




# TOKYO SWAP RATE (FOR SWAPS REFERENCING TIBOR®)

CONSULTATION

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# 1. Responding to this consultation

## Introduction

Refinitiv is committed to transparency when reviewing benchmark methodologies or considering material changes to its benchmarks. To that end, Refinitiv is seeking feedback from interested parties on proposed changes to the established Tokyo Swap Rate (for swaps referencing TIBOR®). Refinitiv invites comments on all proposals put forward in this paper and in particular on the specific questions in section 6. Please structure your comments to:

- Respond to the questions stated
- Contain a clear rationale that includes evidence to support the views expressed
- Describe any alternative choices that Refinitiv should consider

## Submission of responses

Please email your comments to [index\\_queries@refinitiv.com](mailto:index_queries@refinitiv.com) with 'Tokyo Swap Rate' in the subject by no later than 12:00 (UK time) on 22 December 2021. Please note that comments submitted after this deadline or submitted via other means may not be processed.

## Handling of responses

All responses to this consultation will be treated as confidential and will not be made public. A summary of key points on an anonymised basis may be made available by Refinitiv as appropriate.

# 2. Executive summary

Refinitiv is a leading calculator and administrator of benchmarks and indices. Refinitiv benchmark products include the WM/Refinitiv FX benchmarks and commodity indices. Within the interest rate asset class, Refinitiv administers products such as the Canadian Dollar Offered Rate (CDOR) and the Saudi Arabian Interbank Offered Rate (SAIBOR). In January 2021, [Refinitiv Term SONIA](#), a family of GBP term rates based on OIS, was released as a regulated benchmark and in March 2021, the Alternative Reference Rates Committee (ARRC) [announced](#) that Refinitiv had been selected to publish its recommended spread adjustments and spread adjusted rates for USD cash products. Refinitiv administers benchmarks either directly under the IOSCO Principles for Financial Benchmarks or via its authorised subsidiary, Refinitiv Benchmark Services (UK) Limited (RBSL), under the UK Benchmark Regulation.

Refinitiv calculates and administers the Tokyo Swap Rate (TSR), a Japanese Yen (JPY) interest rate swap (IRS) benchmark family comprising benchmarks rates with tenors from 1 year to 40 years. Refinitiv currently produce four versions of the Tokyo Swap Rate:

- Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks)
- Tokyo Swap Rate (for swaps referencing TIBOR®)
- Tokyo Swap Rate (for swaps referencing TONA)
- Tokyo Swap Rate Fallback

The final publication of the Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks) will be the afternoon settings at 15:30 (Tokyo time) on 30 December 2021. The Tokyo Swap Rate Fallback is currently in prototype and on 4 January 2022 it will become a production benchmark<sup>1</sup>. The other two rates for swaps referencing TIBOR® and TONA are in production.

The Tokyo Swap Rate (for swaps referencing TIBOR®) is available in 11 tenors from 1-10 years and determined using input data from a panel of banks. The rate is published at 15:30 Tokyo time, on each business day in Japan.

In light of the [potential cessation of JBA Euroyen TIBOR®](#), commonly known as Z-TIBOR®, at the end of December 2024 Refinitiv anticipate fewer firms may contribute to the Tokyo Swap Rate (for swaps referencing TIBOR®). The purpose of this consultation

<sup>1</sup> <https://www.refinitiv.com/en/media-center/press-releases/2021/december/refinitiv-to-cease-tokyo-swap-rate-and-launch-regulated-tokyo-swap-rate-fallback>

paper is to collect feedback on proposed methodology changes, which are designed to ensure continuity of the rate if fewer banks contribute. There are currently 5 banks contributing to the Tokyo Swap Rate (for swaps referencing TIBOR®).

In 2022, Refinitiv plan to consult with the industry about switching the Tokyo Swap Rate (for swaps referencing TIBOR®) from a bank contribution based benchmark to one based on readily available pricing from trading platforms.

### 3. Summary of the Tokyo Swap Rate (for swaps referencing TIBOR®) methodology

The Tokyo Swap Rate (for swaps referencing TIBOR®) is calculated based on the quotes from contributor banks. The contributor banks actively participate in the Japanese Market and contribute rates between 15:00 and 15:30 (Tokyo time). The last contribution received from each contributor bank before the contribution window is closed is to be taken for use in the calculation.

Where 7 or more contributions are received, they are ranked with the highest 2 and lowest 2 rates trimmed (i.e., discarded) and the remaining rates averaged. Where between 4 and 6 contributions are received, they are ranked with the single highest and single lowest rates trimmed and the remaining rates averaged. If fewer than 4 contributions are received, a fallback procedure is followed whereby Refinitiv extend the collection window in an attempt to get more data and publish an updated rate. (This should not be confused with the Tokyo Swap Rate Fallback, which is designed to support the continuation of contracts referencing the Tokyo Swap Rate (for swaps referencing 6-month JPY interbank offered rates from London banks) post cessation.)

