

Bloomberg US Multi Asset Index Family Methodology

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Bloomberg

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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 Bloomberg US Multi Asset Index Family.

BISL owns the copyright and all other intellectual property rights in and to this Index Methodology Rule Book. Any use of these intellectual property rights must be with the prior written consent of BISL.

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. 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 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 Indices are published on the relevant Bloomberg Pages (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.

BISL accepts no 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 Index

2.1. Objective

This Index Methodology Rule Book describes the calculation of the Bloomberg US Multi Asset Indices. Each index aims to provide exposure to a balanced allocation portfolio. The list of indices is as per Table 1 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

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

"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;

"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;

"Hypothetical Volatility" means, with respect to an Index and an Index Business Day, the value calculated in accordance with the methodology described in Section 4.7 ("Hypothetical Volatility");

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

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

"Index Base Date" means, with respect to an Index, the value specified under column 'Base Date' in Table 1 ("*Index Information*") in Appendix A;

"Index Base Value" means, with respect to an Index, the value specified under column 'Base Value' in Table 1 ("*Index Information*") in Appendix A;

"Index Business Day" means each day on which the New York Stock Exchange is scheduled to be open for a full or partial trading session;

"Index Component" means, with respect to an Index, each Bloomberg Index listed in Table 2 ("*Component Information*") in Appendix A that is listed for such Index in Table 3 ("*Index Construction*") in Appendix A and each Index Component with respect to each additional Index listed for such Index in Table 3 ("*Index Construction*") in Appendix A;

"Index Constituent" means, with respect to an Index, each Index Component;

"Index Constituent Currency" means, in respect of an Index Constituent, the U.S. Dollar (USD);

"Index Constituent Value" means, with respect to an Index Constituent and an Index Business Day,

- (i) if such Index Business Day is also an Index Constituent Business Day, the value of such Index Constituent as calculated by the Index Administrator for such Index Business Day in accordance with the Underlying Index Constituent Methodology,
- (ii) otherwise, the value of such Index Constituent as calculated by the Index Administrator for the immediately preceding Business Day in accordance with the Underlying Index Constituent Methodology;

"Index Constituent Volatility" means, with respect to an Eligible Index Component and an Index Business Day, the value calculated in accordance with the methodology described in Section 4.5 ("*Index Constituent Volatility Calculation*");

"Index Currency" means, with respect to an Index, the U.S. Dollar (USD);

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

"Index Value" means, with respect to an Index and each Index Business Day, the value of the Index calculated in accordance with the methodology described in Section 4 ("*Index Calculation*");

"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;

"Market Value" means the total market value of the instruments in the Index Constituent;

"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;

"Rate" means the cost of borrowing as defined in Table 4 in Appendix A;

"Rebalancing Date" means the first Index Business Day of every calendar month;

"Underlying Index Constituent Methodology" means, with respect to each Index Constituent, the methodology describing the calculations, documentation and governance of an Index Constituent (as such methodology may be amended from time to time);

"Units" means, with respect to an Index, an Index Constituent, and a Rebalancing Date, the value calculated in accordance with the methodology described in Section 4.3 ("*Units Calculation*");

"Volatility Vector" means, with respect to an Index Constituent the monthly returns on Weights Determination Date as described in Section 4.6 ("*Volatility Vector*")

"Weight" means, with respect to an Index, an Index Constituent and a Weights Determination Date, the value calculated in accordance with the methodology described in Section 4.4 ("*Weights Calculation*");

"Weights Determination Date" means, with respect to a Rebalancing Date, the preceding Index Business Day.

