# Bloomberg Volatility Target Indices Methodology

November 16, 2023

# **Table of contents**

Table of contents	2
Introduction	3
Section 1: Index Overview	3
Section 2: Index Maintenance	3
Volatility Target Index Level Calculation	3
Exposure Calculation	5
Index Volatility Calculation	6
Stakeholder Engagement	6
Risks	6
Limitations of the Index	7
Section 3: Benchmark Oversight and Governance	7
Benchmark Governance, Audit and Review Structure	7
Index and Data Reviews	7
Internal and External Reviews	8
Expert Judgement	8
Data Providers and Data Extrapolation	8
Conflicts of Interest	8
Restatement Policy	9
Appendix I: Glossary	10
Appendix II: ESG Disclosures	11
Version Control	13

# Introduction

This methodology (the "Methodology") has been made available by Bloomberg Index Services Limited ("BISL") and sets out the rules, criteria, risk factors and other information applicable to the Bloomberg Volatility Target Indices ("the Indices and each, an Index"). Capitalized terms used in this Methodology but not otherwise defined have the meanings set forth in Appendix I (Glossary).

Bloomberg Volatility Target Index (the "Index") is a risk control version of a Bloomberg index ("Underlying Index") that targets a specific volatility level via adjusting the exposures to the Underlying Index and a cash component ("Cash Index").

#### **Section 1: Index Overview**

Based on the Volatility Target Index funding status, there are four ways Volatility Target Index can be calculated to reflect the appropriate cash returns:

Volatility Target Index Type	Underlying Asset	Return Type
	Unfunded (e.g., BCOM	
Туре І	indices and other futures	Excess Return
	index)	
	Unfunded (e.g., BCOM	
Type II	indices and other futures	Total Return
	index)	
	Funded (e.g., Equity or	
Type III	Fixed Income Total Return	Excess Return
	Indices, or Crypto Indices)	
	Funded (e.g., Equity or	
Type IV	Fixed Income Total Return	Total Return
	Indices, or Crypto Indices)	

#### **Section 2: Index Maintenance**

# **Volatility Target Index Level Calculation**

With respect to the Index, the Index Value on the Index Base Date shall be the Index Base Value. Thereafter, the Index Value with respect to each Index Business Day, *t*, shall be calculated by the Index Administrator in accordance with the following formula:

$$I_t = I_{t-1} + R_t^U + R_t^C + R_t^S$$

The Index returns are calculated in accordance with the following formula:

$$R_t^U = Unit_{t-1}^U \times (I_t^U - I_{t-1}^U)$$

$$R_t^C = Unit_{t-1}^C \times (I_t^C - I_{t-1}^C)$$

$$R_t^S = Unit_{t-1}^C \times I_{t-1}^C \times Spread$$

The units of the Underlying Index and the Cash Index are calculated in accordance with the following formula:

$$\label{eq:Unit_U} \textit{Unit}_t^{\textit{U}} = \begin{cases} \frac{\textit{AE}_d \times \textit{I}_t}{\textit{I}_t^{\textit{U}}} & \textit{if t is a Rebalance Date} \\ & \textit{Unit}_{t-1}^{\textit{U}} & \textit{otherwise} \end{cases}$$

$$\label{eq:Unit_t^C} \textit{Unit}_t^C = \begin{cases} \frac{\textit{CE}_d \times \textit{I}_t}{\textit{I}_t^C} & \textit{if t is a Rebalance Date} \\ & \textit{Unit}_{t-1}^C & \textit{otherwise} \end{cases}$$

For each of type of Volatility Target Index, the exposure to cash shall be determined in accordance with the following formula:

#### Type I

It is assumed that no cash return or financing cost occurs in the volatility control process. The Index level is Excess Return:

$$CE_d = 0$$
  
 $Spread = 0$ 

# Type II

It is assumed that cash returns are earned by 100% of the Index level despite of the change of the exposure of the Underlying Index. The Index level is Total Return:

$$CE_d = 1$$
 $Spread = 0$ 

#### Type III

It is assumed that financing costs occur on the exposure of the Underlying Index and the spread is possible on top of cash rate. The Index level is Excess Return:

$$CE_d = -AE_d$$
  
 $Spread = SD$ 

## Type IV

It is assumed that:

- a) If the exposure of the Underlying Index is less than 100%, cash returns will occur on part of the asset that is not invested;
- b) If the exposure of the Underlying Index is more than 100%, financing cost will occur on part of the asset that is borrowed;
- c) If the exposure of the Underlying Index is equal to 100%, there will be no cash return or financing cost.

