

Tokyo Swap Rate (for swaps referencing TONA) Benchmark

Tokyo Swap Rate Fallback Benchmark

Effective Date: 17 June 2024

Last Review Date: 21 March 2024

Document Classification: Public



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Section 1

Introduction

1. Introduction

1.1 Overview

- 1.1.1 This document specifies the Methodology of (i) the Tokyo Swap Rate¹ (for swaps referencing TONA) benchmark and (ii) the Fallback benchmark for the Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks) (“TSR Fallback”).
- 1.1.2 In the event of any discrepancies the English language version takes precedence.
- 1.1.3 The purpose of the TSR (for swaps referencing TONA) benchmark is to provide a representative benchmark rate for Japanese yen (JPY) OIS contracts that reference TONA.
- 1.1.4 The purpose of the TSR Fallback benchmark is 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.

1.2 Description of the benchmarks

- 1.2.1 The TSR (for swaps referencing TONA) benchmark comprises the following tenors: 1 year, 18 months, 2-10 years, 12 years, 15 years, 20 years, 25 years, 30 years and 40 years. It is calculated using a waterfall methodology comprised of two levels: “Level 1” and “Level 2”.
- 1.2.2 Level 1 is based on executable dealer-to-client quotes in spot starting TONA overnight index swap (OIS) contracts from Tradeweb. The data is collected during a 20-minute window from 09:50 to 10:10 (Tokyo time) in the morning and 14:40-15:00 (Tokyo time) in the afternoon and published at 10:30 (Tokyo time) and 15:30 (Tokyo time) respectively. Use of Level 1 for the determination of each benchmark tenor is based on a threshold for input data sufficiency.
- 1.2.3 Level 2 is based on 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. Use of Level 2 for determination of each benchmark tenor is based on a threshold for input data sufficiency.
- 1.2.4 The TSR Fallback benchmark is derived from the TSR (for swaps referencing TONA) benchmark using a constant spread adjustment. The TSR Fallback benchmark is published at the same time and with the same tenors as the TSR (for swaps referencing TONA) benchmark.

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

1.2.3 The benchmarks are published for the morning setting at approximately 10:30 Tokyo time and for the afternoon setting at approximately 15:30 on each Tokyo business day.

1.3 ESG factors

1.3.1 The benchmarks do not take account of ESG factors in their design.

Section 2

Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)

2.1.1 FTSE International Limited is the benchmark Administrator² of the TSR (for swaps referencing TONA) and TSR Fallback³.

2.1.2 As Administrator, FTSE is responsible for collecting input data, determining and publishing the benchmarks, and for all aspects of governance, oversight, compliance and integrity of the benchmarks.

2.2 Oversight Committee

2.2.1 The independent Oversight Committee is responsible for oversight of all aspects of the provision of the benchmarks including the reviews of the benchmark definitions and Methodology at least annually, overseeing any changes to the benchmarks' Methodology or cessation of the benchmarks, and overseeing the Administrator's control framework, management and operation of the benchmarks.

2.3 Benchmark Manager

2.3.1 A benchmark manager is appointed from time to time by the Administrator who will be a subject matter expert responsible for interpreting the Methodology.

2.4 User feedback

2.4.1 FTSE shall communicate periodically with stakeholders in order to assess conditions in the market for TONA OIS contracts over the relevant benchmark tenors and to assess the ongoing fitness and suitability of the Methodology in respect of the benchmarks. Such feedback may be used as part of the periodic review of the Methodology in respect of the benchmarks.

2.5 Identification of potential limitations of the Benchmark

2.5.1 The ability of the dealer-to-client trading platform and inter-dealer brokers to provide accurate input data relies on there being a liquid market in TONA OIS contracts. If any ongoing constraint or fragmentation to liquidity in this market is identified or foreseen, FTSE will consult with stakeholders as well as the independent oversight committee.

