
June 2024

WMR Spot Rate Benchmarks

Methodology consultation



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1. Introduction

London Stock Exchange Group (“LSEG”) is a leading global financial markets infrastructure and data provider, trusted to deliver excellence by customers, partners and markets around the world. We play a vital social and economic role in the world’s financial system. With our trusted expertise and global scale, we enable the sustainable growth and stability of our customers and their communities. LSEG offers benchmark and index solutions through FTSE Russell. FTSE Russell is a global index provider of benchmarks, analytics, and data with capabilities across asset classes and has two authorised benchmark administrators: • FTSE International Limited is authorised in the UK by the FCA under the UK Benchmark Regulation (“UK BMR”); and • **RBSL is authorised in the UK by the FCA under the UK BMR and designated as a benchmark administrator for CDOR under the Canadian Securities Administrators Benchmark Rule and Ontario Securities Commission Rule 25-101.**

RBSL, is the administrator of WMR and is committed to responding to feedback from market participants and ensuring that the WMR FX Benchmarks continue to be the most transparent and appropriate FX benchmarks for use across a wide range of diverse workflows. RBSL is focussed on maintaining and maximising the quality, integrity and robustness of the benchmarks to provide rates which, most accurately, represent the underlying currency markets at a point in time.

Consequently, RBSL is currently reviewing options for expanding the data sources used in the methodology of the WMR Spot rate benchmarks, with the objective of reflecting changes in the FX market. The growing availability of additional, bona fide trading platforms with sufficient market liquidity enables access to a broader pool of liquidity to add value to the WMR benchmarks.

This consultation seeks your feedback on the proposal to add data from another FX Spot trading platform into the calculation of the WMR Spot Rate benchmarks, specifically for a selection of “WMR Trade Currencies” as defined in the methodology. This consultation does not propose any further changes to the calculations at this time.

2. Overview – current methodology for WMR Spot Trade Currencies

The methodology for the WMR Spot Trade Currencies is fully transparent and published here: [WMR FX Benchmarks Spot, Forward and NDF Rates Methodology Guide \(lseg.com\)](#). Specifically, the Trade Currency methodology is used for the following 25 currencies (AUD, CAD, CHF, CNH, CZK, DKK, EUR, GBP, HKD, HUF, ILS, INR, JPY, MXN, NOK, NZD, PLN, RON, RUB, SEK, SGD, THB, TOF, TRY and ZAR) and a key and unique feature of the methodology is sourcing bona fide arm’s length transactional Trade and Order rates from the global and most widely used primary trading platforms of LSEG Matching and EBS (CME), supplemented, for some currencies, with rates from Currenex. To confirm as at today:

- 14 currencies are sourced from LSEG Matching only: CZK, DKK, HUF, ILS, INR, MXN, NOK, PLN, RON, SEK, THB, TOF, TRY and ZAR.
- 8 currencies are sourced from LSEG Matching and EBS: AUD, CAD, CNH, GBP, HKD, NZD, RUB and SGD.
- 3 currencies are sourced from EBS, LSEG Matching and Currenex: EUR, CHF and JPY.

Appendix 1 in the WMR methodology document details fully the sources used across the global day for the Trade Currencies.

The primary source of rates (Level 1) is the actual, executed transactions/traded rates taken from LSEG Matching, EBS and Currenex. In the event there are insufficient executed trades captured over the calculation period, the secondary source of rates (Level 2) will be the best bid and best offer rates captured over the same period from the order matching systems of LSEG Matching, EBS and Currenex “Order rates/Orders”. A final level (Level 3) of indicative spot rates is available should there be any outages from the trading platforms which prevents access to any transaction data – trades or orders.

The use of the trading platforms in the WMR methodology is intended to ensure the WMR benchmark rates use the most appropriate data sources to accurately reflect the market in each currency.