Section 4 Index Calculation

4.1. Index Calculation

The Index Value of each Index I on the Index Base Date and any date prior to the Index Base Date, shall be the Index Base Value. The Index Value with respect to each subsequent Index Business Day shall be calculated by the Index Administrator in accordance with the following formula, subject to Section 4.8 ("Rounding"):

$$I_t = I_{t-1} \times \left[R - (L_d - 1) \times \left(r_{t-1} \times \frac{D_t - D_{t-1}}{DC} \right) \right]$$

Where:

I_t and I_{t-1} means the Index Value of Index I on Index Business Day t and $t - 1$ respectively;

$$R = \frac{IT_t}{IT_{t-1}}$$

$$IT_t = IT_{t-1} + \sum_{i=1}^n [U_{t-1}^{i,I} \times (P_t^i - P_{t-1}^i)]$$

$U_{t-1}^{i,I}$ means, with respect to Index I and Index Constituent i , the Units for Index Constituent i ; on Index Business Day $t - 1$;

P_t^i and P_{t-1}^i means the Index Constituent Value of Index Constituent i on Index Business Day t and $t - 1$ respectively;

r_{t-1} means the leverage cost on Index Business Day $t - 1$ as per Table 4 in Appendix A;

DC means the day count convention as per Table 4 in Appendix A;

L_d means the Leverage Factor on Weights Determination Date d as per Section 4.7 ("Leverage Factor"); and

$D_t - D_{t-1}$ means the number of days between Index Business Days t and $t - 1$.

For Fixed Weights, Market Value Weighted and Risk Parity Index as defined in Table 1 in Appendix A, $L_d = 0$ and $r_{t-1} = 0$ therefore $IT_t = I_t$.

IT_t on Index Base Date and any date prior to the Index Base Date shall be the Index Base Value.

4.2. Units Calculation

With respect to an Index I and an Index Constituent i , the Units shall be calculated by the Index Administrator in accordance with the following formula:

$$U^{i,I} = \frac{W_d^{i,I} \times I_d}{P_d^i}$$

Where:

$U^{i,I}$ means, with respect to Index I and Index Constituent i , the Units for Index Constituent i ;

$W_d^{i,I}$ means, with respect to Index I and Index Constituent i , the Weight of Index Constituent on Weights Determination Date d ;

I_d means the Index Value of Index I on Weights Determination Date d ; and

P_d^i means the Index Constituent Value i on Weights Determination Date d .

4.3. Weights Calculation

With respect to the Fixed Weight Index, the Weight on each Weights Determination Date d shall be as per Table 3 in Appendix A.

With respect to the Market Value Weighted Index, the weight on each Weights Determination Date d , shall be calculated by the Index Administrator in accordance with the following formula:

$$W_d^{i,I} = \frac{MV_d^i}{\sum MV_d^i}$$

Where:

$W_d^{i,I}$ means, with respect to Index I and Index Constituent i , the Weight of Index Constituent on Weights Determination Date d ;
and

MV_d^i means the Market Value of Index Constituent i on Weights Determination Date d ;

With respect to the Risk Parity Index, the weight on each Weights Determination Date d , shall be calculated by the Index Administrator in accordance with the following formula:

$$W_d^{i,I} = 1 - \frac{\sigma_d^i}{\sum \sigma_d^i}$$

Where:

$W_d^{i,I}$ means, with respect to Index I and Index Constituent i , the Weight of Index Constituent on Weights Determination Date d ;
and

σ_d^i means the Volatility of Index Constituent i on Weights Determination Date d ;

With respect to the Volatility Target Index, the weight on each Weights Determination Date d , shall be calculated by the Index Administrator in accordance with the following formula:

$$W_d^{i,I} = \left(1 - \frac{\sigma_d^i}{\sum \sigma_d^i}\right) \times L_d$$

Where:

$W_d^{i,I}$ means, with respect to Index I and Index Constituent i , the Weight of Index Constituent on Weights Determination Date d ;

σ_d^i means the Volatility of Index Constituent i on Weights Determination Date d ; and

L_d means the Leverage Factor on Weights Determination Date d calculated as per Section 4.7

4.4. Index Constituent Volatility Calculation

With respect to an Index Constituent i and an Index Business Day t , the Volatility of Index Constituent shall be calculated by the Index Administrator in accordance with the following formula:

$$\sigma_d^i = \sqrt{\frac{\sum_{k=1}^T (EW_k \times (S_k - M_k)^2)}{\sum_{k=1}^T EW_k} \times 252}$$