2.6 Review of the methodology and input data providers

2.6.1 FTSE will carry out a review of the Methodology in respect of the Tokyo Swap Rate (for swaps referencing TONA) benchmark and the Tokyo Swap Rate Fallback benchmark on at least an annual basis. Additional

² The term Administrator is used in this document in the same sense as it is defined in [Regulation \(EU\) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds](#) (the European Benchmark Regulation) and [The Benchmarks \(Amendment and Transitional Provision\) \(EU Exit\) Regulations 2019](#) (the UK Benchmark Regulation).

³ Prior to December 2024, Refinitiv Benchmark Services (UK) Limited was the benchmark Administrator for the TSR (for swaps referencing TONA) and TSR Fallback. This document has been updated to reflect the change in Administrator but the last review date and effective date of this Methodology are as shown on the cover.

reviews may be conducted at FTSE's discretion. Reviews will include an analysis of the underlying market that the benchmarks seek to represent, the availability and sufficiency of quotes from the dealer-to-client trading platform and indicative rates from the inter-dealer brokers, and a review of other potential platforms.

- 2.6.2 The aim of the review will be to ensure that the benchmarks are still representative of the underlying market, that the input data sufficiently represent the underlying market, and that the input data providers have been providing input data in an accurate and timely manner.
- 2.6.3 Additional reviews may be conducted at the Administrator's discretion. Such additional reviews may be triggered by (i) events affecting the benchmarks that are not optimally treated by the Methodology, (ii) events in the underlying market, (iii) developments in the source of input data used in the benchmarks determination and (iv) issues raised by stakeholders in the benchmarks.
- 2.6.4 The independent Oversight Committee will provide input into the review and reviews are approved by the appropriate FTSE International Limited board committee.
- 2.6.5 Any proposals for significant amendments to this Methodology are subject to the FTSE Russell Policy for Benchmark Methodology Changes and will be subject to consultation with FTSE Russell advisory committees and other stakeholders if appropriate. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.
- 2.6.6 Back-testing shall take place at least at each annual review of the Methodology and following any material change of the Methodology. The Methodology shall include an assessment of the back-testing results, including processes to ensure that systemic anomalies highlighted by back-testing are identified and properly addressed. No significant issues were found under the back-test for the 12 month period to the date of the last annual review shown on the cover of this Methodology.

Section 3

FTSE Russell policies

3. FTSE Russell policies

This Methodology should be read in conjunction with the following policies and policy documents.

3.1 Policy for Benchmark Methodology Changes

- 3.1.1 Details of FTSE Russell's policy for making benchmark methodology changes can be accessed using the following link:

[Policy for Benchmark Methodology Changes.pdf](#)

3.2 FTSE Russell Governance Framework

- 3.2.1 To oversee its indices, FTSE Russell employs a governance framework that encompasses product, service and technology governance. The framework incorporates the London Stock Exchange Group's three lines of defence risk management framework and is designed to meet the requirements of the IOSCO Principles for Financial Benchmarks⁴, the European benchmark regulation⁵ and the UK benchmark regulation⁶. The FTSE Russell Governance Framework can be accessed using the following link:

[FTSE_Russell_Governance_Framework.pdf](#)

3.3 FTSE Russell organisational policies

- 3.3.1 The the TSR (for swaps referencing TONA) benchmark and the TSR Fallback benchmark are subject to the following FTSE Russell organisational policies:

[Index Series Decommissioning Statement](#),

[Benchmark Administration Governance and Conflicts of Interest Management](#) and

[Policy for Benchmark Methodology Changes](#).

3.4 Refix policy

- 3.4.1 If following publication, a material error is identified in the input data or the determination of any tenor of a Tokyo Swap Rate (for swaps referencing TONA) benchmark or the Tokyo Swap Rate Fallback benchmark setting before 11:30am Tokyo time for the morning setting or 16:30 Tokyo time for the afternoon setting, FTSE will refix the affected tenor(s) of the benchmark settings.
- 3.4.2 A material error is one that results in a change of + or – 0.1 basis points to the published value of the affected tenor(s) of the benchmarks.

⁴ IOSCO Principles for Financial Benchmarks Final Report, FR07/13 July 2013

⁵ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds

⁶ The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019

3.4.3 Errors that do not result in an intraday refix of the benchmarks will be reported quarterly to the Oversight Committee and published on the Administrator's public website.

