FIRST TRUST BARCLAYS EDGE INDEX

Index Methodology Rule Book

Publication Date: 14 April 2023

Last Updated: 05 April 2023

THIS RULE BOOK HAS BEEN MADE AVAILABLE BY THE INDEX ADMINISTRATOR (DEFINED BELOW) IN ORDER TO SET OUT CERTAIN INFORMATION IN RESPECT OF THE INDEX (DEFINED BELOW).

Contents

Important Disclaimer Information

This material is for distribution only under such circumstances as may be permitted by applicable law. It has no regard to the specific investment objectives, financial situation or particular needs of any recipient. It is for information purposes only and should not be construed as an offer, recommendation or solicitation to conclude a transaction and should not be treated as providing investment advice. Neither the Index Owner (as defined below) nor Bloomberg Index Services Limited ("**BISL**" or the "Index Administrator") and its Affiliates (collectively with BISL, "**Bloomberg**") makes any representation or warranty, express or implied, regarding the appropriateness of investing in products referenced to the First Trust Barclays Edge Indices (the name of which is set out in Table 1 ("*Index Information*") in Appendix A) (the **"Indices"** and each an "**Index**"), products in general or of the ability of the Indices to track equity, bond, foreign exchange or derivative market performance. In determining the constituents of the Indices and any amendment thereto, neither the Index Owner nor the Index Administrator has any obligation to consider the needs of any third parties, including counterparties that have products referenced to the Indices. The Index Owner and its licensors are the sole owner of the intellectual property rights with respect to the Indices. Any Product (as defined below) may only be issued by a party other than the Index Owner upon the prior written approval of the Index Owner and upon the execution of a license agreement between the Index Owner (or its applicable licensing agent) and the party intending to launch a Product. In no way does the Index Owner or Bloomberg endorse or have any other involvement in the issue and offering of a Product. The Index Owner and Bloomberg make no representation or warranty, express or implied, to the holders of any Product or any member of the public regarding the Indices or any Product (including but not limited to the advisability of investing in the Products or the results to be obtained from the use of an Index or from a Product). Past performance of the Indices is not necessarily indicative of future results. Except as such parties may otherwise agree in writing, no legal relationship (whether in contract, tort, or otherwise) exists between any Product Investor (defined below) or Prospective Product Investor (defined below) and the Index Administrator or the Index Owner, and neither the Index Administrator nor the Index Owner owes any duties (whether in contract, tort, or otherwise) to any Product Investor or Prospective Product Investor.

NEITHER BLOOMBERG NOR THE INDEX OWNER GUARANTEES THE QUALITY, ACCURACY AND/OR THE COMPLETENESS OF THE INDICES OR ANY DATA INCLUDED THEREIN AND SHALL NOT HAVE ANY LIABILITY FOR ANY ERRORS OR OMISSION OR INTERRUPTIONS IN THE CALCULATION AND/OR DISSEMINATION OF THE INDICES. NEITHER BLOOMBERG NOR THE INDEX OWNER MAKES ANY WARRANTY, EXPRESS OR IMPLIED, AS TO RESULTS TO BE OBTAINED BY OR FROM THE USE OF THE INDICES OR ANY DATA INCLUDED THEREIN OR FOR ANY OTHER USE (WHETHER DIRECTLY OR VIA ANY PRODUCT REFERENCED THERETO) AND EACH HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE INDICES OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF THE FOREGOING, TO THE EXTENT PERMITTED BY LAW THE INDEX OWNER AND BLOOMBERG DISCLAIM ANY LIABILITY FOR ANY PUNITIVE, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH.

This document contains data derived as a result of back-testing of data and is provided by the Index Administrator or the Index Owner in good faith using its standard methodology for information of this kind. That methodology relies on proprietary models, empirical data, assumptions and such other information that the Index Administrator or the Index Owner believes to be accurate and reasonable. Without in any way limiting the above disclaimer, neither the Index Administrator nor the Index Owner makes, however, any representation, warranty or guarantee as to the accuracy, completeness or appropriateness of such back-testing methodology and neither the Index Administrator nor the Index Owner accepts any liability for the use of such information. Specifically, there is no assurance that other banks or brokers would derive the same results for the back-test period.

The data sources referenced in this Index Methodology Rule Book may from time to time provide data which, in part, are used to compile and calculate the Indices. However, the data sources provide such data “as is” and without representation or warranty on their part. Neither the Index Owner nor the Index Administrator makes any representation or warranty, express or implied, as to the correctness of that information and neither the Index Owner nor the Index Administrator takes any responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the Indices. Even if any error or discrepancy on the part of any data source is corrected or revised, neither the Index Owner nor the Index Administrator is under any obligation to reflect any such correction or revisions into the calculation of the Index Value, other than as noted in this Index Methodology Rule Book.

None of the information contained herein constitutes a solicitation, offer, opinion, or recommendation by Bloomberg or the Index Owner to buy or sell any security, or constitutes legal, tax, accounting, or investment advice or services.

Unless otherwise indicated, references in this Index Methodology Rule Book to “**FTIS**” or “**Index Owner**” refer to FT Indexing Solutions LLC.

Section 1 Introduction

Unless otherwise specified or defined, all capitalized terms referred to in this Index Methodology Rule Book are defined in Section 3 ("Definitions").

This Index Methodology Rule Book has been made available by the Index Administrator and sets out the rules and risk factors applicable to the First Trust Barclays Edge Indices.

The Indices are the intellectual property of the Index Owner and its licensors. The Index Owner and its licensors own the copyright and all other intellectual property rights in the Indices as set out in this Index Methodology Rule Book. Any use of these intellectual property rights must be with the prior written consent of the Index Owner.

The administration of the Indices will be solely performed by the Index Administrator. The Index Administrator controls the creation and operation of the Indices' administration process, including all stages and processes involved in the production and dissemination of the Indices and together with its licensors owns the copyright of this Index Methodology Rule Book (subject to the intellectual property rights of the Index Owner with respect to the Indices set out herein). For the avoidance of doubt, the Index Owner does not and will not administer the Indices, or control any part of the Indices' administrative or determination process. Notwithstanding that the Indices rely on information from third party sources, the Index Administrator has primary responsibility for all aspects of the Indices' administration and determination process.

The information in this Index Methodology Rule Book reflects the policies of, and is subject to change by, the Index Administrator. The Index Administrator makes certain determinations and calculations in respect of the Indices and publishes the Index Value as further described in this Index Methodology Rule Book. The Index Owner does not have any obligation to ensure that the Index Administrator continues to publish the Index Value and the Index Administrator may discontinue publication of the Index Value, subject to the transition policies of the Index Administrator, which are available upon written request. The Index Administrator will use reasonable efforts to make available the Index Value in respect of each Index Business Day. The Index is published on the relevant Bloomberg Page (Appendix A). Certain information with respect to the Indices (or a subset thereof) may also be published on the Bloomberg Website (defined below).

Historical records relating to the past performance of the Indices are available on the relevant Bloomberg Page.

Any publication described in this Section 1 ("*Introduction*") may be restricted by means determined as appropriate for such purpose by the Index Administrator in its sole and absolute discretion, including, but not limited to, password protection restricting access to a limited set of persons in accordance with arrangements agreed between the Index Administrator and such persons.

Neither the Index Owner nor the Index Administrator accepts any legal liability to any person for publishing or not continuing to publish for any period of time any Index Value at any particular place or any particular time.

This version of the Index Methodology Rule Book is provided as of the date specified on the cover of this Index Methodology Rule Book (the "**Publication Date**"). Upon each update to this Index Methodology Rule Book, the most recent version shall be deemed to supersede the preceding version from the date of such update such that, in the event of any conflict between an earlier version of the Index Methodology Rule Book and the most recent version, the most recent version shall prevail. The Index Administrator will use reasonable efforts to provide notice of such updates. The Index Administrator shall provide additional information about any such updates upon written request.

All determinations and calculations made by the Index Administrator will (in the absence of manifest error) be final, conclusive and binding.

The information contained in this Index Methodology Rule Book includes the methodology and material rules and risks relating to the Indices. This information is subject to change.

Section 2 Overview of the Indices

2.1. Objective

This Index Methodology Rule Book describes the calculation of the First Trust Barclays Edge Indices. The indices track the performance of a long position in the respective indices according to the Table 1 ("*Index Information"*) in Appendix A.

2.2. Determination of the Index Value

The Index Value is calculated by the Index Administrator and is based on the value of each of the relevant Index Constituents as determined in accordance with Section 4 ("*Index Calculation*") on each Index Business Day. The determination of dates used in the calculation is based on the relevant calendars and exchange schedules available at the time of such determination. On any day where the Index Value is not calculated, no Index Value will be published in respect of such day, subject to the provisions set out below. Certain provisions in this document are expressed in both formulaic and descriptive terms. In the event of conflict between a descriptive term and a formula, the formula shall govern.

2.3. Determination of the value of each Index Constituent

The Indices have been established and designed only for the purpose of seeking to achieve the objectives stated in this Section 2 ("*Overview of the Indices*"). They have not been designed to reflect the performance of the wider foreign exchange market, equity market, bond market or other financial markets. The Index Value will be a function of the price, level or value of the relevant Index Constituents. In the absence of a Market Disruption Event or Index Adjustment Event, the Index Value will be calculated in accordance with the formulae in the methodology (including in circumstances where the market for an Index Constituent is illiquid or fragmented). This Section 2 ("*Overview of the Indices*") only provides a summary of the Indices and is subject to, and qualified by, the remainder of this Index Methodology Rule Book. Prospective Product Investors should therefore carefully read the whole of this Index Methodology Rule Book.

Prospective Product Investors should also note that any purposes, aims and intentions expressed in this Index Methodology Rule Book may not be achieved.