The Index level is Total Return:

$$CE_d = 1 - AE_d$$

$$Spread = \begin{cases} SD \ if \ AE_d > 1 \\ 0 \ otherwise \end{cases}$$

Where:

d means the Determination Date;

t means Index Business Day t;

t-1 means one Index Business Day immediately preceding Index Business Day t;

 $AE_d$  means Actual Exposure as of Determination Date d, referring to Section Exposure Calculation;

 $CE_d$  means the exposure of the Cash Index on Determination Date d;

 $CR_t$  means the cash rate of the Cash Index on Index Business Day t;

 $I_t$  means the Index level on Index Business Day t;

 $I_{t-1}$  means the Index level on Index Business Day t-1;

 $I_t^C$  means the Index level of the Cash Index on Index Business Day t;

 $I_t^U$  means the Index level of the Underlying Index on Index Business Day t;

 $R_t^C$  means the return of the Cash Index on Index Business Day t;

 $R_t^S$  means the spread cost on Index Business Day t;

 $R_t^U$  means the return of the Underlying Index on Index Business Day t;

SD means the Financing Spread;

Spread means the spread to be added on top of the cash overnight rate;

 $Unit_t^U$  means the units of the Underlying Index on Index Business Day t;

 $Unit_t^C$  means the units of the Cash Index on Index Business Day t;

 $Unit_{t-1}^{U}$  means the units of the Underlying Index on Index Business Day t-1;

 $Unit_{t-1}^{C}$  means the units of the Cash Index on Index Business Day t-1;

## **Exposure Calculation**

With respect to the first Determination Date, the Actual Exposure for Index calculation is equal to the Target Exposure. Thereafter, the Actual Exposure with respect to each Determination Date, *d*, shall be calculated by the Index Administrator in accordance with the following formula:

If the there is no threshold on exposure changes, on each Determination Date d:

$$AE_d = TE_d$$

If the there is an absolute threshold of exposure changes, on each Determination Date d:

$$AE_d = \begin{cases} TE_d \ if \ ABS(TE_d - AE_{d-1}) \geq TH \\ AE_{d-1} \ Otherwise \end{cases}$$

If the there is a relative threshold of exposure changes, on each Determination Date d:

$$AE_d = \begin{cases} TE_d \ if \ ABS(TE_d - AE_{d-1}) \geq TH \times AE_{d-1} \\ AE_{d-1} \ Otherwise \end{cases}$$

Where:

d means the Determination Date;

d-1 means the Determination Date immediately preceding to Determination Date d;

 $AE_d$  means Actual Exposure of the Underlying Index on Determination Date d;

 $AE_{d-1}$  means Actual Exposure of the Underlying Index on Determination Date d-1;

 $TE_d$  means Target Exposure of the Underlying Index on Determination Date d calculated as below:

$$TE_d = \max\left(\min\left(TE_{MAX}, \frac{VT}{V_d^U}\right), TE_{MIN}\right)$$

 $TE_{MAX}$  means Maximum Target Exposure of the Underlying Index;

 $TE_{MIN}$  means Minimum Target Exposure of the Underling Index;

TH means Exposure Threshold of the Underlying Index;

VT means Volatility Target;

 $V_d^U$  means the Volatility of the Underlying Index on Determination Date d, calculated as below in Volatility Calculation Section;

