S&P Dow Jones Indices

A Division of S&P Global

Index Administration Services (IAS) - HSBC MacroEconomic Treasury Yield Spread (METYS) Index Family

Benchmark Statement



Jan 2024

Table of Contents

1) General Disclosures	3
2) Market or Economic Reality of the Benchmark	3
3) Potential Limitations of the Benchmark	5
4) Exercise of Expert Judgment and Discretion	6
5) Methodology Changes and Benchmark Cessations	6
6) Key Terms	7
7) Additional Information	7
3) Consideration of ESG Factors	8
9) Disclosure of the Alignment with the Objectives of the Paris Agreement	9
10) Disclaimer	9

1) General Disclosures

Benchmark family name	HSBC MacroEconomic Treasury Yield Spread (METYS) Indices
Benchmark administrator	IHS Markit Benchmark Administration Ltd. (IMBA)
Date of initial publication of this document	1 August 2023
Date of last update to this document	9 January 2024
ISIN (where available)	There are presently no ISINs available or accessible for the benchmarks covered by this Benchmark Statement.
Determination by contributions of input data	IMBA does not receive contributions of "input data" (as defined by the BMR) in relation to this family of benchmarks.
Qualification of the benchmark family	This benchmark statement covers non-significant benchmarks as defined by the BMR. However, IMBA administers this benchmark family as though it were 'significant' (as defined by the BMR).

2) Market or Economic Reality of the Benchmark

General description of the market or economic reality

The HSBC MacroEconomic Treasury Yield Spread Index Family (each an Index and together the Indices or the METYS Index Family) aims to benefit from changes in the difference between the implied interest rates of the 2 Year US Treasury Futures (the "2 Year Futures") and the 10 Year US Treasury Futures (the "10 Year Futures").

The Volatility Budgeted Index, the Volatility Budgeted Index Bespoke2, and the Volatility Budgeted Index Bespoke3 are adjusted according to a volatility target methodology. In addition the Volatility Budgeted Index Bespoke2 and the Volatility Budgeted Index Bespoke3 are adjusted for transaction costs.

The Net Indices and the Currency Converted Index incorporate an index adjustment factor to reflect net of costs/currency performance. Gross return versions (free of any costs) of the HSBC METYS Core Index Bespoke2 / Core Index Bespoke3 and the HSBC METYS Volatility Budgeted Index Bespoke2 / Volatility Budgeted Index Bespoke3 are also calculated.

Geographical boundaries of the market or economic reality

The HSBC MacroEconomic Treasury Yield Spread (METYS) Indices consist of 14 Indices.

The **3 Core Indices** (Core Index, Core Index Bespoke2, Core Index Bespoke3) either takes a notionally long position in the 2 Year Futures and notionally short position in the 10 Year Futures (combined, the Long Position), or vice versa (combined, the Short Position).

In addition, a **gross version** of the Core Index Bespoke2 / Core Index Bespoke3 is also calculated reflecting no transaction cost as well as a **net version** of the Core Index.

The **2 currency Indices** incorporate a foreign currency return to reflect the performance of the Core Index / Net Core Index in a foreign currency.

The family also includes 6 Volatility Budgeted Indices.

The markets covered include Japan, UK, Europe.

HSBC METYS Core Index

On a monthly basis a signal (the "Indicator Value") is calculated based on the Continuing Jobless Claims figure, ISM Purchasing Manager Index and USA Real GDP figures. This Indicator Value decides the long or short position of the underlying Treasury Futures contract.

HSBC METYS Volatility Indices

The Volatility Budgeted Indices incorporate a Volatility Budget Mechanism to moderate the volatility of the Core Index. When the realised volatility of the Core Index is higher, then the exposure of the Volatility Indices to the Core Index is adjusted downwards. In addition, the HSBC MacroEconomic Treasury Yield Spread Volatility Budgeted Index Bespoke2 / Volatility Budgeted Index Bespoke3 includes transaction costs and a gross version is also calculated reflecting no transaction cost.

HSBC METYS Currency Converted Indices

The Currency Converted Indices incorporate a foreign currency (JPY) return to reflect the performance of the Core Index in a foreign currency.

Net Indices

The HSBC MacroEconomic Net Indices (the "Net Indices") incorporate an index adjustment factor to reflect the relevant indices net of costs/currency performance.

