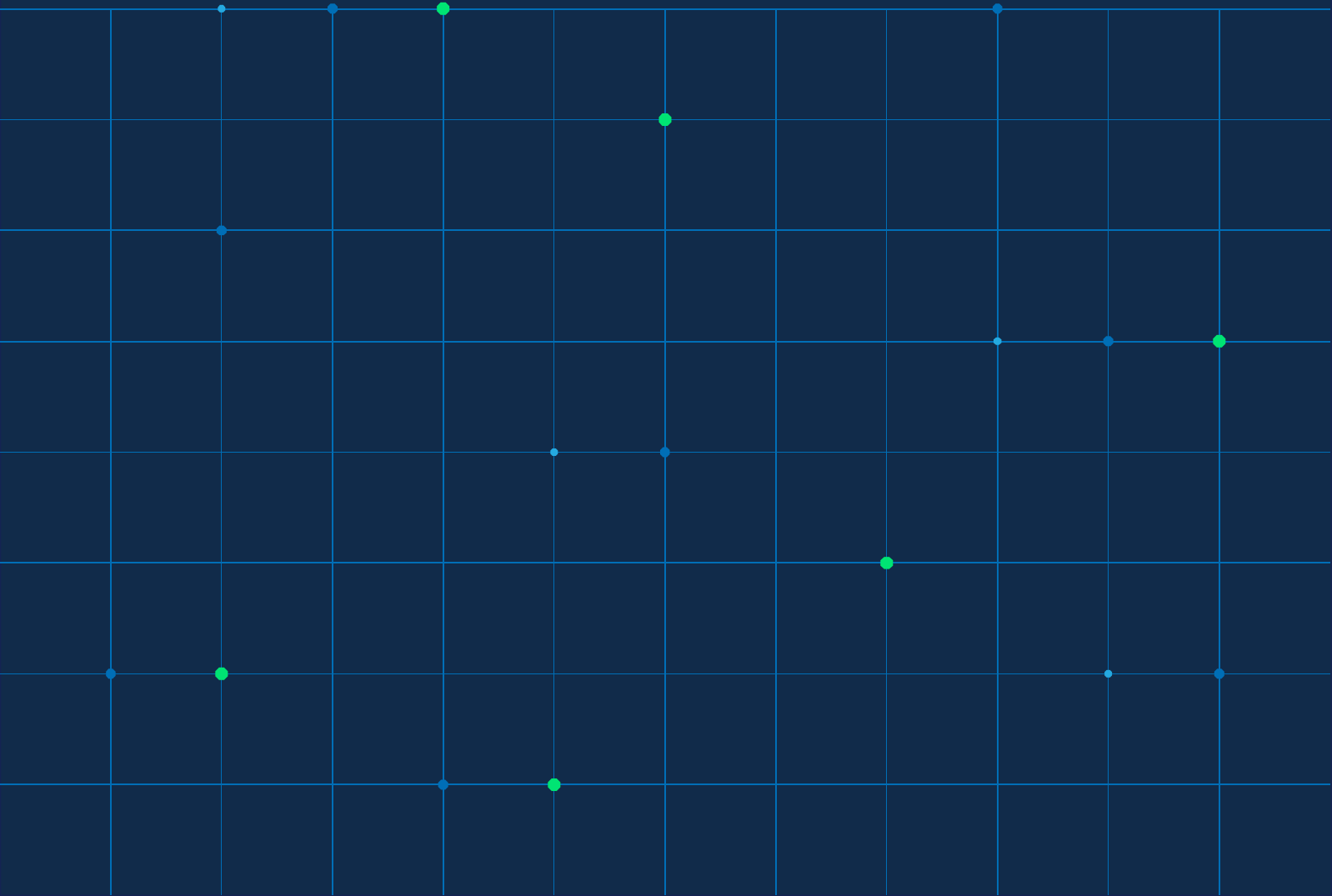


# BrokerTec US Treasury Benchmarks UK BMR Statement

CME Group Benchmark Administration Limited

Publication Date: May 24, 2021



## Version Control

| VERSION | KEY CHANGES     | PUBLICATION DATE            |
|---------|-----------------|-----------------------------|
| 1.0.0   | Initial Version | May 24 <sup>th</sup> , 2021 |

## **Introduction**

The “BrokerTec US Treasury Benchmarks” group of benchmarks, provided by CME Group Benchmark Administration Limited (CBA), are determined from input data of the same nature which provides specific measures of the same or similar market or economic reality; and therefore classified as a “family of benchmarks” under Article 3(1)(4) BMR.