Where:

σ_d^i means Volatility of Index Constituent i on Weights Determination Date d ;

T means 252;

EW_k means, with respect to the k^{th} element of the Volatility Vector, the exponential weight calculated as follows:

$$EW_k = \lambda^{T-k+1}$$

Where:

λ is the lambda value calculated as follows:

$$\lambda = (0.5)^{1/H}$$

Where:

H means 63;

S_k means the value of the k^{th} element of the Volatility Vector S_k ;

M_k means the value of M_R when the value of R is set to the value of k ;

M_R means, with respect to the forecast value for the arithmetic mean calculated as follows:

$$M_R = \frac{\sum_{k=1}^R (EW_k \times S_k)}{\sum_{k=1}^R EW_k}$$

4.5. Volatility Vector

With respect to an Index Constituent and a Weights Determination Date d , each element S_k , of a Volatility Vector shall be calculated by the Index Administrator according to the following formula:

$$S_k = \frac{P_l}{P_{l-1}} - 1$$

Where:

P_l and P_{l-1} means the Index Constituent Value on Index Business Days l and $l - 1$ respectively; and

Index Business Days l means the Index Business Days that is k Index Business Days prior to Index Business Days t .

4.6. Hypothetical Volatility

With respect to the Volatility Target Index on Weights Determination Date d , the hypothetical volatility shall be calculated by the Index Administrator according to the following formula:

$$\sigma_{h,d} = \sqrt{\frac{\sum_{k=1}^T (EW_k \times (PS_k - PM_k)^2)}{\sum_{k=1}^T EW_k}} \times 252$$

Where:

PM_k means, with respect to the forecast value for the arithmetic mean calculated as follows:

$$PM_K = \frac{\sum_{k=1}^T (EW_k \times PS_k)}{\sum_{k=1}^T EW_k}$$

Where:

PS_K means the weighted return of the Index Constituents on Weights Determination Date d calculated as follows:

$$PS_K = \sum_{i=1}^n (RPW_{i,d} \times S_{i,k})$$

Where:

$RPW_{i,d}$ means the weight of Index Constituents in the Risk Parity Index on Weights Determination Date d calculated as per Section 4.3;

$S_{i,k}$ = means the value of the k^{th} element of the Volatility Vector of Index Constituent i .

For dates from and including 30/04/2007 to and including 28/03/2008 $RPW_{i,d}$ shall be calculated using Fixed Volatility as per Table 2 in Appendix A.

4.7. Leverage Factor

With respect to the Volatility Target Index on Weights Determination Date d , the Leverage Factor shall be calculated by the Index Administrator according to the following formula:

$$L_I = \text{Min} \left(\frac{VT_I}{\sigma_{h,d}}, LC_I \right)$$

Where:

VT_I means the Volatility Target as specified in Table 4 in Appendix A

LC_I means the Leverage Cap as specified in Table 4 in Appendix A

4.8. Rounding

The Index Values shall be published rounded to four (4) decimal places.

Section 5 General Rules

5.1. Consequences 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.** 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
- 5.1.2.** 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
- 5.1.3.** 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
- 5.1.4.** determine, where such Index Business Day would have been, but for the occurrence of the Market Disruption Event, as the case may be, a Rebalance Date, that such rebalance date is not a Rebalance Date, and accordingly adjust such Rebalance Date to the next Index Business Day on which it determines that no such Market Disruption Event as the case may be, exists; and/or
- 5.1.5.** 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 5.1.4 above would produce results that are not consistent with the objectives of such Index; and/or
- 5.1.6.** if such Market Disruption Event persists for four consecutive Index Business Day 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. Consequences 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 5.2.4 above are not feasible or would produce results that are not consistent with the objectives of such Index.

