Public Consultation on fallback issues for JBA TIBOR

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JBA TIBOR Administration

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1. Executive summary

(1) Objective

In response to Principles for Financial Benchmarks – Final report – ("IOSCO Principles")[1] published by the International Organization of Securities Commissions in July 2013, Reforming Major Interest Rate Benchmarks ("FSB Report")[2] published by the Financial Stability Board in July 2014 and other initiatives, in July 2017, JBA TIBOR Administration ("JBATA") (the chairperson: Satoshi INOUE) implemented "First Phase of JBA TIBOR Reform" with a primary aim of integrating and clarifying the calculation and determination processes of reference banks' submission rates.

Based on First Phase of JBA TIBOR Reform and the progress in subsequent discussions, JBATA periodically evaluates that compliance with the IOSCO Principles has been achieved. However, with a view to further enhancing the transparency, robustness, and reliability of JBA TIBOR[3], JBATA has identified some remaining issues for Principle 7(Data sufficiency) and Principle 13 (Transition).[4][5] To solve these issues and fully be compliant with the IOSCO Principles, JBATA has launched an initiative called "Second Phase of JBA TIBOR Reform".

Therefore, with a primary focus on the issues associated with Principle 13 (Transition), JBATA initiates this public consultation on fallback issues for JBA TIBOR ("Public Consultation"), to seek to solicit comments from a wide range of market participants on appropriate benchmark replacement to be referenced as an alternative to JBA TIBOR.

In considering options of benchmark replacement for JBA TIBOR, the following issues are discussed with respect to the fallback[6] procedure, in principle, for cash products (loans and bonds) referencing Japanese Yen TIBOR or Euroyen TIBOR subject to applicable laws in Japan based on the results of international discussions to date: (i) conditions on which fallback provisions are activated (triggers), (ii) options of fallback rates that could be referenced to substitute JBA TIBOR as reference rates, and (iii) methodologies of the spread adjustment between JBA TIBOR and the fallback rate.

Since all of the above issues (i) through (iii) affect economic conditions of the contracting parties, it would be appropriate to consider these issues based on any comments from a wide range of market participants. (See "9." below for the list of questions.)

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[1] Principles for Financial Benchmarks –Final report – (https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf)

[2] Reforming Major Interest Rate Benchmarks (https://www.fsb.org/wp-content/uploads/r_140722.pdf)

[3] "JBA TIBOR" in the Public Consultation collectively means "Japanese Yen TIBOR and "Euroyen TIBOR."

[4] https://www.jbatibor.or.jp/english/news/compliance_with_iosco_principles_for_financial_benchmarks_19_principles.html

[5] Principle 13 (Transition) states that "[a]dministrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark (...). Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the following factors, if determined to be reasonable and appropriate by the Administrator." JBATA also has recognized some remaining issue for Principle 7 (Data Sufficiency). For details, see the footnote 4.

[6] The fallback is discussed in the later section.

Based on the comments received in the Public Consultation, JBATA will summarize each issue and publish the results by March 31, 2023.[7]

(2) Disclaimer

As stated in Reminders for Using JBA TIBOR and Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication, it is preferable that a fallback rate selected in preparation for a material change and continuous suspension of JBA TIBOR[8] shall align with the elements considered as significant by the contracting parties (e.g. consistency with related transactions and compatibility with current practices). The users of JBA TIBOR are recommended to reach an agreement on the matters related to the fallback between the contracting parties in advance.

In view of the above, the Public Consultation exemplify the options for fallback rates and spread adjustment methodologies assuming the permanent cessation of JBA TIBOR and seeks comments from market participants.

The Public Consultation and its results will not have any binding effects on individual contracts referencing JBA TIBOR, and JBATA does not recommend any particular rates and methodologies.

Please note that the terms and conditions of a contract should be determined at the discretion of the contracting parties and they are not precluded from reaching an agreement on the terms and conditions that are different from the results of the Public Consultation.

JBATA is not responsible for any damages or losses resulting directly or indirectly from the Public Consultation and its results.

2. Introduction to the Public Consultation

(1) About JBA TIBOR

(i) General information on JBA TIBOR

The Japanese Bankers Association ("JBA") began calculating and publishing "Japanese Yen TIBOR" from November 1995 as a benchmark that reflects prevailing rates for the Japan unsecured call market and "Euroyen TIBOR" from March 1998 as a benchmark that reflects prevailing rates for the Japan Offshore Market.

With the establishment of JBATA on April 1, 2014, the calculation and publication operations of Japanese Yen TIBOR and Euroyen TIBOR were transferred from JBA to JBATA. Since then, JBATA has been calculating and publishing JBA TIBOR.

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[7] Specifying the options of the fallback rates through publishing the results of the Public Consultation would help solve remaining issue JBATA has recognized for Principle 13 (Transition). In addition, the introduction of fallback provision for contracts by market participants referring the results of the Public Consultation is expected to further enhance the robustness of contracts referencing JBA TIBOR.

[8] The "continuous suspension of JBA TIBOR" include cases where the publication of JBA TIBOR is permanently ceased.

JBA TIBOR is calculated based on submission rates from reference banks (rate submission banks) and is published according to the procedures described below:

a. Reference banks submit to JBATA quotes of prevailing market rates for five different tenors (i.e. 1-week, 1-month, 3-month, 6-month, and 12-month) as of 11:00 a.m. each business day (submission rates);

b. JBATA excludes the top two and the bottom two submission rates for each tenor and takes the average of the remaining rates to calculate “JBA TIBOR rates” (five rates each for Japanese yen TIBOR and Euroyen TIBOR); and

c. JBA TIBOR rates are published through information providers[9] that are contracted by JBATA.

[9] https://www.jbatibor.or.jp/english/about/providers.html

(ii) JBA TIBOR Exposures

In advance of publishing the Public Consultation, JBATA conducted the Survey on JBA TIBOR Exposures (survey reference date: End-2021) with a view to enable more informed discussions in consideration of the actual conditions of financial instruments and transactions referencing JBA TIBOR[10] and published the results[11] in May 2022.

As indicated in the following figure of the survey results, both Japanese Yen TIBOR and Euroyen TIBOR are widely referenced in relation to Assets (loans) and Derivatives.

[Figure 1] The results of the Survey on JBA TIBOR Exposures

[Japanese Yen TIBOR]		Amount outstanding or notional amount (JPY tri.)	Number of contracts
a. Assets		**120.3**	**291,128**
	Loans	119.8	290,824
	Bonds	0.5	304
b. Liabilities		**0.5**	**1,119**
c. Derivatives		**180.4**	**47,187**

[Euroyen TIBOR]		Amount outstanding or notional amount (JPY tri.)	Number of contracts
a. Assets		**3.8**	**2,725**
	Loans	3.8	2,716
	Bonds	0.02	9
b. Liabilities		**0.004**	**9**
c. Derivatives		**347.7**	**30,688**

(2) Basic information on the fallbacks

A fallback in the context of the Public Consultation means an approach[12] to agree between the contracting parties referencing JBA TIBOR in advance on the treatment of the benchmark replacement to be referenced to substitute JBA TIBOR and other necessary matters after its permanent cessation[13] of JBA TIBOR.

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[10] The FSB Report recommends that it would be preferable to use respective interest rate benchmarks in consideration of the features of financial instruments or transactions.

[11] JBATA surveyed banks, securities companies, insurance companies and other entities in Japan to understand the actual conditions of the amount outstanding and the number of contracts of financial instruments and transactions that reference Japanese Yen TIBOR or Euroyen TIBOR. Please refer to the following URL for details of the survey results. https://www.jbatibor.or.jp/english/news/publication_of_the_key_results_of_the_survey_on_jba_tibor_exposures.html

[12] Other possible approaches include: in advance of the permanent cessation of JBA TIBOR, (1) enter into a new contract, following the termination of a legacy contract; or (2) use other interest rate benchmarks as a reference rate for those financial instruments and transactions for which a legacy contract is amended to change the reference rate (these approaches are referred to as “active transition”).

[13] As mentioned in 5.(1), JBATA does not expect that the permanent cessation would occur at the same time

This approach will enable the contracting parties to clarify the post-permanent cessation treatment beforehand.[14] However, by changing the reference rate from JBA TIBOR to the benchmark replacement, the instruments will no longer produce equivalent economic effects as when referencing JBA TIBOR (i.e. value transfer[15] will occur to a certain extent).

The fallbacks for cash products (loans and bonds) have been discussed as an approach to address the permanent cessation of LIBOR by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks[16] (the “Cross-Industry Committee”) in Japan and by other similar committees in other jurisdictions. Further, fallbacks for EURIBOR whose permanent cessation is not currently considered have been discussed by the working group on euro RFRs (WG on euro RFRs) in Europe from the perspective of enhancing the robustness of the benchmarks as well as in light of the requirements under the IOSCO Principles and the EU Benchmarks Regulation (“EU BMR”).

In discussions of any benchmarks at respective jurisdictions, the following (i) through (iii) are considered as issues to reach an agreement in order to ensure effective functioning of fallbacks. Given this, it would be useful to consider these issues for JBA TIBOR as well.

(i) Triggers

A trigger means an event[17] that signals the transition from JBA TIBOR to the benchmark replacement in the fallback provisions.

Fallbacks covered in the Public Consultation are intended to prepare for the permanent cessation or loss of representativeness of JBA TIBOR. Therefore, basically, the contracting parties need to agree on triggers beforehand in consideration of the cessation of JBA TIBOR or the situation in which JBA TIBOR is no longer suitable to be used as a benchmark for floating rates.

For example, with regard to fallbacks for cash products referencing JPY LIBOR, the Cross-Industry Committee has recommended to include the following triggers in light of ensuring consistency with derivatives governed by the ISDA Master Agreement (“ISDA Derivatives”) and other relevant factors.

[Figure 2] The triggers recommended by the Cross-Industry Committee

Trigger types	Specific conditions (examples are provided for LIBOR)
Permanent Cessation Trigger	・ The regulatory supervisor of the LIBOR announces that it has ceased or will cease to provide LIBOR permanently or indefinitely. ・ The administrator of the LIBOR announces that it has

for Japanese Yen TIBOR and Euroyen TIBOR. Therefore, the “permanent cessation of JBA TIBOR” does not mean that both Japanese Yen TIBOR and Euroyen TIBOR will cease simultaneously. The same shall apply hereinafter.

14 If an agreement on the benchmark replacement is not reached beforehand in legacy contracts referencing JBA TIBOR or only set out language on the temporary cessation of JBA TIBOR, the terms and conditions of contracts or interest payments will become uncertain after its permanent cessation, which may give rise to unexpected consequences.

15 For value transfer, see the following 2.(2)(iii).

16 For the details of discussions on the permanent cessation of JPY LIBOR by the Cross-Industry Committee, see Appendix 1. The same shall apply hereinafter.

17 A condition relates to fallback rates and spread adjustments described in the subsequent sections.

Trigger types	Specific conditions (examples are provided for LIBOR)
	ceased or will cease to provide LIBOR permanently or indefinitely. Note: These events are under the condition that there is no successor administrator.
Pre-cessation Trigger	・ The regulatory supervisor of LIBOR announces that LIBOR is no longer representative or will no longer be representative.

(ii) Fallback rates

Alternative benchmarks mean interest rate benchmarks that could replace JBA TIBOR. Of which, fallback rates are interest rate benchmarks that will be referenced after the permanent cessation or loss of representativeness of JBA TIBOR.

It is preferable that the contracting parties agree on appropriate and available fallback rates in advance at least before the point of trigger event.

For example, the following benchmarks[18] have been used as preferred options for fallback rates for cash products referencing JPY LIBOR in light of discussions by the Cross-Industry Committee.

- ✓ Compounded TONA[19] (fixing in arrears)[20]
- ✓ Term RFR[21]
- ✓ Japanese Yen TIBOR

(iii) Spread adjustments

Since there is a difference (spread) between JBA TIBOR and a fallback rate, a fallback may result in “value transfer” where one party enjoys gains while the other suffers losses.[22]

To minimize such value transfer, it is required to adjust the difference (spread) between JBA TIBOR and the fallback rate as much as practicable. This adjustment is referred to as a “spread adjustment”.[23]

To address spread adjustments, it is essential to agree between the contracting parties on reasonable calculation methodologies and adjustment procedures in advance under the

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18 For the features of respective benchmarks, see Appendix 2.

19 Tokyo Overnight Average Rate. This is the “uncollateralized overnight (O/N) call rate” identified as a nearly risk-free rate for Japanese yen and is published by the Bank of Japan.

20 Generally, this is also referred to as “compounded O/N RFR (fixing in arrears)”.

21 As a term RFR for Japanese yen, QUICK Benchmarks Inc. has been publishing production rates of the Tokyo Term Risk Free Rate (TORF) (1-month, 3-month, and 6-month) since April 2021. Unless otherwise specified in the Public Consultation, term RFR represents TORF.

22 As a result, accounting and/or tax issues or litigation risk may arise.

23 Based on these procedures, the benchmark replacement can be expressed as: “Benchmark replacement = Fallback rate + Spread adjustment (value)”.

assumption that spread adjustments will be calculated at the point of trigger event.[24]

For example, in the case of a fallback for cash products referencing JPY LIBOR, the Cross-Industry Committee recommended the “historical five-year median spread adjustment methodology”[25] when using a term RFR or compounded O/N RFR (fixing in arrears) as a fallback rate, in order to ensure consistency between different currencies and consistency with ISDA Derivatives as well as to avoid complicated procedures in practice.

(Procedures for introducing a fallback)

A written document exchanged between the contracting parties when introducing a fallback in a contract is, in general, referred to as “fallback provisions.”[26] It is recommended that fallback provisions be introduced for the three issues mentioned in the above (i) through (iii) and clarify agreed terms and conditions in advance of the permanent cessation of JBA TIBOR.[27]

There are multiple approaches to the procedures for incorporating fallback provisions. From the perspective of ensuring the robustness of fallbacks, the preferred approach would be the “hardwired approach” that identifies either a single benchmark replacement or a benchmark replacement determined based on the waterfall steps[28] when the fallback provisions are introduced.[29]

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[24] It should, however, be noted that value transfer cannot be adjusted completely. For example, there will be a difference between the spread adjustment value calculated during a certain historical period and the value only based on the latest market rate trends.