Section 3 Definitions

"Adjusted Index Constituent" refers to the excess return adjusted index of the Underlying Index. An Index Value for an Adjusted Index Constituent is determined by the Index Administrator in accordance with the section "*Adjusted Index Constituent Calculation*" in Appendix C;

"Adjusted Index Constituent Business Day" means, with respect to each Adjusted Index Constituent, any day which is a Trading Business Day for each corresponding exchange as specified in Table 4 ("*Adjusted Index Constituents*") in Appendix C;

"Adjustment Rate", with respect to the Prime Index, refers to a rate determined by the Index Administrator in accordance with the Section 4.1 ("*Prime Index Calculation"*);

"Active Risk Control Exposure Factor" means, with respect to a Determination Date, the value of the Risk Control Exposure Factor used to determine the index units most recently determined prior to such Determination Date;

"Affiliate" means, in relation to any entity, any other entity directly or indirectly controlling, controlled by, or under common control with, such entity;

"Asset Class" means, with respect to an Index Constituent, the asset class for such Index Constituent as specified in Table 2 ("*Index Constituents"*) in Appendix A;

"Bloomberg Page" means, with respect to a Bloomberg ticker, the page on the Bloomberg Terminal® generated by entering such ticker + <GO>;

"Bloomberg Website" means the following: https://www.bloomberg.com/professional/product/indices or any successor thereto;

"Barclays Switch USD Signal Index" means, an index administered by Barclays Bank PLC as part of the "Barclays Switch Signal Index" family and displayed on the Bloomberg Page under the ticker named "BXIISSUS Index";

"Basket Target Volatility" means 7.0%;

"Cash Rate" means the rate published by the Federal Reserve Bank of New York and displayed on the Bloomberg Page under ticker "FEDL01 Index". If, for any reason, there is no Cash Rate for an Adjusted Index Constituent Business Day, then the Cash Rate shall be the last available Cash Rate;

"Constituent Currency" means, with respect to an Index Constituent the value specified in Table 2 ("*Index Constituents"*) in Appendix A;

"Converged Solution" means, with respect to an Initial Optimisation, the optimal solution found by the NAG Optimiser that satisfies all relevant constraints, within the pre-specified stopping tolerance;

"Determination Date" means, each Index Business Day starting from and including the Index Base Date (Prime Index);

"Equity Basket Determination Date" means, with respect to the Equity Basket Index, the last Equity Basket Business Day of each month starting from and including the Index Base Date (Equity Basket Index);

"Equity Basket Index Business Day" means, with respect to the Equity Basket Index, any day which is a Trading Business Day for New York Stock Exchange (NYSE) and Nasdaq;

"Equity Basket Rebalancing Date" means, with respect to the Equity Basket Index and an Equity Basket Determination Date, the first Equity Basket Business Day immediately following such Equity Basket Determination Date;

"Force Majeure Event" means an event or circumstance (including, without limitation, a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) that is beyond the reasonable control of the Index Administrator and that the Index Administrator determines, in its sole discretion, affects an Index, any Index Constituent or the methodology on which the relevant Index is based or the Index Administrator's ability to calculate and publish the relevant Index;

"Index" has the meaning given to it in the 'Important Disclaimer Information' section;

"Index Administrator" means Bloomberg Index Services Limited ("BISL");

"Index Adjustment Event" means, with respect to an Index, any of the following:

(a) a change shall have been made to any of the Index Constituents or there shall have occurred any other event that would make the calculation of any Index impossible or infeasible, technically or otherwise, or that makes the Index non-representative of market prices of the Index Constituents or undermines the objectives of the relevant Index;

(b) the administrator of an Index Constituent makes or announces that it will make a material change in the weighting or composition of, formula for or method of calculating, such Index Constituent or modifies or announces that it will modify in any other way such Index Constituent in a material manner (other than a modification prescribed in that formula or method to maintain such Index Constituent in the event of permitted changes in its constituents and/or other routine events);

(c) the level or value of any Index Constituent has been calculated by reference to data that, in the determination of the Index Administrator, does not reflect the true market trading prices, values or levels of such Index Constituent and/or the related underlying contract;

(d) the administrator of an Index Constituent permanently cancels the Index Constituent;

(e) the imposition or removal of or change in any tax (including without limitation, any excise, severance, sales, use, value-added, transfer, stamp, documentary, recording or similar tax) on, or in relation to any Index Constituent or any component thereof, by any government or taxation authority on or after the Index Commencement Date, if the effect of such imposition, change or removal is to raise or lower the price, value or level at which such Index Constituent or any component thereof trades on the relevant exchange or in the relevant market on any relevant date from what it would have been without that imposition, change or removal;

(f) a change in law, such that on or after the Index Commencement Date (i) due to the adoption or announcement of any change in any applicable law or regulation (including, without limitation, any tax law or limitations on the repatriation of invested capital in the jurisdiction of the underlying), or (ii) 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 authority), the Index Administrator determines that the continued administration and distribution of the Index is illegal or a materially different undertaking to administer;

(g) the exchange rate for a Constituent Currency or Index Currency splits into dual or multiple exchange rates;

(h) an event occurs that generally makes it impossible or impracticable to convert a Constituent Currency or Index Currency into US Dollars through customary legal channels in any relevant jurisdiction, as determined by the Index Administrator;

(i) an event occurs that generally makes it impossible or impracticable to deliver US Dollars from accounts inside the country where a Constituent Currency or Index Currency is the official currency to accounts outside such country, or to deliver a Constituent Currency or Index Currency between accounts inside such country or to a party that is a non-resident of such country;

(j) any change in, or amendment to, the laws or regulations, including those laws or regulations that relate to capital controls or government control of exchange rates, prevailing in the country where a Constituent Currency or Index Currency is the official currency, or any change in any application or official interpretation of such laws or regulations, or any other governmental action that the Index Administrator determines, acting in a commercially reasonable manner, may cause another market disruption event to occur or that leads or may lead to the introduction of a currency peg regime;

(k) the Index Administrator determines that an issuer or dealer (or any of their Affiliates) of Index-linked notes or other Index-linked transactions would be unable, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of any hedge position relating to such Index-linked notes or other Index-linked transactions, or to realize, recover or remit the proceeds of any such transactions; and/or

(l) the occurrence of a default, event of default or other similar condition or event with respect to any security or indebtedness of, or guaranteed by, any governmental authority in relation to an underlying instrument of an Index Constituent;

"Index Base Date" means, with regards to:

(a) Prime Index, 31 October 2007;
(b) VC Index, 30 September 2008;
(c) Equity Basket Index, 31 October 2006;
(d) Adjusted Index Constituent, corresponding dates as specified in Table 4 ("*Adjusted Index Constituents*") in Appendix C;

"Index Base Value" means 100.0000;

"Index Business Day" means, with respect to the Prime Index and VC Index, any day which is a SIFMA Business Day as well as a Trading Business Day for each of the following exchanges: New York Stock Exchange (NYSE), Nasdaq and Chicago Board of Trade (CBOT);

"Index Commencement Date" means, with respect to the Prime Index and VC Index, 14 April 2023;

"Index Constituent" means, with respect to the Prime Index, indices listed in Table 2 ("*Index Constituents"*) in Appendix A;

"Index Constituent Business Day" means, with respect to an Index Constituent (not including Equity Basket Index), any day on which a value for the Index Constituent is scheduled to be published. The definition of Index Constituent Business Day, with respect to the Equity Basket Index, is any day that is also an Equity Basket Index Business Day;

"Index Constituent Value" means, with respect to an Index Constituent (not including Equity Basket Index), the value of such Index Constituent as calculated by the relevant administrator for such Index Constituent Business Day in accordance with the Underlying Index Constituent Methodology. With respect to the Equity Basket Index, the value calculated by the Index Administrator in accordance with the formula in "*Equity Basket Index Calculation*" in Appendix C. If, for any reason, there is no Index Constituent Value for an Index Business Day or Index Constituent Business Day, then the Index Constituent Value shall be the last available Index Constituent Value for such Index Constituent. Unless specified otherwise, Index Constituent Values are rounded to four (4) decimal points;

"Index Currency" means, with respect to an Index, the currency specified in Table 1 ("*Index Information"*) in Appendix A;

"Index Owner" means FTIS;

"Initial Optimisation" means, in respect of a Determination Date, the first optimisation conducted by the Index Administrator as part of Section 4.4.1 ("*Determination of Initial Target Exposures"*);

"Initial Optimised Exposure" means, with respect to an Index Constituent and a Determination Date, the resultant exposure from the Initial Optimisation for that Index Constituent and that Determination Date;

"Index Value" means, with respect to an Index, index value calculated by the Index Administrator in accordance with the Section 4 ("*Index Calculation"*) or Appendix C;

"Market Disruption Event" means, with respect to an Index, the occurrence of one or more of the following events if, in the discretion of the Index Administrator, such event is material with respect to such Index:

(a) the Index Administrator observes on any Index Business Day that there has been a declaration of a general moratorium in respect of banking activities in any relevant jurisdiction;

(b) the occurrence of an event that makes it impossible or not reasonably practicable on any Index Business Day for the Index Administrator to obtain the value of any Index Constituent, or any other price or necessary information for purposes of calculating the Index Value in a manner acceptable to the Index Administrator;

(c) a temporary or permanent failure by the applicable exchange or other fixing source to announce or publish the value of any Index Constituent, Constituent Currency or Index Currency on any Index Business Day on which the level of such Index Constituent, Constituent Currency or Index Currency was scheduled to be announced or published;

(d) the administrator of an Index Constituent fails to announce or publish the level or value of such Index Constituent on an Index Business Day on which the level or value of such Index Constituent was scheduled to be announced or published;