3.5 Complaints, Operational Enquiries and Price Challenges

3.5.1 FTSE Russell's complaints procedure can be accessed using the following link: [FTSE Russell Benchmark Determination Complaints Handling Policy](#)

3.5.2 A Price Challenge is a request from a user or a stakeholder to verify and confirm the accuracy of one or more of the published Benchmark rates, inputs to those rates (if publicly available), or whether a specific benchmark determination is representative of market value.

3.5.3 Operational enquiries do not meet the definition of a compliant and include Benchmark Price Challenges. However, FTSE Russell may decide to treat an operational enquiry or a series of operational enquiries as a formal complaint.

3.5.4 Operational enquires must be submitted to FTSE Russell by e-mail and should contain as much information as possible, including your name, your title, the institution you represent, your e-mail address and telephone number, to enable the operational enquiry to be investigated in a timely manner.

3.5.5 The e-mail address to raise Tokyo Swap Rate (TSR) related price challenge and operational enquiries is: asiabenchmarkoperations@lseg.com

Section 4

Input data

4. Input data

4.1 Tokyo Swap Rate (for swaps referencing TONA) benchmark

- 4.1.1 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.
 - 4.1.2 Quotes are captured for spot starting TONA OIS contracts cleared by the Japan Securities Clearing Corporation (JSCC) in respect of each tenor of the Benchmark.
 - 4.1.3 The dealer-to-client platform has been selected as source of input data as it involves a representative number of dealers active in the market for TONA OIS contracts. The Level 1 input data is therefore sufficient to represent accurately and reliably the market for TONA OIS contracts.
 - 4.1.4 Input data for Level 2 of the benchmarks 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, when considered alone, 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.
 - 4.1.5 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.
 - 4.1.6 Indicative quotes from the inter-dealer brokers and Tradeweb have been selected as input data as the platforms arrange TONA OIS transactions and their data are widely used as references by the market. The Level 2 input data is therefore sufficient to represent accurately and reliably the market for TONA OIS contracts.
- ### 4.2 Tokyo Swap Rate Fallback Benchmark
- 4.2.1 The TSR Fallback benchmark uses TSR (for swaps referencing TONA) benchmark settings of the corresponding tenor as input data. The constant JPY LIBOR ISDA 6 month spread adjustment calculated by Bloomberg is used in the determination of the TSR Fallback benchmark.

Section 5

Determination of the Benchmark

5. Determination of the Benchmark

5.1 Tokyo Swap Rate (for Swaps Referencing TONA) Benchmark

5.1.1 Waterfall methodology

5.1.1.1 The TSR (for swaps referencing TONA) benchmark is calculated using Level 1 of the Methodology subject to a threshold. If the threshold is not reached, the benchmark is calculated using Level 2 of the Methodology 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.

5.1.1.2 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.

5.1.2 Level 1 determination

5.1.2.1 Every 30 seconds between 09:50 and 10:10 Tokyo time for the morning setting and 14:40 to 15:00 Tokyo time for the afternoon setting, quotes from a dealer-to-client trading platform (Tradeweb) are captured. In order to be valid, each bid rate to offer rate must be less than or equal to a maximum spread that is specified for each tenor, and the volume on the bid and offer rate must be greater than or equal to a minimum notional amount.

5.1.2.2 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.

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

5.1.3 Level 2 determination

5.1.3.1 Every 30 seconds between 09:50 and 10:10 Tokyo time for the morning setting and 14:40 to 15:00 Tokyo time for the afternoon setting, indicative rates are captured from two inter-dealer brokers (Tradition and TP ICAP) and Tradeweb (composite rates). In addition, any dealer quotes from Tradeweb that are available but, when considered alone, are insufficient to meet the threshold for Level 1 for a specific tenor of the benchmark are also captured.

5.1.3.2 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.

5.1.3.3 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.