[25] This approach calculates the historical median of the difference between the rate being referenced and the fallback rate (in this context, JPY LIBOR and compounded O/N RFR (fixing in arrears)) over a five-year lookback period. Other possible methodologies include the “spot-spread approach” that calculates the spread adjustment based on the spot spread between JBA TIBOR and the fallback rate on the day preceding the point of trigger event and the “forward approach” that calculates the spread adjustment based on observed market prices for the forward spread between JBA TIBOR and the fallback rate at the point of trigger event.

[26] Sample fallback provisions for loans referencing JPY LIBOR are published for each loan type by JBA and by the Japan Syndication and Loan-trading Association.

[27] In particular, as for Euroyen TIBOR, it would be preferable to take necessary actions by keeping in mind that its permanent cessation is currently deemed as the most likely option and the timing of the permanent cessation of Euroyen TIBOR, if adopted, would be at the end of December 2024.

[28] For the waterfall, see 5.(2) (i) .

[29] Another possible approach would be the “amendment approach” that sets out in a contract that a benchmark replacement will be identified at a future point in time based on the agreement between the contracting parties, instead of when the fallback provisions are introduced. Under this approach, it is necessary to engage in negotiations and conduct internal decision-making and other related procedures twice: i.e. at the time when the fallback provisions are introduced and at a future point in time (e.g. at the point of trigger event). Particularly with respect to bonds, in some cases, the contract contains a fallback provision stipulating that, one party to the contract or a specified third party identifies a benchmark replacement at a future point in time, instead of when the fallback provisions are introduced, and the contracting parties do not need to newly reach an agreement on that benchmark replacement.

3. Background

(1) Global recommendations for development of fallbacks

The IOSCO Principles and the Statement on Matters to Consider in the Use of Financial Benchmarks[30] published in January 2018 underscore the importance of developing and implementing robust fallback provisions in preparation for the permanent cessation of benchmarks in order to prevent potential disruption to markets and market participants, including users.

In 2016, the Official Sector Steering Group ("OSSG") launched a third major initiative[31] to address risks of the cessation of widely-used interest rate benchmarks. Similar to this initiative, in September 2018, International Swaps and Derivatives Association, Inc. ("ISDA") published the ISDA 2018 Benchmarks Supplement Protocol following the enforcement of the EU BMR in January 2018. This protocol sets out contract language to be included in preparation for the cessation of benchmarks referenced in derivatives contracts. Further, ISDA published a series of consultations to compile the ISDA 2020 IBOR Fallbacks Protocol published, and Supplement 70[32] to the 2006 ISDA Definitions finalized in October 2020 and took effect in January 2021, and reflected fallback details in the 2021 ISDA Interest Rate Derivatives Definitions. For details, see Appendix 3.

Fallbacks for cash products referencing LIBOR have been addressed by such initiatives of international organizations or industry groups and also have been discussed by the working groups officially convened by the central banks for the currencies in which the applicable benchmarks are denominated.

Through these discussions, the importance of robust fallbacks that reduce potential uncertainties in contracts arising from the future permanent cessation or loss of representativeness of benchmarks has been recognized across market participants.

(2) First Phase of JBA TIBOR Reform and JBATA's self-assessment

(i) Implementation of First Phase of JBA TIBOR Reform

In repose to the global requirements for the benchmark reform,[33] JBATA implemented First Phase of JBA TIBOR Reform in July 2017 primarily to integrate and clarify the calculation and determination processes of reference banks' submission rates.

Specifically, JBATA introduced the waterfall methodology in the JBA TIBOR Code of Conduct that sets out the matters to be complied by reference banks. The waterfall methodology is a calculation methodology, which removes any arbitrarily manipulated rates as much as practicable and it is based on various data, including data of actual transactions in the underlying market. The underlying concept of the reform was to enhance the reliability and transparency of the determination process of JBA TIBOR by introducing this methodology and eliminating expert judgment from the calculation and

30 https://www.iosco.org/library/pubdocs/pdf/IOSCOPD589.pdf
31 https://www.fsb.org/wp-content/uploads/P141118-1.pdf
32 Since the covered IBORs include not only LIBOR but also EURIBOR and JBA TIBOR, the fallbacks for ISDA Derivatives are already determined. JBATA reflects it in the scope of consideration in section 4.
33 Since the publication of the IOSCO Principles, the IOSCO reviewed the progress of implementation thereof by the administrators of three major benchmarks (i.e. LIBOR, EURIBOR, and JBA TIBOR) twice and published the results in 2014 and 2016. In the IOSCO's second review, JBATA was recommended to reform JBA TIBOR as early as possible.

determination processes of daily submission rates.

Under the introduced waterfall methodology, if data of actual transactions or quotes in the underlying markets (e.g. the unsecured call market) or other equivalent markets are not available, actual transaction data of the relevant wholesale market (e.g. NCD transactions with corporates, large term deposits) will be used.

(ii) Self-assessment

JBATA performs a self-assessment on its compliance with the IOSCO Principles and publishes the results on an annual basis. Based on JBA TIBOR Reform and the progress in discussions, JBATA periodically evaluates that compliance with the IOSCO Principles has been achieved. However, JBATA still recognizes that there are some remaining issues for Principle 7 (Data Sufficiency) and Principle 13 (Transition) from a perspective of further enhancing transparency, robustness and reliability of JBA TIBOR.

To address the remaining issues for Principle 13 (Transition), JBATA published Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication. This policy recommends the users of JBA TIBOR to reach an agreement on the matters related to fallback rate between the contracting parties in advance and provides the process to be implemented when JBA TIBOR ceases to be published permanently. This, combined with discussions through the Public Consultation, particularly on fallback rates, would help solve the remaining issues for Principle 13.

To address the remaining issues for Principle 7 (Data Sufficiency), it will be necessary to consider how to address the prolonged downsizing of the Japan Offshore Market that is the underlying market of Euroyen TIBOR. These issues would be solved once the future determination on the discontinuation of Euroyen TIBOR related in the next section (3). Nonetheless, JBATA recognizes that the necessary steps would be to first determine actions for the remaining issues for Principle 13 (Transition) and then carefully consider the timing of the cessation and other related items through another public consultation.

(3) Discussions on the discontinuation of Euroyen TIBOR

It has been pointed out that the Japan Offshore Market continues to shrink compared to the Japan unsecured call market (i.e. the underlying market of Japanese Yen TIBOR) and also the ratio of reference banks' submission rates determined based on data of the underlying market continues to be lower compared to Japanese Yen TIBOR. In order to further enhance transparency, JBATA started disclosing more detailed information on the "underlying markets of JBA TIBOR" and the "basis for submission rate calculation by reference banks" from March 2022.[34]

JBATA published the [1st Consultative Document] Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR ("1st Consultation") in October 2018 and published the results thereof in May 2019, stating that it would contemplate future actions while deeming "retaining Japanese Yen TIBOR and discontinuing Euroyen TIBOR" as the most likely option of all, while paying attention to developments in the financial markets and ongoing domestic and international policy discussions, such as those on the cessation of LIBOR, and would also engage in necessary discussions to identify issues and matters to be

[34] Result of a Periodic Review of the JBA TIBOR Operational Framework: https://www.jbatibor.or.jp/english/news/periodical_review_2022.html

addressed in practice. At the time, JBATA also indicated the timing of implementing the permanent cessation of Euroyen TIBOR, stating that it envisioned a preparation period of approximately two years following the permanent cessation of LIBOR.

Following the statement issued by the Financial Conduct Authority (FCA) relating to the future cessation and loss of representativeness of the LIBOR benchmarks, JBATA announced in March 2021 the timing of the permanent cessation of Euroyen TIBOR as follows:[35]

・In light of the comments on the preparation period submitted for the 1st Consultation and the timing of the permanent cessation of LIBOR, JBATA expects that the timing of discontinuing Euroyen TIBOR, if adopted, would be at the end of December 2024.[36]

In March 2022, JBATA announced its plan to publish a consultation on fallback rate options for cash products referencing JBA TIBOR in the summer of 2022 or later.[37]
JBATA expects that announcing the plan and timing of public consultation through these releases will encourage market participants to voluntarily consider fallbacks in a timely manner.

(4) Equivalence decision under the EU BMR

In April 2020, the European Commission published the draft Implementing Decision[38] in accordance with the EU BMR, indicating that it would accept the equivalence of Japan's legal and supervisory framework for JBA TIBOR designated as Specified Financial Benchmark under the Financial Instruments and Exchange Act. Therefore, the supervised EU entities are expected to continue using JBA TIBOR.

(5) Discussions on other major IBORs

JBATA recognizes the outcome of the Public Consultation regarding the fallbacks for JBA TIBOR need to be accepted by a wide range of market participants. As the FSB Report and other documents treat LIBOR, JBA TIBOR, and EURIBOR as major benchmarks, in considering fallbacks for JBA TIBOR, it would be useful to reference determinations that have already been made for LIBOR and EURIBOR.

(i) LIBOR

As for LIBOR, in response to the speech in July 2017 made by Andrew Bailey (then, Chief Executive of the FCA),[39] respective committees for the five currencies of LIBOR had engaged in discussions on the transition away from LIBOR and fallbacks.

In March 2021, the FCA announced and clarified the timing of the future cessation or loss of representativeness of the LIBOR for each currency as shown in the figure 3. As of the end of 2021, LIBOR on the basis of panel bank submissions ceased to be published

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35 https://www.jbatibor.or.jp/english/news/Compliance_with_IOSCO_19principles_2021.html

36 It is noted that "this statement should not be read as announcing that the Euroyen TIBOR benchmark has ceased, or will cease (at the end of December 24), to be provided permanently or indefinitely, including for the purposes of language adopted by ISDA." ISDA also published similar press release.

37 For details, see footnote 4.

38 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12330-Equivalence-decision-for-a-third-country-Japan-under-the-Benchmarks-regulation-BMR-

39 https://www.fca.org.uk/news/speeches/the-future-of-libor

permanently or became no longer representative, except for remaining USD LIBOR.

Supervisory guidance issued by the financial agencies, including the Federal Reserve Board ("FRB") encourages firms to stop entering into new contracts that use the remaining USD LIBOR after 2022, in principle, and it is emphasized that the use of such LIBOR is intended only to allow legacy contracts to mature.

[Figure 3] The Dates of the permanent cessation or loss of representativeness of LIBOR

<table>
<tr><th>Currencies</th><th>Tenors</th><th>Dates</th></tr>
<tr><td>JPY</td><td rowspan="4">All tenors</td><td rowspan="5">December 31, 2021</td></tr>
<tr><td>GBP</td></tr>
<tr><td>EUR</td></tr>
<tr><td>CHF</td></tr>
<tr><td rowspan="2">USD</td><td>1-week, 2-month</td></tr>
<tr><td>Overnight, 1-month, 3-month, 6-month, and 12-month</td><td>Immediately after June 30, 2023</td></tr>
</table>

As part of the actions to address legacy contracts which are particularly difficult to amend or include fallback provisions (i.e. tough legacy), the FCA has exercised its power to require ICE Benchmark Administration ("IBA") to change the calculation methodology for 1-month, 3-month, and 6-month JPY LIBOR and GBP LIBOR. Since 2022, synthetic LIBOR is published based on market data for a limited period.[40]

As alternative benchmarks for LIBOR (fallback rates), RFR-based rates are primarily preferred. In the case of Japanese yen interest rates, compounded TONA (fixing in arrears), and term RFRs based on TONA (OIS) are preferred as alternative benchmarks, and hence the construction of Tokyo Term Risk Free Rate ("TORF") has been promoted. Further, JBATA recognizes that JBA TIBOR widely used to date has also been referenced as an alternative benchmark for JPY LIBOR particularly in loans (for details, see Appendix 2).

[40] It is determined that synthetic JPY LIBOR will be published by the end of 2022. As for synthetic GBP LIBOR, the FCA published the consultation to seek comments on the timing of the cessation of the 3-month setting and propose the cessation of the 1- and 6-month settings in March 2022.

(ii) EURIBOR

As for EURIBOR, the European Money Markets Institute ("EMMI"), which is the administrator of EURIBOR, had led the initiatives to enhance governance and establish the hybrid methodology with the aim of complying with the EU BMR. The phased implementation was completed by the fourth quarter of 2019.

While, currently, no discussions have been made regarding the cessation of EURIBOR, the WG on euro RFRs officially convened by the European Central Bank[41] discussed fallbacks and launched two public consultations in November 2020 regarding (a) fallback rates and spread adjustment and (b) trigger events, and published its recommendations in May 2021.[42]

The results of the public consultations on (a) and (b) are mostly consistent with the determinations already made for each currency of LIBOR.

As above, fallbacks for LIBOR were discussed in consideration of the specific timing of the future cessation or loss of representativeness. While, currently, no discussions have been made for the discontinuation of EURIBOR, fallbacks were discussed and determined from the perspective of enhancing the robustness of contracts referencing EURIBOR.

In light of these considerations, as for JBA TIBOR, it would be also appropriate to discuss robust fallbacks not only for Euroyen TIBOR for which its discontinuation is currently being deemed as the most likely option, but also for Japanese Yen TIBOR for which, currently, discontinuation has not been considered.

4. Scope

In light of the features of JBA TIBOR and the developments in considering LIBOR and EURIBOR in the major jurisdictions as described above, the scope of the Public Consultation is as specified in (1) through (3) below:

(1) Scope of interest rate benchmarks

Interest rate benchmarks covered in the Public Consultation are Japanese Yen TIBOR and Euroyen TIBOR calculated and published by JBATA.

While there is no discussion on discontinuing Japanese Yen TIBOR, the Public Consultation intends to consider its fallbacks with a view to further enhancing its robustness in response to global recommendations and given that it is widely used as an interest rate benchmark for Japanese yen as detailed in 3. (1).[43]

In terms of Euroyen TIBOR, since the expected timing of its discontinuation, if adopted, would be at the end of December 2024, fallbacks for Euroyen TIBOR are discussed with the aim of facilitating the orderly discontinuation of this benchmark as discussed in 3. (3).

[41] The European Securities and Markets Authority ("ESMA") succeeded the role as a secretariat after middle of May 2021.
[42] For details, see Appendix 4.
[43] The approach to adjust a spread arising from the active transition, instead of the fallback, is not addressed in the Public Consultation.

(2) Scope of products

In principle, the Public Consultation covers cash products (loans and bonds) that reference Japanese Yen TIBOR or Euroyen TIBOR subject to Japanese laws.[44]

Many of the specific issues (see (3) below) covered in the Public Consultation are common to both loans and bonds. Therefore, unless otherwise specified, these products are collectively discussed as "cash products".

(3) Scope of fallback issues

The Consultation Document discusses the following (i) through (iii) issues which should be agreed on between contracting parties and included in fallback provisions from the perspective of ensuring effective functioning of the fallbacks.