5.3. Change in Methodology

The Index Administrator shall employ the methodology described herein and its application of such methodology shall be conclusive and binding, absent manifest error. While the Index Administrator currently employs the above described methodology, no assurance can be given that market, regulatory, juridical, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of or any other events affecting any Index Constituents) will not arise that would, in its view necessitate a modification or change of such methodology or termination of the Index.

- 5.3.1.** The Index Administrator assumes no obligation to implement any modification or change to the methodology set out herein as a result of any market, regulatory, juridical, financial, fiscal or other circumstances (including, but not limited to, any changes to, or any suspension or termination of, or any other events affecting any Index Constituents). Where the Index Administrator elects to make a modification or change in the methodology, the Index Administrator will make reasonable

efforts to do so in a way that will result in a methodology that is as consistent with the methodology described herein as is practicable under the circumstances.

5.3.2. If any modifications, changes, suspension or termination are effected pursuant to Sections 5.3.1 or 5.4.1, the Index Administrator will publish such modifications or changes on Bloomberg page INP, generated by: entering INP + <GO> on the Bloomberg Terminal.

5.4. Termination

5.4.1. The Index Administrator may, at any time and in its sole discretion, terminate the calculation and/or publication of the Index Value in respect of any Index, subject to the termination and transition policies of the Index Administrator. The Index Administrator will publish an announcement of such event as soon as reasonably practicable on Bloomberg Page INP, generated by: entering INP + <GO> on the Bloomberg Terminal.

5.5. Data Providers and Data Extrapolation

The Index is rules-based, and its construction is designed to consistently produce Index Values without the exercise of discretion. The Index is produced without the interpolation or extrapolation of input data. As further discussed below, the Index uses level carry-forwards rather than interpolation or extrapolation, but the Index Administrator will update this Methodology and its internal procedures should either become necessary.

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.

5.6. Expert Judgment

The Index is rules-based, and its 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

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 Product, Risk & Operations Committee (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.

5.7. Errors and Adjustments

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.

5.8. Index and Data Reviews

The Index Administrator will review the Index (both the rules of construction and data inputs) on a periodic basis, not less frequently than annually, to determine whether it continues to reasonably measure the intended underlying market interest, the economic reality or otherwise align with its 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 no 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 Index 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 Index 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, changing the risk budgets of an existing index would constitute a material change, whereas adding new versions of an Index 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.

5.9. 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.

5.10. Availability and Publication of Index Values and Adjustments

5.10.1. 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, as the case may be, any Index Value at any particular place or any particular time.

5.10.2. Adjustments

The Index Administrator will endeavour to make available any adjustments made to any Index. The Index Owner 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.

5.11. 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 Backtest Assumptions

This Index Methodology Rule Book contains the index rules current as of the Publication Date, and will be updated to reflect any changes made after that date.

6.1 Volatility Calculations

As described in the calculation methodologies in Section 4 (*"Index Calculation"*), in the cases where there is not enough history to fulfil the lookback period when determining a volatility measure, the maximum amount of history was used creating an expanding window until it reaches 252 periods.

Section 7 Index Oversight and Governance

7.1. Benchmark Governance, Audit and Review Structure

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

- The Product, Risk & Operations Committee (“**PROC**”) provides direct governance and is responsible for the first line of controls over the creation, design, production and dissemination of benchmark indices, strategy indices and fixings administered by BISL, including the Indices. The PROC is composed of Bloomberg personnel with significant experience or relevant expertise in relation to financial benchmarks. Meetings are attended by Bloomberg Legal & Compliance personnel.
- The oversight function is provided by Bloomberg’s Benchmark Oversight Committee (“**BOC**”). The BOC is independent of the PROC and is responsible for reviewing and challenging the activities carried out by the PROC. In carrying out its oversight duties, the BOC receives reports of management information both from the PROC as well as Bloomberg Legal & Compliance members engaged in second level controls.

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. Conflicts 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.

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 Index

Though the Index is designed to be representative of the market it measures or otherwise align with its stated objective, it may not be representative in every case or achieve its stated objective in all instances. It is 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 Index intends to measure or upon which the Index is 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 Index to produce unpredictable or unanticipated results.

