

Bloomberg Scarce Resources Index Methodology

June 2023

Contents

Introduction	3
Section 1: Overview	3
Section 2: Index Eligibility Process	3
Parent Universe	3
Exchange Eligibility	3
Sector Eligibility	3
Section 3: Index Construction Process	4
Index Selection Process	4
Index Weighting	5
Index Rebalance and Reconstitution	5
Section 4: Index Maintenance	6
Index Calculation	6
Deletion Policy	6
Addition Policy	6
Replacement Policy	6
Corporate Actions	6
Section 5: Stakeholder Engagement, Risks and Limitations	6
Risks	6
Limitations of the index	7
Section 6: Benchmark Oversight and Governance	7
Benchmark governance, audit and review structure	7
Index and data reviews	7
Expert judgement	8
Data providers and data extrapolation	9
Conflicts of interest	9
Restatement policy	9
Appendix A: ESG Disclosure	10

Introduction

The Bloomberg Scarce Resources Index is constructed to track the performance of companies that are engaged in resource scarcity, meaning companies that engage in real/hard assets that have finite supply or capacity for production. Companies must have their primary business activities involved in oil & gas, aerospace & defense, agriculture, renewable energy, and metals & mining.

Section 1: Overview

Name	Bloomberg Scarce Resources Index
Base date	2015-04-20
Inception Date	2023-06-13
Rebalance	Semi-Annual
Publication	Weekdays
Currency	USD
Tickers	BFANGXC (Price Return) BFANGXCT (Total Return) BFANGXCN (Net Return)

Section 2: Index Eligibility Process

Parent Universe

To be selected for the Bloomberg Scarce Resources Index, a security must be a member of the Bloomberg World Aggregate Index. Please refer to the Bloomberg Global Equity Index methodology through the link below for additional details.

[Bloomberg Global Equity Indices Methodology](#)

Exchange Eligibility

A security must not be listed on Shanghai or Shenzhen Stock Connect exchanges (exchange codes C1 and C2).

Sector Eligibility

A security must be classified according to the following Bloomberg Industry Classification (BICS) codes.

BICS Code	BICS Level	BICS Level Name
1310	2	Oil & Gas
171011	3	Aerospace & Defense
18101010	4	Agriculture Chemicals
12101010	4	Agriculture Producers
17101310	4	Agricultural Machinery

131110	3	Renewable Energy
201010111	5	Nuclear Power Generation
201010112	5	Renewable Energy Generation
171012111011	6	Nuclear Power Generation Equipment & Services
18101511	4	Base Metals
18101512	4	Precious Metals

Section 3: Index Construction Process

Index Selection Process

All securities that satisfy the Index Eligibility Process in Section 2 are eligible for inclusion in the Index. Further, the securities are grouped into the following categories based on the BICS classification.

Group By:

Category	BICS Code	BICS Level	BICS Level Name
Fuel	1310	2	Oil & Gas
Aerospace	171011	3	Aerospace & Defense
Agriculture	18101010	4	Agriculture Chemicals
Agriculture	12101010	4	Agriculture Producers
Agriculture	17101310	4	Agricultural Machinery

Nuclear	131110	3	Renewable Energy
Nuclear	2010101111	5	Nuclear Power Generation
Nuclear	2010101112	5	Renewable Energy Generation
Nuclear	171012111011	6	Nuclear Power Generation Equipment & Services
Gold	18101511	4	Base Metals
Gold	18101512	4	Precious Metals

Filter By:

Issuer Free Float Market Capitalization = Aggregate free float market capitalization of all securities for a particular issuer.

The top 10 issuers within each of the categories {Fuel, Aerospace, Agriculture, Nuclear, Gold} are selected for inclusion in the Index for a total of 50 issuers in the Index. For issuers with multiple securities, all the underlying securities for that issuer are included.

Index Weighting

The Index is modified market cap weighted such that each of the categories, g , in {Fuel, Aerospace, Agriculture, Nuclear, Gold} get a weight, W_g , of 20%. Then, within each category, the issuers are free-float market cap weighted.

$$W_i = W_g * \frac{FMC_i}{\sum_1^M FMC_i}$$

Where:

W_i	Weight of security i
M	Number of Index Members in group g in {Fuel, Aerospace, Agriculture, Nuclear, Gold}
W_g	Weight assigned to group g in {Fuel, Aerospace, Agriculture, Nuclear, Gold} = 20%
FMC_i	Free float market capitalization of security i

Index Rebalance and Reconstitution

The Index is reconstituted and rebalanced semi-annually in April and October.

Selection Date

The Index Eligibility Process is applied using data as of the last business day in March and September.

Index Share Determination Date

Float Shares are determined using Shares Outstanding and Free Float as of the last business day in March and September. Index Weighting is determined using prices as of the last business day in March and September.