The Benchmark family consists of 2 Year, 3 Year, 5 Year, 7 Year, 10 Year, 20 Year and 30 Year on-the-run US Treasury bonds calculated four times a day (1100 EST, 1500 EST, 1600 EST and 1700 EST).

These Benchmarks are administered and calculated by CBA, authorized and supervised, as a Benchmark Administrator by the UK Financial Conduct Authority.

| BMR / RTS                             | BMR Benchmark Statement requirement   | Administrator's statement   |
|---------------------------------------|---|---|
| <b>Article 27<br/>(1) BMR</b>         | <p>Within two weeks of the inclusion of an administrator in the register referred to in Article 36, the administrator shall publish, by means that ensure fair and easy access, a benchmark statement for each benchmark or, where applicable, for each family of benchmarks, that may be used in the Union in accordance with Article 29. Where that administrator begins providing a new benchmark or family of benchmarks that may be used in the Union in accordance with Article 29, the administrator shall publish, within two weeks and by means that ensure a fair and easy access, a benchmark statement for each new benchmark or, where applicable, family of benchmarks. The administrator shall review and, where necessary, update the benchmark statement for each benchmark or family of benchmarks in the event of any changes to the information to be provided under this Article and at least every two years.</p> | <p>In order to facilitate fair and easy access, this Benchmark Statement appears on the Administrator's website.</p> <p>The Administrator shall ensure that this Benchmark Statement is updated in the event of any material changes and no later than every two years.</p>   |
| <p>The Benchmark Statement shall:</p> |   |   |
| <b>(a)</b>                            | <p>clearly and unambiguously define the market or economic reality measured by the benchmark and the circumstances in which such measurement may become unreliable;</p>   | <p>BrokerTec US Treasury Benchmarks are a suite of benchmarks, administered by CBA, which provide the volume weighted average price (VWAP) and yield (VWAY) for on-the-run US Treasuries.</p> <p>The BrokerTec US Treasury Benchmarks use data sourced from the BrokerTec CLOB.</p> <p>BrokerTec Americas LLC offers the BrokerTec CLOB in accordance with the BrokerTec CLOB Rulebook and its Form ATS filed with the SEC.</p> <p>The Benchmarks may become unreliable as a result of insufficient input data (RTS 1(2)(c)) or severe market disruption (RTS 1(3)(c)).</p> |
| <b>(b)</b>                            | <p>lay down technical specifications that clearly and unambiguously identify the elements of the calculation of the benchmark in relation to which discretion may be exercised, the criteria applicable to the exercise of such discretion and the position of the persons that can exercise discretion, and how such discretion may be subsequently evaluated;</p>   | <p>No discretion is exercised by the Administrator in the determination process.</p>  |
| <b>(c)</b>                            | <p>provide notice of the possibility that factors, including external factors beyond the control of the administrator, may necessitate changes to, or the cessation of, the benchmark; and</p>  | <p>There is the possibility that factors, including external factors beyond the control of the Administrator, may necessitate changes to, or the cessation of, the Benchmarks.</p>  |