(i) Triggers

As stated in 2.(2)(i), given that the fallbacks discussed in the Public Consultation intend to prepare for the "permanent cessation or loss of representativeness of JBA TIBOR," triggers to be considered are those that envisage the permanent cessation[45] of JBA TIBOR and a situation in which the use of JBA TIBOR becomes unsuitable as a benchmark for floating interest rates for financial instruments and transactions.

(ii) Benchmark replacement

Benchmark replacement used after the fallback is composed of the fallback rate and spread adjustment.

a. Fallback rates

The Public Consultation discusses options for fallback rates that could be referenced to substitute JBA TIBOR as suitable and available interest rate benchmarks in the event of trigger discussed in (i) .

JBA TIBOR has similar basic features as LIBOR and EUROBIOR. For example, interest rates are determined before the beginning of the interest period (fixing in advance) and credit risk of banks are included.[46] Given this, the approach to discussing fallback rates would be to draw on the recommendations on JPY LIBOR made by the Cross-Industry

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[44] As stated in 3.(1), since fallbacks for derivative transactions have been already discussed by ISDA, these transactions are not addressed in the Public Consultation. With respect to derivatives that are not governed by ISDA Master Agreement, it would be desirable that treatment of such transactions be discussed between the contracting parties by taking into account the results of discussions by ISDA and the results of discussions on cash products through the Public Consultation.

[45] It would be desirable to include fallback provisions in a contract for triggers related to "temporary cessation" assuming a situation in which JBA TIBOR will become unavailable for a limited period of time due to a damage to related facilities or a large-scale power outage caused by earthquakes or other natural disasters. However, the provision setting out how to treat such "temporary cessation" is relied on only during the period when the publication of interest rate benchmarks is temporarily ceased. It is expected that transactions will reference JBA TIBOR again after the end of such a period. Accordingly, such a provision does not address the "permanent cessation" of JBA TIBOR. Furthermore, some legacy contracts referencing JBA TIBOR may specify the treatment on such "temporary cessation." The Public Consultation clearly distinguishes between "temporary cessation" and "permanent cessation."

[46] The FSB Report states that market interest rates (including JBA TIBOR) "can be decomposed into a risk-free rate and several risk premia, including a term premium, a liquidity premium, and a credit risk premium as well as potentially a premium for obtaining term funding."

Committee, by taking into account the developments in international discussions.

b. Spread adjustments

Spread adjustments are discussed from the perspective of determining measurement approaches and adjustment procedures that are considered to be reasonable for adjusting a difference (spread) between JBA TIBOR and the fallback rate to the greatest extent possible (to minimize the value transfer).

Consistent with a. above, the approach to discussing spread adjustments for JBA TIBOR would also be to draw on the recommendations on JPY LIBOR made by the Cross-Industry Committee, by taking into account the developments in discussions made globally.

Benchmark replacement is considered separately for fallback from Japanese Yen TIBOR and fallback from Euroyen TIBOR.

(4) Other issues

In taking actions for implementing the fallbacks for JBATA TIBOR, as well as the inclusion of fallback provisions into the contracts, accounting issues and issue associated with the clearing of derivatives or other matters would also arise, but these issues are not covered directly as consultation questions in the Public Consultation.

5. Description of fallback issues for JBA TIBOR

(1) Triggers

Triggers are categorized into the following three types: (i) “Permanent Cessation Triggers” which assume the permanent cessation of interest rate benchmarks, (ii) “Pre-cessation Triggers” which relate to the loss of representativeness, and (iii) Other triggers.[47]

In general, these triggers should be dependent on published events, and should be objectively drafted in precise terms in the fallback provisions.[48]

Details of triggers will be discussed for Japanese Yen TIBOR and Euroyen TIBOR together because JBATA recognizes that there are no issues that are unique to respective benchmarks. Currently, JBATA does not plan the permanent cessation of Japanese Yen TIBOR and Euroyen TIBOR at the same time (nor do we consider ceasing the Japanese Yen TIBOR at present), and assume that the timing of a trigger event being activated will be different.

The following describes JBATA’s considerations on respective triggers.[49]

(i) Permanent Cessation Triggers

A Permanent Cessation Trigger assumes a trigger event of a public statement or announcement by JBATA, its regulatory supervisor (Financial Services Agency: JFSA) or other equivalent organizations, stating that JBA TIBOR has been, or will be, ceased to be provided permanently, provided that, at the time of the statement or publication, there is no successor administrator or provider that will continue to provide JBA TIBOR.

From the perspective of ensuring consistency with the treatment of derivatives governed by the ISDA Master Agreement,[50] the working groups of respective jurisdictions working on LIBOR 5 currencies and EURIBOR have recommended to include these triggers in the fallback provisions for cash products referencing these benchmarks.[51]

Since the working groups of respective jurisdictions support that the same triggers should be included for all asset classes to the extent possible and appropriate, it would be desirable to include Permanent Cessation Triggers in the fallback provisions for cash products referencing JBA TIBOR.

However, while the JBA TIBOR Operational Rules[52] intends to conduct a public

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[47] It is necessary to note that trigger events covered in the Public Consultation are those that are applicable only to “permanent cessation” of “all” JBATA TIBOR tenors, and the permanent cessation of certain tenors at the discretion of JBATA does not constitute the trigger event relating to all tenors covered in the Public Consultation. As a recent example, 2-month tenor of JBA TIBOR has been discontinued from benchmarks published on the first business day of April 2019.

[48] For example, a mere speech by a public authority such as “JBA TIBOR may be permanently ceased in the future” should not be deemed to constitute the triggering event.

[49] Regardless of the considerations in the Public Consultation, the contracting parties are not precluded from including an optional trigger event in a fallback provision based on the agreement between the parties, by considering relevant factors such as the nature of the contract and attributes of the contracting parties.

[50] “Permanent cessation triggers” are defined as “index cessation triggers” (which are applicable to JBA TIBOR) in the 2021 ISDA Interest Rate Derivatives Definitions.

[51] Upon the permanent cessation of LIBOR, the fallback was deemed to be activated for most contracts that included the fallback provisions based on the Permanent Cessation Trigger on March 5, 2021.

[52] A public statement or announcement on the permanent cessation of JBA TIBOR by JBATA is part of the process to implement the permanent cessation in accordance with Article 51 of the JBA TIBOR Operational Rules.

consultation and issue an announcement equivalent to a Permanent Cessation Trigger, applicable laws in Japan do not define any power of the JFSA, which is a regulatory supervisor, to announce the permanent cessation of JBA TIBOR.

Therefore, it is highly likely that an entity announcing that JBA TIBOR has been or will be ceased to be provided permanently or indefinitely would be JBATA. Given this, at this stage, one option would be to assume an announcement stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely as a potential trigger event, and at least include that trigger event in the fallback provisions. (Sample fallback language with respect to a potential trigger event is as illustrated in “I.” below.)

	Sample potential trigger event
I	A public statement or publication of information by JBATA (or an organization acting on its behalf), stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely (provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide.)

In particular, the contracting parties, may also seek to ensure consistency with the triggers included for derivatives governed by the ISDA Master Agreement, in which it is specified that the regulatory supervisor of the Applicable Benchmark, central banks with jurisdiction over Applicable Benchmark currencies, a resolution authority with jurisdiction over the Administrator for the Applicable Benchmark, or a court or an entity with similar insolvency or resolution authority over the Administrator for the Applicable Benchmark, which states that the Administrator of the Applicable Benchmark has ceased or will cease to provide the Applicable Benchmark permanently or indefinitely. (Sample fallback language with respect to potential trigger event referring the 2021 ISDA Interest Rate Derivatives Definitions is as illustrated in “II.” below.)

	Sample potential trigger event
II	A public statement or publication of information by the regulatory supervisor of JBATA, central banks with jurisdiction over JBATA TIBOR currencies, a resolution agency of JBATA, a competent court of jurisdiction with insolvency or resolution authority over JBATA, a bankruptcy trustee with jurisdiction over JBATA, or other organizations with similar authority stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely (provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide JBA TIBOR.)

(ii) Pre-cessation triggers related to the loss of benchmark’s representativeness

Pre-cessation triggers related to the loss of benchmark’s representativeness assumes potential trigger events in which JFSA, which is JBATA’s supervisory regulator, (or an organization acting on its behalf) determines that JBA TIBOR is no longer representative and issues a public statement thereof.
These triggers relate to the provisions set out in the Benchmark Regulation (BMR[53]) that

[53] This refers to both UK BMR and EU BMR.

address the loss of representativeness of benchmarks designated as critical benchmarks (e.g. LIBOR and EURIBOR[54]),[55] recommending that the fallback provisions be included for cash products referencing these benchmarks.

In this respect, JBA TIBOR is regarded as a third-country benchmark and is not a critical benchmark under the BMR, including LIBOR and EURIBOR. A circumstance in which the JFSA makes an assessment of benchmark' representativeness of JBA TIBOR under the BMR would not be expected.[56]

With regard to derivatives governed by the ISDA Master Agreement, the index cessation events defined in the 2021 ISDA Interest Rate Derivatives Definitions do not specify a non-representativeness trigger as a trigger for JBA TIBOR.[57]

Given the considerations above, at this stage, it is not necessarily required to include the loss of representativeness of JBA TIBOR in the fallback provisions as a potential trigger event. (Sample fallback language with respect to potential trigger event is as illustrated in "III." below.)

	Sample potential trigger event
III	In the case that the regulatory supervisor (or an organization acting on its behalf) of

54 The EU BMR specifies that the triggers defined in Article 23b (2) (a. through d. below) shall be considered for cash products referencing EURIBOR (b. through d. are cases where there is no successor administrator):
a.the competent authority for the administrator of that benchmark has issued a public statement, or has published information, in which it is announced that that benchmark no longer reflects the underlying market or economic reality;
b. the administrator of that benchmark has issued a public statement, or has published information in which it is announced that that administrator will cease to provide that benchmark;
c. the competent authority for the administrator of that benchmark or any entity with insolvency or resolution authority over such administrator has issued a public statement, or has published information, in which it is stated that the administrator will cease to provide that benchmark; or
d. when the competent authority for the administrator of that benchmark intends to issue a public statement announcing that that administrator will cease to provide that benchmark, withdraws or suspends the authorisation or the recognition under EU BMR or requires the cessation of the endorsement under EU BMR.

55 Article 23 of the BMR sets out that, in the event that the competent authority, on the basis of its own assessment, considers that a critical benchmark is no longer representative, or the representativeness of a critical benchmark is put at risk, it shall have the power to require the administrator to remediate such a situation. Therefore, the Pre-cessation Triggers occur when such remediation measures cannot be expected to be implemented, or remediation measures that have already been implemented may not be successful. The BMR does not specify that the competent authority "has issued an official statement" related to the assessment of the representativeness as the benchmark.

56 For JBA TIBOR, the European Commission is currently assessing the equivalence of Japan's legal and supervisory framework from the perspective of determining whether JBA TIBOR can be continued to be used as a benchmark by entities supervised by European authorities after the end of the transition period currently set at the end of December 2023. Even if the equivalence is recognized in the future, JBA TIBOR would not be subject to any measures imposed by European authorities, such as being recognized as the loss of representativeness since JBA TIBOR is not a critical benchmark under EU BMR, and the treatment related to the use and assessment of JBA TIBOR would be subject to laws in Japan.

57 For derivatives governed by the ISDA Master Agreement, this trigger is set out for LIBOR. For EURIBOR, the WG on euro RFRs recommends ISDA and other organizations to include the Pre-cessation Trigger related to non-representativeness in the standard documentation for the fallback. Developments in the future consideration needs to be monitored.

	Sample potential trigger event
	the JBAT TIBOR administrator has issued a public statement announcing that, in its view, JBA TIBOR is no longer representative, or will no longer be representative of the underlying market it purports to measure, and does not reflect the underlying market or economic reality (or, in the designated point in the future), and such representativeness will not be restored.

(iii) Other triggers

JBATA has considered other triggers that may be considered to be included in fallback provisions as trigger events by taking into account relevant factors such as the characteristics of contracts and types of contracting parties.

<u>Other triggers</u> are detailed in the subsequent sections (see IV. through VIII.). <u>All of these other triggers are not considered necessary to be included in the fallback provisions as trigger events for cash products referencing JBA TIBOR</u> primarily because the working groups of each jurisdiction working on LIBOR 5 currencies and EURIBOR do not recommend including in the fallback provisions (or recommend that they should not be included).

✧ The following summarizes potential issues when assuming that each specific event will be included as a trigger event in the fallback provisions (“IV.” through “VIII.”).

	Sample potential trigger event
IV	In the case that the administrator of JBA TIBOR has determined to calculate JBA TIBOR based on any of a policy or arrangement in accordance with a. a reduction in the number of reference banks, b. other contingency, and c. fallback, and JBA TIBOR is calculated based on that policy or arrangement in either of the following: (a) a situation or an event triggering such a determination is not temporary, or (b) JBA TIBOR is calculated under that policy or arrangement at least for a period longer than [one month].

✓ Similar to “III.” above, this event may be deemed as one of pre-cessation triggers. A potential case includes the reliance on the provision related to a contingency arrangement set out in a contract for a certain period of time (this period should be set based on the agreement between the contracting parties, but the length of a cessation period should be long enough to indicate that the event is not temporary.) In the example above, the case in which the contracting parties rely on the contingency arrangement for over a one-month period is assumed.

✓ This event may function for the amendment approach which relies on the process of negotiation and reaching an agreement on specific terms and conditions of the provisions between the contracting parties. In contrast, under a highly robust hardwired approach, there is no room for negotiation between the contracting parties at the time of execution, and a process of the fallback needs to be clearly defined. Therefore, it is likely that this event which requires negotiation and agreement on the definition of “a certain period” would not be appropriate as a trigger event.

- ✓ It should be noted that this event is not recommended by the working groups of respective jurisdictions as a triggering event to be included in the fallback provision for cash products referencing LIBOR and the WG on euro RFRs does not recommend including in the fallback provisions for cash products referencing EURIBOR.

	Sample potential trigger event
V	In the case that JBA TIBOR has become unlawful for any reasons under the laws and regulations applicable to the contracting parties.