# **Index Volatility Calculation**

Realized Volatility

$$\begin{split} V_t^{U} &= Max(V_t^{ST}, V_t^{LT}) \\ V_t^{N} &= \sqrt{\frac{252}{N-1}} \times \sum\nolimits_{n=0}^{N-1} \left( ln \left( \frac{I_{t-n}^{U}}{I_{t-n-1}^{U}} \right) - \frac{1}{N} \times \sum\nolimits_{m=0}^{N-1} ln \left( \frac{I_{t-m}^{U}}{I_{t-m-1}^{U}} \right) \right)^2 \end{split}$$

#### Where:

t-n means the Index Business Day that is n Underlying Index Business Days immediately preceding Index Business Day t;

t-n-1 means the Index Business Day that is n+1 Underlying Index Business Days immediately preceding Index Business Day t;

t-m means the Index Business Day that is m Underlying Index Business Days immediately preceding Index Business Day t;

t-m-1 means the Index Business Day that is m+1 Underlying Index Business Days immediately preceding Index Business Day t;

 $I^U_{t-m}$  means the Index level of the Underlying Index on Underlying Index Business Day t-m;

 $I_{t-m-1}^{U}$  means the Index level of the Underlying Index on Underlying Index Business Day t-m-1;

 $I_{t-n}^U$  means the Index level of the Underlying Index on Underlying Index Business Day t-n;

 $I_{t-n-1}^U$  means the Index level of the Underlying Index on Underlying Index Business Day t-n-1;

LT means the number of Underlying Index Business Days for long-term volatility calculation;

N means the number of Underlying Index Business Days that is the lookback window of volatility calculation;

ST means the number of Underlying Index Business Days for short-term volatility calculation;

 $V_t^U$  means the volatility of the Underlying Index on Index Business Day t;

 $V_t^N$  means the realized volatility of the Underlying Index with the lookback window of N Underlying Index Business Days on Index Business Day t;

 $V_t^{ST}$  means the short-term volatility of the Underlying Index on Index Business Day t when N = ST;

 $V_t^{LT}$  means the long-term volatility of the Underlying Index on Index Business Day t when N=LT;

# Stakeholder Engagement

BISL is in regular and ongoing engagement with its users through various channels, including via help desks, sales personnel, and direct communication with product personnel. To help ensure that the Index remains an accurate representation of the markets defined in the methodology, BISL endeavors to meaningfully incorporate these engagements into improvements in processes and service. Prior to any change that might meaningfully impact users, BISL consults more broadly with stakeholders, where appropriate, before a recommendation is presented to the Product, Risk & Operations Committee ("PROC") for approval. This concept of shared ownership enables BISL to produce the most relevant Index and helps ensure responsiveness to user needs.

#### Risks

The following is a summary of certain risks associated with the Index but is not meant to be an exhaustive list of all risks associated with the Index. Although the Index is designed to be representative of the markets it is measuring, it may not be representative of every use case. There is also inherent, though transparent, judgment in its construction, as outlined in this Methodology. The Index is designed for general applicability and not to address the individual circumstances and needs of users. BISL does not advise about the usefulness of the Index to a particular circumstance; users are therefore encouraged to seek their own counsel for such matters. This Methodology is subject to change, which may impact its usefulness to users. Although efforts will be made to alert users of any change, every individual user may not be aware of them. Such changes may also significantly impact the usefulness of the Index. BISL may also decide to cease publication of this Index. BISL maintains internal policies regarding user transitions, but no guarantee is given that an adequate alternative is available generally or for a particular use case. Markets for equities or commodities, as with all markets, can be volatile. As the Index is designed to measure this market, it could be materially impacted by market movements, thus significantly affecting the use or usefulness of the Index for some or all users. Also, certain markets are less liquid than others – even the most liquid markets may suffer periods of illiquidity. Illiquidity can have an impact on the quality or amount of data available to BISL for calculation and may cause the Index to produce unpredictable results.

#### **Limitations of the Index**

Though the Index is designed to be representative of the markets it measures or otherwise aligns 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 Methodology, and any Index level or other output is limited in its usefulness to such design and calculation. Markets can be volatile, including those market interests that the Index measures or upon which the Index is dependent to achieve its stated objective. For example, illiquidity can have an impact on the quality or amount of data available to the administrator for calculation and may cause the Index to produce unpredictable or unanticipated results.