Index Announcement Date

An Index reconstitution and rebalance announcement date shall be the 2nd Friday in April and October.

Index Effective Date

The Index reconstitutions and rebalances go effective after the close of trading on the 3rd Friday in April and October.

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selection Date (Eligibility)	Last Day			X						X			
Selection Date (Weighting)	Last Day			X						X			
Announcement Date	2 nd Friday				X						X		
Effective Date	3 rd Friday				X						X		

Section 4: Index Maintenance**Index Calculation**

Refer to the [Bloomberg Global Equity Indices Methodology](#) for index calculation details.

Deletion Policy

Index securities are not deleted outside Index Rebalance and Reconstitution window except in the case of a delisting.

Addition Policy

Index securities are not added outside of the Index reconstitution.

Replacement Policy

Index securities are not replaced outside of the Index reconstitution.

Corporate Actions

Refer to [Bloomberg Global Equity Indices Non-Market Cap Corporate Action Methodology](#) for the treatment of corporate actions.

Section 5: Stakeholder Engagement, Risks and Limitations**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 stocks, 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 equity 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, market trends and changes to market structure may render the objective of the Index unachievable or to become impractical to replicate by investors.

In particular, the Index measures global equity markets. As with all equity investing, the Index is exposed to market risk. The value of equities fluctuate with the changes in economic forecasts, interest rate policies established by central banks and perceived geopolitical 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, certain sub-indices may be designed to measure smaller subsets of the Index such as specific styles, size, and sector. Some of these sub-indices have very few qualifying constituents and may have none for a period of time. During such period, the sub-index will continue to be published at its last value, effectively reporting a 0% return, until new constituents qualify. If no constituents are expected to qualify (due to changes in market structure and other factors), the sub-index may be discontinued. In such an event, this discontinuation will be announced to index users.

Section 6: Benchmark Oversight and Governance

Benchmark governance, audit and review structure

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

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

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

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

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

- (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).

Other than as set forth in this Methodology (read in conjunction with the [Bloomberg Global Equity Index Methodology](#)), there are no minimum liquidity requirement 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 in connection with the periodic rebalancing of the Index or as otherwise appropriate. Please see the [Bloomberg Global Equity Index Methodology](#) for further information on calculation of the Index in the event of market disruption.

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.

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

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

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. The Index is produced without the interpolation or extrapolation of input data.

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 levels is uncovered following publication and dissemination, a public notification will be made alerting of such error and the expected date of a revised publication, if warranted.

An error to an equity Index in excess of 3 basis point over one day will automatically be reviewed for restatement. If the Index in error is a Primary Index (listed below) and has occurred in the last 2 business days, a restatement will be made for all impacted indices. Errors occurring beyond the last 2 business days will be evaluated on a case-by-case basis.

Real-time indices are not considered for restatement, all real-time dissemination is considered indicative.

Primary Indices:

- Bloomberg US Large Cap Equity Index (B500T)
- Bloomberg Developed Markets Large & Mid Cap Index (DMTR)
- Bloomberg Emerging Markets Large & Mid Cap Index (EMTR)

If the error affects a non-Primary Index the following factors will be reviewed to determine whether to restate. Not all conditions need to be present to warrant a restatement, and certain factors may be more determinative than others depending on the circumstances of the given error.

- The relative importance of the data field impacted by the error;
- 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.

Best efforts will be made to address errors in non-Primary indices as outlined in the table below:

Event	Action (If discovered within 2 business days)
Missed corporate action	
Spin-off	Restate indices and reissue file
Regular cash dividend	

Event	Action (If discovered within 2 business days)
Missed corporate action	
Special cash dividend	
Stock split	
Stock dividend, bonus	
Mergers & acquisition	Update made the next business day; no restatement and no reissuance of files
Delisting	
Reclassification	
Change in listing	
IPO incorrectly added	Update made at next rebalance
Rebalance	
Incorrect add	Unless the error is discovered during pro-forma period, update will be made at next rebalance
Incorrect removal	
Share changes	

Appendix A: ESG Disclosure

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. <i>Choose the relevant underlying asset from the list provided in Annex II to Commission Delegated Regulation (EU)2020/1816.</i>	Equity
Item 3. Name of the benchmark or family of benchmarks.	Bloomberg Scarce Resources Index
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:	As above
(b) List of social factors considered:	As above
(c) List of governance factors considered:	As above
Item 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>	Not Applicable
(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>	N/A
Date on which information has been last updated and reason for the update:	June 2023

Disclaimer

BLOOMBERG, BLOOMBERG INDICES and Bloomberg Global Equity Indices (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.

Take the next step.

For additional information,
email 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