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Promoting the JBA Tokyo Inter Bank Offered Rate ("JBA TIBOR") Reforms

(2nd Consultative Document)

August 28, 2015

General Incorporated Association JBA TIBOR Administration

<Contents>

[Overview of the 2nd Consultative Document]

- ✧ In July 2014, FSB[1] published "Reforming Major Interest Rate Benchmarks" ("FSB Report") and required administrators of three major financial benchmarks (LIBOR, EURIBOR and TIBOR[2]) to consider the development and introduction of alternative benchmarks which are more anchored in actual transactions.
- ✧ Responding to this requirement, JBATA has been considering an alternative benchmark for TIBOR (referred to conveniently as "TIBOR+" in the FSB Report).
- ✧ As part of this consideration, in December 2014, JBATA published "Promoting the JBA Tokyo Inter Bank Offered Rate ("JBA TIBOR") Reforms following reports by Financial Stability Board ("FSB") and International Organization of Securities Commissions ("IOSCO")" (the "1st public consultation") and received comments on the direction of TIBOR reforms from users and stakeholders.
- ✧ This 2nd consultative document discusses two points first:
  - ➢ The background of selecting one of two options for directing TIBOR reforms which were suggested in the 1st public consultation; and,
  - ➢ The proposed design of waterfall[3] methodology which will be important to achieve the selected option above.

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1 As of March 2013, FSB is participated by representatives from central banks, financial supervisors and the Treasury Department/Finance Ministry of 25 major jurisdictions, as well as major standard setters, International Monetary Fund, World Bank, Bank for International Settlements, and Organisation for Economic Co-operation and Development. It undertakes activities to promote coordination across regulators which are responsible for addressing vulnerabilities affecting the global financial system and ensuring stability of financial system.

2 Abbreviation of "Tokyo Inter Bank Offered Rate". JBATA publishes "Japanese yen TIBOR" and "Euroyen TIBOR". TIBOR is deemed as a prevailing market rate, assuming transactions between prime banks on the Japan Unsecured Call Market (or the Japan Offshore Market in the case of Euroyen TIBOR) as of 11:00 a.m. Since the establishment of "Japanese yen TIBOR" in 1995, the name itself constitutes a (broad) definition of TIBOR (See Appendix 2). In fact, some information providers had collected and published the rate called TIBID (Tokyo Inter Bank Bid Rate) as a benchmark of bid rate opposite to TIBOR in 1995. Under such situation, Japanese Bankers Association ("JBA") discussed the publication of TIBID (however, eventually, it was not published).

3 This is a structure depicting a "preference order" in line with the order of the predetermined hierarchy structure, likening to water flowing downstream and being halted at each level. Specifically, the determination is first made on whether the calculation logic of the highest tier (or level, hereafter) is applicable, and if not, whether that of the one-level lower tier is applicable, respectively, until an applicable tier is identified.

✧ Finally, JBATA seeks comments from users and stakeholders on the following items (1) to (4):

(1) Basic concept of TIBOR reforms (additional questions)

(2) Proposed waterfall approach (new questions)

(3) Discontinuation of publication of 2 months & 12 months tenor (additional question)

(4) Discontinuation of simultaneous publication of individual submissions (re-question)

JBATA would like to take this opportunity to express its gratitude to the related personnel of Japan's Financial Services Agency, the Bank of Japan ("BOJ"), and those who have provided cooperation in relation to this 2nd consultative document.

1. Background

(1) Discussions at the IOSCO and FSB, and the status of JBA TIBOR reforms

In July 2013, IOSCO published the final report on the IOSCO Principles, setting forth 19 principles (the "IOSCO Principles")[4], thereby clarifying principles to be satisfied by financial benchmarks, including interest benchmarks, and their administrators.