(e) the occurrence or existence of a lack of, or material decline in, the liquidity in the market for trading of any underlying of an Index Constituent on any Index Business Day;

(f) a Force Majeure Event;

(g) any event that disrupts or impairs (as determined by the Index Administrator acting in a reasonable manner) the ability of market participants in general to establish, maintain or unwind transactions in, or obtain market values for, futures, forwards, options, swaps or other over-the-counter derivative transactions indirectly included in and/or that may be used for hedging any Index Constituent;

(h) any suspension of, or limitation imposed on, trading any Index Constituent, Constituent Currency, Index Currency or any tradable instrument, including forwards, options or swaps, in respect of an Index Constituent, Constituent Currency or Index Currency;

(i) a failure to obtain the spot exchange rate of any Constituent Currency against the Index Currency or USD on any Index Business Day;

"Maximum Constituent Exposure" means, with respect to an Index Constituent and an Initial Optimised Exposure, the maximum constituent exposure for such Index Constituent as specified in Table 2 ("*Index Constituents"*) in Appendix A;

"Maximum Constituent Rebalance" means, with respect to an Index Constituent, the maximum constituent rebalance percentage for such Index Constituent as specified in Table 2 ("*Index Constituents"*) in Appendix A;

"Minimum Constituent Exposure" means, with respect to an Index Constituent and an Initial Optimised Exposure, the minimum constituent exposure for such Index Constituent as specified in Table 2 ("*Index Constituents"*) in Appendix A;

"**Momentum Filter Factor**" means, with respect to an Index Constituent and any Index Business Day:

(i) if the Asset Class for such Index Constituent is Equity or Commodity, a value of positive one; and

(ii) if the Asset Class for such Index Constituent is Treasury, a factor of positive one (1) or negative one (-1), as determined in accordance with the below:

(a) If, on any Index Business Day, the official index level or value of the Barclays Switch USD Signal Index, is less than zero, then the Momentum Filter Factor for such Index Constituent will be negative one (-1) for such Index Business Day,

(b) otherwise, the Momentum Filter Factor for such Index Constituent will be positive one (1) for such Index Business Day;

"Objective Function" means with respect to the Optimisation, the estimated expected return of the basket of Index Constituent, as determined in accordance with Section 4.4.1 ("*Determination of Initial Target Exposures"*);

"Optimisation" refers to a process of maximizing an outcome by adjusting parameters which are subject to certain constraints.

"Portfolio Variance" means, with respect to the Prime Index, as determined by the Index Administrator in accordance with Section 4.4.1 ("*Determination of Initial Target Exposures"*);

"Prime Index" means, the base index, calculated by the Index Administrator in accordance with Section 4.1 "*Prime Index Calculation*" and published under the ticker specified in Table 1 ("*Index Information"*) in Appendix A;

"Product" means any product based on or in relation to an Index;

"Product Investor" means any investor buying, selling, entering into or holding Products;

"Prospective Product Investor" means any investor who may be seeking to buy, sell, enter into or hold Products;

"Rebalance Event" means, with respect to the Prime Index, as defined in Section 4.4.2 ("*Determination of a Rebalance Event"*);

"Rebalance Threshold" means 5.0%;

"Rebalancing Date" means, with respect to the Prime Index and a Determination Date, the first Index Business Day immediately following such Determination Date;

"Rebalancing Delay" means, if, on a scheduled Rebalancing Date, a Market Disruption Event occurs or is continuing with respect to an Index Constituent, then the change of index units with respect to that Index Component shall not occur on such Index Business Day but will take place on the next succeeding Index Business Day on which no Market Disruption Event exists for that Index Constituent. For the avoidance of doubt, all Index Constituents in respect of which no Market Disruption Event is occurring or continuing on any Rebalancing Date shall be rebalanced on that Rebalancing Date.

"Risk Control Exposure Factor" means, with respect to a Determination Date, the calculated value of exposure of the basket of Index Constituents and their most recently determined basket exposures, determined with the objective of targeting a specified target volatility, as further described in Section 4.3 ("*Determination of Risk Control Exposure Factor"*);

"SIFMA Business Day" means, any weekday except a day on which the Securities Industry and Financial Markets Association (SIFMA) recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities;

"Target Exposure" means, with respect to an Index Constituent, and a Determination Date, the value calculated by the Index Administrator in accordance with the rules described in Section 4.4.3 ("*Determination of Target Exposures"*);

"Target Volatility" means 7.0%;

"**Target Weight**" means, with respect to the Equity Basket Index, the target weight for Adjusted Index Constituent as specified in Table 4 ("*Adjusted Index Constituents*") heading "*Target Weight*" in Appendix C;

"**Trading Business Day**" means a day on which the relevant exchange is scheduled to be open for its scheduled trading session;

"Underlying Index" means, with respect to an Adjusted Index Constituent, corresponding underlying index as specified in Table 4 ("*Adjusted Index Constituents*") heading "*Underlying Index (Ticker)*" in Appendix C;

"Underlying Index Business Day" means, with respect to an Underlying Index, any day on which a value for the Underlying Index is scheduled to be published;

"Underlying Index Constituent Methodology" means, with respect to an Index Constituent or Underlying Index, the methodology describing the calculations, documentation and governance of the Index Constituent or the Underlying Index as set out by the relevant administrator;

"**Underlying Index Value**" means, with respect to an Underlying Index, the value of such Underlying Index as calculated by the relevant administrator for such Underlying Index Business Day in accordance with the Underlying Index Constituent Methodology. If for any reason there is no Underlying Index Value for an Adjusted Index Constituent Business Day or Underlying Index Business Day, then the Underlying Index Value shall be the last available Underlying Index Value for such Underlying Index. Unless specified otherwise, Underlying Index Values are rounded to four (4) decimal points;

"VC Index" means, the volatility control index, calculated by the Index Administrator in accordance with Section 4.6 "*VC Index Calculation*" and published under the ticker specified in Table 1 ("*Index Information"*) in Appendix A;

Section 4 Index Calculation

4.1. Prime Index Calculation

The Index Value for the Prime Index on the Index Base Date (Prime Index) shall be Index Base Value. Thereafter, on each Index Business Day t, subject to Section 4.7 ("*Rounding"*) and any Rebalancing Delay, the calculation of the Index Value ("$\boldsymbol{I_t}$"), shall be performed by the Index Administrator in accordance with the following formulas:

$$I_t = I_{t-1} + \sum_{i=1}^{n} \Big(Index\ Units_{i,t-1} \times \big(Value_{i,t} - Value_{i,t-1} \big) \Big) - AR_t$$

and,

$$AR_t = \sum_{i=1}^{n} \big| Index\ Units_{i,t-1} \big| \times Value_{i,t-1} \times OC_i \times \frac{m_t}{360} + \sum_{i=1}^{n} \big| Index\ Units_{i,t} - Index\ Units_{i,t-1} \big| \times Value_{i,t-1} \times RC_i$$

Where:

I_t means the Index Value of the Prime Index for Index Business Day t;

I_{t-1} means the Index Value of the Prime Index for Index Business Day $t-1$;

i means Index Constituent i;

n means the number of Index Constituents in that Index;

t means an Index Business Day;

$t-1$ means the Index Business Day immediately preceding Index Business Day t;

$Index\ Units_{i,t}$ means, for each Index Constituent i and for each Index Business Day t:

a) for Index Business Day t that is a Rebalancing Day, the value determined by the following formula:

$$Index\ Units_{i,t} = Target\ Index\ Units_{i,d}$$

Where:

d means, in respect of that Rebalancing Day, the relevant Determination Date;

$Target\ Index\ Units_{i,d}$ shall have the value determined in accordance with Section 4.2 ("*Determination of Target Index Units*"),

And,

b) for any other Index Business Day, the value determined by the following formula:

$$Index\ Units_{i,t} = Index\ Units_{i,t-1}$$

provided that $Index\ Units_{i,t}$ shall be equal to zero for any Index Business Day t prior to and including the Index Base Date (Prime Index);

$Value_{i,t}$ means the Index Constituent Value for Index Constituent i for Index Business Day t.

$Value_{i,t-1}$ means the Index Constituent Value for Index Constituent i for Index Business Day $t-1$.

AR_t means the Adjustment Rate for Index Business Day t;

OC_i means the Operating Cost for the ith Index Constituent as set out in Table 2 ("*Index Constituents*") in Appendix A;

m_t means the number of calendar days from, and including, the Index Business Day immediately preceding Index Business Day t to, but excluding, Index Business Day t;

RC_i means the Rebalancing Cost for the ith Index Constituent as set out in Table 2 ("*Index Constituents*") in Appendix A;

4.2. Determination of Target Index Units

With respect to the Prime Index, the Index Administrator shall determine the Target Index Units for each Index Constituent, in accordance with the below:

a) If on a Determination Date, a Rebalance Event has occurred or has been deemed to have occurred, **OR** the absolute difference between the Risk Control Exposure Factor, for such Determination Date, and the Active Risk Control Exposure Factor is greater than or equal to the Rebalance Threshold, then:

$$Target\ Index\ Units_{i,d} = \frac{TE_{i,d} \times I_d \times RCEF_d}{Value_{i,d}}$$

b) Otherwise,

$$Target\ Index\ Units_{i,d} = Target\ Index\ Units_{i,d-1}$$

Where:

i	means an Index Constituent;
d	means such Determination Date;
$d-1$	means the Index Business Day immediately preceding Determination Date d;
$RCEF_d$	means the Risk Control Exposure Factor for Determination Date d as determined in accordance with Section 4.3 ("*Determination of Risk Control Exposure Factor"*);
$TE_{i,d}$	means the Target Exposure of the i^{th} Index Constituent determined for Determination Date d;
I_d	means the Prime Index Value on Determination Date d; and
$Value_{i,d}$	means the Index Constituent Value for Index Constituent i on Determination Date d.