- ✓ This event (V.) assumes any circumstances in which JBA TIBOR is no longer available for any reasons including due to applicable law or regulation.
- ✓ This event is not recommended as a trigger event to be included in the fallback provision for cash products referencing LIBOR by the working groups of respective jurisdictions.
- ✓ The WG on euro RFRs has noted that market participants should consider the appropriateness of including as a trigger an event in which use of EURIBOR has become, for any reason, unlawful for relevant parties to the agreement or in which such parties have otherwise become prohibited from using EURIBOR.[58]

	Sample potential trigger event
VI	In the case that JBA TIBOR is permanently no longer published, without any previous official announcement by the regulatory supervisor or JBATA.

- ✓ This event (IV.) is expected to function as a provision to comprehensively cover all circumstances and events that may result in the permanent cessation of JBA TIBOR, without any previous announcement by the regulatory supervisor or JBATA.
- ✓ If this event is included in the fallback provision as a trigger event, since the provision will be the last resort as a catch-all provision, it would help enhance the robustness of contracts.
- ✓ Technical issues are pointed out in relation to this event. For example, if JBA TIBOR is no longer published without any previous official announcement, it is necessary to determine whether an event constitutes a trigger without relying on an event that is objectively verifiable (e.g. a public announcement).

[58] The WG on euro RFRs states that, particularly, market participants should consider the different legal consequences that such a trigger might have among relevant parties in cross-border transactions or financial products in which multiple parties may be involved, and in these situations, the working group acknowledges that the inclusion of such a trigger could be challenging and complex (in particular, for syndicated loans, the applicability of illegality may differ depending on lenders), and encourages market participants to consider potential cross-jurisdictional implications when deciding whether to include it and how to deal with this event. In addition, this trigger event should be analyzed in the context of other illegality provisions that may be included in the contract or financial instrument. Market participants should make their own independent assessment and decision in relation to the compatibility of this trigger event and such illegality provisions.

- ✓ For this reason, in order to precisely determine whether an event is deemed as a "temporary cessation" which is set out in the Contingency Plan for JBA TIBOR Publication or a "permanent cessation" which is discussed in the Public Consultation, it is desirable that this issue be carefully considered and clear criteria be established, such as "the cessation of publication for x business days or more."
- ✓ The working groups of respective jurisdictions do not recommend including this as a trigger event for cash products referencing LIBOR or EURIBOR. JBATA currently does not expect any circumstances in which JBA TIBOR is permanently no longer published, without any previous official announcement, and therefore this event is expected to be highly unlikely to occur.

	Sample potential trigger event
VII	In the case that a material change in the JBA TIBOR methodology has occurred.

- ✓ This event (VII.) assumes the cases in which the conditions set out in Article 28 (2) of the BMR are satisfied.
- ✓ With respect to benchmarks subject to the BMR, such as LIBOR and EURIBOR, supervised entities are required to produce and maintain robust written plans setting out the actions that they would take in the event that a benchmark they use materially changes or ceases to be provided. Where feasible and appropriate, such plans shall nominate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided, indicating why such benchmarks would be suitable alternatives (it is necessary to note that the nomination of an alternative benchmark(s) is required when a benchmark ceases to be provided, and is not set out to address a material change in the benchmark). The supervised entities are required to reflect the details of the written plan in the contractual relationship with clients
- ✓ The public consultation by the WG on euro RFRs noted that the changes introduced in the methodology of the benchmark should not trigger the benchmark's fallback automatically for cash products referencing EURIBOR. It also stated that when entering into the contract, a. parties are free to agree that reference in contracts to EURIBOR shall be understood to be references to EURIBOR as changed, or b. for specific asset classes, the parties are free to agree that the parties shall discuss between parties either (a) to continue the contract with the materially changed EURIBOR or (b) to fall back on the EURIBOR fallback rates included in the contract.
- ✓ With respect to JBA TIBOR, Article 49 of the JBA TIBOR Operational Rules sets out the process for discussing changes in the definition and calculation methodology for JBA TIBOR, and Article 51 specifies the process for discussing the permanent cessation and other similar events. Therefore, these two processes, while they can be discussed at the same timing, are specified separately.
- ✓ Given the treatments set out in the JBA TIBOR Operational Rules and that the agreement on how to treat changes related to EURIBOR as discussed above would be reflected, material changes related to JBA TIBOR defined by JBATA would not automatically constitute a trigger event to be included in the fallback provision.
- ✓ The working groups of respective jurisdictions do not recommend including this as a trigger event for cash products referencing LIBOR or EURIBOR. Under the 2021

ISDA Interest Rate Derivatives Definitions, a material change in a financial benchmark is not included as a trigger event. Therefore, the contracting parties will continue to reference a changed financial benchmark unless otherwise agreed on between those contracting parties.

	Sample potential trigger event
VIII	In the case that the contracting parties choose to activate a fallback prior to the cassation of JBA TIBOR or losing the representativeness without relying on objective circumstances.

- ✓ This event (VIII.) assumes the cases in which the contracting parties choose to activate a fallback prior to the cassation of JBA TIBOR or losing the representativeness without relying on objective circumstances. This is called "early opt-in triggers."
- ✓ Introducing "early opt-in triggers" would help the contracting parties to negotiate the fallback flexibly based on their intention, by taking into account market environment. In particular, this trigger would be included in the fallback provisions for loan contracts that are relatively easy to negotiate between the contracting parties.
- ✓ Although it is not precluded from including "early opt-in triggers" based on the agreement, it is necessary to pay attention to the fact that it is likely unpredictable since they do not depend on objective circumstances.
- ✓ The working groups of respective jurisdictions do not recommend including "early opt-in triggers" as trigger events for cash products referencing LIBOR[59] or EURIBOR

(2) Benchmark replacement for Japanese Yen TIBOR

(i) Fallback rates

JBATA discussed fallback rate options and setting priority options and other matters related to cash products (loans and bonds) referencing Japanese Yen TIBOR in light of the results of international discussions.

(Results of global discussions on fallback rates)

The FSB's report Interest rate benchmark reform Overnight risk-free rates and term rates published in June 2021 indicates that O/N RFRs are desirable as a benchmark used

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[59] Recommendations on fallback language for LIBOR bilateral business loans and LIBOR syndicated loans (hard-wired approach) published by the Alternative Reference Rates Committee (ARRC) provides "Early Opt-in" triggers.

・Fallback language for LIBOR bilateral business loans (https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Bilateral-Business-Loans-Fallback-Language-August-27-2020.pdf)

・Fallback language for LIBOR syndicated loans (https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Language-June-30-2020.pdf) extensively to ensure financial stability as they are extremely robust, and that in certain cash products where needs of hedging derivatives that reference O/N RFRs (fixing in arrears) are limited, if the use of such term RFRs is relatively narrow compared with current use of IBORs, this more limited use would be compatible with financial stability.

Based on the discussions on LIBOR or EURIBOR across jurisdictions to date (Appendix 1, 4), in general, the discussions on fallback rates primarily take into account the following criteria and then reach a conclusion to recommend RFR-based benchmarks (e.g. O/N RFRs (fixing in arrears), term RFRs).

- ✓ Robustness/availability
- ✓ Operational ease
- ✓ Client acceptance
- ✓ Hedging ease and hedge accounting impacts
- ✓ Other accounting impacts
- ✓ Risk management impacts
- ✓ Consistency with other jurisdictions across asset classes

Based on the results of international discussions, JBATA considered the fallback rate options for cash products (loans and bonds) referencing Japanese Yen TIBOR.

a. Fallback rate options for Japanese Yen TIBOR

Based on the aforementioned results of international discussions, JBATA considered the following two fallback rate options for Japanese Yen TIBOR.

[Figure 4] Fallback rate options for Japanese Yen TIBOR

Fallback rate - Option 1	Fallback rate - Option 2
Compounded TONA (fixing in arrears)[60]	Term RFR

Since the permanent cessation at the end of 2024 is under consideration for Euroyen TIBOR, it would be inappropriate to include Euroyen TIBOR in fallback rate options from the perspectives of the stability, robustness of fallbacks.

b. Options of setting fallback rates for Japanese Yen TIBOR

In considering how to set fallback rates for Japanese Yen TIBOR in the fallback provisions, it would be useful to reference discussions and recommendations related to Japanese Yen LIBOR and EURIBOR as their basic nature is similar to that of Japanese Yen TIBOR.

As fallback rate options for cash products referencing JPY LIBOR, the Cross-Industry

[60] Since the conventions (interest rate calculation methodologies) for this rate are expected to be determined between the contracting parties in consideration of market convention and other factors at the time of the interest rate reset, the provision on “Benchmark Replacement Conforming Changes” will be included in the fallback provisions.

Committee has recommended the waterfall methodology be adopted from the perspectives of ensuring global consistency and preference of RFR-based benchmarks. Under the waterfall methodology, the first priority is placed on term RFR and the second on the compounded O/N RFRs (fixing in arrears) (Appendix1).[61,62]

In addition, €STR-based benchmarks are recommended as fallback rates for cash products referencing EURIBOR (Appendix 4).

Given the considerations above, fallback rates for Japanese Yen TIBOR can be set as described below with respect to RFR-based benchmarks (Options 1 and 2).

[Figure 5] Setting priority options for fallback rates for Japanese Yen TIBOR[63,64]

Setting priorities - Option 1
Compounded TONA (fixing in arrears)[65]

Setting priorities - Option 2	
1st priority	Term RFR[66]
2nd priority	Compounded TONA (fixing in arrears)[67]

Option 1 sets liquid and robust TONA as a fallback rate.

Option 2 applies the waterfall methodology to determine a fallback rate from RFR-based

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61 In loans, it is recommended to set, as the third priority rate, the rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower.

62 In bonds, it is recommended to set the benchmark recommended by relevant committees convened by authorities, the fallback rate for the benchmark to be replaced as defined in the ISDA Definitions, and the benchmark selected by the issuer, etc. as the third, fourth, and fifth priorities, respectively.

63 If the waterfall methodology is applied to loans, the “rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower” can be added to the subordinate priority level of each setting priority in reference to the footnote 61.

64 If the waterfall methodology is applied to bonds, the “benchmark recommended by relevant committees convened by authorities,” the “fallback rate for the benchmark to be replaced as defined in the ISDA Definitions,” and the “benchmark selected by the issuer, etc.” can be added to the subordinate priority levels of each setting priority option in reference to the footnote 62.

65 From the perspective of ensuring consistency with derivatives, in transactions with derivatives that hedge fluctuations in JBA TIBOR rates (e.g. loans with hedge arrangements) or transactions containing derivatives (e.g. structured loans, structured bonds), for example, the use of compounded TONA (fixing in arrears) would be preferred in many cases. The Japan Securities Dealers Association’s working group convened to exchange opinions on benchmark issues and published a report on fallbacks and other related issues for bonds (in May 2020), stating that it would be more appropriate in many cases to exclude term RFRs from the first priority of the waterfall methodology, particularly for structured bonds, in order to ensure consistency with derivatives.

66 When selecting term RFRs in either loans or bonds, if a transaction is hedged by derivatives, basis risk arising from a difference in a fallback between ISDA Derivatives (compounded TONA (fixing in arrears)), hedge costs and other items should be taken into account in determining the spread adjustment level. When using TORF as this benchmark, the necessity of a license agreement should be considered.

67 When setting term RFRs as the first priority, compounded TONA (fixing in advance) can be set as the second priority from the perspective of preference for “fixing in advance” rates. However, it should be noted that, when conducting a hedge transaction, certain basis risk will remain because it differs from ISDA Derivatives’ standard fallbacks and also additional hedge costs may arise.

benchmarks. This option assumes specific cases where the use of term RFRs is preferred. If term RFRs cannot be available, the second priority rate, i.e. compounded TONA (fixing in arrears), functions as the backstop.[68]

(ii) Spread adjustment methodology

With respect to the spread adjustment methodology in fallbacks for cash products referencing Japanese Yen TIBOR, JBATA considered issues arising from using respective fallback rate options set out in the preceding (2)a based on the assumptions and notes described below.

(Assumptions and notes in considering the spread adjustment methodology)

With respect to fallbacks to RFR-based benchmarks, JBATA took into account relevant considerations in relation to international bodies[69], ISDA Derivatives (Appendix 3), and LIBOR and EURIBOR (Appendix 1, 4) and discussed the spread adjustment methodology assuming the use of "historical five-year median spread adjustment methodology."

The contracting parties should note that the historical five-year median spread adjustment methodology, if used, may give rise to a "difference" in a level of spread adjustments compared to the case of adopting a methodology based only on the latest market trends, and therefore may result in a certain extent of difference in a level of spread-adjusted interest rates when falling back from JBA TIBOR to the benchmark replacement.

a. Compounded TONA (fixing in arrears) (Option 1)

If the compounded TONA (fixing in arrears) is selected as the fallback rate for cash products (loans and bonds) referencing Japanese Yen TIBOR whose basic features are similar to those of JPY LIBOR, it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Japanese Yen TIBOR and compounded TONA (fixing in arrears), in light of the Cross-Industry Committee's recommendations[70] and ensuring consistency with ISDA Derivatives.

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68 When setting the term RFR as the first priority, there is an issue including whether fallback rates for subordinate priority levels should be set since TORF has already been published. In this regard, the FSB's report Interest rate benchmark reform Overnight risk-free rates and term rates (June 2021) indicates that it will be important to employ robust fallback provisions in cases where RFR-derived term rates are used. From this viewpoint, JBATA considers that setting fallback rates for the second and lower priorities is necessary.

69 FSB Official Sector Steering Group (OSSG)'s statement "FSB OSSG Supports Use of the ISDA Spread Adjustments in Cash Products" (June 2, 2021) indicates that the FSB OSSG supported the use of the ISDA spread adjustments for cash products that are to fall back or move from an IBOR to RFRs or to RFR-based term rates, in light of (1) the fact that a majority of respondents to the consultation undertaken by the working groups of respective currencies supported the historical five-year median spread adjustment methodology and (2) the further desirability of homogenous spread adjustments that allow derivatives and cash products to operate smoothly together.