In addition, market trends and changes to market structure may render the objective of the Index unachievable or to become impractical to replicate by investors.

Each Index aims to provide exposure to a multi asset portfolio. The Indices are therefore subject to the effectiveness of such investment strategy and the underlying volatility.

Section 9 Licensing and Trademark

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ESG Disclosures

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Bloomberg Index Services Limited ("BISL")
Item 2. Type of benchmark or family of benchmarks.	Fixed Income, Equities
Item 3. Name of the benchmark or family of benchmarks.	Bloomberg US Multi Asset Indices
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
<p>Item 5. Where the response to Item 4 is positive, please list below, for each family of benchmarks, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of environmental factors considered:	Not applicable
(b) List of social factors considered:	Not applicable
(c) List of governance factors considered:	Not applicable
<p>Item 6. Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816, depending on the relevant underlying asset concerned.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p> <p>Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in this explanation. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.</p>	
(a) List of environmental factors considered:	Not applicable
(b) List of social factors considered:	Not applicable
(c) List of governance factors considered:	Not applicable
Hyperlink to the information on ESG factors for each benchmark:	
Item 7. Data and standards used	
(a) Data input.	Not applicable
(i) Describe whether the data are reported, modelled or sourced internally or externally.	

(ii) <i>Where the data are reported, modelled or sourced externally, please name the third party data provider.</i>	
(b) Verification and quality of data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	Not applicable
(c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	Not applicable
Date on which information has been last updated and reason for the update:	October, 2022, initial publication

Appendix

TABLE 1 - INDEX INFORMATION

Index	Ticker	Segment	Type	Base Date	Base Value
Bloomberg US Multi Asset 20:80 Index	BMA2080	US	Fixed Weights	2 April 2007	100.0000
Bloomberg US Multi Asset 40:60 Index	BMA4060			2 April 2007	100.0000
Bloomberg US Multi Asset 60:40 Index	BMA6040			2 April 2007	100.0000
Bloomberg US Multi Asset 80:20 Index	BMA8020			2 April 2007	100.0000
Bloomberg US Multi Asset Market Value Weighted Index	BMAMV	US	Market Value Weighted	2 April 2007	100.0000
Bloomberg US Broad Multi Asset Market Value Weighted Index	BMABMV	US Broad		2 April 2007	100.0000
Bloomberg US Multi Asset Risk Parity Index	BMARP	US	Risk Parity	1 May 2008	100.0000
Bloomberg US Broad Multi Asset Risk Parity Index	BMABRP	US Broad		1 May 2008	100.0000
Bloomberg US Multi Asset Risk Parity 10% VT Index	BMARP10	US	Risk Parity Volatility Target	1 May 2008	100.0000
Bloomberg US Broad Multi Asset Risk Parity 10% VT Index	BMABRP10	US Broad		1 May 2008	100.0000

TABLE 2 - INDEX CONSTITUENTS

Segment	Component	Fixed Volatility	Ticker
US	Bloomberg US Large Cap Total Return Index	20%	B500T
	Bloomberg Barclays US Aggregate Total Return Index	5%	LBUSTRUU
US Broad	Bloomberg US Aggregate Equity Total Return Index	20%	AGGET
	Bloomberg Barclays US Universal Total Return Index	5%	LC07TRUU

Table 3 - Fixed Weight Indices

Index	B500T	LBUSTRUU
Bloomberg US Multi Asset 20:80 Index	20%	80%
Bloomberg US Multi Asset 40:60 Index	40%	60%
Bloomberg US Multi Asset 60:40 Index	60%	40%
Bloomberg US Multi Asset 80:20 Index	80%	20%

Table 4 - Risk Parity Volatility Target Indices

Index	Leverage Cap	Volatility Target	Day Count	Rate
Bloomberg US Multi Asset Risk Parity 10% VT Index	4	10%	360	FEDL01
Bloomberg US Broad Multi Asset Risk Parity 10% VT Index	4	10%	360	FEDL01

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