In addition, lack of liquidity in the market may render the objective of the Index unachievable or to become impractical to replicate by investors. They are for indicative purposes.

In particular, the Index could measure equity, bond, or commodity markets. As with all investing, the Index is exposed to market risk. The value of the securities fluctuates with the changes in economic forecasts, interest rate policies established by central banks and perceived geo-political risk. The Index does not take into account the cost of replication and as a result a tracking portfolio's returns will underperform the Index with all else equal. As the Index is designed to measure those markets, it could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users. In addition, the Index can only achieve the volatility target as close as possible given the dynamic of the markets. In particular, the Index's objective of the volatility target could be impossible if the volatilities of the Underlying Index changed dramatically day to day.

# **Section 3: Benchmark Oversight and Governance**

#### **Benchmark Governance, Audit and Review Structure**

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

- The 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 Index. The PROC is
  composed of the personnel with significant experience or relevant expertise in relation to financial benchmarks. Meetings are
  attended by Legal & Compliance personnel. Nominations and removals are subject to review by the BOC, discussed below.
- The oversight function is provided by BISL'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 from members of the PROC as well as Legal & Compliance members engaged in second level controls.
- In addition, the BISL board of directors is composed of senior executives a majority of which are independent of BISL and is empowered to set the strategy, objectives, and overall direction of BISL, and oversees and monitors BISL's decision-making.

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.

#### **Index and Data Reviews**

BISL reviews the Methodology on a periodic basis, and at least annually, to determine whether it continues to:

- (i) be robust and reliable;
- (ii) have clear rules, including regarding discretion;
- (iii) be rigorous, continuous and capable of validation;
- (iv) be resilient and ensures the Index can be calculated in the widest range of possible circumstances, without compromising its integrity; and
- (v) be traceable and verifiable.

In doing so, BISL will assess whether the Index continues to represent the market that it is intended to measure. More frequent reviews may result from extreme market events and/or material changes to the underlying market. Non-exhaustive examples of extreme market events include trading events such as trading interruptions or unexpected market closures, resulting in unusual market illiquidity or market volatility; exchange closures, government interventions, a pandemic or a natural catastrophe resulting in exceptional periods of stress.

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).

Any resulting change to this Methodology 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 above. Any relevant changes will be reflected and tracked in updated versions of this Methodology. BISL will consult with users of the Index on changes to the Methodology and seek user input. The stakeholder engagement will set forth the rationale for any proposed changes (including whether the representativeness of the Index or its appropriateness as a reference for financial instruments or contracts would be at risk if the proposed changes are not made), the key elements of the Methodology that would, in BISL's view, be affected by the proposed change, as well as the timeframe and process for responses. BISL will provide at least two weeks' notice prior to any change going into effect. In the event of exigent market circumstances or if required by law or regulation, this period may be shorter. Subject to requests for confidentiality, stakeholder feedback and BISL's responses will be made accessible upon request.

#### **Internal and External Reviews**

BISL's Index administration is also subject to its Legal & Compliance function, which periodically reviews various aspects of its businesses to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly. In addition, BISL may from time to time appoint an independent external auditor with appropriate experience and capability to review adherence to benchmark regulation and the IOSCO Principles. The frequency of such external reviews depends on the size and complexity of the operations and the breadth and depth of Index use by stakeholders. For the Indices, BISL anticipates an external review to be conducted every two years.

## **Expert Judgement**

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
- Significant acquisitions involving a non-Index company

When expert judgment or discretion is required, BISL undertakes to be consistent in its application, with recourse to written procedures outlined in this Methodology and internal procedures manuals. In certain circumstances exercises of expert judgment or discretion are reviewed by senior members of BISL management and Legal & Compliance teams, and are reported to the PROC, BISL's governance committee, which operates under the supervision of BISL's oversight function, the 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.

#### **Data Providers and Data Extrapolation**

The Index is rules-based, and its construction is designed to consistently produce Index levels without the exercise of discretion. Interpolation (or extrapolation) is used in the determination of Forward Rates.

In addition, BISL 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 index requires no 'contributors' to produce and no codes of conduct with any such sources are required.