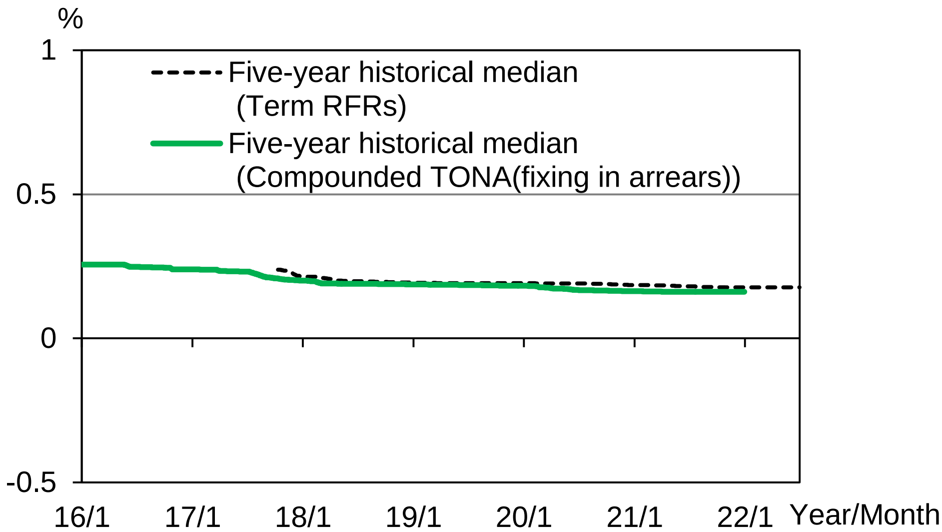
70 The Cross-Industry Committee's Final Report on the Results of the Second Public Consultation on the Appropriate Choice and Usage of Japanese Yen Interest Rate Benchmarks (November 2020): https://www.boj.or.jp/en/paym/market/jpy_cmte/cmt201130b.pdf

b. Term RFR (Option 2)

Currently, the permanent cessation of Japanese Yen TIBOR has not been discussed. At the time when a trigger event occurs in the future, term RFRs may be published for more than five years, and therefore it is relatively likely that their historical data over a five-year lookback period will be available. In this view, it would be an issue to calculate the adjustment spread between Japanese Yen TIBOR and term RFRs by the historical five-year median approach.

In this respect, given that term RFRs in the derivatives market have the feature of indicating the expected value of compounded TONA (fixing in arrears), JBATA performed a comparative analysis of the five-year historical median difference by using chronological data of “Japan Securities Clearing Corporation (JSCC)’s Japanese yen OIS rates and TORF (prototype and production rates)” and “compounded TONA (fixing in arrears).” The results of analysis showed little difference between them.

[Figure 6] Five-year historical median difference
— 6-month Japanese Yen TIBOR / term RFRs, compounded TONA(fixing in arrears)



(Notes) 1. The data used to calculate the five-year historical median are as follows.
- Japanese Yen TIBOR / term RFRs: until the end of June 2022(Japanese Yen TIBOR: until the end of June 2022)
- Japanese Yen TIBOR / compounded TONA(fixing in arrears) :until the end of June 2022(Japanese Yen TIBOR: until the end of December 2021)

2. Term RFRs to calculate the five-year historical median use the chronological data of “Japan Securities Clearing Corporation (JSCC)’s Japanese yen OIS rates (October 2017~), the prototype rate of TORF (January 6 2022~), and the production rate of TORF (April 26 2021~).

3. The five-year historical median for term RFRs is shown from October 2017 onward as the Japanese yen OIS rates began to be published October 2012.

(Source) Bloomberg, QUICK

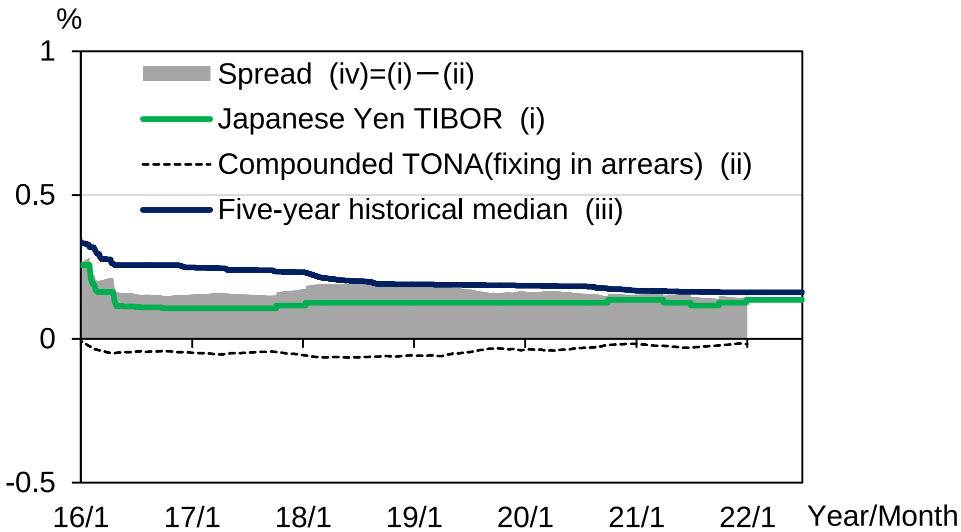
In view of the results of analysis and ensuring consistency with ISDA Derivatives and given that the adjustment spread between Japanese Yen TIBOR and term RFR (TORF) calculated using the historical five-year median spread adjustment methodology is not expected to be officially published, it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between

Japanese Yen TIBOR and compounded TONA (fixing in arrears) even when referencing term RFRs as the fallback rate.[71]

c. Analysis on the spread and transition period

As discussed above, the issue in using the historical five-year median spread adjustment methodology would be that it gives rise to a "difference" in a level of spread adjustments compared to the case of adopting a methodology based only on the latest market trends.

[Figure 7]　Five-year historical median
—6-month Japanese Yen TIBOR / compounded TONA(fixing in arrears)



(Notes) The latest data are as at the end of June 2022.
(Source) Bloomberg

The trends in Japanese Yen TIBOR and compounded TONA (fixing in arrears) show that there is a slight difference between the spot spread and the five-year historical median spread adjustment because the level of Japanese Yen TIBOR rates has been declining while the historical five-year median reflects spreads of both benchmarks in 2016 and beyond.

In order to eliminate such a difference in a phased manner, it would be an option to include a "transition period" and gradually adjust the difference. JBATA, however, considers that it is unnecessary to include it because (a) ISDA and other overseas working groups discussed such a difference but did not include a "transition period," except for some cases,[72] (b) such phased adjustments would complicate operations and (c) spot spread adjustment values calculated based on the five-year historical median difference are just small.

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71 This does not preclude the use of the historical five-year median spread adjustment methodology to calculate the adjustment spread between Japanese Yen TIBOR and term RFRs (TORF) based on the agreement between the related parties.

72 As for USD LIBOR, the ARRC recommends that a "1-year transition period" be included for consumer products because historically, LIBOR-OIS spreads have reverted to longer-term levels within a period of about a year or so.

d. The publication of spread adjustments

In terms of spread adjustment values to be used in contracts, it would be appropriate to use ISDA spread adjustments published by Bloomberg[73] (the same spread value to be used by ISDA) from the perspectives of aligning with LIBOR-related determinations and ISDA Derivatives and also ensuring fairness and objectivity.

(Summary: Spread adjustment methodology in fallbacks for Japanese Yen TIBOR)
Given the considerations above, we have summarized the options for the spread adjustment methodology in fallbacks for cash products referencing Japanese Yen TIBOR as follows.

[Figure 8] Spread adjustment methodology in fallbacks for cash products referencing Japanese Yen TIBOR

<table>
<tr><td rowspan="2">Fallback rate</td><td>Option 1</td><td>Option 2</td><td>-</td></tr>
<tr><td>Compounded TONA (fixing in arrears)[74]</td><td>Term RFR</td><td>Euroyen TIBOR</td></tr>
<tr><td>Spread adjustment methodology</td><td colspan="2">Historical five-year median spread adjustment methodology</td><td rowspan="4">Not included in the fallback rate options</td></tr>
<tr><td>Historical data of term RFRs</td><td>- (No consideration required)</td><td>Use data of compounded TONA (fixing in arrears)</td></tr>
<tr><td>Transition period for the spread adjustment</td><td colspan="2">No transition period to be set</td></tr>
<tr><td>The publication of spread adjustment</td><td colspan="2">ISDA spread adjustments published by Bloomberg</td></tr>
</table>

(3) Benchmark replacement for Euroyen TIBOR

(i)Fallback rates

JBATA discussed fallback rate options and setting priority options and other matters related to cash products (loans and bonds) referencing Euroyen TIBOR in light of the results of international discussions.

73 In addition to LIBOR, Bloomberg published spread adjustment values also for Canadian Interest Rate (CDOR) which, in May 2022, the administrator announced that it intends to cease. When using Bloomberg-calculated spreads, it should be noted that the treatment of licensing and costs varies depending on the type of the related parties.

74 Particularly in loans, it would be an option to apply the same to the cases where “TONA Averages” published by Quick Corp. or daily simple TONA (fixing in arrears) is used as a fallback rate. However, currently, since these benchmarks have not been widely used in the markets, their actual use as a fallback rate should be considered in light of factors such as ensuring consistency with derivatives and their current use in Japan.

a. Fallback rate options for Euroyen TIBOR

Based on the results of international discussions as mentioned above ((2) (i)) and from the perspective of the convenience of users of financial benchmarks, JBATA considered the following three fallback rate options for Euroyen TIBOR.

[Figure 9] Fallback rate options for Euroyen TIBOR

Fallback rate - Option 1	Fallback rate - Option 2	Fallback rate - Option 3
Compounded TONA (fixing in arrears)	Term RFR	Japanese Yen TIBOR

b. Options of setting fallback rates for Euroyen TIBOR

Consistent with Japanese Yen TIBOR, in considering how to set fallback rates for Euroyen TIBOR in the fallback provisions, it would be useful to reference discussions and recommendations related to JPY LIBOR or EURIOBOR as their basic nature is similar to that of Euroyen TIBOR.

Therefore, the results of consideration summarized in [Figure 5] in (2)(ii) above for “Options of setting fallback rates for Japanese Yen TIBOR” in the case of using RFR-based financial benchmarks (Options 1 and 2) as fallback rates could also be applied to Euroyen TIBOR.

Since the permanent cessation is not currently discussed for Japanese Yen TIBOR (Option 3), the use of Japanese Yen TIBOR as a fallback rate based on the agreement between the contracting parties would not be precluded in consideration of the convenience for users.[75] [76]

(ii) Spread adjustment methodology

With respect to the spread adjustment methodology in fallback for cash products referencing Euroyen TIBOR, issues arising from the use of each fallback rate option listed in (3)(i) were considered.[77]

a. RFR-based benchmarks (Options 1 and 2)
(a) Compounded TONA (fixing in arrears) (Option 1)
If the compounded TONA (fixing in arrears) is selected as the fallback rate for cash products (loans and bonds) referencing Euroyen TIBOR whose basic features are similar to those of JPY LIBOR, it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Euroyen TIBOR and the compounded TONA (fixing in arrears), in light of the Cross-Industry Committee’s

[75] If Japanese Yen TIBOR is selected as a fallback rate, an option would be to set the second and below priorities (the waterfall structure) based on the results of consideration in 5.(2)(i)b (for example, set the term RFR and compounded TONA (fixing in arrears) in the second and third priorities, respectively. This also applies to footnotes 63 and 64.)

[76] For the specific use, see “5. (3)(ii)b.” in the later section.

[77] For the assumptions and points to be noted, see (Assumptions and notes in considering the spread adjustment methodology) in 5.(2)(ii).

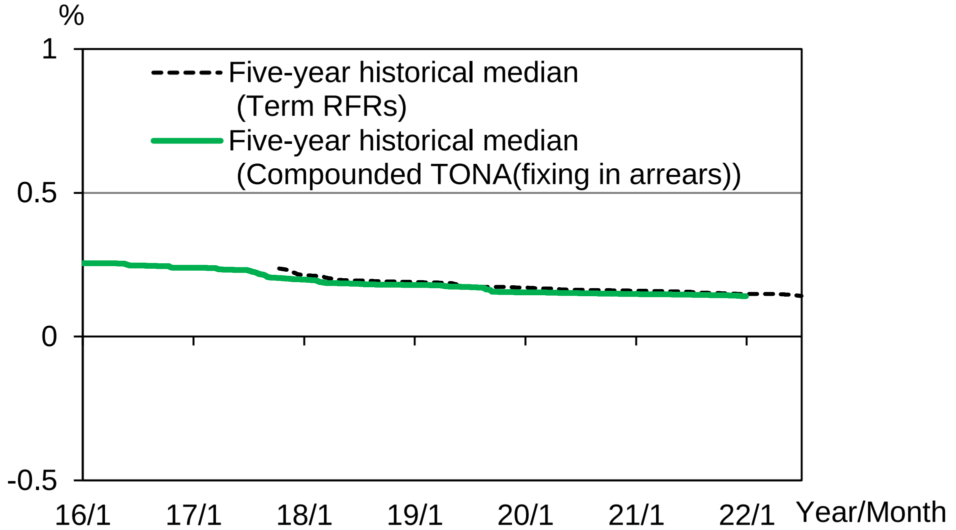
recommendations[78] and ensuring consistency with ISDA Derivatives.

(b) Term RFR (Option 2)

The issue in using the term RFR (TORF) as a fallback rate for cash products (loans and bonds) referencing Euroyen TIBOR is that five-year historical data may not be available since production rates have recently been published.[79]

In this respect, given that term RFRs in the derivatives market have the feature of indicating the expected value of compounded TONA (fixing in arrears), JBATA performed a comparative analysis of the five-year historical median difference by using chronological data of “Japan Securities Clearing Corporation (JSCC)’s Japanese yen OIS rates and TORF (prototype and production rates)” and “compounded TONA (fixing in arrears).” The results of analysis showed little difference between them.

[Figure 10] Five-year historical median difference
— 6-month Euroyen TIBOR / term RFRs, compounded TONA(fixing in arrears)



(Notes) 1. The data used to calculate the historical median over the five-year lookback period are as follows.
- Euroyen TIBOR / term RFRs: until the end of June 2022(Euroyen TIBOR: until the end of June 2022)
- Euroyen TIBOR / compounded TONA(fixing in arrears) :until the end of June 2022 (Euroyen TIBOR: until the end of December 2021)

2. Term RFRs to calculate the five-year historical median use the chronological data of “Japan Securities Clearing Corporation (JSCC)’s Japanese yen OIS rates (October 2017~), the prototype rate of TORF (January 6 2022~), and the production rate of TORF (April 26 2021~).

3. The five-year historical median for term RFRs is shown from October 2017 onward as the Japanese yen OIS rates began to be published from October 2012.

(Source) Bloomberg, QUICK

In light of the results of analysis and ensuring consistency with ISDA Derivatives and given

[78] For the Cross-Industry Committee’s recommendations, see 2.(2)(iii).

[79] The most likely option for Euroyen TIBOR is to discontinue the use of this benchmark. It is expected that an event that meets the conditions of a trigger would occur (that is, the spread adjustment value would be fixed) before December-end 2024. At the present stage, historical five-year data is not available for TORF (production rates) which has started to be published from April 2021.