Subsequently, IOSCO reviewed the three major financial benchmarks (LIBOR, EURIBOR and TIBOR) focusing on their compliance with the IOSCO Principles, and then published the results in July 2014[5]. All of the benchmarks were assessed to mostly implemented the standards required under the IOSCO Principles in terms of governance and operation. Meanwhile, regarding "Benchmark Design" (Principle 6), "Data Sufficiency" (Principle 7) and "Transparency of Benchmark Determinations" (Principle 9), the assessment indicated that the benchmarks were not designed well enough to anchor in actual transactions, and that data provided to IOSCO review team were not necessarily sufficient for a part of the analysis.

In July 2014, FSB published "Reforming Major Interest Rate Benchmarks" ("FSB Report") and required each administrator of LIBOR, EURIBOR and TIBOR to consider the development and introduction of alternative benchmarks (referred to conveniently as "TIBOR+" in the FSB Report) more anchored in actual transactions to place more emphasis on the compliance with IOSCO Principles.

As for JABATA, it was established in April 2014 primarily pursuing better alignment with the IOSCO Principles as well as independent and sophisticated governance system in relation to TIBOR. JBATA took over the administrative operations for TIBOR from the Japanese Bankers Association.

Along with the establishment of JBATA, the "JBA TIBOR Code of Conduct" which reference banks are required to comply with (the "Code of Conduct") was established. The Code of Conduct specified the example of relevant markets to be referenced in the rate calculation process and clarified the concept of "prime banks".

The Code of Conduct has been reviewed on a continuous basis since then. It was revised on July 4, 2014 to explicitly set forth that actual transactions should be given the highest priority. It also clarifies criteria for use of expert judgment in the rate

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4 For the IOSCO Principles, see https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf.

5 For the results of review, see http://www.financialstabilityboard.org/wp-content/uploads/r_140722a.pdf.
IOSCO separately requires each administrator to implement self-assessment. JBATA published the results of self-assessment on July 7, 2014. (http://www.jbatibor.or.jp/english/news/compliance_with_iosco_principles_for_financial_benchmarks19_principles.html).
Note that the base date (July 4, 2014) is set at a few months later than review by IOSCO (information up to April 11, 2014 was reflected).

calculation process at each reference bank. As such, JBATA has promoted TIBOR reforms proactively from various viewpoints.

As part of such efforts, lately, the number of the published tenors was reduced to 6 tenors[6] from 13 tenors in total since April 2015 in order to ensure the degree of reliance on actual transactions data.

As stated above, significant progress has been achieved in the TIBOR reforms. The Code of Conduct already stipulates that the highest priority should be given to actual transactions in the hierarchy of data input for the rate submission process.

(2) Overview of the 1st public consultation

As stated in the previous section, the FSB Report requires each administrator to consider the development and introduction of alternative benchmark which will be more anchored in actual transactions.

The FSB Report points out that the volume and the number of interbank funding transactions may be insufficient for certain tenors under recent financial environment. As an example of the approach to address this issue, the FSB Report recommends expanding the scope of collecting actual transactions data, i.e. the basis of rate calculation, to include wholesale funding transactions.

At the same time, the FSB Report indicates that the impacts on practical process regarding agreements between users of the benchmarks as well as the legal risks arising from transition need to be considered thoroughly.

JBATA has always been putting the highest priority on securing the credibility of the JBA TIBOR and maintaining international confidence. Since its establishment, JBATA has implemented many actions based on the results of the IOSCO's review and a number of the reforms set forth in the preceding section. In addition, JBATA has discussed with various stakeholders and considered the alternative benchmark as recommended in the FSB Report, paying due considerations to its objective to minimize the potential risks for manipulation of benchmarks through anchoring in actual transactions.

As part of this consideration, JBATA specified the outline and raised major issues regarding the direction of the further reforms, and sought feedbacks through the 1st public consultation over the period from December 2014 through February 2015.

Both of following two options included in the FSB Report were suggested in the 1st consultative document, as a key issue. JBATA sought feedbacks from users and other stakeholders.

