"** means, with respect to any Reference Fund Share, the date as of which the related Reference Fund (or its Fund Service Provider that generally determines such value) is scheduled, according to its Reference Fund Documents (without giving effect to any gating, deferral, suspension or other provisions permitting a Reference Fund to delay or refuse redemption of Reference Fund Shares), to determine the net asset value of such Reference Fund Share for purposes of calculating the redemption proceeds to be paid to an investor that has submitted a valid and timely notice for redemption of Reference Fund Shares based on the value determined as of such date. The Scheduled Redemption Valuation Date relating to any Index Level Calculation Date shall be the date specified as such in Part A of these Index Rules, or if no such date is specified, the Scheduled Redemption Valuation Date occurring on such Index Level Calculation Date or, if no Scheduled Redemption Valuation Date is occurring on such Index Level Calculation Date, the immediately preceding Scheduled Redemption Valuation Date;

**"Settlement Cycle"** means, unless otherwise specified as such in Part A of these Index Rules, the period of Currency Business Days from, and including, any Scheduled Redemption Valuation Date to, and including, the related Scheduled Redemption Payment Date;

**"Tender Offer"** means a takeover offer, tender offer, exchange offer, solicitation, proposal or other event by any entity or person that results in such entity or person purchasing, or otherwise obtaining or having the right to obtain, by conversion or other means, greater than 50 per cent. and less than 100 per cent. of the outstanding voting shares, units or interests of the Reference Fund or Reference Fund Service Provider, as determined by the Index Sponsor, based upon the making of filings with governmental or self-regulatory agencies or such other information as the Index Sponsor deems relevant.

## V. APPENDIX 2 - ADJUSTMENTS FOR INDEX COMPONENT TYPE "CUSTOM INDEX"

The following provisions shall apply in respect of any Index Component in respect of which the Index Component Type specified in Part A is "Custom Index", which Index Component, for the purposes of this Appendix, shall be referred to as the "**Reference Index**".

### 1. **Successor Reference Index**

If a Reference Index is (i) not calculated and announced by the Reference Index Sponsor but is calculated and announced by a successor sponsor acceptable to the Index Sponsor, or (ii) replaced by a successor index using, in the determination of the Index Sponsor, the same or a substantially similar formula for and method of calculation as used in the calculation of that Reference Index, then in each case that index (the "**Successor Reference Index**") will be deemed to be the Reference Index.

### 2. **Adjustments**

If on any week day there is a Reference Index Adjustment Event, then the Index Sponsor shall determine if such Reference Index Adjustment Event has a material effect on the Index and, if so, may require the Index Calculation Agent to adjust the Index in accordance with Section 2 of Part A of this Rule Book.

### 3. **Consequences of Non-Publication of an Index Component Level**

If any Business Day is not a Reference Index Level Publication Day for a Reference Index, the provisions relating to the requirements to calculate and publish and/or adjust as set out in Section 4 of Part A of the Index Rules shall apply in relation to that Reference Index.

### 4. **Corrections**

In the event that any price or level published by the Reference Index Sponsor and which is utilised for any calculation or determination made in respect of the Index is subsequently corrected and the correction is published by the Reference Index Sponsor within three Reference Index Level Publication Days after the original publication, the Index Sponsor will, to the extent necessary, require the Index Calculation Agent to adjust the Index to account for such correction.

### 5. **Definitions**

"**Hedging Disruption Event**" means any event which the Index Sponsor determines materially restricts it from (i) acquiring, establishing, re-establishing, substituting, maintaining, unwinding or disposing of asset(s) or any transaction(s) to hedge the equity price risk (or any other relevant price risk including, but not limited to, the currency risk) of entering into and performing obligations in relation to the relevant Reference Indices; (ii) freely realizing, recovering, receiving, repatriating, remitting or transferring the proceeds in any currency of hedge positions relating to the Reference Index between accounts within the jurisdiction of the hedge positions (the "**Affected Jurisdiction**") or from accounts within the Affected Jurisdiction to accounts outside of the Affected Jurisdiction; (iii) determining a rate at which any currency relevant to the relevant Reference Indices or hedge positions relating to the Index can be exchanged or obtaining a rate for such exchange which rate is at least as favourable as the rate for domestic institutions located in the local jurisdiction; or (iv) converting any currency relevant to the Reference Indices or the hedge positions relating to the Index into another currency relevant to the such hedge positions through customary legal channels, including, but not exclusively, where one currency rate cannot be directly

converted into another; or (v) obtaining a rate or a commercially reasonable rate (as determined by the Calculation Agent), in each case, at which the proceeds of a hedge position can be exchanged.

**"Reference Index Adjustment Event"** means any of a Reference Index Modification, a Reference Index Cancellation or a Reference Index Disruption.

**"Reference Index Cancellation"** means in respect of a Reference Index, a Reference Index Sponsor permanently cancels the Reference Index and no Successor Reference Index exists or it has become impossible or impracticable, for any reason whatsoever and in the sole determination of the Index Sponsor, for the Reference Index to be an Index Component of the Index.

**"Reference Index Disruption"** means in respect of a Reference Index, the Reference Index Sponsor fails to calculate and announce a relevant Reference Index on a Reference Index Level Publication Day.

**"Reference Index Level Publication Day"** means each Business Day on which the level of the relevant Reference Index is scheduled to be published by the relevant Reference Index Sponsor.

**"Reference Index Modification"** means in respect of a Reference Index, a Reference Index Sponsor announces that it will make a material change in the formula for or the method of calculating that Reference Index or in any other way materially modifies that Reference Index (other than a modification prescribed in that formula or method to maintain that Reference Index in the event of changes in constituent components and capitalisation, contracts or commodities and other routine events).

**"Reference Index Sponsor"** means, in respect of any Reference Index, the corporation or other entity that (a) is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to the relevant Reference Index and (b) announces (directly or through an agent) the level of the relevant Reference Index on each Reference Index Level Publication Day.