The Target Index Units for each Index Constituent shall be rounded to eight (8) decimal places.

4.3. Determination of Risk Control Exposure Factor

The Risk Control Exposure Factor is calculated utilising the maximum of four measures for the realised volatility of the hypothetical one-day or two-day returns of the basket of Index Constituents weighted by the most recent Target Exposures, over two separate time periods with half-lives of 5 days and 63 days, respectively.

For each Determination Date the Index Administrator shall calculate the Risk Control Exposure Factor in accordance with the following formulas:

$$RCEF_d = min\left(150\%, round\left(\frac{TV}{MaxVol_d} \times \frac{100}{S}, 0\right) \times \frac{S}{100}\right)$$

and,

$$MaxVol_d = max\big(EWMVol_{X,d}^{5,W,D=1}, EWMVol_{X,d}^{63,W,D=1}, \sqrt{0.5} \times EWMVol_{X,d}^{5,W,D=2}, \sqrt{0.5} \times EWMVol_{X,d}^{63,W,D=2}\big)$$

Where:

d means a Determination Date;

$RCEF_d$ means Risk Control Exposure Factor for Determination Date d;

S means a rounding factor, and shall be equal to 1;

TV means the Target Volatility;

$EWMVol_{X,d}^{H,W,D}$ means the exponential weighted moving volatility of D day returns evaluated with a half-life of H days, as determined by the Index Administrator in accordance with the exponential weighted moving volatility formula provided in Section 4.5 ("*Mathematical Formulas")*, where reference date t means Determination Date d; and

W means the number of elements in the weighting vector used to evaluate the exponential weighted moving volatility, which shall be 252;

Where, D = 1, the definition of variable X shall be:

X_{d-x} means the one (1) day return of a weighted basket of Index Constituents as of the Index Business Day that is x number of Index Business Days immediately preceding Determination Date d:

Formulaically:

$$X_{d-x} = \sum_{i=1}^{n} TE_{i,d} \times \left(\frac{Value_{i,d-x}}{Value_{i,d-x-1}} - 1 \right)$$

Where:

n means the number of Index Constituents in the Prime Index;

$TE_{i,d}$ means the Target Exposure for the i^{th} Index Constituent determined for Determination Date d;

$Value_{i,d-x}$ means the Index Constituent Value for the i^{th} Index Constituent and Index Business Day that is x Index Business Days prior to Determination Date d; and

$Value_{i,d-x-1}$ means the Index Constituent Value for the i^{th} Index Constituent and Index Business Day that is $(x+1)$ Index Business Days prior to Determination Date d.

Where D = 2, the definition of variable X shall be:

X_{d-x} means the two (2) day compounded return of a weighted basket of Index Constituents as of the Index Business Day that is x number of Index Business Days immediately preceding Determination Date d:

Formulaically:

$$X_{d-x} = \left(1 + \sum_{i=1}^{n} TE_{i,d} \times \left(\frac{Value_{i,d-x}}{Value_{i,d-x-1}} - 1\right)\right) \times \left(1 + \sum_{i=1}^{n} TE_{i,d} \times \left(\frac{Value_{i,d-x-1}}{Value_{i,d-x-2}} - 1\right)\right) - 1$$

Where:

n means the number of Index Constituents in the Prime Index;

$TE_{i,d}$ means the Target Exposure for the i^{th} Index Constituent determined for Determination Date d;

$Value_{i,d-x}$ means the Index Constituent Value for the i^{th} Index Constituent and Index Business Day that is x Index Business Days prior to Determination Date d;

$Value_{i,d-x-1}$ means the Index Constituent Value for the i^{th} Index Constituent and Index Business Day that is $(x+1)$ Index Business Days prior to Determination Date d;

$Value_{i,d-x-2}$ means the Index Constituent Value for the i^{th} Index Constituent and Index Business Day that is $(x+2)$ Index Business Days prior to Determination Date d.

4.4. Determination of Target Exposures

For each Determination Date the Index Administrator shall determine a Target Exposure for each Index Constituent in accordance with the following process:

1. Determine the Initial Optimised Exposure for each Index Constituent as of such Determination Date;
2. Determine whether a Rebalance Event has occurred;
3. Determine Target Exposures.

4.4.1. Determination of Initial Target Exposures

For each Determination Date, the Index Administrator shall determine the Initial Optimised Exposure for each Index Constituent using the NAG Optimiser to find a set of Index Constituent exposures that maximize the expected basket return, subject to certain basket constraints. A key assumption for the Initial Optimisation is that the Index Constituents all have the same long-term risk adjusted return, therefore the Objective Function of maximizing expected basket return is the same as maximizing the weighted sum of the weighted Index Constituent volatilities.

Find Initial Optimised Exposures:

$$w_{1,d}^{ini.opt}, w_{2,d}^{ini.opt}, \dots, w_{n,d}^{ini.opt} = \boldsymbol{\Omega}_d^{ini.opt}$$

Such that they yield the maximum expected basket return:

$$\boldsymbol{\Omega}_d^{ini.opt} = arg\,\max_X E\left(\sum_{i=1}^{n} x_i \times \sigma_{i,d}\right)$$

$$\boldsymbol{X} = \begin{bmatrix} x_1 \\ x_2 \\ \dots \\ x_n \end{bmatrix}$$

Subject to the following basket constraints:

a) Index Constituent lower and upper exposure bounds:

$$\max\left(LB_i, TE_{i,d-1} - MCR_i\right) \leq x_i \leq min\left(UB_i\,, \max\left(LB_i, TE_{i,d-1} + MCR_i \times Filter_{i,d}\right)\right)$$

b) Minimum and maximum basket exposure:

$$0\% \leq \sum_{i=1}^{n} x_i \leq 150\%$$

c) Basket variance constraints:

$$PV_d \leq BTV^2$$

Each Initial Optimised Exposure shall be rounded to 6 decimal places, provided that:

- If post rounding, the resultant sum of rounded Initial Optimised Exposures exceeds 150%, such excess shall be subtracted from the exposure of the Index Constituent with the largest Initial Optimised Exposure that is not at its Maximum Constituent Exposure bound.
- If prior to rounding, the sum of the Initial Optimised Exposures was equal to 150%, and the resultant sum of rounded (post rounding) Initial Optimised Exposures is less than 150%, such amount less than 150% shall be added to the exposure of the Index Constituent with the smallest Initial Optimised Exposure that is not at its Minimum Constituent Exposure bound.

If, for a Determination Date, the NAG Optimiser fails to find a Converged Solution then there shall be no Rebalance Event for such Determination Date, the remainder of this Section 4.4 ("*Determination of Target Exposures*") shall be ignored for such Determination Date, and the Target Exposures for each Index Constituent will remain unchanged.

Where:

d	means a Determination Date;
i	means an Index Constituent;
n	means the number of Index Constituent in the Prime Index;
BTV	means the Basket Target Volatility;
MCR_i	means the Maximum Constituent Rebalance for the i^{th} Index Constituent between the Target Exposure of that Index Constituent in effect for the Index Business Day immediately prior to such Determination Date, and any feasible Initial Optimised Exposure;

$Filter_{i,d}$ means the Momentum Filter Factor of the i^{th} Index Constituent for Determination Day d;

LB_i, UB_i means the lower bound constraint which is equal to the Minimum Constituent Exposure, and upper bound constraint, which is equal to the Maximum Constituent Exposure, respectively, for the i^{th} Index Constituent;

$w_{i,d}^{ini.opt}$ means the Initial Optimised Exposure for the i^{th} Index Constituent on Determination Date d;

$\boldsymbol{\Omega}_d^{ini.opt}$ means the values of the argument vector $\mathbf{X}$ that maximizes the Objective Function of the Initial Optimisation for Determination Day d, subject to the relevant basket constraints;

$TE_{i,d-1}$ means the Target Exposure of the i^{th} Index Constituent in effect for the Index Business Day immediately prior to Determination Date d;

x_i means the value of the decision variable for the i^{th} Index Constituent for which the Objective Function is evaluated; and

$\boldsymbol{X}$ means a vector (size 1 x n) of the decision variables for which the Objective Function is evaluated;

$\sigma_{i,d}$ means the exponential weighted moving volatility of daily returns of the i^{th} Index Constituent evaluated using an exponential weighting vector with half-life of 252 days, for Determination Date d, determined in accordance with the formula for "exponential weighted moving volatility" in Section 4.5 ("*Mathematical Formulas*");

PV_d means the Portfolio Variance for Determination Date d, using the argument vector X, as the portfolio weights as determined in accordance with the formula below:

$$PV_d = \sum_{i=1}^{n} x_{i,d}^2 \sigma_{i,d}^2 + 2 \sum_{1 \le i < j \le M} x_{i,d} x_{j,d} \sigma_{i,d} \sigma_{j,d} \rho_{i,j,d}$$

Where,

$x_{i,d}$ and $x_{j,d}$ means the portfolio weights of, respectively, the i^{th} and j^{th} Index Constituent for Determination Date d in the optimization process;

PV_d means the Portfolio Variance for Determination Date d, with a portfolio correlation half-life equal to 252, for a certain set of portfolio weights for the Index Constituents;

$\rho_{i,j,d}$ means the weekly exponential weighted moving correlation between the i^{th} and j^{th} Index Constituent evaluated using an exponential weighting vector with a half-life equal to 252, for Determination Date d, determined in accordance with the Section 4.5 ("*Mathematical Formulas"*);

$\sigma_{x,d}$ means the average of exponential weighted moving volatility of daily returns of the x^{th} Index Constituent evaluated using an exponential weighting vector with half-life of 21 and 252, for

Determination Date d, determined in accordance with the Section 4.5 ("*Mathematical Formulas"*); and

M means the number of Index Constituents.