6 Tenor indicates the period of a transaction in general. As per tenor for TIBOR, each interest period of published TIBOR rate: there are 6 types of tenors currently: 1 week, 1 month, 2 months, 3 months, 6 months and 12 months.

<Option 1>

Expand the scope of the "underlying markets," whose "underlying interests" that TIBOR seeks to measure, to include the wholesale funding markets, instead of limiting the scope to the interbank markets; and determine the rate based on transactions data of the expanded underlying markets.

<Option 2>

While maintaining the currently-applied concept of treating the "interbank markets" as the underlying markets, regard the "wholesale funding markets" as a "relevant markets"; and prioritize markets and quotes by those characteristics (i.e. take a waterfall approach) to derive a reference rate as follows: a reference rate is generated primarily from actual transactions on the underlying markets, secondly from actual transactions on the relevant markets, thirdly from committed quotes based on which transactions are committed to trade, and then from indicative quotes.[7]

(3) Results of the 1st public consultation

During the 1st public consultation period, we received comments from various corporations and financial institutions (for typical comments received and JBATA's response, see Appendix 1).

We recognized that TIBOR is directly referenced in contracts related to financial transactions, and also is referenced by many stakeholders as a guide for prevailing market rates.

Several respondents commented on the significance of maintaining the continuity and consistency of TIBOR as a benchmark. Concerns were also expressed about a possible excessive increase in volatility as a result of expanding the scope of the underlying markets to include the wholesale funding markets in line with further reforms.

(4) JBATA's view based on the results of the 1st public consultation

JBATA's view based on the background above and the comments received through the 1st public consultation is as follows:

[7] For the explanation of <Option 2>, the 1st consultative document noted that "in this case, with regard to some element arising from differences in the definition from the underlying market, the range of interest rates could be adjusted by using some estimation model without involving the discretion of panel banks. Further, if there is no actual transaction on the relevant markets, expert judgment may be used in the waterfall approach as a last resort.

JBATA will continue to undertake efforts to ensure international confidence in TIBOR through improving the transparency of TIBOR, while respecting the objective of the FSB Report to minimize potential risks for benchmark manipulation through anchoring in actual transactions to the greatest extent possible.

In undertaking these efforts, given that TIBOR is widely used, JBATA recognizes that careful consideration is essential to minimize an impact on users and other stakeholders.

In the 1st public consultation, many respondents commented about the necessity of maintaining the TIBOR's concept and continuity in response to the question about further reliance on "actual transactions", including expansion of the scope of underlying markets (see Appendix 1 (1) ①). This indicates that TIBOR is used by focusing on "underlying interests" [8] that TIBOR seeks to measure. It is necessary for JBATA, therefore, to develop detailed actions for future TIBOR reforms paying appropriate attention to any possible impact on users and other stakeholders if the nature of the "underlying interests" that TIBOR seeks to represent is going to be altered.

Given the above, to achieve the objective of the FSB Report more effectively, the most appropriate and feasible approach for the reform should be "improvement of the transparency and objectivity of the rate calculation process" for the existing TIBOR, thereby achieving TIBOR+.

JBATA believes that it should be more appropriate to adopt **<Option 2>** as the measure to proceed such reform, rather than **<Option 1>** among two options set forth in page 5. (In this 2nd public consultation, we seek comments on this. (See paragraph (1) Basic concept of TIBOR reforms of Section 3. Questions described in page 24)).

