



REFINITIV BENCHMARK SERVICES (UK) LIMITED

**TOKYO SWAP RATE (FOR SWAPS REFERENCING TONA)
BENCHMARK**

**TOKYO SWAP RATE FALLBACK BENCHMARK
BENCHMARK STATEMENT**



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1. INTRODUCTION

The Tokyo Swap Rate¹ (for swaps referencing TONA) benchmark was launched on 28 October 2021 to establish a twice-daily benchmark reference rate for overnight index swaps (“OIS”) referencing JPY TONA. The TONA OIS market exists primarily within Japan. In Japan, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks (“Cross-Industry Committee”) identified TONA as the Japanese risk-free rate (“RFR”) in March 2018.

The Fallback benchmark for the Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks) (“TSR Fallback”) was launched on 4 January 2022 to provide a fallback rate for legacy financial products that referenced the Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks) for use after the cessation or non-representativeness of JPY LIBOR by stakeholders that elect to use it.

Following the announcement by the UK’s Financial Conduct Authority on 5 March 2021 that a number of LIBOR settings including all JPY LIBOR settings would cease or no longer be representative immediately after 31 December 2021, the market in Japan has been transitioning from JPY LIBOR, as a reference in financial products including interest rate swaps, to primarily TONA.

In July 2021, the Cross-Industry Committee reached a consensus on the “TONA First” initiative to change quoting from JPY LIBOR to TONA under which quoting conventions including trade execution of JPY LIBOR swaps and related JPY LIBOR derivatives should cease immediately after 30 July 2021. In September 2021, a sub-group of the Cross-Industry Committee reached a consensus that with some minor exceptions, initiation of new interest rate swaps referencing JPY LIBOR and maturing after the end of 2021 shall cease by the end of September 2021.

Statistics from the Japan Securities Clearing Corporation² (“JSCC”) state that over the 12 months to October 2021 it cleared in new executed contracts ¥453 trillion in JPY LIBOR swaps and ¥159.7 trillion in TONA OIS. In early November 2021, London Clearing House³ reported that the total outstanding amount of JPY interest rate swaps that it cleared was ¥648.8 trillion and in OIS ¥129.5 trillion.

Liquidity in JPY LIBOR interest rate swaps is largely expected to transition to TONA OIS following the Cross-Industry Committee’s consensus on the TONA First initiative and the Tokyo Swap Rate (for swaps referencing TONA) is the primary benchmark used by the market to represent TONA OIS cleared by JSCC. The Tokyo Swap Rate (TSR) family of benchmarks, including TSR (for swaps referencing TONA) and the long-established TSRs (for swaps referencing TIBOR® and JPY LIBOR), is widely used in a variety of products including swaptions and constant maturity swaps as well as in structured loans and notes, floating-rate notes and private finance initiatives.

Refinitiv Benchmark Services (UK) Limited (“RBSL” or “the Administrator”) is the administrator of the Tokyo Swap Rate (for swaps referencing TONA) and the TSR Fallback. TSR (for swaps referencing TONA) and the TSR Fallback are benchmarks subject to the UK Benchmark Regulation (“BMR”). RBSL has adopted policies and procedures to comply with these regulations. TSR (for swaps referencing TONA) and the TSR Fallback are considered non-significant benchmarks for the purposes of the BMR.

TSR (for swaps referencing TONA) is calculated using a waterfall methodology comprising two levels (“Level 1” and “Level 2”) and which operates individually for each tenor. Each level is subject to an input sufficiency threshold and

¹ Tokyo Swap Rate” is abbreviated as “TSR” throughout this benchmark statement

² <https://www.jpj.co.jp/jscj/en/index.html>

³ <https://www.lch.com>

Level 2 is only used if the threshold for Level 1 is not achieved. Level 1 is based on executable dealer-to-client quotes in spot starting TONA overnight index swap (OIS) contracts from Tradeweb. Level 2 is based on indicative rates for spot starting TONA OIS contracts from (i) two inter-dealer brokers (Tradition and TP ICAP), (ii) Tradeweb (composite indicative rates) and (iii) any executable dealer-to-client quotes from Tradeweb that, when considered alone, are insufficient to reach the threshold for Level 1.

The TSR Fallback is derived from the TSR (for swaps referencing TONA) benchmark using a constant spread adjustment.

TSR (for swaps referencing TONA) and the TSR Fallback are published on each Tokyo business day with a morning and afternoon setting and with the following tenors: 1 year, 18 months, 2-10 years, 12 years, 15 years, 20 years, 25 years, 30 years and 40 years.

TSR (for swaps referencing TONA) and the TSR Fallback are considered to be reliable provided that:

- there is liquidity in the market for TONA OIS cleared by JSCC, and
- the input data from the sources (Tradeweb, Tradition and TP ICAP) are representative of this TONA OIS liquidity.