| BMR / RTS                | BMR Benchmark Statement requirement   | Administrator's statement  |
|--------------------------|---|--|
|                          |   | <p>Where material changes to or the cessation of the Benchmarks become necessary, the Administrator will engage with stakeholders and users by way of a public consultation.</p> <p>All changes are reviewed and approved by the Oversight Committee.</p>  |
| (d)                      | <p>advise users that changes to, or the cessation of, the benchmark may have an impact upon the financial contracts and financial instruments that reference the benchmark or the measurement of the performance of investment funds.</p> | <p>Changes to, or the cessation of, the Benchmarks may have an impact upon the financial contracts and financial instruments that reference the benchmark or the measurement of the performance of investment funds.</p> <p>The Administrator advises users of the Benchmarks to regularly assess whether it remains appropriate, suitable and fit for purpose. Users should develop contingency provisions and fall-back plans in the event of the benchmark becoming unavailable.</p>  |
| <b>Article 27(2) BMR</b> | A benchmark statement shall contain at least:   |  |
| (a)                      | the definitions for all key terms relating to the benchmark;  | See the Appendix for definitions used in this Benchmark Statement.   |
| (b)                      | the rationale for adopting the benchmark methodology and procedures for the review and approval of the methodology;   | <p>The aim of the BrokerTec US Treasury Benchmarks is to provide a benchmark based on the trading activity for on-the-run US Treasuries. The rates are calculated four times a day (1100 EST, 1500 EST, 1600 EST and 1700 EST) focussing on the 2, 3, 5, 7, 10, and 30 Year on-the-run treasury bonds.</p> <p>The Administrator regularly reviews the methodology to ensure that the Benchmarks remain representative of the economic reality intended to be represented.</p> <p>Amendments to the methodology are proposed by the Administrator, after wide consultation with the relevant stakeholders, and approved by the Oversight Committee.</p> |

| BMR / RTS       | BMR Benchmark Statement requirement   | Administrator's statement   |
|-----------------|---|---|
| (c)             | The criteria and procedures used to determine the benchmark, including a description of the input data, the priority given to different types of input data, the minimum data needed to determine a benchmark, the use of any models or methods of extrapolation and any procedure for rebalancing the constituents of a benchmark's index; | <p>The calculation is based on a waterfall methodology including transactions and executable orders from the BrokerTec CLOB.</p> <p>A target volume is set for each treasury bond tenor and observation window. If transaction volumes fail to meet or exceed the target volume, the benchmark will utilise bids and asks from the top five levels of the order book.</p> |
| (d)             | the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors, to ensure consistency in the use of such judgement or discretion;  | N/A – The methodology does not include the use of judgement or discretion in the benchmark determination process.   |
| (e)             | the procedures which govern the determination of the benchmark in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable and the potential limitations of the benchmark in such periods;   | <p>The methodology includes contingency measures to deal with determination of the Benchmarks in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable.</p> <p>In a circumstance where there is a complete lack of trading activity, the Benchmarks will not be published.</p>  |
| (f)             | the procedures for dealing with errors in input data or in the determination of the benchmark, including when a redetermination of the benchmark is required; and   | The Administrator has in place operating procedures to ensure the integrity of input data and prompt correction of calculation errors, including re-publication of the Benchmark. These are facilitated through Chicago Mercantile Exchange Inc., who acts as calculation agent to the Administrator for the Benchmarks.  |
| (g)             | the identification of potential limitations of the benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.   | The methodology relies on transactions and executable orders for on-the-run US Treasuries on the BrokerTec CLOB. The Administrator continuously monitors liquidity of the underlying market and reports back to the Oversight Committee on a quarterly basis to assess whether the input data are sufficient.   |
| <b>RTS 1(1)</b> | The benchmark statement shall state:  |   |
| (a)             | the date of publication of the statement and, where applicable, the date of its last update;  | Please see the beginning of this document for the date of publication and last update.  |
| (b)             | where available, the international securities identification number (ISIN) of the benchmark or benchmarks; alternatively, for a family of benchmarks, the statement   | Not applicable to these Benchmarks  |