The **<Option 2>** shall also explicitly define how to make reference to the actual transaction data in the rate calculation process, prescribing an objective hierarchy, i.e. "waterfall methodology". JBATA will require reference banks to comply with it in accordance with the Code of Conduct. [9]

[8] The "underlying interests" that TIBOR seeks to represent is expressed in the definition of TIBOR, and that should be interpreted by comprehensively understanding the meaning implicated in the benchmark name before abbreviation: "Tokyo Inter Bank Offered Rate" and the contents stipulated in "Section 1. Definition" of the "JBA TIBOR Code of Conduct" (see note 2 and Appendix 2).
(JBA TIBOR Code of Conduct:
http://www.jbatibor.or.jp/english/public/pdf/150302%20JBA%20TIBOR%20Code%20of%20Conduct.pdf)

[9] The Order for Enforcement of the Financial Instruments and Exchange Act revised in May 2015 strengthens reference banks' compliance with Code of Conduct from legal perspectives. The Code of Conduct for reference banks is available at:

JBATA believes that the level of transparency and credibility required by the FSB Report and the IOSCO Principles can be sufficiently ensured by combining the clarification of such prescribed rate calculation process, including the "waterfall methodology", and a framework of requiring compliance therewith.

Furthermore, this proposed reform approach will maintain the identity between TIBOR and TIBOR+. It would not be therefore necessary either to establish a new benchmark different from TIBOR, or to implement parallel run[10] over a certain period of time. As a result, an impact on the existing TIBOR users and other stakeholders (for example, an impact on existing contracts that make reference to current TIBOR, e.g. practical burden arising from transitioning from such existing contracts to new contracts that reference TIBOR+) would be reduced.

The subsequent pages give a detailed description of such proposed TIBOR reforms, assuming our adoption of the **<Option 2>**.

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http://www.jbatibor.or.jp/english/public/pdf/150302%20JBA%20TIBOR%20Code%20of%20Conduct.pdf.

[10] During the 1st public consultation (see Appendix 1 (2)), relatively many respondents commented on supporting parallel running. However, it should be understood that such comment was made in response to the question assuming that TIBOR+ drastically differs from the existing TIBOR. Different from the assumption in the proposed reforms this time, if the TIBOR+ is expected to differ from the existing TIBOR significantly, JBATA would also believe that a more appropriate option would be to separately establish a benchmark equivalent to TIBOR+ as a new benchmark totally different from the existing TIBOR (and give a name that is utterly irrelevant to and is not confused with the current TIBOR) and provide a certain parallel running period.

2. Proposed “Further TIBOR Reforms”

(1) Basic concept

Currently, JBATA considers the following basic concept underlying “Further TIBOR Reforms”, assuming that the <Option 2> stated in page 5 is adopted:

<Basic concept>

- Standardize and clarify the calculation and determination processes for rates submitted by reference banks in order to enhance transparency and credibility of the existing TIBOR in line with the FSB Report.
- Explicitly define the waterfall methodology used in the rate calculation process and require reference banks to submit rates based on it through requiring compliance with the Code of Conduct.
- The waterfall methodology shall cover not only unsecured call transactions (Euroyen transactions in the Japan offshore market in the case of Euroyen TIBOR) as actual transactions used in calculating submission rates, but actual transactions in the wholesale funding market (NCD and Large Term Deposits with corporates, etc.) in light of the recommendations contained in the FSB Report.
- As a result of the reforms of the existing TIBOR as stated above, the level of transparency and credibility required in the FSB Report will be achieved by realizing, in a seamless manner (i.e. with no revision in the definition of the existing TIBOR and by maintaining its identity on a continuous basis), the idea of TIBOR+ that FSB requires administrators to consider.

(2) Proposed waterfall methodology

JBATA considers the waterfall methodology to be used by each reference bank to calculate and submit the rate as follows (cf. See [Table 1]):

[Table 1] Proposed waterfall methodology for Japanese yen TIBOR (*1, 2)