For the fallback procedure, if fewer than 4 contributor banks have contributed rates for the Tokyo Swap Rate (for swaps referencing TIBOR®) by 15:30 (Tokyo time), the contribution window and publication window will be extended to 16:00 (Tokyo time). The average rate will be calculated and published immediately once the number of contributor banks reaches 4.

If fewer than 4 contributor banks have submitted rates by 16:00 (Tokyo time), Refinitiv will collect rates from as many contributor banks as possible by 17:00 (Tokyo time) and calculate the rate using the following methodology:

- 7 or more contributor banks: 2 trimmed at the top, 2 trimmed at the bottom. Average the remaining rates.
- 3-6 contributor banks: 1 trimmed at the top, 1 trimmed at the bottom. Average the remaining rates or take the single rate if there are only 3 contributor banks.

If the number of contributor banks does not reach 3 by 17:00 (Tokyo time), rates for previous business day will be published. If there are fewer than three contributor banks for three consecutive business days, “No Fix” shall be published on the fourth and the following business days.

The Administrator does not exercise expert judgement.

### 4. Proposed changes to the Tokyo Swap Rate (for swaps referencing TIBOR®) methodology

To ensure continuity and protect against the risk of adopting the fallback procedure or publishing “No Fix” in the event of reduced liquidity or fewer than 4 contributor banks Refinitiv propose to amend the methodology as follows:

- Where 4 or more contributions are received, Refinitiv does not propose any changes to the methodology
- Where 3 contributions are received, the rates are averaged (without trimming)
- If fewer than 3 contributions are received a revised fallback procedure is followed whereby the contribution window and publication window will be extended to 17:00 (Tokyo time). The average rate will be calculated (without trimming) and published immediately once the number of reference banks reaches 3. If the number of contributor banks does not reach 3 by 17:00 (Tokyo time), rates for previous business day will be published. If there are less than three contributor banks for three consecutive business days, “No Fix” shall be published on the fourth and the following business days.

Refinitiv plan for the proposed methodology change to come into effect from the start of January 2022.

## 5. Estimated impact of the methodology change

Refinitiv estimates reducing the minimum number of contributor banks in the main methodology to three will have a small impact on the calculated rate but will increase the likelihood of publishing a rate without using the fallback procedure in the event of fewer contributors.

Refinitiv has back tested the Tokyo Swap Rate (for swaps referencing TIBOR®) for the period 4 January 2021 to 3 December 2021, which covered 226 publications, with an estimated calculation of the rate using only three contributor banks. 47% of the rates published would be unchanged by calculating the Tokyo Swap Rate (for swaps referencing TIBOR®) using 3 contributor banks. 95% of rates published would have 0.1bps or less difference. 113 rates or 5% of those published had a difference of more than 0.1bps. See Table 1 for further details.

There are 2 days in the period analysed for which Refinitiv estimate the rate could not be calculated using the revised methodology and the previous days' rate would be republished.

**Table 1: Estimated impact of calculating the Tokyo Swap Rate (for swaps referencing TIBOR®) using 3 reference banks**

Tenor	Avg absolute difference	Max absolute difference	Number of identical rates	Number of rates within 0.1bps	Number of rates within 0.5bps	Number of rates analysed
1Y	0.001	0.003	115	218	226	226
18M	0.001	0.002	118	217	226	226
2Y	0.001	0.003	86	212	226	226
3Y	0.001	0.004	99	221	226	226
4Y	0.001	0.004	91	213	226	226
5Y	0.001	0.006	94	216	225	226
6Y	0.001	0.007	114	215	225	226
7Y	0.001	0.007	114	219	224	226
8Y	0.001	0.008	115	217	224	226
9Y	0.001	0.010	114	213	224	226
10Y	0.001	0.011	103	212	224	226
<b>Total</b>			<b>1,163</b>	<b>2,373</b>	<b>2,476</b>	<b>2,486</b>

If the proposed methodology changes are not adopted and 3 banks contribute to the Tokyo Swap Rate (for swaps referencing TIBOR®) Refinitiv would follow the fallback procedure and publish the rate using the single mid contribution at 17:00 (Tokyo time).