5.1.3.4 The threshold for use of Level 2 in the determination of the TSR (for swaps referencing TONA) benchmark is either

- 60 valid indicative mid-rates from any combination of Tradition, TP ICAP and Tradeweb (composite rates) are captured, or
- (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 Tradeweb dealer quotes (comprising at least a minimum number of valid mid-rates from each of a minimum number of separate dealers) are captured.

5.1.4 No Fix

If the thresholds for both Level 1 and Level 2 of the waterfall are not reached for a particular tenor and setting, “No Fix” will be published for that tenor and setting.

5.2 Tokyo Swap Rate Fallback Benchmark

5.2.1 Determination

5.2.1.1 The TSR Fallback benchmark setting (morning or afternoon) for each tenor is determined using the TSR (for swaps referencing TONA) benchmark with the corresponding setting and corresponding tenor in accordance with equation 1. The constant JPY LIBOR ISDA 6 month spread adjustment is calculated by Bloomberg.

$$TSR\ Fallback = 2 \times \left[\sqrt{1 + TONA\ TSR} - 1 \right] + ISDA\ 6M\ Spread \times \frac{365}{360} \quad (1)$$

5.3 Exercise of expert judgment

5.3.1 FTSE will not exercise expert judgment in the determination of the TSR (for swaps referencing TONA) benchmark or TSR Fallback benchmark.

Section 6

Publication

6. Publication

6.1 Benchmark publication

- 6.1.1 The Tokyo Swap Rate (for swaps referencing TONA) benchmark and the Tokyo Swap Rate Fallback benchmark are published for the morning setting at approximately 10:30 Tokyo time and for the afternoon setting at approximately 15:30 on each Tokyo business day. Both benchmarks are published as percentages rounded to three decimal places.
- 6.1.2 The Tokyo Swap Rate (for swaps referencing TONA) is published via various LSEG products including Workspace and Datascope. It is also published via third party data vendors.

6.2 Delayed publication

- 6.2.1 The Administrator, FTSE, may at its discretion delay publication of the TSR (for swaps referencing TONA) benchmark and the TSR Fallback benchmark in the event that technical difficulties prevent receipt of input data or if FTSE 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.

6.3 Publication RIC identifiers

6.3.1 The Tokyo Swap Rate (for swaps referencing TONA) benchmark and the Tokyo Swap Rate Fallback benchmark will be made available on the LSEG RICs listed below.

6.3.2 Tokyo Swap Rate (for Swaps Referencing TONA) Benchmark RICs:

Tenor	TSR All Settings	
Composite Tile	JPTSRT0=RFTB	
	TSR Morning Setting	TSR Afternoon Setting
Composite Tile	JPTSRT0A=RFTB	JPTSRT0P=RFTB
1-Year	JPTSRT0A1Y=RFTB	JPTSRT0P1Y=RFTB
18-Months	JPTSRT0A18M=RFTB	JPTSRT0P18M=RFTB
2-Years	JPTSRT0A2Y=RFTB	JPTSRT0P2Y=RFTB
3-Years	JPTSRT0A3Y=RFTB	JPTSRT0P3Y=RFTB
4-Years	JPTSRT0A4Y=RFTB	JPTSRT0P4Y=RFTB
5-Years	JPTSRT0A5Y=RFTB	JPTSRT0P5Y=RFTB
6-Years	JPTSRT0A6Y=RFTB	JPTSRT0P6Y=RFTB
7-Years	JPTSRT0A7Y=RFTB	JPTSRT0P7Y=RFTB
8-Years	JPTSRT0A8Y=RFTB	JPTSRT0P8Y=RFTB
9-Years	JPTSRT0A9Y=RFTB	JPTSRT0P9Y=RFTB
10-Years	JPTSRT0A10Y=RFTB	JPTSRT0P10Y=RFTB
12-Years	JPTSRT0A12Y=RFTB	JPTSRT0P12Y=RFTB
15-Years	JPTSRT0A15Y=RFTB	JPTSRT0P15Y=RFTB
20-Years	JPTSRT0A20Y=RFTB	JPTSRT0P20Y=RFTB
25-Years	JPTSRT0A25Y=RFTB	JPTSRT0P25Y=RFTB
30-Years	JPTSRT0A30Y=RFTB	JPTSRT0P30Y=RFTB
40-Years	JPTSRT0A40Y=RFTB	JPTSRT0P40Y=RFTB

