

# Bloomberg Decrement Index Methodology

March 23, 2023

Bloomberg

## Table of contents

Introduction	3
Objectives and key features	3
Section 1: Calculation	3
Index Calculation	3
Units Calculation	3
Decrement Calculation Methods	4
Section 2: Backtest assumptions	4
Section 3: Stakeholder engagement, risk, and limitations	5
Stakeholder engagement	5
Risks	5
Limitations of the index	5
Section 4: Benchmark oversight and governance	6
Benchmark governance, audit, and review structure	6
Index and data reviews	6
Internal and external reviews	6
Expert judgement	7
Data providers and data extrapolation	7
Conflicts of interest	7
Restatement policy	7
Appendix I: Glossary	8
Appendix II: ESG Disclosures	9

## 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 application to the Bloomberg Decrement 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).

## Objectives and key features

The Bloomberg Decrement Index is designed to represent the performance of an index from which a fee is withdrawn on daily basis. There are two types of decrement indices described in this document, which are fixed percentage and fixed index points:

The Bloomberg Fixed Percentage Decrement Indices are designed to represent the performance of an index from which a predetermined fee in form of percentage of the decrement index level is withdrawn on daily basis.

The Bloomberg Fixed Index Point Decrement Indices are designed to represent the performance of an index from which a predetermined fee in form of index points is withdrawn on daily basis.

## Section 1: Calculation

### Index Calculation

With respect to each Index, the Index Value on 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 BISL in accordance with the following formula:

$$I_t = I_{t-1} + AU_t \times (UI_t - UI_{t-1}) - Decrement_t \times \frac{ACT_{t,t-1}}{DY} \quad (1)$$

Where:

$I_t$  and  $I_{t-1}$  mean the Index Value on Index Business Days  $t$  and  $t - 1$  respectively;

$AU_t$  means the Actual Units on Index Business Day  $t$ ;

$UI_t$  and  $UI_{t-1}$  mean the Underlying Index Level on Index Business Days  $t$  and  $t - 1$  respectively;

$Decrement_t$  means the Decrement Value on Index Business Day  $t$ ;

$ACT_{t,t-1}$  means the number of calendar days from, and excluding, Index Business Day  $t - 1$  to, and including, Index Business Day  $t$ ;

and

$DY$  means the Days Per Year.

### Units Calculation

The Actual Units with respect to each Index Business Day shall be calculated in accordance with the following formula:

If Index Business Day  $t$  is the Index Base Date:

$$AU_t = 0 \quad (2)$$

Else:

$$AU_t = AU_{t-1} + IU_{t-1} \quad (3)$$

Where:

$AU_t$  and  $AU_{t-1}$  mean the Actual Units on Index Business Days  $t$  and  $t - 1$  respectively; and

$IU_{t-1}$  means the Incremental Units on Index Business Day  $t - 1$ .

The Incremental Units with respect to each Index Business Day shall be calculated in accordance with the following formula:

$$IU_t = TU_t - AU_t \quad (4)$$

Where:

$IU_t$  means the Incremental Units on Index Business Day  $t$ ;

$TU_t$  means the Target Units on Index Business Day  $t$ ; and

$AU_t$  means the Actual Units on Index Business Day  $t$ .

The Target Units with respect to each Index Business Day shall be calculated in accordance with the following formula:

$$TU_t = \frac{IU_t}{AU_t} \quad (5)$$

Where:

$TU_t$  means the Target Units on Index Business Day  $t$ ;

$I_t$  means the Index Value on Index Business Day  $t$ ; and

$UI_t$  means the Underlying Index Level on Index Business Day  $t$ .

## Decrement Calculation Methods

### Fixed Percentage

The Decrement Value with respect to each Index Business Day shall be calculated in accordance with the following formula:

$$Decrement_t = PCT \times I_{t-1} \quad (6)$$

Where:

$Decrement_t$  means the Decrement Value on Index Business Day  $t$ ;

$PCT$  means the Decrement Percentage; and

$I_{t-1}$  means the Index Value on Index Business Day  $t - 1$ .

### Fixed Points

The Decrement Value with respect to each Index Business Day shall be calculated in accordance with the following formula:

$$Decrement_t = PNT \quad (7)$$

$$PCT_t = \frac{Decrement_t}{I_{t-1}} \quad (8)$$

Where:

$Decrement_t$  means the Decrement Value on Index Business Day  $t$ ;

$PCT_t$  means the implied Decrement Percentage on Index Business Day  $t$ ; and

$PNT$  means the Decrement Index Points.

## Section 2: Backtest assumptions

Calendars used in the indices reflect the information available at the time of index construction.

## Section 3: Stakeholder engagement, risk, and limitations

### 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 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, changes to the availability and/or accuracy of trade, liquidity or forward rates data, may render the objective of the Index unachievable or to become impractical to replicate by investors. They are for the indicative purpose.

In particular, the Indices measure the performance of an index with daily fee deduction. As with all investing, the Indices are exposed to market risk. The prices of any asset of equities fluctuate with the changes in economic forecasts, interest rate policies established by central banks and perceived geo-political risk. The Indices do not take into account the cost of replication and as a result a tracking portfolio's return will underperform the Indices with all else equal. As the Indices are designed to measure those markets, they could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users.

## Section 4: 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

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.

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 Units	The number of units held of the Underlying Index at the open of an Index Business Day.
Days Per Year	The number of days assumed to be in a year.
Decrement Index Points	The fixed index points to be deducted from the Index annually.
Decrement Percentage	The percentage to be deducted from the Index annually.
Decrement Value	The annualized value deducted from the Index.
Incremental Units	The number of units of the Underlying Index traded on an Index Business Day.
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	The days on which the Index is calculated.
Index Value	The value of the Index calculated in accordance with the methodology.
Target Units	The target number of units of the Underlying Index to be held.
Underlying Index	The Index from which the Decrement Value is withdrawn on each Index Business Day.
Underlying Index Level	The value of the Underlying Index on an Index Business Day.



## Appendix II: ESG Disclosures

<b>EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>	
<b>1.</b> 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 Decrement Indices
<b>4.</b> Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
<p><b>5.</b> 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:	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
<p><b>6.</b> 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:	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

7. Data and standards used.	
a) Data input. <i>(i) Describe whether the data are reported, modelled or, sourced internally or externally.</i> <i>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i>	N/A
b) Verification of data and guaranteeing the quality of those data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	N/A
c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	N/A
<b>Date on which information has been last updated and reason for the update:</b>	23 March 2023, initial launch.

## Disclaimer

BLOOMBERG, BLOOMBERG INDICES and Bloomberg Decrement Index Family (the "Indices") 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. © 2023 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](mailto:indexhelp@bloomberg.net)  
or press the <HELP> key twice  
on the Bloomberg Terminal\*

[bloomberg.com/indices](https://www.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