Both conditions should be satisfied in order for TSR (for swaps referencing TONA) and the TSR Fallback to be reliable reference rates for TONA OIS rates and fallbacks rates respectively over the relevant tenors.

This benchmark statement shall be reviewed at least every two years, or whenever there is a material change to either the type of the benchmarks or to the Methodology used in the determination of the benchmarks.

2. OVERVIEW OF METHODOLOGY⁴

The TSR (for swaps referencing TONA) benchmark is calculated using Level 1 of the waterfall subject to a threshold. If the threshold is not reached, the Benchmark is calculated using Level 2 of the waterfall subject to a second threshold. If the second threshold is not met, “No Fix” is published for the relevant tenor or tenors. The Level 1 and Level 2 thresholds have been calibrated to ensure a sufficient quantity of eligible input data.

The waterfall is applied individually to each tenor of the Benchmark. Consequently, it is possible that different tenors are determined using different levels of the waterfall on the same day.

Input data for Level 1 of the TSR (for swaps referencing TONA) benchmark is taken from a dealer-to-client trading platform, Tradeweb. Input data comprises quotes from each dealer captured every 30 seconds over 20 minute windows from 09:50 to 10:10 Tokyo time for the morning setting and 14:40 to 15:00 Tokyo time for the afternoon setting. The precise time of capture within each 30 second period varies. Quotes are captured 40 times over each 20 minute window.

A mid-rate is calculated using each valid bid rate and offer rate pair. The TSR (for swaps referencing TONA) benchmark is then determined as the median rate of the mid-rates. The threshold for use of Level 1 in the determination of the TSR (for swaps referencing TONA) benchmark is that at least 160 valid mid-rates are available

⁴ For further information and definitions, please refer to the methodology at www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/tsr-tona-tsr-fallback-methodology.pdf

and that these rates comprise at least a minimum number of valid mid-rates from each of a minimum number of separate dealers.

Input data for Level 2 of the Benchmark comprises indicative rates for spot starting TONA OIS contracts cleared by the JSCC taken from two inter-dealer brokers (Tradition and TP ICAP) and Tradeweb (composite rates). In addition, any dealer quotes from Tradeweb that are available but collectively are insufficient to meet the threshold for Level 1 for a specific tenor of the benchmark will be included as input data for Level 2.

For Level 2, indicative quotes from the inter-dealer brokers and Tradeweb and any available dealer quotes from Tradeweb are captured every 30 seconds over 20 minute windows from 09:50 to 10:10 Tokyo time for the morning setting and 14:40 to 15:00 Tokyo time for the afternoon setting. The precise time of capture within each 30 second period varies.

In order to be valid, each inter-dealer bid rate to offer rate must be less than or equal to a maximum spread that is specified for each tenor. Dealer quotes are subject to the same maximum bid to offer and minimum notional amount criteria as used in Level 1.

A mid-rate is calculated using each valid bid rate and offer rate pair. The TSR (for swaps referencing TONA) benchmark is then determined as the median rate of the mid-rates. The threshold for use of Level 2 in the determination of the TSR (for swaps referencing TONA) benchmark is either that (A) 60 valid indicative mid-rates from any combination of Tradition, TP ICAP and Tradeweb (composite rates) are captured, or (B) (i) at least 40 valid indicative mid-rates from any combination of Tradition, TP ICAP and Tradeweb (composite rates) and (ii) at least 90 valid mid-rates from dealer quotes (comprising at least a minimum number of valid mid-rates from each of a minimum number of separate dealers) are captured.

Quotes and rates for both levels are captured for spot starting TONA OIS contracts cleared by the JSCC in respect of each tenor of the benchmark.

The TSR Fallback uses TSR (for swaps referencing TONA) benchmark settings of the corresponding tenor as input data. The constant JPY LIBOR ISDA 6 month spread adjustment is used in the determination of the TSR Fallback benchmark.

RBSL may at its discretion delay publication of the benchmarks in the event that technical difficulties prevent receipt of input data or if RBSL has reason to believe that either the input data or the determination of the benchmarks includes a potential error. In such cases, all reasonable efforts will be made to publish the benchmarks at the earliest opportunity. If the potential error cannot be resolved or rectified, "No Fix" will be published for the affected tenor(s) and setting(s).

If following publication, a material error is identified in the input data or the determination of any tenor of a benchmark setting before 11:30am Tokyo time for the morning setting or 16:30 Tokyo time for the afternoon setting, RBSL will refix the affected tenor(s) of the benchmark. A material error is one that has an impact of one-tenth of one basis point or more on the published benchmark.

No models or method of extrapolation or interpolation are used by RBSL when determining the benchmark. Further, the benchmark is not determined by means of a portfolio of constituents.

No discretion or expert judgment is exercised by RBSL in the determination of TSR (for swaps referencing TONA) or the TSR Fallback.