#### **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, BISL 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 minimize or resolve actual or potential conflicts of interest. BISL does not create, trade or market products.

## **Restatement Policy**

BISL strives to provide accurate calculation of its indices. However, to the extent a material error in Index Values is uncovered following publication and dissemination, a public notification will be made alerting of such error and what course of action will be undertaken and when. In such situations, BISL may decide to:

- 1) Not correct until the next index review;
- 2) Apply a correction going forward with advance notification; or
- 3) Restate the historical indices

In some cases, BISL may apply discretion and determine that a restatement is required. The decision will take into consideration the following factors (not listed in order of importance):

- The relative importance of the data field impacted by the error
- Whether the indices were replicable
- When the error occurred and when it was discovered
- The number of indices and sub-indices affected
- Whether the impacted indices are linked to tradable products
- The magnitude of the error
- The burden of restatement on client re-processing relative to the impact of the error
- The impact of the restatement on analytical tools

A decision to restate any Index results in the restatement of all impacted Indices. Real-time indices are not considered for restatement, all real-time dissemination is considered indicative. Discrepancies discovered after 12 months will not be corrected.

# **Appendix I: Glossary**

Actual Exposure	The exposure of the Underlying Index calculated on Determination Date.		
Cash Index	The relevant index calculated according to Bloomberg Cash Indices Methodology.		
Determination Date	Every Index Business Day.		
Financing Spread	The additional financing cost for borrowing.		
Index Base Date	The first date on which an Index has a value.		
Index Base Value	The initial value of an Index.		
Index Business Day	A Weekday.		
Index Commencement Date	The date an Index is first made available on the relevant Bloomberg Page.		
Index Currency	The currency an Index is represented in.		
Index Value	The value of the Index calculated in accordance with the methodology.		
Maximum Target Exposure	The maximum percentage target exposure of an Underlying Index.		
Minimum Target Exposure	The minimum percentage target exposure of an Underlying Index.		
Rebalance Date	Every Index Business Day.		
Rebalance Frequency	The rate of recurrence to rebalance an Index.		
Exposure Threshold	The percentage exposure that the absolute change in exposure has to be greater than or equal to, for Target Exposure to be equal to Actual Exposure.		
Underlying Index	The index that the Volatility Target Index is based on.		
Underlying Index Business Day	A business day that the Underlying Index is calculated.		
Volatility Target	The percentage target of volatility of an Index.		
Weekday	Monday to Friday.		

# **Appendix II: ESG Disclosures**

EXPLANATION OF HOW ESG FACTORS AF	RE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK	
	METHODOLOGY	
1. Name of the benchmark administrator.	Bloomberg Index Services Limited ("BISL")	
<b>2</b> . Type of benchmark	Other Benchmark	
<b>3</b> . Name of the benchmark or family of benchmarks.	Bloomberg Volatility Target Indices	
4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No	
	below, for each family of benchmarks, those ESG factors that are taken into count the ESG factors listed in Annex II to Delegated Regulation (EU)	
Please explain how those ESG factors are used for the so	election, weighting or exclusion of underlying assets.	
The ESG factors shall be disclosed at an aggregated we	eighted average value at the level of the family of benchmarks.	
a) List of environmental factors considered:	Selection, weighting or exclusion:	
	N/A	
b) List of social factors considered:	Selection, weighting or exclusion:	
	N/A	
c) List of governance factors considered:	Selection, weighting or exclusion:	
	N/A	
	pelow, for each benchmark, those ESG factors that are taken into account ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816,	
Please explain how those ESG factors are used for the s	election, weighting or exclusion of underlying assets.	
The ESG factors shall not be disclosed for each constituation average value of the benchmark.	ent of the benchmark, but shall be disclosed at an aggregated weighted	
	In the form of a hyperlink to a website of the benchmark administrator vebsite shall be easily available and accessible. Benchmark administrators ite remains available for five years	

a) List of environmental factors considered:	Selection, weighting or exclusion:
	N/A
b) List of social factors considered:	Selection, weighting or exclusion:
	N/A
c) List of governance factors considered:	Selection, weighting or exclusion:
	N/A
<b>7</b> . Data and standards used.	
a) Data input.	N/A
(i) Describe whether the data are reported, modelled or, sourced internally or externally.	
(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.	
b) Verification of data and guaranteeing the quality of	N/A
those data.	
Describe how data are verified and how the quality of	
those data is ensured.	
c) Reference standards	N/A
Describe the international standards used in the	
benchmark methodology.	
Date on which information has been last updated	16 November 2023, initial launch.
and reason for the update:	