The formulas for calculating exponential weighted moving average, exponential weighted moving volatility and exponential weighted moving co-variance are provided in Section 4.5 ("*Mathematical Formulas"*), where the reference date t means an Determination Date d, and

a. For the exponential weighted moving volatility calculation and the associated exponential weighted moving average:

W means the value provided for the relevant half-life as specified in Table 3 ("*Weighting vector size for certain half-life calculations"*) in Appendix A below;

X_{d-x} means the one day return of the relevant Index Constituent for the x^{th} Index Constituent Business Days preceding Determination Date d, or if such Determination Date is not an Index Constituent Business Day, the Index Constituent Business Day immediately preceding that Determination Date. Formulaically:

$$X_{d-x} = \frac{Value_{d'-x}}{Value_{d'-x-1}} - 1$$

d' means Determination Date d if such day is also an Index Constituent Business Day, otherwise it means the Index Constituent Business Day immediately preceding such Determination Date;

$d' - x$ means the Index Constituent Business Day that is x Index Constituent Business Days prior to Determination Date d';

$d' - x - 1$ means the Index Constituent Business Day that is immediately preceding to Index Constituent Business Day $d' - x$;

$Value_{d'-x}$ means the Index Constituent Value, for that Index Constituent for Index Constituent Business Day $d' - x$; and

$Value_{d'-x-1}$ means the Index Constituent Value for that Index Constituent for Index Constituent Business Day $d' - x - 1$.

b. For the exponential weighted moving co-variance between two Index Constituents, the m^{th} Index Constituent and the n^{th} Index Constituent, and the associated portfolio correlation:

W means the value provided for the relevant half-life as in Table 3 ("*Weighting vector size for certain half-life calculations"*) in Appendix A below;

A_{d-x} means the (5) five-day return of the m^{th} Index Constituent for the x^{th} Index Business Day preceding Determination Date d. Formulaically:

$$A_{d-x} = \frac{Value_{m,d-x}}{Value_{m,d-x-5}} - 1$$

B_{d-x} means the (5) five-day return of the n^{th} Index Constituent for the x^{th} Index Business Day preceding Determination Date d. Formulaically:

$$B_{d-x} = \frac{Value_{n,d-x}}{Value_{n,d-x-5}} - 1$$

$EWMA_{A,t}^{H,W}$ means the exponential weighted moving average, with a half-life of H days and number of data points, of a variable A as of reference date t. Formulaically:

$$X_{d-x} = \frac{Value_{m,d-x}}{Value_{m,d-x-5}} - 1$$

$EWMA_{B,t}^{H,W}$ means the exponential weighted moving average, with a half-life of H days and number of data points, of a variable B as of reference date t. Formulaically:

$$X_{d-x} = \frac{Value_{n,d-x}}{Value_{n,d-x-5}} - 1$$

Where,

d means Determination Date;

$d - x$ means the Index Business Day that is x Index Business Days prior to Determination Date d;

$d - x - 5$ means the Index Business Day that is five (5) Index Business Days prior to Index Business Day $d - x$; and

$Value_{m,d-x}$ means the Index Constituent Value for the m^{th} Index Constituent for the Index Business Day $d - x$;

$Value_{m,d-x-5}$ means the Index Constituent Value for the m^{th} Index Constituent for the Index Business Day $d - x - 5$;

$Value_{n,d-x}$ means the Index Constituent Value for the n^{th} Index Constituent for the Index Business Day $d - x$; and

$Value_{n,d-x-5}$ means the Index Constituent Value for the n^{th} Index Constituent for the Index Business Day $d - x - 5$.

X_{d-x} means the (5) five-day return of the relevant Index Constituent for the x^{th} Index Business Days preceding Determination Date d.

4.4.2. Determination of a Rebalance Event

For each Determination Date, the Index Administrator shall determine if a Rebalance Event has occurred. A Rebalance Event will be deemed to have occurred on a Determination Date if the square root of the sum of the squared differences of the Initial Optimised Exposures for such Determination

Date, rounded to four (4) decimal points, and the Target Exposures in effect for the Index Business Day immediately prior to such Determination Date, rounded to four (4) decimal points, for all Index Constituents, is greater than or equal to 10%. Formulaically, a Rebalance Event will be deemed to have occurred on a Determination Date if the following is true:

$$\sqrt{\sum_{i=1}^{n}\left(round\left(w_{i,d}^{fin.opt},4\right)-round\left(TE_{i,d-1},4\right)\right)^{2}} \geq 10\%$$

Where,

d	means a Determination Date;
i	means an Index Constituent;
n	means the number of Index Constituent in the Prime Index;
$w_{i,d}^{ini.opt}$	means the Initial Optimised Exposure for the i^{th} Index Constituent on Determination Date d;
$TE_{i,d-1}$	means the Target Exposure of the i^{th} Index Constituent in effect for the Index Business Day immediately prior to Determination Date d;

4.4.3. Determination of Target Exposures

If on a Determination Date, the Index Administrator determines that a Rebalance Event has occurred, then the new Target Exposures for an Index Constituent and that Determination Date will be equal to the Initial Optimised Exposure for such Index Constituent and that Determination Date:

$$TE_{i,d} = w_{i,d}^{fin.opt}$$

Otherwise, the Target Exposures for each Index Constituent will remain unchanged:

$$TE_{i,d} = TE_{i,d-1}$$

Where,

d	means a Determination Date;
i	means an Index Constituent;
$w_{i,d}^{ini.opt}$	means the Initial Optimised Exposure for the i^{th} Index Constituent on Determination Date d;
$TE_{i,d}$	means the Target Exposure of the i^{th} Index Constituent determined for Determination Date d;

$TE_{i,d-1}$ means the Target Exposure of the i^{th} Index Constituent in effect for the Index Business Day immediately prior to Determination Date d;

4.5. Mathematical Formulas

Exponential weighted moving average: the exponential weighted moving average, with a half-life of H days and number of data points W, of a variable X, as of reference date t ($EWMA_{X,t}^{H,W}$) is given by:

$$EWMA_{X,t}^{H,W} = \frac{1}{\sum_{k=0}^{W-1} \omega_k} \times \sum_{j=0}^{W-1} \omega_j \times X_{t-j}$$

Where:

t	means a reference date;
H	means the half-life of the exponential weighting;
W	means the number of data points and therefore the number of elements in the weighting vector used to evaluate the exponential weighted moving average;
ω_x	means the x^{th} element of the relevant weighting vector; and
X_{t-x}	means the value of variable X as of a reference date t that is x number of days immediately preceding such reference date t.

Exponential weighted moving volatility: the exponential weighted moving volatility, with a half-life of H days and number of data points W, of a variable X, as of reference date t ($EWMVol_{X,t}^{H,W}$) is given by:

$$EWMVol_{X,t}^{H,W} = \sqrt{252 \times \frac{\sum_{k=0}^{W-1} \omega_k}{(\sum_{k=0}^{W-1} \omega_k)^2 - \sum_{k=0}^{W-1} {\omega_k}^2} \times \sum_{i=0}^{W-1} \omega_i \times \left[X_{t-i} - EWMA_{X,t}^{H,W}\right]^2}$$

Where:

t	means a reference date;
H	means the half-life of the exponential weighting;
W	means the number of data points and therefore the number of elements in the weighting vector used to evaluate the exponential weighted moving volatility;
ω_x	means the x^{th} element of the relevant weighting vector;
X_{t-x}	means the value of variable X as of a reference date t that is x number of days immediately preceding such reference date t; and
$EWMA_{X,t}^{H,W}$	means the exponential weighted moving average, with a half-life of H days and number of data points W, of a variable X as of reference date t, as further described above.

Exponential weighted moving co-variance: the exponential weighted moving co-variance, with a half-life of H days and number of data points W, between two variables, A and B, as of reference date t ($EWMCoVar_{A,B,t}^{H,W}$) is given by:

$$EWMCoVar_{A,B,t}^{H,W} = \frac{252}{5} \times \frac{\sum_{k=0}^{W-1} \omega_k}{(\sum_{k=0}^{W-1} \omega_k)^2 - \sum_{k=0}^{W-1} {\omega_k}^2} \times \sum_{i=0}^{W-1} \omega_i \times \left[A_{t-i} - EWMA_{A,t}^{H,W}\right] \times \left[B_{t-i} - EWMA_{B,t}^{H,W}\right]$$

Where:

t	means a reference date;
H	means the half-life of the exponential weighting;
W	means the number of data points and therefore the number of elements in the weighting vector used to evaluate the exponential weighted moving co-variance;
ω_x	means the x^{th} element of the relevant weighting vector;
A_{t-x}, B_{t-x}	means the value of variable A or B, respectively, as of a reference date t that is x number of days immediately preceding such reference date t; and
$EWMA_{X,t}^{H,W}$	means the exponential weighted moving average, with a half-life of H days and number of data points, of a variable X as of reference date t, as further described above.

Exponential weighted moving correlation: the exponential weighted moving correlation, with a half-life of H days and number of data points W, between two variables, A and B, as of reference date t ($EWMACorr_{A,B,t}^{H,W}$) is given by:

$$EWMCorr_{A,B,t}^{H,W} = \left(\sqrt{Diag\left(EWMCoVar_{A,B,t}^{H,W}\right)}\right)^{-1} \times EWMCoVar_{A,B,t}^{H,W} \times \left(\sqrt{Diag\left(EWMCoVar_{A,B,t}^{H,W}\right)}\right)^{-1}$$

Where:

t	means a reference date;
H	means the half-life of the exponential weighting;
W	means the number of data points and therefore the number of elements in the weighting vector used to evaluate the exponential weighted moving co-variance;
A_{t-x}, B_{t-x}	means the value of variable A or B, respectively, as of a reference date t that is x number of days immediately preceding such reference date t; and

$EWMCoVar_{A,B,t}^{H,W}$ means the exponential weighted moving co-variance, with a half-life of H days and number of data points W, between two variables, A and B, as of reference date t, as further described above.