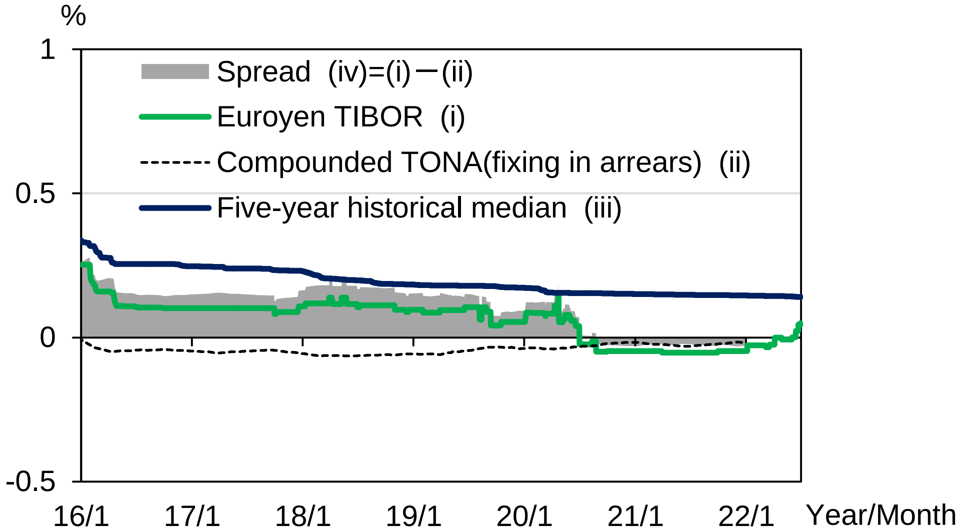
that the adjustment spread between Euroyen TIBOR and term RFR (TORF) calculated using the historical five-year median spread adjustment methodology is not expected to be published, it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Euroyen TIBOR and compounded TONA (fixing in arrears) also when referencing term RFRs as the fallback rate.

(c) Analysis on the spread and transition period

The historical five-year median spread adjustment methodology may give rise to a "difference" in a level of spread adjustments compared to the case of adopting a methodology based only on the latest market trends. Therefore, the issue in the fallback to benchmark replacement from Euroyen TIBOR is that a certain "difference" would arise in the level of interest rates.

The movements in Euroyen TIBOR and compounded TONA (fixing in arrears) show that there is a slight difference between the spot spread and the five-year historical median adjustment because the level of Euroyen TIBOR rates has been declining while the historical five-year median reflects spreads of both benchmarks in 2016 and beyond.

[Figure 11] Five-year historical median
— 6-month Euroyen TIBOR / compounded TONA(fixing in arrears)



(Notes) The latest data are as at the end of June 2022.
(Source) Bloomberg

In order to eliminate such a difference in a phased manner, there may be an option to include a "transition period" and gradually adjust the difference. JBATA, however, considers that it is unnecessary to include such a "transition period" because (a) ISDA and other overseas working groups discussed such a difference but did not include a "transition period," except for some cases,[80] (b) such phased adjustments would complicate operations and (c) recent spread adjustment values calculated based on the five-year historical median difference are small.

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[80] See the footnote 72.

(d) The publication of spread adjustment

In terms of spread adjustment values to be used in contracts, it would be appropriate to use ISDA spread adjustments published by Bloomberg[81] (the same spread value to be used by ISDA) from the perspectives of aligning with LIBOR-related determinations and ISDA Derivatives and also ensuring fairness and objectivity.

(e) Summary

Based on the considerations above, the following figure summarizes the spread adjustment methodologies in the case where RFR-based benchmarks (Options 1 and 2) are selected as the fallback rates.

[Figure 12] Spread adjustment methodologies in the case where RFR-based benchmarks (Options 1 and 2) are selected as the fallback rates

Fallback rate	Option 1	Option 2
	Compounded TONA (fixing in arrears)[82]	Term RFR
Spread adjustment methodology	Historical five-year median spread adjustment methodology	
Historical data of term RFRs	- (No consideration required)	Use data of compounded TONA (fixing in arrears)
Transition period for the spread adjustment	No transition period to be set	
The officially published spread adjustment	ISDA spread adjustments published by Bloomberg	

b. Japanese Yen TIBOR (Option 3)

JBATA considered the spread adjustment methodologies in the case where Japanese Yen TIBOR (Option 3) is selected as the fallback rate in light of developments in international discussions and discussions for cash products referencing JPY LIBOR.

- In the global discussions by ISDA and major jurisdictions on the fallbacks related to IBORs, IBORs are not recommended as a fallback rate (or the combination of the fallback rate and spread adjustments).
- In the discussions on cash products referencing JPY LIBOR by the Cross-Industry Committee, it is noted that ““in the continuous discussions in the Sub-Group of Loans, the issues associated with the economic value transfer were raised in the

[81] See the footnote 73.
[82] See the footnote 74.

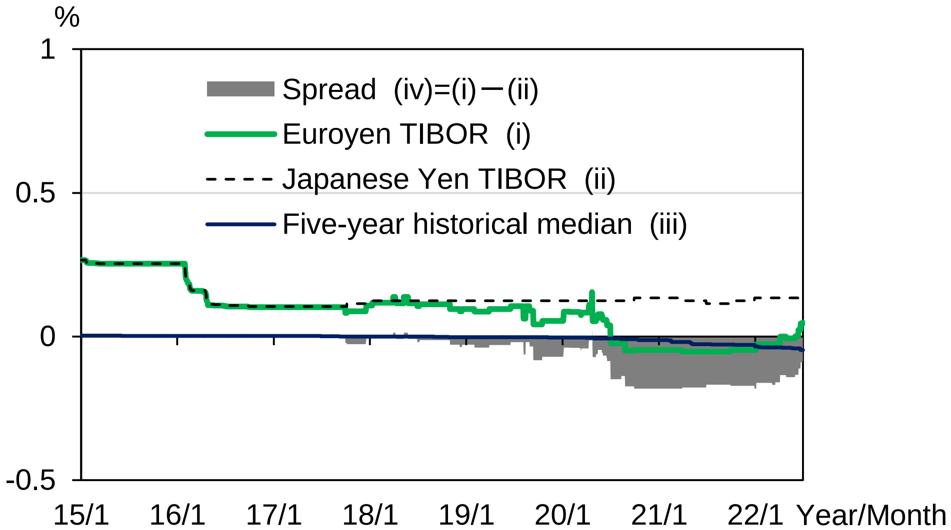
case of selecting the "historical five-year median spread adjustment methodology," and "the sub-group subsequently decided not to ask the Committee to issue a recommendation on the spread adjustment methodology when choosing TIOBR as the fallback rate."[83]

Specifically, we analyzed value transfer by (a) analyzing a difference in the interest rate between Euroyen TIBOR and Japanese Yen TIBOR by assuming that the "historical five-year median spread adjustment methodology" is selected, as with the case of RFR-based interest rate benchmarks (Options 1 and 2) discussed above, and (b) comparing spreads measured by using the "historical five-year median spread adjustment methodology" and those measured from the derivatives market by focusing that Japanese Yen TIBOR (Option 3) is not the standard fallback rate for ISDA derivatives.

(a) Analysis on the spread and transition period

Consistent with the cases where RFR-based interest rate benchmarks (Options 1 and 2) are selected as fallback rates, as a result of analyzing trends in Euroyen TIBOR and Japanese Yen TIBOR (Option 3) and spreads between the two by assuming that the "historical five-year median spread adjustment methodology" is selected, the trends show that there is a slight difference between the spot spread and the five-year historical median difference because the level of Euroyen TIBOR rates has been declining while the historical five-year median reflects spreads of both benchmarks in 2016 and beyond.

[Figure 13] Five-year historical median
— 6-month Euroyen TIBOR / 6-month Japanese Yen TIBOR



(Notes) The latest data are as at the end of June 2022.
(Source) Bloomberg

This difference in a level, however, is not significantly different from that observed for RFR-based benchmarks (Options 1 and 2) mentioned above. Therefore, if the "historical five-year median spread adjustment methodology" is selected as a spread adjustment methodology, the resultant spread adjustment value is just small, and hence it would not

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[83] See pages 10 to 12 of the Cross-Industry Committee's Final Report on the Results of the Second Public Consultation on the Appropriate Choice and Usage of Japanese Yen Interest Rate Benchmarks (November 2020): https://www.boj.or.jp/en/paym/market/jpy_cmte/cmt201130b.pdf

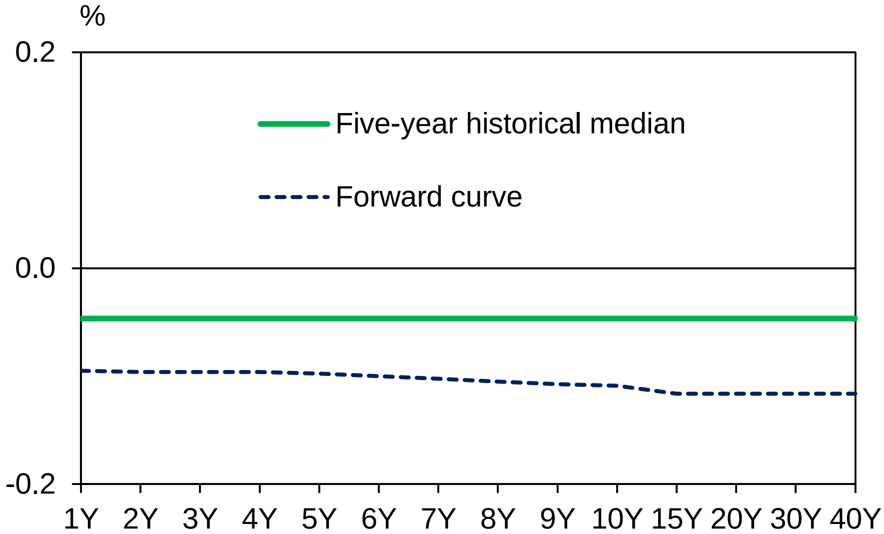
be necessary to include the transition period.

In light of this analysis, if the “historical five-year median spread adjustment methodology” is selected as a spread adjustment methodology for Japanese Yen TIBOR (Option 3), the same conclusion would be reached as RFR-based benchmarks (Options 1 and 2) from the perspective of spread.[84]

(b) Analysis from the perspective of economic value

As a second step, we analyzed the difference between the “spread measured using the historical five-year median spread adjustment methodology” and the “Euroyen TIBOR-Japanese Yen TIBOR forward basis curve” from the perspective of economic value.

[Figure 14] Difference between the spread calculated by the five-year historical median and the spread calculated based on the forward basis curves — 6-month Euroyen TIBOR / 6-month Japanese Yen TIBOR



(Notes) The latest data are as at the end of June 2022.

- The data of “Forward curve” are based on the mid-price in the basis swap market
- ”Five-year historical median” shows the latest value for the purposes of comparison with the forward basis curves

(Source) Bloomberg

The forward basis curve that reflect prevailing market rates[85] has a term structure, and it is observed that the forward curve deviates from the level of the “historical five-year median” recently measured.

Predicting future movements, it is expected that the permanent cessation of Euroyen TIBOR will be further factored into the trends in response to the occurrence of an event such as an announcement of a trigger event. The standard fallback rates for ISDA derivatives, however, is based on the compounded TONA (fixing in arrears) and “historical five-year median between Euroyen TIBOR and compounded TONA (fixing in arrears),” a Euroyen TIBOR-Japanese Yen TIBOR forward basis curve may not necessarily converge

[84] An issue related to the availability of historical data will not arise since data on Japanese Yen TIBOR (Option 3) has been published for more than 5 years. See (c) in this section for officially published spreads.

[85] It should be noted that there is a comment that the liquidity of the basis market used for the analysis is relatively not high compared to other basis markets referred to in the previous pages.

to, for example, historical basis of Euroyen TIBOR and Japanese Yen TIBOR" measured at the time of trigger.

In light of the analysis above, if the "the historical five-year median spread adjustment methodology" is selected in the case where Japanese Yen TIBOR (Option 3) is selected as the fallback rate, currently, there is no reasonable rationale proving that values would reflect prevailing market values in the future, and hence value transfer would not necessarily be minimized from the perspective of economic value.[86]

(c) The publication of spread adjustments

If Japanese Yen TIBOR (Option 3) is selected to be the fallback rate for Euroyen TIBOR, currently, the value based on "historical five-year median," are not expected to be officially published, and contracting parties need to calculate values.

(d) Summary

As a result of analyzing spread adjustments in the case where Japanese Yen TIBOR (Option 3) is selected to be the fallback rate from the perspective of spread, the result is not significantly different from that of RFR-based benchmarks (Options 1 and 2).

In light of a) through c) below, however, it would be difficult to provide a specific spread adjustment methodology, and it should be determined based on the agreement between the contracting parties.[87]

a) If the "historical five-year median spread adjustment methodology" is selected, currently, there is no reasonable rationale proving that values would reflect prevailing market values in the future, and hence value transfer would not necessarily be minimized from the perspective of economic value.[88][89]

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[86] If the "historical five-year median spread adjustment methodology" is selected as a spread adjustment methodology in the case of RFR-based benchmarks (Options 1 and 2), it is expected that the historical five-year median spread measured at the time of trigger is highly likely to mostly reflect prevailing market values since it is in line with the standard fallback for ISDA derivatives. Therefore, value transfer would be minimized from the perspective of economic value.

[87] If the use of Japanese Yen TIBOR is preferred in consideration of factors including the nature of transactions, since the discontinuation of this benchmark has not been discussed, and is one of preferred benchmarks as an alternative to Euroyen TIBOR, the use through the active transition should also be considered, instead of the fallback approach. In that case, consistent with the fallback, the approach to spread adjustments would be determined based on the agreement between the contracting parties.

[88] In the case where a derivative (interest rate swap) contract is entered into for a cash product referencing Euroyen TIBOR for the purpose of hedging a fluctuation in the interest rate, if Japanese Yen TIBOR is selected as a fallback rate using the "historical five-year median approach" based on the agreement between the contracting parties for the cash product which is the hedged item, it is necessary to note that the derivative transaction used as its hedging instrument may be priced based on a prevailing market price. In this regard, if the derivative transaction is priced in a manner to align with "Japanese Yen TIBOR + Historical five-year median of (the difference between Euroyen TIBOR and Japanese Yen TIBOR), additional cost of the derivative contract would need to be borne by the parties to the transaction of the cash product (either or both parties).