# **Version Control**

Version	Reviewer	Review Date	Comments
1	Jack Wang	03-Nov-2021	Launched Return Based Calculation Index
2	Jack Wang	08 Sep 2022	Updated to Unit Based Calculation Index

#### **Disclaimer**

BLOOMBERG, BLOOMBERG INDICES and Bloomberg Volatility Target Index (the "Index") are trademarks or service marks of Bloomberg Finance L.P. Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited, the administrator of the Indices (collectively, "Bloomberg") or Bloomberg's licensors own all proprietary rights in the Indices. Bloomberg does not guarantee the timeliness, accuracy or completeness of any data or information relating to the Indices. Bloomberg makes no warranty, express or implied, as to the Indices or any data or values relating thereto or results to be obtained therefrom, and expressly disclaims all warranties of merchantability and fitness for a particular purpose with respect thereto. It is not possible to invest directly in an Index. Back-tested performance is not actual performance. Past performance is not an indication of future results. To the maximum extent allowed by law, Bloomberg, its licensors, and its and their respective employees, contractors, agents, suppliers and vendors shall have no liability or responsibility whatsoever for any injury or damages - whether direct, indirect, consequential, incidental, punitive or otherwise - arising in connection with the Indices or any data or values relating thereto - whether arising from their negligence or otherwise. This document constitutes the provision of factual information, rather than financial product advice. Nothing in the Indices shall constitute or be construed as an offering of financial instruments or as investment advice or investment recommendations (i.e., recommendations as to whether or not to "buy", "sell", "hold", or to enter or not to enter into any other transaction involving any specific interest or interests) by Bloomberg or a recommendation as to an investment or other strategy by Bloomberg. Data and other information available via the Indices should not be considered as information sufficient upon which to base an investment decision. All information provided by the Indices is impersonal and not tailored to the needs of any person, entity or group of persons. Bloomberg does not express an opinion on the future or expected value of any security or other interest and do not explicitly or implicitly recommend or suggest an investment strategy of any kind. Customers should consider obtaining independent advice before making any financial decisions. © 2022 Bloomberg. All rights reserved. This document and its contents may not be forwarded or redistributed without the prior consent of Bloomberg.

The BLOOMBERG TERMINAL service and Bloomberg data products (the "Services") are owned and distributed by Bloomberg Finance L.P. ("BFLP") except (i) in Argentina, Australia and certain jurisdictions in the Pacific islands, Bermuda, China, India, Japan, Korea and New Zealand, where Bloomberg L.P. and its subsidiaries distribute these products, and (ii) in Singapore and the jurisdictions serviced by Bloomberg's Singapore office, where a subsidiary of BFLP distributes these products.

Bloomberg Index Services Limited is registered in England and Wales under registered number 08934023 and has its registered office at 3 Queen Victoria Street, London, England, EC4N 4TQ. Bloomberg Index Services Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

# Take the next step.

For additional information, email indexhelp@bloomberg.net or press the <HELP> key twice on the Bloomberg Terminal\* bloomberg.com/indices **Beijing** +86 10 6649 7500

**Dubai** +971 4 364 1000

**Frankfurt** +49 69 9204 1210

**Hong Kong** +852 2977 6000

**London** +44 20 7330 7500

**Mumbai** +91 22 6120 3600 **New York** +1 212 318 2000 **San Francisco** 

+1 415 912 2960

**São Paulo** +55 11 2395 9000 **Singapore** +65 6212 1000

**Sydney** +61 2 9777 8600

**Tokyo** +81 3 4565 8900