4.6. VC Index Calculation

The Index Value for the VC Index on the Index Base Date (VC Index) shall be Index Base Value. Thereafter, on each Index Business Day t, the Index Value ("$\boldsymbol{VCIndex_t}$") for the VC Index is calculated as follows, subject to Section 4.7 ("*Rounding*") and the occurrence of a Market Disruption Event:

$$VCIndex_t = VCIndex_{t-1} \times \left[1 + \left(\frac{Index_t}{Index_{t-1}} - 1\right) \times P_{t-1}\right]$$

Where the following definitions apply:

$$\sigma^2_{Index,t,h} = 252\left(1 - 0.5^{1/h}\right)\left(\frac{Index_t}{Index_{t-1}} - 1\right)^2 + 0.5^{1/h}\sigma^2_{Index,t-1,h} \quad | \quad \sigma^2_{Index,t=0,h} = 0$$

$$\omega_t = \frac{TV}{\sqrt{max(\sigma^2_{Index,t,5}, \sigma^2_{Index,t,63})}}$$

$$\delta_t = |\omega_{t-1} - P_{t-1}|$$

$$[\delta_t \geq 5\% \ \vee \ t = VC\ Index\ Base\ Date] \rightarrow P_t = min(\omega_{t-1}, 100\%) \quad \vee$$

$$[\ \delta_t < 5\% \ \wedge \ t \neq VC\ Index\ Base\ Date] \rightarrow P_t = P_{t-1}$$

And further where:

$VCIndex_t$ means the Index Value of the VC Index as of Index Business Day t;

$Index_t$ means the Index Value of the Prime Index as of Index Business Day t (where $t-1$ refers to the Index Business Day immediately preceding Index Business Day t);

P_{t-1} means, in respect of the Index Business Day immediately preceding Index Business Day t, the capped participation in the daily return of the Prime Index on such Index Business Day (where $t-2$ refers to the Index Business Day immediately preceding the Index Business Day $t-1$);

P_t means the capped participation on Index Business Day t;

$\sigma^2_{Index,t,h}$ means the variance measure of the Prime Index with half-life h on Index Business Day t (where $t-1$ refers to the variance measure of the Prime Index with half-life h on the Index Business Day immediately preceding Index Business Day t);

ω_t means the uncapped participation on Index Business Day t (where $t-1$ refers to the uncapped participation on the immediately preceding Index Business Day $t-1$);

δ_t	means the value, on Index Business Day t, to be considered against the 5% capped participation rebalance threshold;
$t = 0$	means the Index Base Date (Prime Index);
TV	means the Target Volatility; and

4.7. Rounding

Index Value of the Prime Index shall be rounded to seven (7) significant figures.

Index Value of the VC Index shall be rounded to seven (7) significant figures.

Section 5 General Rules

5.1. Consequence of a Market Disruption Event

If, on any Index Business Day, a Market Disruption Event occurs or is occurring that the Index Administrator determines, in its sole discretion, materially affects the Index, the Index Administrator may:

5.1.1 make such determinations and/or adjustments in relation to (a) the methodology used to calculate that Index as the Index Administrator considers necessary in order to maintain the objectives of the Index, or (b) the Index Value of the Index as the Index Administrator considers appropriate in order to preserve the underlying objectives of the Index, including but not limited to calculating a substitute level for the Index based on but not restricted to the last published price, level or value of any disrupted Index Constituent and such price, level or value may be zero, where, in the reasonable view of the Index Administrator, this would give an objective and accurate determination; and/or

5.1.2 make any adjustment or determination as it sees fit to the terms of this Index Methodology Rule Book or an Index Value in order to take into account the Market Disruption Event; and/or

5.1.3 defer or suspend the calculation and publication of the Index Value and any other information relating to the Index until the next Index Business Day on which such disruption event is not continuing; and/or

5.1.4 discontinue supporting the relevant Index or terminate the calculation of the Index Value and the publication of the Index Value for such Index if the Index Administrator determines that the foregoing measures provided in clauses 5.1.1 through 5.1.3 above would produce results that are not consistent with the objectives of such Index; and/or

5.1.5 if such Market Disruption Event persists for eight consecutive Index Business Days immediately following the original Index Business Day on which such Market Disruption Event occurs, then the Index Administrator shall determine what further actions it may reasonably take.

5.2. Consequence of an Index Adjustment Event

If, on any Index Business Day, an Index Adjustment Event occurs that the Index Administrator determines affects the Index, the Index Administrator may:

5.2.1 make such determinations and/or adjustments as the Index Administrator considers necessary in order to maintain the objectives of such Index, in relation to (a) the methodology used to calculate such Index or (b) the Index Value for such Index; and/or

5.2.2 select, in its sole, good faith discretion, a successor Index Constituent to replace the Index Constituent affected by the Index Adjustment Event; and/or

5.2.3 defer or suspend publication of the Index Value and any other information relating to the relevant Index until it determines that no Index Adjustment Event is continuing; and/or

5.2.4 discontinue supporting such Index or terminate the calculation of the Index Value for such Index, subject to the Index Administrator's termination and transition policies, if the Index Administrator determines that the foregoing measures provided in clauses 5.2.1 through 5.2.3

above are not feasible or would produce results that are not consistent with the objectives of such Index.

5.3. Termination

5.3.1 In addition to material changes, BISL may from time to time terminate one or more Indices ("Discontinued Indices"), whether due to changes in market structure, a lack of requisite data, insufficient usage, or for other regulatory or practical concerns. The process for terminating such Discontinued Indices is as follows:

The Product, Risk & Operations Committee ("PROC") will review proposed terminations, taking into account the reasons for termination, the impact on users (if any), the availability of alternative products and other such factors. If termination is approved, users will be provided as much prior notice as is reasonable under the circumstances, typically 90 days. In the event there is little or no known usage identified, the Discontinued Indices may be terminated with less (or no) notice, as applicable. In the event the Discontinued Indices are licensed for use as the basis of an ETF or other widely-available financial product or is otherwise determined by BISL to be an important benchmark without reasonable substitutes, the notice period may be extended, as warranted. Any advance notice period is subject to BISL being reasonably able to continue administering and calculating such benchmark during such period (for example, BISL has access to requisite data on commercially reasonable terms, is not subject to any litigation or other claims, has adequate internal resources and capabilities, etc.). Terminations and associated user engagement decisions made by the PROC are subject to review by BISL's oversight function, the BOC.

5.3.2 Following the occurrence of a Termination Event, the Index Administrator may immediately terminate the Index.

5.4. Data Providers and Data Extrapolation

The Indices are rules-based, and their construction is designed to consistently produce Index Values without the exercise of discretion. The Indices are produced without the interpolation or extrapolation of input data.

In addition, the Index Administrator seeks to avoid contributions of input data that may be subject to the discretion of the source of such data and instead seeks to use input data that is readily available and/or distributed for a number of non-index or benchmark creation purposes. Accordingly, the Indices require no 'contributors' to produce and no codes of conduct with any such sources are required.

5.5. Expert Judgement

The Indices are rules-based, and their construction is designed to consistently produce values without the exercise of expert judgment or discretion. Nevertheless, BISL may use expert judgment or discretion with regards to the following:

- Index restatements
- Extraordinary circumstances during a market emergency

- Data interruptions, issues, and closures
- the determination of whether an Index Adjustment Event or a Market Disruption Event has occurred and, if so, the consequences of such event

When expert judgment or discretion is required, BISL undertakes to be consistent in its application, with recourse to written procedures outlined in the methodology of the Indices and internal procedures manuals. In certain circumstances exercises of expert judgment or discretion are reviewed by senior members of BISL management and Bloomberg Compliance teams, and are reported to the PROC, BISL's governance committee, which operates under the supervision of BISL's oversight function, the Benchmark Oversight Committee (BOC). BISL also maintains and enforces a code of ethics to prevent conflicts of interest from inappropriately influencing index construction, production, and distribution, including the use of expert judgment or discretion.

5.6. Errors and Adjustment

The Index Administrator reserves the right to make adjustments to correct errors contained in previously published information relating to the Index, including but not limited to the Index Value, and to publish the corrected information, but it is under no obligation to do so and shall have no liability in respect of any errors or omissions contained in any subsequent publication. The Index Administrator will determine in good faith whether to adjust or correct any previously published information in order to maintain the objectives of the Index. The Index Administrator will provide notice of such adjustments. The Index Administrator will provide additional information about any such adjustments it makes upon written request.

If the level of an Index Constituent is subsequently corrected and the correction is announced or published by the relevant exchange and/or data source, then the Index Administrator shall make reasonable efforts to use the corrected level of the Index Constituent in its calculation of the Index Value in respect of immediately prior Index Business Day. However, for cases in which the level of the Index Constituent is being used to calculate a signal or a new allocation, then this calculation may not be subsequently changed if the change in signal or change in allocation has already come into effect.

5.7. Index and Data Reviews

The Index Administrator will review the Indices (both the rules of construction and data inputs) on a periodic basis, not less frequently than annually, to determine whether they continue to reasonably measure the intended underlying market interest, the economic reality or otherwise align with their stated objective. More frequent reviews may result from extreme market events and/or material changes to the applicable underlying market interests.