1st Level	Use data in the Underlying Market	
1-1	Actual Unsecured Call transactions	• Actual transaction data suitable for the "underlying interest" TIBOR seeks to represent.
1-2	Committed Quotes of Unsecured Call transactions	• Offered rates which are committed to execute in the brokered Unsecured Call Market.
1-3	Indicative Quotes of Unsecured Call transactions	• Refer the fluctuation of indicative quotes in the brokered Unsecured Call Market from the previous business day. (e.g. determine the rate submission for the day by adding/subtracting the 1-day change of indicative quotes to/from the rate submitted on the previous business day.)
1-4	Linear Interpolation and/or Retroactive Use, etc. [11] of actual transactions data	• Reference banks may apply linear interpolation between two adjacent tenors calculated according to sub-tier [1-1][12]. • If linear interpolation is not applicable, collect and use actual transactions data by dating back a certain number of days, etc.
2nd Level	Use data that are considered quasi-equivalent to data in the Underlying Market	
	Data of Japan Offshore Market and Interbank NCD market	• Apply in the same manner as [1-1] to [1-4] above.
3rd Level	Use data in relevant markets, such as the wholesale funding market	
	① NCD transactions (other than Interbank) and Large Term Deposits ② Indicative Quotes displayed on brokers' screens for short-term government bonds market, GC repos market, OIS markets, and other relevant markets	• As for the actual transactions data stated in ①, a possible approach is either to calculate a bank's submission rate by adding/ subtracting the shift of transaction rates from that of the previous business day to/from the rate submitted on the previous business day, or to use the data in ① directly. • As for Indicative Quotes data stated in ②, a possible approach is either to calculate a bank's submission rate by adding/subtracting the shift of indicative quotes from that of the previous business day to/from the rate submitted on the previous business day, or not to use any indicative quotes.
4th Level	Expert Judgment	
	Not assumed to be applied in normal circumstances.	

*1 The proposed design is for reference banks to determine the "Japanese yen TIBOR"

11 Dominant approaches are linear interpolation and retroactive use of data as well as parallel shift of 6 months and 12 months tenors.

12 Out of the methodologies of linear interpolation and linear extrapolation, JBATA considers that it is reasonable to select the linear interpolation method.

submission rates. Underlying markets is therefore the Unsecured Call Market. On the other hand, with regard to the design of waterfall methodology to be used in submitting "Euroyen TIBOR" rates", "Unsecured Call transactions" and "Unsecured Call Market" are assumed to be replaced with "Euroyen transactions" and "Japan Offshore Market", respectively.

*2 The proposed design may be revised in light of comments received through the 2nd public consultation and future discussions with relevant authorities.

① 1st Level Use data in the Underlying Market

This level 1 is located at the highest tier of waterfall structure (i.e. the highest priority). Actual transactions in the underlying market are considered in the order of:

[1-1] Use actual transactions data in the underlying market

[1-2] Use committed quotes in the underlying market

[1-3] Use indicative quotes in the underlying markets

[1-4] Use values automatically derived from actual transactions data, via linear interpolation approach and/or retroactive use of actual transactions data

Key points on the design of the 1st Level are the following 3 points from A) to C):

A) Appropriate scoping of collecting actual transactions data [1-1][1-4]

In sub-tiers [1-1] and [1-4] of the 1st Level, actual transactions data in the underlying markets is used proactively. The data shall be filtered with a certain prescribed criteria automatically by each reference bank before calculating submission rates, in order to exclude data that are away from the "underlying interest" which TIBOR seeks to represent. The keys to consider such criteria will be the following a.), b.) and c.):

a.) Scope of collecting actual transactions data (timing) [1-1]

JBATA considered the scope of collecting actual transactions data, which should be the basis of rate calculation, on the basis of "as of 11:00 a.m." which is one of the key elements of the TIBOR definition. In the proposal, we assume that actual transactions traded at any given point in the past can be included to a certain extent in order to increase the population of "actual transactions" as possible with an aim to further anchoring on actual transactions.

For example, JBATA believes that the collection and use of actual transactions which were executed during the past 24 hours, i.e. from after 11:00 a.m. on the previous business day till 11:00 a.m. on the day, to reflect in a submission rate after the weight-averaging calculation by transaction volume can be considered as "harmonized with the definition" with "the possible widest scoping", given the consistency with the publication cycle and nature of TIBOR being updated once a day.