| BMR / RTS       | BMR Benchmark Statement requirement   | Administrator's statement  |
|-----------------|---|--|
|                 | may provide details of where the ISINs are publicly accessible free of charge;  |  |
| (c)             | whether the benchmark, or any benchmark in the family of benchmarks, is determined using contributions of input data;   | The BrokerTec US Treasury Benchmarks are not determined using contributions.   |
| (d)             | whether the benchmark or any benchmark in the family of benchmarks qualifies as one of the types of benchmarks listed under Title III of Regulation (EU) 2016/1011, including the specific provision by virtue of which the benchmark qualifies as that type.   | The BrokerTec US Treasury Benchmarks do not qualify as one of the types of benchmarks listed under Title III of the BMR.   |
| <b>RTS 1(2)</b> | In defining the market or economic reality, the benchmark statement shall include at least the following information:   |  |
| (a)             | a general description of the market or economic reality;  | The BrokerTec US Treasury Benchmarks provide a measure for the price and yield of 2, 3, 5, 7, 10, and 30 Year on-the-run US Treasury bonds.  |
| (b)             | the geographical boundaries, if any, of the market or economic reality;   | The BrokerTec US Treasury Benchmarks reflect the rates for on-the-run US Treasuries in the USA.  |
| (c)             | any other information that the administrator reasonably considers to be relevant or useful to help users or potential users of the benchmark to understand the relevant features of the market or economic reality, including at least the following elements insofar as reliable data on these elements is available:<br>(i) information on actual or potential participants in the market;<br>(ii) an indication of the size of the market or economic reality. | The BrokerTec CLOB is open to a large number of market participants, ensuring an elevated level of liquidity and market depth. All customer segments are represented including proprietary trading groups, banks, hedge funds and asset managers.    |
| <b>RTS 1(3)</b> | In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least:  |  |
| (a)             | a description of the circumstances in which the administrator would lack sufficient input data to determine the benchmark in accordance with the methodology.   | Input data may become insufficient if dealers were unwilling to transact US Treasuries on the BrokerTec CLOB as might occur in times of economic uncertainty, or alternatively if the BrokerTec CLOB were to suffer an unexpected closure or outage. |
| (b)             | where relevant, a description of instances when the accuracy and reliability of the methodology used for determining the benchmark can no longer be ensured, such as when the administrator deems the liquidity in the underlying market as insufficient;   | The accuracy and reliability of the Benchmarks could no longer be ensured in the event of continued insufficient liquidity in the underlying market for on-the-run US Treasuries. To that extent, the Administrator regularly reviews transacted     |

| BMR / RTS | BMR Benchmark Statement requirement   | Administrator's statement   |
|-----------|---|---|
|           |   | volumes and will report any concern regarding the liquidity of the underlying market to the Oversight Committee.  |
| (c)       | any other information that the administrator reasonably considers to be relevant or useful to help users and potential users to understand the circumstances in which the measurement of the market or economic reality may become unreliable, including a description of what might constitute an exceptional market event.  | The Benchmarks rely on the regular functioning of the underlying US Treasuries; reliable representation of underlying markets could be severely affected if US Treasury markets were not operating due to severe disruptions or regulatory limitations to their normal functioning.   |
| RTS 1(4)  | In specifying the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors in calculating the benchmark or benchmarks, the benchmark statement shall include an outline of each step of the process for any ex post evaluation of the use of discretion, together with a clear indication of the position of any person(s) responsible for carrying out the evaluations. | The Benchmarks do not include discretion or expert judgement at any step of their determination process.  |
| RTS 1(5)  | In specifying the procedures for review of the methodology, the benchmark statement shall at least outline the procedures for public consultation on any material changes to the methodology.   | <p>The methodology provides that the Administrator will consult with stakeholders on material changes to the methodology.</p> <p>Consultation will ordinarily consist of publishing of proposals, providing stakeholders with a reasonable time to respond and publishing actions as a result of the consultation.</p> <p>In addition, the Oversight Committee can request the Administrator to consult on any change as appropriate.</p> |
| RTS 2     | In addition to the information to be included pursuant to Article 1, for a regulated-data benchmark or, where applicable, family of regulated-data benchmarks, the benchmark statement shall state at least the following in its description of the input data:   |   |
| (a)       | the sources of the input data used;   | N/A – Not a regulated data benchmark  |
| (b)       | for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011.   | N/A – Not a regulated data benchmark  |
| RTS 3     | In addition to the information to be included pursuant to Article 1, for an interest rate benchmark or, where applicable, family of interest rate benchmarks, the benchmark statement shall include at least the following information:   |   |
| (a)       | a reference alerting users to the additional regulatory regime applicable to interest rate benchmarks under Annex I to Regulation (EU) 2016/1011;   | N/A – Not a interest rate benchmark.  |
| (b)       | a description of the arrangements that have been put in place to comply with that Annex.  | N/A – Not a interest rate benchmark.  |