[89] If the historical five-year median spread adjustment methodology is used based on the agreement between the contracting parties, this should be carefully confirmed between the parties and attention

b) Currently, spread adjustment values calculated using the “historical five-year median spread adjustment methodology” are not expected to be officially published.[90]

c) Currently, there is no other methodology that is considered to be more appropriate than the “historical five-year median spread adjustment methodology.”[91]

(Summary: Spread adjustment methodology in the fallbacks for Euroyen TIBOR）

The following summarizes the spread adjustment methodologies in the fallbacks for cash products referencing Euroyen TIBOR.

[Figure 15] Spread adjustment methodologies in fallbacks for cash products referencing Euroyen TIBOR

Fallback rate option	Option 1	Option 2	Option 3
	Compounded TONA (fixing in arrears)[92]	Term RFR	Japanese Yen TIBOR
Spread adjustment methodology	Historical five-year median spread adjustment methodology		Determine based on the agreement between the related parties
Historical data of term RFRs	- (No consideration required)	Use data of compounded TONA (fixing in arrears)	-
Transition period for the spread adjustment	No transition period to be incorporated		-
The officially published spread adjustment	ISDA spread adjustments published by Bloomberg		-

*There is a difference in day count convention between Euroyen TIBOR (act/360) and fallback rate options (act/365). Therefore, when calculating the fallback rate for Euroyen TIBOR, the ratio of the Euroyen TIBOR day count over the fallback rate day count would be 360/365.
ISDA spread adjustments calculated by Bloomberg have accommodated the different day count convention.

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should be paid in using this methodology (in particular, if one of the contracting parties is a non-financial company).

90 Irrespective of methodologies, JBATA has no plan to officially publish any spread adjustment values in response to Japanese Yen TIBOR as the fallback rate.

91 An alternative approach may include, for example, the “forward approach” that calculates a spread adjustment value based on economic value. This approach, however, has the following drawbacks: (a) spread values may significantly change depending on when values are calculated, (b)values are not expected to be officially published, and (c)it is necessary to designate reliable data source beforehand. In UK, however, for the active conversion from LIBOR to SONIA, the forward approach which is more simplified methodology is being considered.

92 See the footnote 74.

6. Other issues

(1) Accounting issues

It should be noted that a change in the interest rate resulting from the fallbacks for JBA TIBOR will give rise to accounting issues, including hedge accounting.

To address accounting issues arising from the interest rate benchmark reform, the Accounting Standards Board of Japan (ASBJ) published the Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR on September 29, 2020 (PITF No. 40, revised March 17, 2022)[93], permitting to continue applying hedge accounting for a certain period when replacing benchmarks for financial instruments referencing LIBOR.[94]

For financial instruments that referencing JBA TIBOR, practical solution on the treatment of hedge accounting may need to be separately considered because it does not clearly mention whether those instruments are in the scope[95] of the PITF No. 40.

(2) Issues on interest rate swap clearing

With regard to the fallbacks for JBA TIBOR, it is necessary to pay attention to clearing of interest rate swap with a floating rate leg referencing JBA TIBOR.

To address the permanent cessation of JPY LIBOR, Japan Securities Clearing Corporation (JSCC) has converted IRS (Interest Rate Swap) Cleared Contracts referencing JPY LIBOR existing as of December 3, 2021, to those referencing TONA OIS.

Currently, interest rate swaps with a floating rate leg referencing Euroyen TIBOR are permitted to be cleared only at JSCC. If the future permanent cessation of Euroyen TIBOR is determined, it may be discussed whether bulk conversion to OIS will be necessary.

(3) Interest rate futures and options referencing Euroyen TIBOR

"3-month Euroyen Futures" (the underlying is Euroyen TIBOR) and "Options on 3-month Euroyen Futures" are listed on the Tokyo Financial Exchange (TFX).

TFX announced its actions to prepare for the Japanese interest rate benchmark reform by suspending Euroyen Futures in the contracts of far-distant terms (March 2025 and beyond[96]) and listing new short term Yen interest rate futures using the alternative Yen interest rate benchmark (TONA, etc.).[97]

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[93] https://www.asb.or.jp/jp/wp-content/uploads/libor-hedge20200929_02.pdf (available in Japanese only)

[94] A treatment consistent with the PITF No. 40 is permitted also for tax purposes. https://www.nta.go.jp/law/bunshokaito/hojin/210225/index.htm (available in Japanese only)

[95] It is mentioned that in case interest rate benchmarks other than LIBOR are expected to cease permanently due to interest rate benchmark reform, approaches to potential accounting issues arising from the replacement of existing interest rate benchmarks in contracts may also be referred to PITF No. 40.

[96] Currently, there are no contracts of far-distant terms (March 2025 and beyond).

[97] https://www.tfx.co.jp/en/newsfile/article/20220603-01
https://www.tfx.co.jp/en/newsfile/article/20220726-01

7. Next steps

(1) Publication of the results of the public consultation

JBATA plans to publish the results of the Public Consultation by March 31, 2023.

At the same time or later in due course, based on comments submitted during the Public Consultation and other relevant information, we will revise[98] relevant rules and guidelines (e.g. “JBA TIBOR Operational Rules,” “Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication”), as necessary, for further clarification.

(2) Publication of another consultation on whether to discontinue Euroyen TIBOR

As mentioned earlier in 3.(3), JBATA is engaging in discussions on the possibility of permanent cessation of Euroyen TIBOR which is currently deemed as the most likely option and expects that the timing, if adopted, would be at the end of December 2024.

Article 51 of the JBA TIBOR Operational Rules requires JBATA, when permanently ceasing JBA TIBOR, to disclose the timing of the cessation, comments submitted through public consultations and other necessary information at least six months prior to the effective date. JBATA intends to publish another consultation[99] on whether to discontinue Euroyen TIBOR within the fiscal year ending March 31, 2024.

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[98] For example, fallback rate options for JBA TIBOR will be added.

[99] Publishing the results of the consultation (specifically, determining whether and when to discontinue Euroyen TIBOR) and announcing that JBATA has ceased or will cease to provide JBA TIBOR permanently would be intended to constitute a “Permanent Cessation Trigger.” When issuing this announcement, JBATA will appropriately coordinate with related stakeholders including the regulatory supervisor and related associations/organizations to ensure that market participants will be furnished with appropriate information.

8. Public consultation procedures

(1) Consultation period

Comments to this Public Consultation shall be sent no later than September 30, 2022.

(2) How to submit your comments

Comments shall be submitted by e-mail to:

contact@jbatibor.or.jp

[Guidance]

Your comment shall be titled “Comments on [Consultative Document] Fallbacks for JBA TIBOR” and shall **include the following information in the specified format**:

・Name;

・Contact information (Phone number, e-mail address);

・Name of the legal entity or organization (if you are a member of any); and

・Your comments and reasons for your opinions on each question[100]

[Reminder]

Personal information (e.g. name and contact information) included in the comment will be used when JBATA needs to contact you to inquire about unclear matters in comments.

For further detail regarding the treatment of personal information, see our Privacy Policy.

[Contact information for any inquiry regarding the consultative document]

Office for TIBOR Reform,

General Incorporated Association JBA TIBOR Administration

E-mail : contact@jbatibor.or.jp

[100] Responding to only some questions is welcomed as well. In such a case, please select “No opinion” for other questions and submit without giving any descriptions in the “Reason” column.

9. Consultation questions

No.	Consultation question	Reference
1	Do you support JBATA's view that, at this stage, one option would be to assume an announcement stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely as a potential trigger event, and at least include that trigger event in the fallback provisions? (Yes/No/No opinion) Please also explain the reason.	5.(1)(i)
2	If your answer to Question 1 is "Yes," do you support the following language illustrated as sample by JBATA? (Yes/No/No opinion) Please also explain the reason. [Sample language] A public statement or publication of information by JBATA (or an organization acting on its behalf), stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely (provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide.)	5.(1)(i) I
3	Do you support JBATA's view that, if the contracting parties, in particular, focus on ensuring consistency with the triggers included for derivatives transacted based on the ISDA Master Agreement? (Yes/No/No opinion) Please also explain the reason.	5.(1)(i)
4	If your answer to Question 3 is "Yes," do you support the following language illustrated as sample by JBATA? (Yes/No/No opinion) Please also explain the reason. [Sample language] A public statement or publication of information by the regulatory supervisor of JBATA, central banks with jurisdiction over JBATA TIBOR currencies, a resolution agency of JBATA, a competent court of jurisdiction with insolvency or resolution authority over JBATA, a bankruptcy trustee with jurisdiction over JBATA, or other organizations with similar authority stating that JBATA has ceased or will cease to provide JBA TIBOR permanently or indefinitely (provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide JBA TIBOR.)	5.(1)(i) II
5	Do you support JBATA's view that, at this stage, it would not be necessarily required to assume an event in which JFSA, which is JBATA's supervisory regulator, (or an organization acting on its behalf) determines that JBA TIBOR is no longer representative and issues a public statement thereof, and include this event in the fallback provisions for cash products referencing JBA TIBOR? (see below for specific sample language). (Yes/No/No opinion) Please also explain the reason. [Sample language] In the case that the regulatory supervisor (or an organization acting on its behalf) of the JBA TIBOR administrator has issued a public statement announcing that, in its view, JBA TIBOR is no longer representative, or will no longer be representative of the underlying market it purports to measure, and does not reflect the underlying market or economic reality (or, in the designated point in the future), and such representativeness will not be restored.	5.(1)(ii) III

No.	Consultation question	Reference
6	Do you support JBATA's view that it would not be necessary to include the potential event specified below in the fallback provisions as a trigger event for cash products referencing JBA TIBOR? (Yes/No/No opinion) Please also explain the reason. [Potential trigger event] In the case that the administrator of JBA TIBOR has determined to calculate JBA TIBOR based on any of a policy or arrangement related to a. a reduction in the number of reference banks, b. other contingency measures, and c. fallback, and JBA TIBOR is calculated based on that policy or arrangement in either of the following: (a) a situation or an event triggering such a determination is not temporary, or (b) JBA TIBOR is calculated under that policy or arrangement at least for a period longer than [one month].	5.(1)(iii) IV
7	Do you support JBATA's view that it would not be necessary to include the potential event specified below in the fallback provisions as a trigger event for cash products referencing JBA TIBOR? (Yes/No/No opinion) Please also explain the reason. [Potential trigger event] In the case that JBA TIBOR has become unlawful for any reasons under the laws and regulations applicable to the contracting parties.	5.(1)(iii) V
8	Do you support JBATA's view that it would not be necessary to include the potential event specified below in the fallback provisions as a trigger event for cash products referencing JBA TIBOR? (Yes/No/No opinion) Please also explain the reason. [Potential trigger event] In the case that JBA TIBOR is permanently no longer published, without any previous official announcement by the regulatory supervisor or JBATA.	5.(1)(iii) VI
9	Do you support JBATA's view that it would not be necessary to include the potential event specified below in the fallback provisions as a trigger event for cash products referencing JBA TIBOR? (Yes/No/No opinion) Please also explain the reason. [Potential trigger event] In the case that a material change in the JBA TIBOR methodology has occurred.	5.(1)(iii) VII
10	Do you support JBATA's view that it would not be necessary to include the potential event specified below in the fallback provisions as a trigger event for cash products referencing JBA TIBOR? (Yes/No/No opinion) Please also explain the reason. [Potential trigger event] In the case that the contracting parties choose to activate a fallback prior to the cassation of JBA TIBOR or losing the	5.(1)(iii) VIII

No.	Consultation question	Reference
	representativeness without relying on objective circumstances.	
11	Do you support JBATA's view that it is considered appropriate not to include Euroyen TIBOR for which the discontinuation by the end of December 2024 has been discussed in the fallback rate options for the cash products referencing Japanese Yen TIBOR? (Yes/No/No opinion) Please also explain the reason.	5.(2)(i) a.
12	Do you support JBATA's view that, in light of the results of discussions made globally, the fallback rate options for cash products referencing Japanese Yen TIBOR would be compounded TONA (fixing in arrears) and term RFRs? (Yes/No/No opinion) Please also explain the reason.	5.(2)(i) a.
13	If your answer to Question 12 is "Yes," do you support JBATA's following view on Option 1 related to the fallback rates for cash products referencing Japanese Yen TIBOR? (Yes/No/No opinion) Please also explain the reason. [Option 1] Compounded TONA (fixing in arrears) * Option 1 sets liquid and robust compounded TONA (fixing arrears) as the fallback rate.	5.(2)(i) b.
14	If the answer to Question 12 is "Yes," do you support JBATA's following view on Option 2 in relation to the fallback rates for cash products referencing Japanese Yen TIBOR? (Yes/No/No opinion) Please also explain the reason. [Option 2] 1st priority: Term RFRs 2nd priority: Compounded TONA (fixing in arrears) *Option 2 assumes specific cases where the use of term RFRs is preferred. Term RFRs are set as the first priority, and if term RFRs cannot be used, the second priority rate, i.e. compounded TONA (fixing in arrears), functions as the backstop.	5.(2)(i) b.
15	In relation to questions 13 and 14, do you support JBATA's view that, if the waterfall methodology is applied to loans referencing Japanese Yen TIBOR, the "rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower" can be added to the subordinate priority level of each setting priority option as specified in the footnote 63? (Yes/No/No opinion) Please also explain the reason.	5.(2)(i) b.
16	In relation to questions 13 and 14, do you support JBATA's view that, if the waterfall methodology is applied to bonds, the "benchmark recommended by relevant committees convened by authorities," the "fallback rate for the benchmark to be replaced as defined in the ISDA Definitions," and the "benchmark selected by the issuer, etc." can be added to the subordinate priority levels of each setting priority option as specified in the footnote 64? (Yes/No/No opinion) Please also explain the reason.	5.(2)(i) b.