The data on transactions retroactively observed at a point in time before the past 24 hours, on the other hand, shall not be used at the 1st Level in principle[13] considering "as of 11:00 a.m."

As a supplementary measure, establishing certain objective criteria to consistently and accurately express the "underlying interests" which TIBOR seeks to represent would be necessary and effective to ensure the quality and reliability of TIBOR in the long run. An example of such criteria is "in the event of any revision to monetary policies or occurrence of market turmoil, data of actual transactions before such event shall not be applicable for direct usage".

b.) Scope of collecting actual transactions data (geographical concept) [1-1] [1-4]

Scoping of actual transactions data in "Japan Unsecured Call Market", which is the underlying market of Japanese yen TIBOR, would not be controversial issue. As per the case of Euroyen TIBOR, however, it would be necessary to explicitly define whether if Japanese yen investment and funding activities between overseas entities should be included in the scope of collected data.

In the context of the term "Japan Offshore Market" in the TIBOR definition, JBATA considers that it should be appropriate to include in the scope of the data collection actual transactions data which contains at least in one side the Tokyo center of a financial institution which applies the Special International Financial Transaction Account.[14] Accordingly, actual transactions data between overseas entities shall not be used at these tiers (i.e. [1-1] and [1-4]).

c.) Scope of collecting actual transactions data (counterparty) [1-1] [1-4]

With regard to "transactions between prime banks" and "a prevailing market rate", which are the elements of the TIBOR definition, it is necessary to properly establish the scope of collecting actual transactions data, as with the "timing" and "geographical" concepts discussed above.

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13 The reason why "in principle" is herein specified is because there is an approach of giving some flexibility and allowing for example 10:00 a.m. till 10:00 a.m. or 9:00 a.m. till 9:00 a.m. from a viewpoint of ensuring actual transactions data as much as possible although data collection for the past 24 hours assumes, in principle, a period of time from 11:00 a.m. to 11:00 a.m. (See page 22 ④).

14 This can be opened upon approval of the Minister of Finance in Japan, assuming that a financial institution manages funds abroad, originally provided by foreign counterparty, in accordance with the Foreign Exchange and Foreign Trade Act.

The actual transactions data which can be deemed as those in substance identical to “transactions between prime banks” should be collected and used proactively as the basis of submitting rates assuming “transactions between prime banks”, which forms part of the TIBOR definition. For details of the scope, see [Table 2] below.

[Table 2] “Transactions between prime banks” and the scope of collecting actual transactions data

Investing side / Financing side	Prime banks	Non-prime banks	
		Deposit-taking financial institutions	Non-deposit-taking financial institutions
Prime banks	**Scope of collecting actual transactions data**		

Even if the bank on the investing side does not meet the criteria for Prime banks from a perspective of creditworthiness and financial soundness (i.e. Non-prime bank), as long as a “deposit-taking financial institution[15]” invests money to a prime bank, the rate will be deemed identical to the rate which a prime bank should apply to another prime bank. JBATA intends to utilize such actual transactions data proactively including in the scope of the data collection. Those shall be used as the basis of rate submission by reference banks at sub-tiers [1-1] and [1-4].

In addition, in light of better reflection of “prevailing market rate”, JBATA is considering that each reference bank shall automatically exclude data with significant difference from the interest rate level of “underlying interest” which TIBOR seeks to represent, before calculating the submission rate.

15 In this context, in the Unsecured Call Market and Japan Offshore Market, market participants categorized as a non “deposit-taking financial institution” assume a securities company, a life insurance company, a non-life insurance company, an investment trust company, etc. There may be a large difference in transactional behavior in the money market between “deposit-taking financial institutions” and non “deposit-taking financial institutions” since non “deposit-taking financial institutions” do not have reserve account with the BOJ and do not have to retain statutory balance requirements.