The benchmarks do not have corresponding ISINs. The benchmarks are determined using readily available input data and is not based on contributed input data. Consequently, the benchmark is not any of the following types of benchmark as specifically defined by the BMR: regulated data, interest rate or commodity. Further, RBSL considers that the input data sources as market intermediaries representing the activity of multiple market participants is a realistic minimum to ensure reliable and representative input and to avoid concentration of input data.

3. POTENTIAL LIMITATIONS OF THE BENCHMARKS

Determination of TSR (for swaps referencing TONA) is dependent on receiving sufficient input data from the input data sources for each benchmark tenor. Technical problems or extreme market events may lead to insufficient input data for either level of the waterfall, resulting in publication of a “No Fix”. Determination of the TSR Fallback is dependent solely on the determination of the TSR (for swaps referencing TONA) benchmark.

The design of the benchmarks is therefore resilient in a wide range of market conditions. However, an extreme market event may lead to a loss of liquidity in the underlying TONA OIS market inhibiting the availability of sufficient input data for the determination of the benchmarks to the extent that a “No Fix” is issued.

4. METHODOLOGY CHANGES AND BENCHMARK CESSATION

The TSR (for swaps referencing TONA) and TSR Fallback Methodology has been adopted as being a reliable and resilient means for providing a benchmark that accurately represents TONA OIS rates and provide fallback rates for stakeholders that elect to use it.

The Methodology is subject to a review in order to assess its ongoing fitness for purpose on at least an annual basis. In the event that the review leads RBSL to believe that a change to the Methodology is required and that the change is material in its effect on the benchmarks, a market consultation will be conducted in accordance with the RBSL Methodology Change Procedures⁵ in order to seek feedback from a range of stakeholders. RBSL will review all feedback and if following such review it resolves to proceed with the proposed change or changes, it will provide advance notice in accordance with the RBSL Methodology Change Procedures to users of the benchmarks before implementing such change or changes.

Circumstances beyond the control of RBSL may necessitate an immediate change to or the cessation of the benchmark. Such circumstances include without limitation (i) a loss of liquidity in the underlying TONA OIS markets and (ii) a loss of sources of input data such that representative input data cannot be obtained.

In the event that an immediate change is required, RBSL will provide as much notice as is practicable and following such change will conduct an internal review of the Methodology.

If it becomes necessary to cease calculation and distribution of the benchmarks, RBSL will implement the RBSL Benchmark Cessation Policy⁶. This includes conducting an analysis of the estimated usage of the benchmarks and, where feasible, the selection of credible alternative benchmarks. In all cases, RBSL will take all reasonable steps to

⁵ www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/rbsl-benchmark-methodology-change-cessation-policy.pdf

ensure that all users and other stakeholders are made aware as soon as possible of any intention or possible necessity to cease the benchmarks.

Any material change to the Methodology or cessation of the benchmarks may have an impact on any financial contract or financial instrument that references the benchmarks or on the measurement of the performance of an investment fund that uses or refers to the benchmarks. A material change to the Methodology may lead to a change in the economic reality represented by the benchmarks and therefore to the economic exposure of any financial contract or financial instrument that references the benchmarks. Any financial contracts or other financial instruments that reference the index or investment funds which use the benchmarks to measure their performance should be able to withstand, or otherwise address the possibility of changes to, or cessation of, the benchmarks.

5. FURTHER INFORMATION

Further information including the Methodology used in the determination of TSR (for swaps referencing TONA) and the TSR Fallback is available on Refinitiv's Tokyo Swap Rate website⁶. For further information about the Tokyo Swap Rate, please contact RBSL at index_queries@refinitiv.com.

⁶ www.refinitiv.com/en/financial-data/financial-benchmarks/tokyo-swap-rate

ANNEX: CLIMATE RELATED DISCLOSURES

SECTION 1 – CONSIDERATION OF ESG FACTORS	
<i>Item 1. Name of the benchmark administrator.</i>	Refinitiv Benchmark Services (UK) Limited
<i>Item 2. Type of benchmark or family of benchmarks.</i> Choose the relevant underlying asset from the list provided in Annex II.	Other
<i>Item 3. Name of the benchmark or family of benchmarks.</i>	Tokyo Swap Rate (for swaps referencing TONA) TSR Fallback
<i>Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<i>Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT	
<i>Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information. By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:</i>	
<i>(a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<i>Date on which information has last been updated and reason for the update:</i>	28 April 2022 Inclusion of input data from Tradition and Tradeweb (composite rates)

Refinitiv is one of the world's largest providers of financial markets data and infrastructure, serving over 40,000 institutions in approximately 190 countries. It provides leading data and insights, trading platforms, and open data and technology platforms that connect a thriving global financial markets community – driving performance in trading, investment, wealth management, regulatory compliance, market data management, enterprise risk and fighting financial crime.