| <b>BMR / RTS</b> | <b>BMR Benchmark Statement requirement</b>  | <b>Administrator's statement</b>   |
|------------------|---|--|
| <b>RTS 4</b>     | In addition to the information to be included pursuant to Article 1, for a commodity benchmark or, where applicable, family of commodity benchmarks, the benchmark statement shall at least:  |  |
| <b>(a)</b>       | indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of benchmarks as prescribed by Article 19 of that Regulation;   | N/A – Not a commodity benchmark.   |
| <b>(b)</b>       | include an explanation as to why Title II of or, as the case may be, Annex II to that Regulation applies;   | N/A – Not a commodity benchmark.   |
| <b>(c)</b>       | include in the definitions of key terms a concise description of the criteria that define the relevant underlying physical commodity;   | N/A – Not a commodity benchmark.   |
| <b>(d)</b>       | where applicable, indicate where the explanations are published that the administrator is required to publish under paragraph 7 of Annex II to that Regulation.   | N/A – Not a commodity benchmark.   |
| <b>RTS 5</b>     | In addition to the information to be included pursuant to Article 1, for a critical benchmark, or, where applicable, a family of benchmarks that contains at least one critical benchmark, the benchmark statement shall include at least the following information:  |  |
| <b>(a)</b>       | a reference alerting users to the enhanced regulatory regime applicable to critical benchmarks under Regulation (EU) 2016/1011;   | N/A – Not a critical benchmark.  |
| <b>(b)</b>       | a statement indicating how users will be informed of any delay in the publication of the benchmark or of any re-determination of the benchmark and indicating the (expected) duration of measures.  | N/A – Not a critical benchmark.  |
| <b>RTS 6</b>     | In addition to the cases referred to in the third subparagraph of Article 27(1) of Regulation (EU) 2016/1011, an update of the benchmark statement shall be required whenever the information contained in the statement ceases to be correct or sufficiently precise, and including in any event in the following cases: |  |
| <b>(a)</b>       | whenever there is a change in the type of the benchmark;  | This Benchmark Statement shall be updated where information contained within it ceases to be correct or sufficiently precise, including where there is a change to the type of input data. |
| <b>(b)</b>       | whenever there is a material change in the methodology used for determining the benchmark or, if the benchmark statement is for a family of benchmarks, in the methodology used for determining any benchmark within the family of benchmarks.  | This Benchmark Statement shall be updated where there is a material change in the methodology used for determining the Benchmarks .  |

## 1. Appendix I – Key Terms & Definitions

Capitalised terms used in this Benchmark Statement that are not otherwise defined have the meaning set out below:

| TERM                 | DESCRIPTION   |
|----------------------|---|
| <b>Administrator</b> | CME Group Benchmark Administration Limited  |
| <b>BMR</b>           | UK Benchmark Regulation (Regulation (EU) 2016/2011, as retained in UK law under the EUWA)   |
| <b>CBA</b>           | CME Group Benchmark Administration Limited  |
| <b>CLOB</b>          | Central Limit Order Book  |
| <b>EUWA</b>          | European Union (Withdrawal) Act 2018, as amended from time to time  |
| <b>RTS</b>           | Regulatory Technical Standard, which in the context of the BMR means Regulation (EU) 2018/1643 (as retained in UK law under the EUWA) |
| <b>VWAP</b>          | Volume Weighted Average Price   |
| <b>VWAY</b>          | Volume Weighted Average Yield   |

## 2. Appendix II – ESG Disclosures

| Explanation of how ESG Factors are Reflected in the Key Elements of the Benchmark Methodology |  |                                      |
|---|--|--------------------------------------|
| <b>Item 1</b>   | Name of the benchmark administrator.   | CME Benchmark Administration Limited |
| <b>Item 2</b>   | Type of benchmark or family of benchmarks.   | Sovereign Debt                       |
| <b>Item 3</b>   | Name of the benchmark or family of benchmarks.   | BrokerTec US Treasury Benchmarks     |
| <b>Item 4</b>   | Are there in the portfolio of the benchmark administrator any Climate Transition Benchmarks, Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors? | No                                   |
| <b>Item 5</b>   | Does the benchmark or family of pursue ESG objectives?   | No                                   |