B) “Committed Quotes” and “Indicative Quotes” [1-2] [1-3]

FSB Report requires a framework to be designed in a manner to anchor in “actual transactions” to the extent possible in order to minimize opportunities for benchmark manipulation. The use of “Committed Quotes”, i.e. the quoted rates at which intentions to execute a transaction has been confirmed but such transaction has not yet been executed, and “Indicative Quotes”, i.e. the quoted rates with relatively lower degree of linkage to actual transactions, are both permitted by the FSB Report, while these types of quotes are regarded as subordinated to actual transactions in the wholesale funding market (NCD transactions with corporates and Large Term Deposits).

JBATA believes, however, that a mechanism of calculating submission rates by giving priority to these quotes than wholesale funding transactions (i.e. by placing these quotes as superior to wholesale funding transactions under the waterfall methodology) is appropriate for the following two main reasons:

i) Given that Committed and Indicative Quotes are rates observable in the interbank markets and are actually referenced and utilized widely among market participants although those are not executed as actual transactions, these quotes are considered to be more consistent with the TIBOR definition than NCD transactions with corporates and/or Large Term Deposits; and,

ii) Both Committed and Indicative Quotes are calculated and published by third parties - market brokers *or Tanshi* in the Call Market. Therefore, from a viewpoint of objectivity and transparency, these quotes are not necessarily considered to be significantly subordinate to either NCD transactions and Large Term Deposits which respective reference banks execute with certain counterparties in vis-à-vis relationships or directly traded (i.e. not brokered by *Tanshi*) Unsecured Call transactions (which are referenced in the sub-tiers [1-1] and [1-4]).

In designing this waterfall methodology, in addition, JBATA believes that the following three measures should be useful to ensure the appropriateness in light of the objectives of the FSB Report:

- ✓ Committed quotes are those which will be executed immediately when transactional needs exist on the opposite side and therefore are considered to be closer in nature to actual transactions data than indicative quotes which are mere quotes. Accordingly, it is reasonable to apply Committed Quotes to sub-tier [1-2] the same reference method as actual transactions; i.e. directly reflect the rate level in a submission rate. On the other hand, with regard to Indicative Quotes, an approach to reference the change of the quoted levels from that of the previous business day to derive the change in submission rates is applied to sub-tier [1-3]. Given the nature and limitation of each data, detailing the design which embeds different ways of using each data will enable the waterfall methodology to effectively reflect the difference in the degree of linkage to actual transactions, into a submission rate.

- ✓ With regard to the information screens[16] provided by *Tanshi* or brokers, which is used for reference of Indicative Quotes, etc., reference banks shall register with JBATA, in advance, multiple screens which are contracted and intended to make reference to, as the basis of rate submissions. Besides, some additional measures, such as requirement to use as many eligible information on the screens as possible (we are planning to developing certain criteria for eligibility, such as deeming a tenor "eligible" only when displayed with both Offer/Bid sides) and averaging the change in mean rates of those eligible tenors, will effectively eliminate arbitrariness of reference banks and other relevant parties.
- ✓ Time window in which reference banks can make reference to Quotes shall not be limited to the last minutes before 11:00 am. For instance, JBATA believes that, setting an ample time window like 30 minutes from 10:30 am to 11:00 am, etc. and arrangements therein like allocating a differentiated time slot to each reference bank in advance, will enables us to effectively eliminate the distortion by quotes away from market level which can't be shown for a length of time and other potential manipulation risks.

C) Linear interpolation and/or retroactive use of actual transactions data [1-4]

a.) Linear interpolation and parallel shift

With regard to a tenor for which a reference bank cannot determine a submission rate in line with sub-tiers [1-1] to [1-3], if such tenor is adjacent to a tenor for which a rate can be determined in line with sub-tier [1-1], linear interpolation method (see Figure 1) would be applied. This method is consistent with the direction of "anchoring in actual transactions" to the extent possible even in situations where the volume of actual transactions is small.