3. Proposal - inclusion of “Cboe FX” as an additional data source in the calculation of select currencies

Aligned with the objective of WMR to provide the most representative FX benchmarks across the global day, RBSL is proposing to source data from the Cboe FX Markets, LLC (“Cboe FX” or “Cboe”) platform for a selection of the WMR Spot Trade currencies. The Cboe data would be used in addition to the current platforms’ data and therefore increasing the amount of transaction data that will be used in the calculation of the selected currencies. Extending the range of sources used in the calculations enables WMR to sample a broader universe of data and increase the robustness and representativeness of the benchmarks.

A range of data analysis and back-testing has been undertaken to determine where the introduction of the Cboe FX data can add value to the methodology from sampling a broader universe of data across the markets, whilst ensuring no deterioration in accuracy of the calculation.

Cboe FX data was considered for inclusion in the calculation of all 25 Trade Currencies, at all publication times and focussed on two primary areas of review - data sufficiency and benchmark quality/accuracy - across the global day.

Following the results of this analysis, the **proposal is to introduce the Cboe FX data for 10 currencies:**

- **AUD, CAD, CHF, CNH, EUR, GBP, HKD, JPY, NZD, SGD**

for all publication times except for 10pm and 10.30pm UK time, when Cboe has a daily maintenance window and thus no transaction data is available.

The data sourced from Cboe will have the following specification, to be compatible with the current methodology:

- Primary platform will be New York with London as the secondary platform for resilience.
- Executed trades and best bid and best offer order rates from the Cboe FX trading platform.
- Minimum trade volume of \$0.5m.
- Direction of executed trade - classified as bought or sold.
- Data captured every 15 seconds outside of the calculation window.
- Data captured every 1 second within the calculation window.
- Confidentiality is protected - all data is anonymous, with no counterparty information being included.

These 10 currencies will be calculated in accordance with the current WMR Trade Methodology and therefore, please see the attached document ‘**WMR Spot Rates Methodology_ Additional Trade Data**’ for detailed clarification, including a matrix displaying the data source of each benchmark rate.

To confirm, the Cboe FX data will also be added into the extensive **WMR Monitoring and Surveillance** program which is performed for every currency and every publication time to protect the integrity and rigour of the WMR benchmark rates.

4. Performance of the proposed new methodology

Benchmark Quality

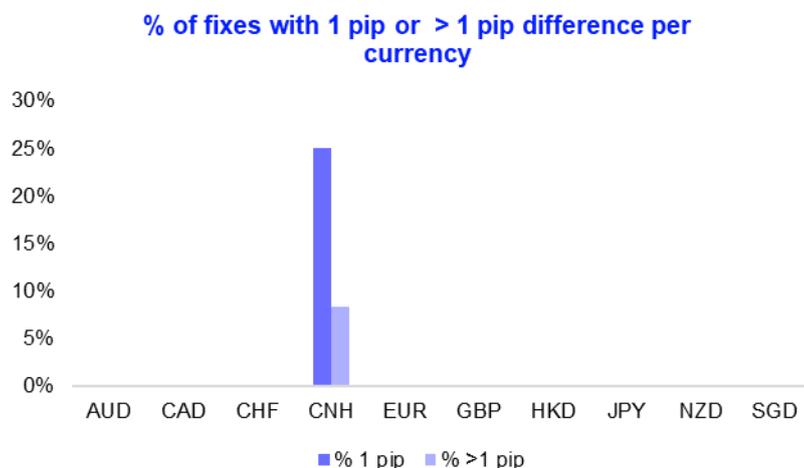
The performance of the proposed new methodology, the inclusion of Cboe FX data into the calculation, for these 10 currencies has been back tested and the calculated benchmark rates using the new methodology were compared to current, published WMR benchmark rates over a period of multiple weeks. Where differences were identified, further analysis was undertaken to determine the cause of the difference and any potential inaccuracy driven by the new methodology. The analysis confirmed that the new calculations were accurately representing the underlying markets of each currency and did not identify any benchmark calculation where intervention through expert judgement would have been necessary.

Examples of this analysis are shown below:

2nd, 3rd and 4th April – 12 publication times at 10am (Sydney), 8am, 4pm and 9pm (UK).

For these times the benchmark rates calculated with Cboe data were compared to the published WMR benchmark rates.