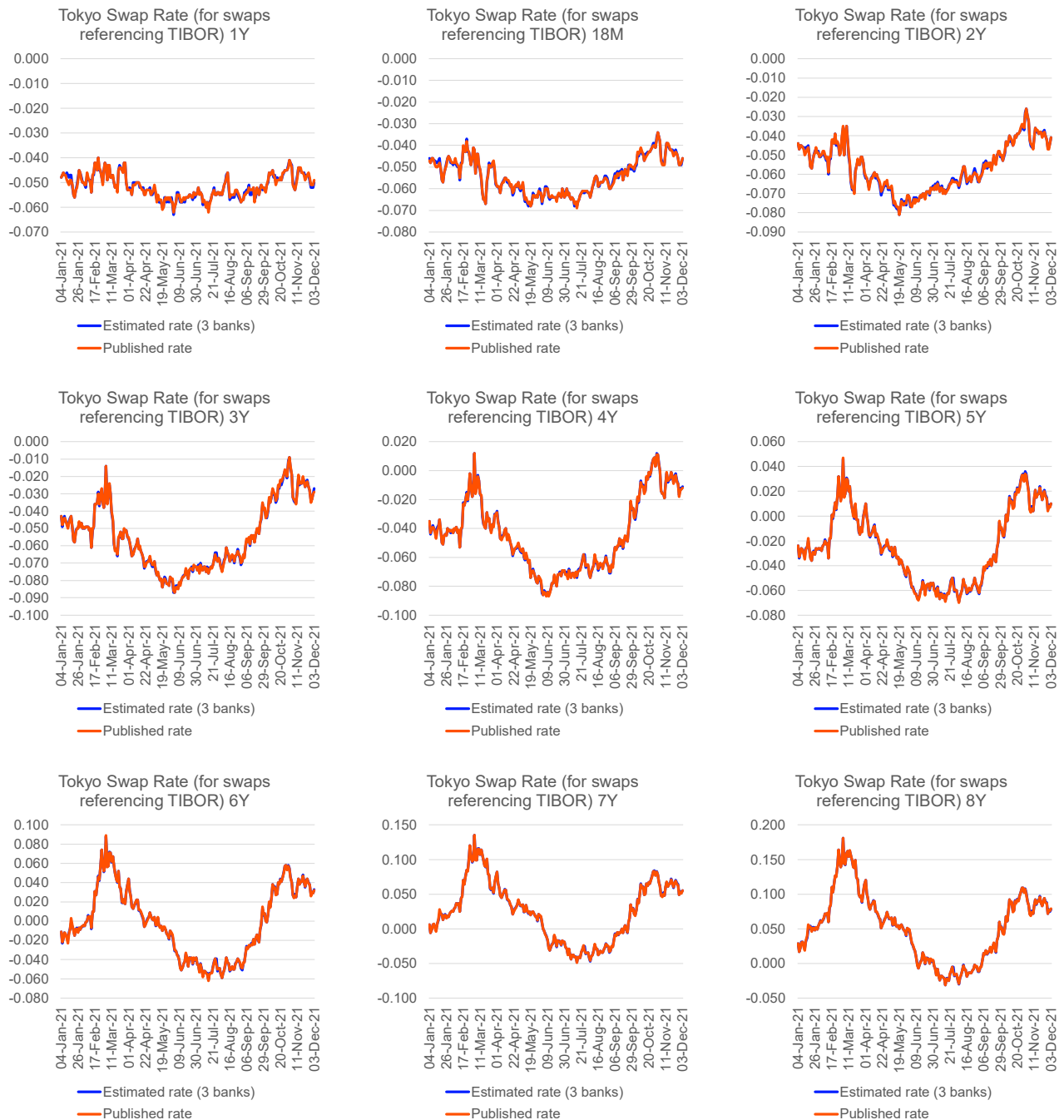
## 6. Discussion topics

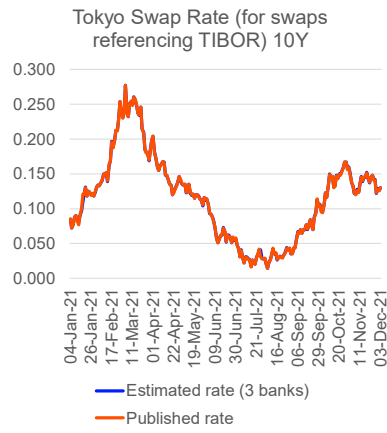
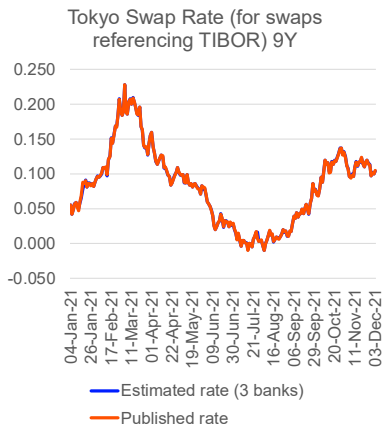
**Q1: Do you strongly and objectively disagree with the proposed reduction in the minimum number of contributor banks in the methodology before triggering the fallback procedure? If so, please explain your concerns and provide your perspectives on how best to handle the scenario where there are fewer than 4 contributor banks.**

**Q2: Do you have any concerns with the proposed simplification of the fallback procedure? If so, please explain your concerns.**

## Appendix. Estimated impact of reducing the minimum number of contributor banks for the Tokyo Swap Rate (for swaps referencing TIBOR®)

Comparison of Tokyo Swap Rate (for swaps referencing TIBOR®) and estimated rate if it had been calculated using only three banks under the proposed revised methodology.





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