Other relevant information relating to the market or economic reality

N/A

The methodology

The HSBC METYS Index Family comprises of 14 Indices as per below:

- HSBC METYS Core Index
- HSBC METYS Core Index Bespoke2
- HSBC METYS Gross Core Index Bespoke2
- HSBC METYS Core Index Bespoke3
- HSBC METYS Gross Core Index Bespoke3
- HSBC METYS Volatility Budgeted Index
- HSBC METYS JPY Core Index
- HSBC METYS Net Core Index
- HSBC METYS Net JPY Core Index
- HSBC METYS Net Volatility Budgeted Index
- HSBC METYS Volatility Budgeted Index Bespoke2
- HSBC METYS Gross Volatility Budgeted Index Bespoke2
- HSBC METYS Volatility Budgeted Index Bespoke3
- HSBC METYS Gross Volatility Budgeted Index Bespoke3

The Index Methodology details the determination methodology for the HSBC MacroEconomic Treasury Yield Spread (METYS) Indices and is made available to stakeholders upon request. HSBC Bank Plc (or any successor thereto) retains the intellectual property to the HSBC MacroEconomic Treasury Yield

Spread (METYS) Indices. Any future changes to the determination methodology or the termination of one or multiple HSBC MacroEconomic Treasury Yield Spread (METYS) Indices is subject to the IAS change management and consultation process.

All benchmark methodologies are assessed prior to their implementation by IAS with respect to their methodological and operational complexity and risks associated with the required data inputs. IAS has put in place policies and procedures applicable to all IAS administered indices ensuring appropriate level of risk management, error identification resolution, handling of market disruptions, escalation to the Index Committee, periodic review of the fitness of the benchmarks. Additional benchmark-specific governance and control arrangements may be put in place as deemed appropriate by the Index Committee. Policies and procedures are documented in the administrator Control Framework.

Rationale for adopting the methodology

The rebalancing of the HSBC METYS Core Index occurs on a monthly basis corresponding to the Indicator Value on the relevant Indicator Business Day of the month. The strategy will either represent a Buy Trading Strategy (notional long exposure to the 2 Year US Treasury Futures contract ("the 2 Year contract")) and a notional short exposure to the 10 Year US Treasury Futures contract (the "10 Year contract") or a Sell Trading Strategy (vice versa).

For the Volatility Budgeted Index, the exposure of the Volatility Index to the applicable underlying Core Index is revisited every Index Business Day inversely proportional to the realized volatility of the underlying Index over 20 Index Business Days (19 daily returns) with 2-day-lag. The Currency Converted Index and Net Indices are adjusted daily to reflect the performance of the respective indices for currency or net returns.

The Core Indices aims to profit from price moves in implied interest rates by benefiting from changes in the difference between the implied interest rates of the 2 Year US Treasury Futures (the "2 Year Futures") and the 10 Year US Treasury Futures (the "10 Year Futures").

3) Potential Limitations of the Benchmark

Circumstances in which we would lack sufficient input data to determine the benchmark according to the methodology

Scenarios may arise where underlying input data is not available in order to determine the index, such as if there is a disruption to a particular underlying market that prevents price discovery from taking place. Also, underlying data is provided by third party data providers. Failure of those providers may impact the administrator's ability to determine benchmarks in accordance with the applicable methodology. Generally, in the case of a market or data source disruption, the administrator will either proceed with or defer the determination of the respective index levels in accordance with the relevant Index Methodology or actions determined by the IAS **Index Committee**. Such scenarios remain rare. The Index Committee serves as the index governance body tasked with ensuring that:

- The index objective is clearly stated, and the index is expected to achieve its objective.
- The procedures documented in the methodology are transparent and clearly described.
- The eligible universe, selection criteria and weighting method for constituents are fully detailed and described.
- All aspects of an index data, calculation, maintenance, presentation and governance are
 consistent with IMBA's practices and any exceptions are explicitly discussed and decided upon by the
 Index Committee.

Circumstances in which the degree of liquidity of the underlying market becomes insufficient to ensure the integrity and reliability of the benchmark determination according to the methodology

There may be instances where the liquidity in an underlying market is not sufficient to adequately represent the economic reality that the index seeks to measure.

Potential liquidity issues may be identified as part of the standard input data validation (e.g. abnormally long periods of stale prices) or may be identified in the context of market disruptions or brought forward through third party index owners, such potential issues are escalated to the Index Committee who will assess and determine the appropriate course of action in such cases.

4) Exercise of Expert Judgment and Discretion

Position of each function or body that may exercise discretion in the calculation of a benchmark and governance thereof

The administrator's indices are rules based and do not typically permit the use of discretion unless there are exceptional circumstances that are not addressed by either the index rules or an administrator policy. Such scenarios may include (but are not limited to):

- Failure of data providers;
- · Significant changes to the underlying market;
- Action by governmental or regulatory bodies that causes market disruption; and
- Events beyond human control.