The chart below shows the number of differences over the 3 days, with all new benchmark rates falling within the threshold tolerance of less than 1 pip of a difference and only CNH returning a greater variance:



The differences, which only occurred for CNH, were as follows:

2nd April at 8am

3rd April at 10am Sydney

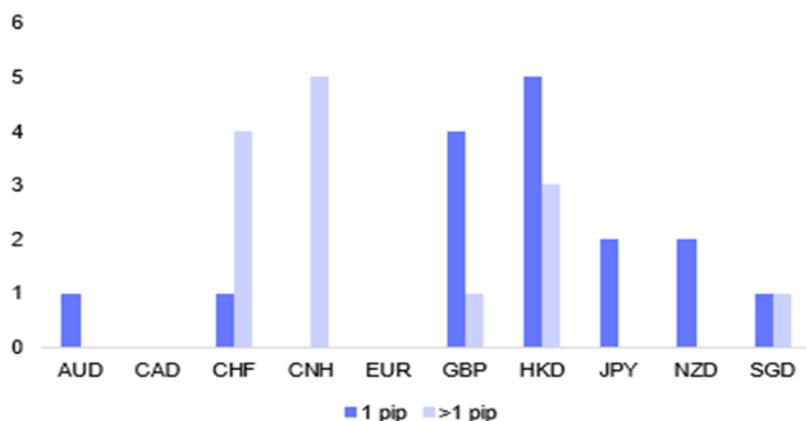
4th April at 4pm and 9pm

On further investigation of these differences, it was identified that at 8am on the 2nd of April and 4pm on the 4th April this was a result of capturing additional trade data (Level 1) and thus deepening the amount of data sampled for the benchmark calculation. For 10am (Sydney) on the 3rd of April and 9pm on the 4th April, order data (Level 2) was used with additional Cboe data providing further corroboration and alignment of order book data with the primary source, for use in the benchmark calculation.

30th April

Recognising month end as a particularly liquid trading day, all hourly benchmark calculations from 1am UK to 12am UK were analysed on 30th April, for the 10 currencies in scope. This provided a testing sample of 24 benchmark calculations per currency to be tested. Using 1 pip as the threshold for defining back-testing 'differences', the results are as follows:

Number of fixes with 1 pip or > 1 pip difference per currency



At 4pm London Close, no differences of 1 pip or greater were observed.

Reviewing each instance charted above, for the currencies and publication times noted below, it can be concluded the use of Cboe data increased the amount of valid transaction data which could be used in the benchmark calculations, either by supplementing the existing pool of traded data and increasing the number of transactions above the minimum threshold, or enabling using traded data (Level 1) instead of order data (Level 2) as the increased number of transactions met or surpassed the minimum threshold as detailed below:

- AUD 12pm – additional executed trade rates from Cboe deepened the liquidity pool over the calculation window.
- CHF 12pm and 1pm – additional executed trades from Cboe deepened the liquidity pool over the calculation window.
- CNH 1pm and 7pm – additional executed trade rates from Cboe deepened the liquidity pool over the calculation window.
- GBP 12pm, 6pm, 7pm – additional executed trade rates from Cboe deepened the liquidity pool over the calculation window.
- GBP 1am – additional executed trade rates from Cboe enabled the trade median to be used, rather than the order median.
- HKD 3am, 3pm, 5pm – additional executed trades from Cboe deepened the liquidity pool over the calculation window.
- JPY 9am, 12pm – additional executed trades from Cboe deepened the liquidity pool over the calculation window.
- NZD 3am - additional executed trades from Cboe deepened the liquidity pool over the calculation window.

For the remainder of the instances, listed below, the differences reflected times where there was reduced liquidity in these currencies and aligned with the methodology, the order median rate (Level 2) would have been used in the benchmark calculation. The detailed analysis confirmed the new Cboe data was corroborated by the other captured data and was more aligned with the data sourced from the primary platform for that currency pair.