Criteria for data inputs include reliable delivery and active underlying markets. Whether an applicable market is active depends on whether there are sufficient numbers of transactions (or other indications of price, such as indicative quotes) in the applicable constituents (or similar underlying constituent elements) that a price (or other value, as applicable) may be supplied for such constituent(s).

There are minimum liquidity requirements for Index constituents and/or minimum requirements or standards for the quantity or quality of the input data.

The review will be conducted by product managers of the Indices at least annually or as otherwise appropriate in light of significant market changes or other developments.

Any resulting change to the Index Methodology Rule Book deemed to be material (discussed below) will be subject to the review of the PROC under the oversight of the BOC, each of which committees shall be provided all relevant information and materials it requests relating to the change. Details regarding the PROC and BOC are described below in Section 7 ("Index Oversight and Governance").

Material changes will be reflected and tracked in updated versions of this Index Methodology Rule Book.

BISL's index administration is also subject to Bloomberg's Compliance function, which periodically reviews various aspects of its businesses in order to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly.

Material changes related to the Indices will be made available in advance to affected stakeholders whose input will be solicited. The stakeholder engagement will set forth the rationale for any proposed changes as well as the timeframe and process for responses. The Index Administrator will endeavour to provide at least two weeks for review prior to any material change going into effect. In the event of exigent market circumstances, this period may be shorter. Subject to requests for confidentiality, stakeholder feedback and the Index Administrator's responses will be made accessible upon request. Because the Indices are strategy indices and not widely-available benchmark indices, this stakeholder engagement will be conducted on a bespoke basis rather than a more open and public consultation that might be more appropriate for benchmark indices.

Material changes for which stakeholder engagement will be conducted are those that substantially affect the principles of the construction of the Indices and/or those that, if not made, would render the Index unable to measure its intended market interest or otherwise achieve its stated objective. For example, adopting a new method of calculating the forward return or expected return would constitute a material change, whereas changing a Data Source or simple rules corrections that do not functionally change the Indices, would not necessarily be a material change leading to stakeholder engagement. Regardless, the Index Administrator reserves the right to consult with stakeholders on all changes whether or not they are deemed by the Index Administrator to be material.

5.8. Construction of this Index Methodology Rule Book

This Index Methodology Rule Book is made available by the Index Administrator. In the event of any inconsistency between the English language version of this Index Methodology Rule Book and that translated into any other language, the English language version shall prevail. If there is any ambiguity in, or uncertainty or dispute about the meaning of, any of the provisions of this Index Methodology Rule Book, the Index Administrator shall, in its sole and absolute discretion, construe the relevant provision(s) in order to determine the correct interpretation, and the decision of the Index Administrator shall be final, conclusive and binding.

5.9. Availability and Publication of Index Values and Adjustments

5.9.1 Index Publication

The Index Administrator will endeavour to make available the Index Values as soon as reasonably practicable for each Index Business Day. The Index Value shall be published on the Bloomberg Page or on such other information source as the Index Administrator may select from time to time.

The Index Administrator accepts no liability to any person for publishing or not continuing to publish for any period of time, as the case may be, any Index Value at any particular place or any particular time.

5.9.2 Adjustments

The Index Administrator will endeavour to make available any adjustments made to any Index. The Index Administrator may, at any time, change the name of the Index. The Index Administrator may, at any time, change with respect to the Index, the place and time of the publication of the Index Value, and the frequency of the publication of the Index Value for such Index, upon reasonable notice.

5.10. Index Administrator

Subject to other provisions of this Index Methodology Rule Book, all determinations made by the Index Administrator will be made by it (a) acting in its sole discretion by reference to such factors as the Index Administrator deems appropriate and (b) will be final, conclusive and binding in the absence of manifest error.

Section 6 Back-test Assumptions

Only data for dates on or after 31 October 2006 was used for the calculations of the exponential weighted moving volatility and exponential weighted moving co-variance, for the purposes of computing Target Exposure.

For the first Determination Date, 31 October 2007, the Section 4.4.2 "*Determination of a Rebalance Event*" shall be ignored and for the purpose of Target Exposure determination in Section 4.4.3 "*Determination of Target Exposures*" the Rebalance Event shall be deemed to have occurred.

For the first Observation Date, 31 October 2007, the basket constraint (a) 'Index Constituent lower and upper exposure bounds' in Section 4.4.1 "*Determination of Initial Target Exposures*", as amended herein, shall be

$$LB_i \leq x_i \leq UB_i$$

when determining the Initial Optimised Exposures.

Section 7 Index Oversight and Governance

7.1. Benchmark Governance, Audit and Review Structure

BISL uses three primary committees to provide overall governance and effective oversight of its benchmark administration activities:

- The Product, Risk & Operations Committee ("**PROC**") is responsible for the first line of control over the creation, design, production and dissemination of benchmark indices, strategy indices and fixings administered by the BISL. [1]
- The oversight function is provided by Bloomberg's Benchmark Oversight Committee ("**BOC**"). The BOC is independent of the PROC and is responsible for the review and challenge of the Board and the PROC regarding relevant aspects of the provision of Benchmarks by BISL, as set out in the UK BMR.
- The Risk Committee ("**RiskCo**") advises the Board, the PROC and the BOC on the Company's overall risk appetite, tolerance and strategy and oversees the Company's risk exposure and risk strategy.

On a quarterly basis, the PROC reports to the BOC on governance matters, including but not limited to client complaints, the launch of new benchmarks, operational incidents (including errors & restatements), major announcements and material changes concerning the benchmarks, the results of any reviews of the benchmarks (internal or external) and material stakeholder engagements.

Internal and External Reviews

BISL's index administration is also subject to Bloomberg's Compliance function, which periodically reviews various aspects of its businesses in order to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly. In addition, Bloomberg may from time to time appoint an independent external auditor with appropriate experience and capability to review adherence to benchmark regulation. The frequency of such external reviews will depend on the size and complexity of the operations and the breadth and depth of the Index use by stakeholders.

7.2. Conflict of Interest

The Index confers on BISL discretion in making certain determinations, calculations and corrections from time to time. In making those determinations, calculations and corrections, the Index Administrator has no obligation to take the needs of any Product Investor or any other party into consideration.

BISL is committed to avoiding and, where necessary, managing actual or potential conflicts of interest in the BISL decision-making process and has established a Conflicts of Interest Policy to minimise or resolve actual or potential conflicts of interest.

BISL does not create, trade or market Products.

[1] Note that administrators of significant (but not critical) benchmarks may opt not to disclose (i) re the roles performed by any persons involved in reviewing and approving the methodology and (ii) a description of the procedure for the nomination and removal of the persons involved in reviewing and approving the methodology.

7.3. Control Framework

The Index Administrator has implemented and maintains the "**Bloomberg Benchmarks Control Framework**" (the "**Control Framework**"), a summary of which is available upon written request to the Index Administrator at info@bloombergindices.com. Neither the Control Framework nor the summary of its features may form part of any prospectus into which this Index Methodology Rule Book may be incorporated.

Section 8 Limitations of the Indices

Though the Indices are designed to be representative of the markets they measure or otherwise align with their stated objective, they may not be representative in every case or achieve their stated objective. They are designed and calculated strictly to follow the rules of this Index Methodology Rule Book, and any Index Value or other output is limited in its usefulness to such design and calculation.

Markets can be volatile, including those market interests which the Indices intend to measure or upon which the Indices are dependent in order to achieve their stated objective. For example, illiquidity can have an impact on the quality or amount of data available to the Index Administrator for calculation and may cause the Indices to produce unpredictable or unanticipated results.

Appendix A

Table 1. Index Information

Index	Index Name	Currency	Ticker
VC Index	First Trust Barclays Edge Index	USD	FTEDGE7
Prime Index	First Trust Barclays Edge Prime Index	USD	FTEDGE

Table 2. Index Constituents

Asset Class	Index Constituent Name	Ticker	Minimum / Maximum Constituent Exposure	Maximum Constituent Rebalance	Operating Cost (OC)	Rebalancing Cost (RC)	Currency
Equity	Equity Basket Index	N/A	5.0% / 70%	50%	0.60% p.a.	0.03%	USD
Treasury	Barclays US 2yr Note Futures Index	BXIIUS02	0% / 50%	25%	0.20% p.a.	0.02%	USD
Treasury	Barclays US 5yr Note Futures Index	BXIIUS05	0% / 50%	25%	0.20% p.a.	0.02%	USD
Treasury	Barclays US 10yr Note Futures Index	BXIIUS10	0% / 50%	25%	0.20% p.a.	0.02%	USD

Table 3. Weighting vector size for certain half-life calculations

Half-Life (H) days	W
5	25
10.5	75
21	125
63	375
126	750
252	1500

Appendix B

(i) Common Mathematical Functions

$x \vee y$ means a logical disjunction where the statement is true if x or y is true. If both are false, the statement is false;

$x \wedge y$ means a logical conjunction where the statement is true if x and y are both true. Otherwise, it is false;

$x \rightarrow y$ means a material implication which is read as "if x then y";

$abs(x)$ or $|x|$ means a function that returns the absolute value of argument x;

$arg\,max\, f(x)$ means the values of arguments that yield the maxima of a function $f(x)$;

$max(x_1, x_2, \dots x_n)$ means a function with n arguments (real numbers $x_1, x_2, \dots x_n$) that returns the value of argument with the largest numeric value;

$min(x_1, x_2, \dots x_n)$ means a function with n arguments (real numbers $x_1, x_2, \dots x_n$) that returns the value of the argument with the smallest numeric value;