In the event that IMBA needs to take action or make a decision that has not been foreseen by the methodology or associated policy, the Index Committee conveys and makes a determination that is consistent with the objective of the index in question and that causes minimal disruption to index stakeholders.

Ex-post evaluation process

As above, the exercise of judgment or discretion in the calculation of the HSBC MacroEconomic Treasury Yield Spread (METYS) Indices would need to be approved by the Index Committee prior to the publication of the HSBC MacroEconomic Treasury Yield Spread (METYS) Indices to ensure that no conflict of interest arises and the index continues to reflect the underlying economic reality. A record of the Index Committee decision detailing the nature of the expert judgment or exercised discretion is maintained.

5) Methodology Changes and Benchmark Cessations

Methodology Changes

When a material change to the index methodology is considered, IMBA publishes a consultation inviting comments from market participants. The following are examples of when a methodology change may be deemed material:

- Methodology changes that impact the index objective, for example altering rules determining the index universe, the selection of its constituents or the weighting of constituents, or
- the Index Committee determines if a proposed change is material.

Consultations are announced through a number of channels, including on the website. Under normal circumstances, the consultation period is open for a minimum of 30 days from publication. In instances where a material change is deemed to be time sensitive, the Index Committee may determine that a

shorter consultation period is required. All feedback from consultations is reviewed and considered before a final decision is made by the Index Committee.

Internal Reviews of Methodology

In addition to its daily governance of indices and maintenance of index methodologies, the Index Committee reviews, at least once within any 12-month period, the index methodology to ensure the indices continue to achieve the stated objectives, are transparent, and that the data and methodology remain effective. This is the Annual Review Process.

In the case that an index methodology is reviewed off cycle from the Annual Review, the Index Committee reserves the right to cancel the Annual Review if the requested review covers all the relevant issues.

Possible impact of Changes or the Cessation of Benchmarks

Where it consults, IMBA will make reasonable efforts to address stakeholder concerns expressed in response to consultations and to allow for reasonable advance notice for stakeholders to accommodate changes, unwind existing positions in contracts/instruments referencing the benchmark, or seek an appropriate substitute benchmark.

There may be circumstances where external factors beyond the control of IMBA could lead to short-term changes or the termination of the Index, e.g. where a continuous disruption of the underlying market or an underlying data point requires a change to the methodology or impacts the viability of the index. In such cases, the administrator may shorten the notice period as is appropriate to the urgency of the situation.

Further details of the S&P Dow Jones Indices Index Cessation Policy can be found here.

6) Key Terms

BMR	means the retained EU law version of the Benchmarks Regulation ((EU) 2016/1011) that has applied in the UK from the end of the Brexit transition period (11pm on 31 December 2020).
Board	means the Board of Directors of IMBA.
ESG	means Environmental, Social, Governance.
IHS Markit Benchmark Administration Ltd. (IMBA)	means the administrator, which is the UK entity authorised by the FCA responsible for the daily provision of the HSBC MacroEconomic Treasury Yield Spread (METYS) Indices.
Index Committee	means the committee with responsibility for overseeing day to day administration of the HSBC MacroEconomic Treasury Yield Spread (METYS) Indices.
Internal Oversight Committee	means the Internal Oversight Committee, the independent function which coordinates and directs IMBA's benchmark oversight function.

7) Additional Information

Updates to this Benchmark Statement

This Benchmark Statement will be updated whenever the information it provides is no longer correct or sufficiently precise and at least where:

- there is a change in the type of the benchmark;
- there is a material change in the methodology for determining the benchmark or, where the Benchmark Statement refers to a family of benchmarks, in the methodology for determining any benchmark within the family of benchmarks.

This Benchmark Statement will be updated at least every two years.

Contact us

For more information, including to request index specific methodologies, please visit https://ihsmarkit.com/products/index-administration-services.html or contact us at mk-indexadministrationoperations@ihsmarkit.com.

8) Consideration of ESG Factors

Type of benchmark family	Other benchmarks
Name of the benchmarks	HSBC MacroEconomic Treasury Yield Spread (METYS) Indices
Does the benchmark pursue ESG objectives?	No
Where the answer to the above question is negative, is any EU Climate Transition Benchmark or EU Paris-Aligned Benchmark available in the portfolio of IMBA or does IMBA havebenchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes

9) Disclosure of the Alignment with the Objectives of the Paris Agreement

Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement?	No
The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement.	Not applicable.
The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement.	Not applicable
The methodology used for the measurement of the alignment with the temperature scenario.	Not applicable
The hyperlink to the website of the temperature scenario used.	Not applicable
Date on which information has last been updated and reason for the update.	Not applicable

10) Disclaimer

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