No.	Consultation question	Reference
17	In the case where compounded TONA (fixing in arrears) is selected as the fallback rate for cash products referencing Japanese Yen TIBOR, do you support JBATA's view that it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Japanese Yen TIBOR and compounded TONA (fixing in arrears)? (Yes/No/No opinion) Please also explain the reason.	5.(2)(ii) a.
18	In the case where term RFRs are selected as the fallback rates for cash products referencing Japanese Yen TIBOR, do you support JBATA's view that it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Japanese Yen TIBOR and term RFRs? (Yes/No/No opinion) Please also explain the reason.	5.(2)(ii) b.
19	In the case where term RFR-based benchmarks are used as the fallback rates for cash products referencing Japanese Yen TIBOR, do you support JBATA's view that it would be unnecessary to include a "transition period" for the spread adjustment? (Yes/No/No opinion) Please also explain the reason.	5.(2)(ii) c.
20	Do you support JBATA's view that, in terms of spread adjustments values to be used in contracts, it would be appropriate to use ISDA spread adjustments published by Bloomberg (that is, same spread value to be used by ISDA Derivatives)? (Yes/No/No opinion) Please also explain the reason.	5.(2)(ii) d.
21	Do you support JBATA's view that the fallback rate options for cash products referencing Euroyen TIBOR would be compounded TONA (fixing in arrears), term RFRs and Japanese Yen TIBOR? (Yes/No/No opinion) Please also explain the reason.	5.(3)(i) a.
22	In the case where compounded TONA (fixing in arrears) is used as the fallback rates for cash products referencing Euroyen TIBOR, do you support JBATA's following view on Option 1 in relation to the fallback rates for cash products referencing Euroyen TIBOR? (Yes/No/No opinion) Please also explain the reason. [Option 1] Compounded TONA (fixing in arrears)	5.(3)(i) b.
23	In the case where RFR-based benchmarks are used as the fallback rates, do you support JBATA's following view on Option 2 in relation to the fallback rates for cash products referencing Euroyen TIBOR? (Yes/No/No opinion) Please also explain the reason. [Option 2] 1st priority: Term RFRs 2nd priority: Compounded TONA (fixing in arrears)	5.(3)(i) b.
24	In the case where Japanese Yen TIBOR is used as the fallback rate for cash products referencing Euroyen TIBOR, do you support JBATA's view that an option would be to the term RFRs and compounded TONA (fixing in arrears) in the second and third priorities, respectively, as specified in the footnote 75?	5.(3)(i) b.

No.	Consultation question	Reference
	(Yes/No/No opinion) Please also explain the reason. [Option] 1st priority: Japanese Yen TIBOR 2nd priority: Term RFR 3rd priority: Compounded TONA (fixing in arrears)	
25	Do you support JBATA's view that, if the waterfall methodology is applied to loans referencing Euroyen TIBOR, the "rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower" can be added to the subordinate priority level of each setting priority option as specified in the footnote 63? (Yes/No/No opinion) Please also explain the reason.	5.(3)(i) b.
26	Do you support JBATA's view that, if the waterfall methodology is applied to bonds, the "benchmark recommended by relevant committees convened by authorities," the "fallback rate for the benchmark to be replaced as defined in the ISDA Definitions," and the "benchmark selected by the issuer, etc." can be added to the subordinate priority levels of each setting priority option as specified in the footnote 64? (Yes/No/No opinion) Please also explain the reason.	5.(3)(i) b.
27	In the case where compounded TONA (fixing in arrears) is selected as the fallback rate for cash products referencing Euroyen TIBOR, do you support JBATA's view that it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Euroyen TIBOR and compounded TONA (fixing in arrears)? (Yes/No/No opinion) Please also explain the reason.	5.(3)(ii) a.(a)
28	In the case where term RFRs are selected as the fallback rates for cash products referencing Euroyen TIBOR, do you support JBATA's view that it would be an option to use the historical five-year median spread adjustment methodology to calculate the adjustment spread between Euroyen TIBOR and term RFRs? (Yes/No/No opinion) Please also explain the reason.	5.(3)(ii) a.(b)
29	In the case where RFR-based benchmarks are used as the fallback rates for cash products referencing Euroyen TIBOR, do you support JBATA's view that it would be unnecessary to include a "transition period" for the spread adjustment? (Yes/No/No opinion) Please also explain the reason.	5.(3)(ii) a.(c)
30	Do you support JBATA's view that, in terms of spread adjustment values to be used in actual contracts, it would be appropriate to use official spreads published by Bloomberg (that is, to use the same values as ISDA Derivatives)? (Yes/No/No opinion) Please also explain the reason.	5.(3)(ii) a.(d)
31	With respect to spread adjustments arising from using Japanese Yen TIBOR as the fallback for cash products referencing Euroyen TIBOR, do you support JBATA's view that, at this stage, it would be difficult to provide a specific spread adjustment methodology in light of a) through c) below. (Yes/No/No opinion) Please also explain the reason.	5.(3)(ii) b.(d)

No.	Consultation question	Reference
	a) If the "historical five-year median spread adjustment methodology" is selected, currently, there is no reasonable grounds proving that values would reflect prevailing market values in the future, and hence value transfer would not necessarily be minimized from the perspective of economic value. b) Currently, spread adjustment values calculated using the "historical five-year median spread adjustment methodology" are not expected to be officially published. c) Currently, there is no other methodology that is considered to be more appropriate than the "historical five-year median spread adjustment methodology."	
32	If your answer to question 31 is "No," please provide a specific spread adjustment methodology if Japanese Yen TIBOR is used as the fallback rate, and the reason thereof.	5.(3)(ii) b.(d)
33	Please describe any comments on issues other than the consultation questions listed above for the Public Consultation (including any comments on "Other issues" which are not within the scope of the Public Consultation).	—

Appendix 1

The fallbacks for cash products referencing LIBOR

- With respect to the fallback for cash products referencing LIBOR, the working groups convened by the central banks for each currency have published their recommendations and determinations.
- Given that the majority of cash products referencing JBA TIBOR are used in loans according to the Survey on JBA TIBOR Exposures, this Appendix summarizes the recommendations and determinations for loans referencing USD LIBOR, GBP LIBOR, and JPY LIBOR.[101]

<table>
<tr><th>Currency</th><th>Trigger</th><th>Fallback rate</th><th>Spread adjustment methodology</th></tr>
<tr><td>USD[102]</td><td rowspan="3">・Permanent Cessation Triggers
・Pre-cessation triggers related to the loss of representativeness of benchmarks</td><td><Waterfall methodology>
1st priority: Term SOFR
2nd priority: SOFR (daily average)
3rd priority: Rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower</td><td rowspan="3">Historical five-year median spread adjustment methodology (ISDA spread adjustments[103])</td></tr>
<tr><td>GBP</td><td>SONIA compounded in arrears[104,105]</td></tr>
<tr><td>JPY[106]</td><td><Waterfall methodology>
1st priority: Term RFR
2nd priority: Compounded TONA (fixing in arrears)
3rd priority: Rate deemed as suitable (after appropriately considering recommendations by the regulatory supervisor, etc. or market convention) and notified by the lender to the borrower</td></tr>
</table>

101 The fallbacks for bonds referencing LIBOR is similar to those for loans, yet there are some differences in the waterfall methodology between currencies.
102 The ARRC introduces "Early Opt-in" triggers for bilateral and syndicated business loans referencing USD LIBOR.
103 The FSB OSSG supports the use of the ISDA spread adjustments for cash products that are to fall back or move from an IBOR to RFRs or to RFR-based term rates.
104 https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/best-practice-guide-for-gbp-loans.pdf
105 The use of term SONIA is limited to certain transactions and fallback cases.
106 According to the Final Report on the Results of the Second Public Consultation on the Appropriate Choice and Usage of Japanese Yen Interest Rate Benchmarks published by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, in the continuous discussions in the Sub-Group on Loans, the issues associated with the economic value transfer were raised in the case of selecting the "historical five-year median spread adjustment methodology," and therefore the sub-group subsequently decided not to ask the Committee to issue a recommendation on the spread adjustment methodology when choosing TIOBR as the fallback rate.

Primary fallback rate options for Japanese Yen LIBOR and their features

- The table below lists primary fallback rate options for JPY LIBOR and summarizes their features.
  - ✓ In consideration of developments in discussions including those by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, the following benchmarks have been determined as primary fallback rate options for JPY LIBOR.

Item	Compounded TONA (fixing in arrears)	Term RFR (TORF)	Japanese Yen TIBOR
Underlying rate	Uncollateralized O/N call rate(TONA)	JPY overnight indexed swap (OIS)	Japanese Yen TIBOR
Reference Period	Fixing in arrears	Fixing in advance	Fixing in advance
Publisher	Bank of Japan[107]	QUICK Benchmarks[108]	JBA TIBOR Administration[109]
Conventions	Not similar to JPY LIBOR, (Some challenges remain in systems and operations because the rate is fixed “in arrears”.)	Similar to JPY LIBOR	Similar to JPY LIBOR

(Reference)

- QUICK Corp. publishes “TONA Averages”[110] and “TONA Index” as benchmarks calculated by compounding uncollateralized O/N call rates.[111]

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107 Call Money Market Data (Updated every business day) (https://www3.boj.or.jp/market/en/menu_m.htm)

108 https://torf.co.jp/en/

109 https://www.jbatibor.or.jp/english/rate/

110 “TONA Averages” could be used mainly in compounded TONA (fixing in advance).

111 https://corporate.quick.co.jp/2021/03/news/press/7659/

The fallbacks for ISDA Derivatives

- The following table summarizes the fallbacks for ISDA Derivatives[112] referencing LIBOR (5 currencies), EURIBOR and TIBOR (Japanese Yen and Euroyen).

<table>
<tr><th>Benchmark</th><th>Trigger[113,114]</th><th>Fallback rate</th><th>Spread adjustment methodology</th></tr>
<tr><td>LIBOR (USD)</td><td rowspan="5">・Permanent Cessation Triggers
・Pre-cessation triggers related to the loss of representativeness of benchmarks[115]</td><td rowspan="8">Rates (fixing in arrears) produced by compounding the risk-free rates identified by working groups in each of jurisdictions.[116]</td><td rowspan="8">Historical five-year median spread adjustment methodology[117]</td></tr>
<tr><td>LIBOR (CHF)</td></tr>
<tr><td>LIBOR (GBP)</td></tr>
<tr><td>LIBOR (EUR)</td></tr>
<tr><td>LIBOR (JPY)</td></tr>
<tr><td>EURIBOR[118]</td><td rowspan="3">Permanent Cessation Triggers</td></tr>
<tr><td>TIBOR (Japanese Yen)</td></tr>
<tr><td>TIBOR (Euroyen)</td></tr>
</table>

[112] The fallbacks for ISDA Derivatives were incorporated in the ISDA 2020 IBOR Fallbacks Protocol and Supplement 70 to and the 2006 ISDA Definitions, and then reflected in the 2021 ISDA Interest Rate Derivatives Definitions (that became effective from October 4, 2021). With respect to risk-free rates (RFRs) replacing certain interbank offered rates (IBORs), such as SOFR, SONIA, TONA, and €STR, the fallbacks in the Supplement are also substantially included in the Definitions.
[113] The 2021 ISDA Interest Rate Derivatives Definitions has introduced temporary cessation triggers and fallbacks for Floating Rate Options in the Floating Rate Matrix.
[114] The 2021 ISDA Interest Rate Derivatives Definitions has not introduced a new fallback to address material changes in benchmark methodologies. It has confirmed that the transaction will continue to reference the benchmark as changed.
[115] To apply this trigger to an Applicable Benchmark, it is necessary to be designated either in the Floating Rate Matrix or in the confirmation (by default, it is applied to LIBOR FROs in Version 1 of the Floating Rate Matrix). Parties could also apply this trigger to other benchmarks by the confirmation.
[116] For example, in the case of LIBOR (USD), the fallback rates will be compounded SOFR in arrears and in the case of LIBOR (JPY) and TIBOR (Japanese Yen/Euroyen), will be compounded TONA in arrears. Note that 2021 ISDA Interest Rate Derivatives Definitions contains information on the fallback rates in the event of permanent cessation of SOFR and TONA.
[117] Spread adjustment values based on the historical five-year median spread adjustment methodology used in ISDA Derivatives are published by Bloomberg.
[118] From the perspective of enhancing global consistency across different currencies and products, the WG on euro RFRs recommends ISDA and other organizations to include the Pre-cessation Trigger related to non-representativeness in the standard documentation for the fallback.

Appendix 4

The fallbacks for cash products referencing EURIBOR

- The fallbacks for cash products referencing EURIBOR were recommended and determined by the WG on euro RFRs as shown in the table below.
- The working group classifies triggers into: (i) what market participants are recommended to include as a trigger event; (ii) what market participants should consider the appropriateness of including as a trigger; and (iii) what market participants are recommended not to include as a trigger. Category (i) is consistent with the result of consideration for cash products referencing LIBOR.

<table>
<tr><th colspan="2">Trigger</th><th>Fallback rate</th><th>Spread adjustment methodology</th></tr>
<tr><td colspan="2">(i) What market participants are recommended to include as a trigger event</td><td rowspan="7">Benchmark having a €STR-based term structure[119]</td><td rowspan="7">Historical five-year median spread adjustment methodology</td></tr>
<tr><td>Permanent Cessation Triggers</td><td>・A public statement or publication of information by or on behalf of the regulatory supervisor of the EURIBOR administrator stating that said administrator has ceased or will cease to provide EURIBOR permanently or indefinitely provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EURIBOR
・A public statement or publication of information by or on behalf of the EURIBOR administrator stating that said administrator has ceased or will cease to provide EURIBOR permanently or indefinitely provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide EURIBOR</td></tr>
<tr><td>Pre-cessation triggers related to the loss of benchmark's representativeness</td><td>・An official public statement by or on behalf of the supervisor of the EURIBOR administrator that, in its view, (i) EURIBOR is no longer representative, or will no longer be representative of the underlying market and economic reality it purports to measure as of a certain date, and (ii) such representativeness will not be restored (as determined by such supervisor)</td></tr>
<tr><td colspan="2">(ii) what market participants should consider the appropriateness of including as a trigger</td></tr>
<tr><td colspan="2">An event in which use of EURIBOR has become, for any reason, unlawful for relevant parties to the agreement under applicable laws and regulations / An event in which EURIBOR is permanently no longer published, i.e. without any previous official announcement by the competent authority or the administrator /Material change in the EURIBOR methodology</td></tr>
<tr><td colspan="2">(iii) What market participants are recommended not to include as a trigger</td></tr>
<tr><td colspan="2">An event in which EURIBOR is calculated by the EURIBOR administrator in accordance with its reduced submissions, other contingency measures, or fallback policies</td></tr>
</table>

[119] €STR (fixing in arrears) or term €STR is recommended according to the features of products referencing EURIBOR. The working group also recommends that when term €STR is preferred as a fallback rate, market participants could use the waterfall methodology in which on the first level, they could include term €STR and for the second level, they include €STR (fixing in arrears). €STR on the second level of the waterfall methodology will function as a backstop if term €STR was not (yet) available when the EURIBOR fallback measure was triggered.