$norm(\boldsymbol{Z})$ means a function that returns the euclidian norm, defined such that the length of a vector $\boldsymbol{Z} = [z_1, z_2, \dots, z_n]^T$ and determined by the following formula:

$$norm(\boldsymbol{Z}) = \sqrt{\sum_{i=1}^{n} z_i^2};$$

$round(x, z)$ means a function with two arguments, a real number x that is to be rounded and an integer z specifying the number of digits the number is to be rounded to, that returns the number x rounded to z digits after the decimal point for positive values of z, or z digits before the decimal points for negative values of z. Where $z = 0$ the round function will round to the nearest integer. For cases where x is exactly half-way between two adjacent significant numbers, $round(x, z)$ will return the number where the significant digit is an even number. References in these Index Rules to rounding a number to a specified number of decimal places will have the same meaning as this function definition;

$\sum_{i=1}^{n}(x_i)$ means the summation of n variables x, from $x_1, x_2, \dots x_n$;

$\sqrt{x}$ or $sqrt(x)$ means a function that returns the square root of argument x; and

ω_x means the x^{th} element of the weighting vector determined by the general formula $\omega_x = (\lambda)^{x+1}$, where $\lambda = 0.5^{\left(\frac{1}{half\_life}\right)}$ then rounded to 8 decimal places:

- for a half-life of 5 days by: $\omega_x = (0.87055056)^{x+1}$
- for a half-life of 10.5 days by: $\omega_x = (0.93611774)^{x+1}$
- for a half-life of 21 days by: $\omega_x = (0.96753178)^{x+1}$
- for a half-life of 63 days by: $\omega_x = (0.98905797)^{x+1}$
- for a half-life of 126 days by: $\omega_x = (0.99451394)^{x+1}$
- for a half-life of 252 days by: $\omega_x = (0.99725320)^{x+1}$

(ii) Matrix and Vector Representation

Matrices may be represented in these Index Rules as capitalised single letters, in bold font.

$\boldsymbol{A}^T$ means the result matrix (size $j \times i$) or vector (size $i \times 1$ *or* $1 \times i$) resulting from performing the matrix transpose operation on the matrix (size $i \times j$) or vector A (size $1 \times i$ *or* $i \times 1$);

$\boldsymbol{A}^{-1}$ means the square matrix (size $i \times i$) resulting from performing the matrix inversion operation on matrix **A** (size $i \times i$);

$\boldsymbol{Diag}(\boldsymbol{A})$ means the square matrix (size $i \times i$) resulting from performing the matrix diagonal operation on matrix **A** (size $i \times i$); and

$\boldsymbol{AB}$ means the matrix resulting from multiplying matrix **A** (size $i \times j$) by matrix **B** (size $j \times k$), the result will be a matrix of size $i \times k$. Note that the number of columns of **A** must equal the number of rows of **B**.

(iii) Technology Implementation

The Prime Index relies on mathematical optimisation performed by the Index Administrator on each Determination Date, as described in Section 4.4.1 ("*Determination of Initial Target Exposures*").

The Index Administrator uses computers and mathematical optimisation software in order to determine the solutions to the mathematical optimisation described in this methodology. When performing such mathematical optimisations the Index Administrator uses software available from Numerical Algorithms Group (NAG). At the time of writing, the version of the software used by the Index Administrator when implementing the Prime Index was Mark 29. The software used by the Index Administrator can be subject to change over time. In addition, the creator and publisher of the software may update and make changes to the software from time to time. In the event of any such updates or changes, the Index Administrator may use such newly updated or changed software or may continue using the prior version of such software.

The optimisation software aims to select an optimal portfolio allocation that will maximise the estimated expected return of the Objective Function for a given level of risk and subject to certain constraints. However, the optimisation software may not always be able to obtain a solution that satisfies the applicable constraints. In addition, it is possible that for the same optimisation problem, the optimisation software operated on different computers may not arrive at the exact same solution. The level of precision achieved by a computer when solving mathematical problems is commonly referred to as numerical accuracy.

The Index Administrator has discretion to modify the settings to use in connection with the optimisation software.

The Index Administrator shall use the following settings for the NAG Optimiser:

NAG version: Mark 29

Solver: NAG SOCP IPM

SOCP Presolve = FULL

SOCP Scaling = A

Appendix C

(a) **Equity Basket Index Calculation**

The Index Value for the Equity Basket Index on or before the Index Base Date (Equity Basket Index) shall be Index Base Value. Thereafter, on each Equity Basket Index Business Day t, the calculation of the Index Value ("$\boldsymbol{I_t^B}$") shall be performed by the Index Administrator in accordance with the following formula:

$$I_t^B = I_{t-1}^B + \sum_{i=1}^{n}\left[Index\ Units_{i,t-1} \times \left(I_{i,t}^{adj} - I_{i,t-1}^{adj}\right)\right]$$

Where,

I_t^B	means the Index Value of the Equity Basket Index for Equity Basket Index Business Day t;
I_{t-1}^B	means the Index Value of the Equity Basket Index for Equity Basket Index Business Day $t-1$;
i	means Adjusted Index Constituent i;
n	means the number of Adjusted Index Constituents;
t	means an Equity Basket Index Business Day;
$t-1$	means the Equity Basket Index Business Day immediately preceding Equity Basket Index Business Day t;
$I_{i,t}^{adj}$	means the Index Value of the Adjusted Index Constituent i as of Equity Basket Index Business Day t (where $t-1$ refers to the Equity Basket Index Business Day immediately preceding Equity Basket Index Business Day t);
$Index\ Units_{i,t-1}$	means $Index\ Units_{i,t}$ on the Equity Basket Business Day immediately preceding Equity Basket Business Day t
$Index\ Units_{i,t}$	means, for each Index Constituent i and for each Equity Basket Business Day t the units shall be calculated by the Index Administrator in accordance with the following:

a) for Equity Basket Business Day t that is an Equity Basket Rebalancing Day:

$$Index\ Units_{i,t} = Target\ Index\ Units_{i,d}$$

Where:

$Target\ Index\ Units_{i,d}$	shall have the value determined in accordance with (b) "*Equity Basket Target Index Units Calculation*" in Appendix C;
d	means, in respect of that Equity Basket Rebalancing Date, the relevant Equity Basket Determination Date;

b) for any other Equity Basket Business Day, the value determined by the following formula:

$$Index\ Units_{i,t} = Index\ Units_{i,t-1}$$

provided that $IndexUnits_{i,t}$ shall be deemed to be zero for any Equity Basket Business Day t prior to and including the Index Base Date (Equity Basket index).

(b) **Equity Basket Target Index Units Calculation**

With respect to each Equity Basket Rebalancing Date, the Index Administrator shall determine the target index units for each Adjusted Index Constituent in accordance with the formula below:

$$Target\ Index\ Units_{i,d} = \frac{Target\ Weight_i \times I_d^B}{I_{i,d}^{adj}}$$

Where:

d	means the Equity Basket Determination Date associated with that Equity Basket Rebalancing Date;
$Target\ Weight_i$	means the Target Weight of Adjusted Index Constituent i;
I_d^B	means the Index Value for Equity Basket Determination Date d;
$I_{i,d}^{adj}$	means the Index Value for Adjusted Index Constituent i for Equity Basket Determination Date d. If for any reason there is no Index Value for Adjusted Index Constituent i for Equity Basket Determination Date d, then the Index Value for Adjusted Index Constituent i shall be the last available Index Value for such Adjusted Index Constituent i;

(c) **Adjusted Index Constituent Calculation**

The Index Value for the Adjusted Index Constituent on the Index Base Date (Adjusted Index Constituent) shall be Index Base Value. Thereafter, on each Adjusted Index Constituent Business Day t, the calculation of the Index Value ("$\boldsymbol{I_{i,t}^{adj}}$") shall be performed by the Index Administrator in accordance with the following formula:

$$I_{i,t}^{adj} = I_{i,t-1}^{adj} \times \left[\frac{P_{j,t}}{P_{j,t-1}} - \left(\frac{R_{t-1}}{100} \times \frac{D_t - D_{t-1}}{DC}\right)\right]$$

Where,

$I_{i,t}^{adj}$	means the Index Value of the Adjusted Index Constituent i as of Adjusted Index Constituent Business Day t;
$I_{i,t-1}^{adj}$	means the Index Value of the Adjusted Index Constituent i as of Adjusted Index Constituent Business Day $t-1$;
i	means Adjusted Index Constituent i;
j	means Underlying Index j;
t	means an Adjusted Index Constituent Business Day;
$t-1$	means the Adjusted Index Constituent Business Day immediately preceding Adjusted Index Constituent Business Day t;

$P_{j,t}$ means Underlying Index Value of the Underlying Index j as of the Adjusted Index Constituent Business Day t;

$P_{j,t-1}$ means Underlying Index Value of the Underlying Index j as of the Adjusted Index Constituent Business Day $t-1$;

$D_t - D_{t-1}$ number of calendar days between Adjusted Index Constituent Business Day t (inclusive) and the immediately preceding Adjusted Index Constituent Business Day $t-1$ (exclusive);

DC is the corresponding Day Count Convention specified in the Table 4 ("*Adjusted Index Constituents*") heading "*Day Count Convention (DC)*" in Appendix C;

R_{t-1} mean Cash Rate as of the Adjusted Index Constituent Business Day $t-1$;

Table 4. Adjusted Index Constituents

Adjusted Index Constituent Name	**Underlying Index (Ticker)**	**Exchange**	**Target Weight**	**Currency**	**Day Count Convention (DC)**	**Base Date**
NQCAPSTT Excess Return	NQCAPSTT Index	Nasdaq	50%	USD	360	20 October 2006
VLFVDTR Excess Return	VLFVDTR Index	New York Stock Exchange (NYSE)	50%	USD	360	29 September 2006