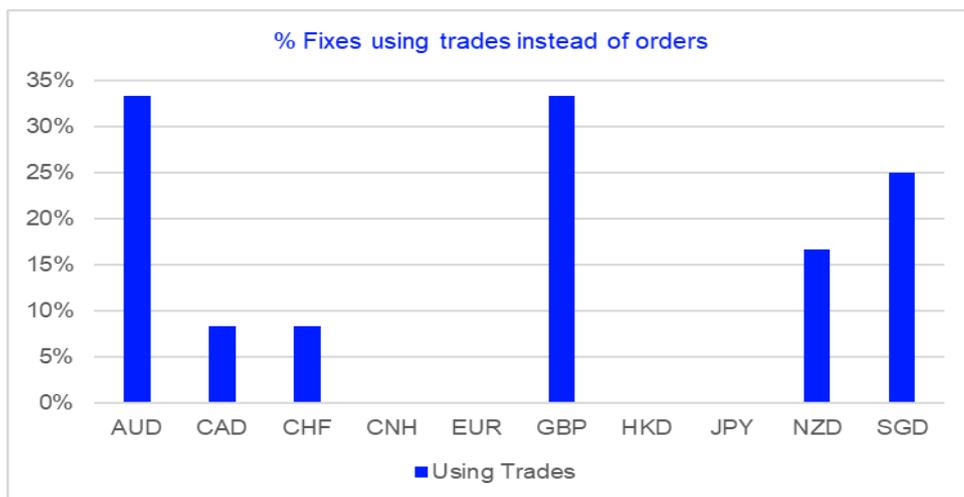
- CHF - 9am and 7pm
- CNH - 12am, 2am, 11pm
- GBP - 11pm
- HKD - 1am, 5pm, 7pm
- SGD - 3pm
- NZD - 11pm

Data Sufficiency

Through introducing Cboe, the quantity of valid transaction data being available for use in the calculation of the benchmarks increased which enhanced the performance of the methodology by enabling Traded rates (Level 1) to be used more frequently. Examples of this analysis are shown below.

2nd, 3rd and 4th April – 12 publication times at 10am (Sydney), 8am, 4pm and 9pm (UK).

The chart below shows the % of benchmark calculations where the addition of Cboe data means that the published benchmark rate would have used trades (Level 1) rather than orders (Level 2):



30th April

As above, recognising month end as a particularly liquid trading day, all hourly benchmark calculations from 1am UK to 12am UK were analysed on 30th April. For the 10 currencies in scope, this provided a testing sample of 24 benchmark calculations per currency.

The chart below shows the % of benchmark calculations where the addition of Cboe data means that the published benchmark rate would have used trades (Level 1) rather than orders (Level 2):



5. Action Required - responding to this consultation

RBSL welcomes user engagement when reviewing benchmark methodologies or considering material changes to its benchmarks.

Therefore, we invite feedback to this proposed methodology change and request that your responses are as detailed as possible and with consideration to the questions below.

Questions:

1. Please indicate if there are any other aspects you would like us to consider regarding the inclusion of Cboe FX transaction data, as described above, in the methodology for the WMR Spot rates for AUD, CAD, CHF, CNH, EUR, GBP, HKD, JPY, NZD, SGD?
2. Is there any additional information regarding the Cboe FX transaction data you would like included in the methodology?
3. Would a notice period of 2 months before implementing the proposed changes provide you with sufficient time to adjust to the new methodology? If not, please indicate why you would require longer and how much additional time may be required.
4. More generally, are there any other data sources you would like us to consider in the future?

Please email your comments to wmr.ops@lseg.com with "WMR Spots Consultation" in the subject by no later than **1700UK on 5th July 2024**. Please note that comments submitted after this deadline or submitted via other means may not be processed.

All responses to this consultation will be treated as confidential and will not be made public. A summary of anonymised feedback received, and decisions made may be made available in due course.

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EMEA +44 (0) 20 7866 1810

Asia-Pacific

North America +1 877 503 6437

Hong Kong +852 2164 3333

Tokyo +81 3 6441 1430

Sydney +61 (0) 2 7228 5659

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