6.3.3 Tokyo Swap Rate Fallback Benchmark RICs:

Tenor	TSR Fallback All Settings	
Composite Tile	JPTSRLF=RFTB	
	TSR Fallback Morning Setting	TSR Fallback Afternoon Setting
Composite Tile	JPTSRLFA=RFTB	JPTSRLFP=RFTB
1-Year	JPTSRLFA1Y=RFTB	JPTSRLFP1Y=RFTB
18-Months	JPTSRLFA18M=RFTB	JPTSRLFP18M=RFTB
2-Years	JPTSRLFA2Y=RFTB	JPTSRLFP2Y=RFTB
3-Years	JPTSRLFA3Y=RFTB	JPTSRLFP3Y=RFTB
4-Years	JPTSRLFA4Y=RFTB	JPTSRLFP4Y=RFTB
5-Years	JPTSRLFA5Y=RFTB	JPTSRLFP5Y=RFTB
6-Years	JPTSRLFA6Y=RFTB	JPTSRLFP6Y=RFTB
7-Years	JPTSRLFA7Y=RFTB	JPTSRLFP7Y=RFTB
8-Years	JPTSRLFA8Y=RFTB	JPTSRLFP8Y=RFTB
9-Years	JPTSRLFA9Y=RFTB	JPTSRLFP9Y=RFTB
10-Years	JPTSRLFA10Y=RFTB	JPTSRLFP10Y=RFTB
12-Years	JPTSRLFA12Y=RFTB	JPTSRLFP12Y=RFTB
15-Years	JPTSRLFA15Y=RFTB	JPTSRLFP15Y=RFTB
20-Years	JPTSRLFA20Y=RFTB	JPTSRLFP20Y=RFTB
25-Years	JPTSRLFA25Y=RFTB	JPTSRLFP25Y=RFTB
30-Years	JPTSRLFA30Y=RFTB	JPTSRLFP30Y=RFTB
40-Years	JPTSRLFA40Y=RFTB	JPTSRLFP40Y=RFTB

Section 7

Further information

7. Further information

7.1 Third party disclaimer

7.1.1 Bloomberg ISDA spread adjustments are used as an input into the TSR. BLOOMBERG is a trademark and service mark of Bloomberg Finance L.P. ("**BFLP**"). ISDA is a trademark and service mark of the International Swaps and Derivatives Association, Inc. ("**ISDA**"). Bloomberg Index Services Limited ("**BISL**") and, collectively with BFLP and their affiliates, "**Bloomberg**") maintains and calculates the 'fallback' data comprising the 'all in' fallback rates and their component parts, the adjusted 'risk-free' reference rates and the spread adjustment (collectively with any other data or information relating thereto or contained therein, the "**Fallback Data**") under an engagement between BISL and ISDA. Neither Bloomberg nor ISDA guarantees the timeliness, accurateness, completeness of, or fitness for a particular purpose with respect to, the Fallback Data and each shall have no liability in connection with the Fallback Data. Without limiting the foregoing, neither Bloomberg nor ISDA makes any representations regarding whether the Fallback Data would be appropriate for derivative or non-derivative financial instruments, including derivatives transacted outside of standard ISDA documentation and related protocols. Market participants are encouraged to consider and analyze the details of the Fallback Data and determine independently whether they would be appropriate for any such use.

7.2 Further information

7.2.1 Further information regarding the Tokyo Swap Rate (for swaps referencing TONA) benchmark and the Tokyo Swap Rate Fallback benchmark is available on the [Tokyo Swap Rate website](#).

Section 8

Definition of key terms

Capitalised terms used in this document but not otherwise defined are defined in the following table.

Key term	Definition
Administrator	Administrator is used in this document in the same sense as it is defined in the Benchmark Regulation
Benchmarks Regulation	Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the European Benchmark Regulation) and The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 (the UK Benchmark Regulation)
Methodology	The written rules and procedures according to which information is collected and the Benchmark is determined

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