On the other hand, linear extrapolation method (see Figure 2) has a characteristic that actual transactions data at two points may excessively amplify the volatility of the derived rate to unpredictable or unperceivable extent, depending on the term of interest for which the rate is to be calculated. Thus, JBATA is not intending to hire the method.

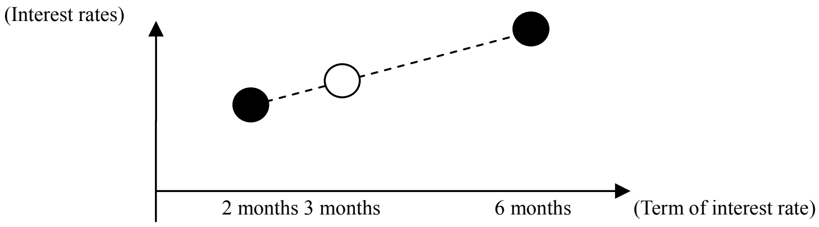
A parallel shift with a different tenor can be also assumed (see Figure 3). Specifically, for the 12 months tenor which has relatively small volume of actual

[16] The computer screens which market participants can browse by separately entering into a contract with information providers. Such screens vary, depending on types of transactions and information sources. *Tanshi* or brokers update, in real time, market information such as market quotes and execution status of market transactions.

transactions data, the assumption will be especially beneficial from a viewpoint of ensuring rate submission to be anchored in actual transactions data to the extent possible. In detail, JBATA suggests that a 12 months rate could be deemed to move with a 6 months rate in parallel (on a business day-on-day basis) only if the 6 months rate is determined on the basis of actual transactions data in line with sub-tier [1-1]. This assumption should be reasonable because general factor of the movements in yield curves are mostly parallel shifts.

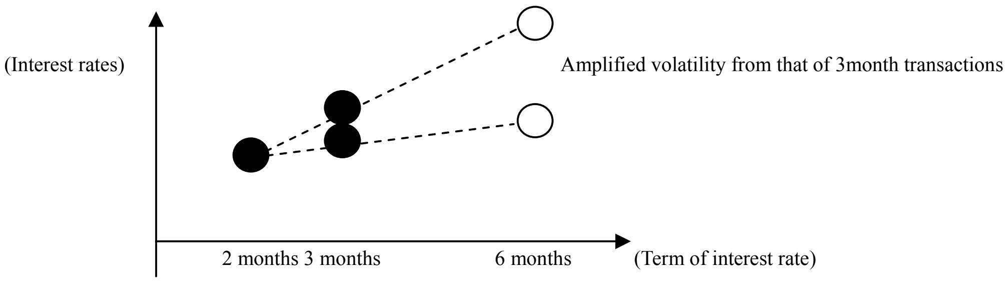
[Figure 1] Illustrative diagram of linear interpolation method

(3 months rate ○ derived from actual transactions ● of 2 months and 6 months rates)



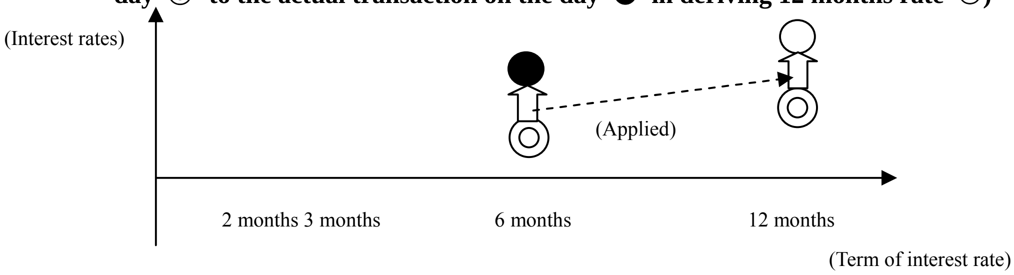
[Figure 2] Illustrative diagram of linear extrapolation method

(6 months rate ○ derived from actual transactions ● of 2 months and 3 months rates)



[Figure 3] Illustrative diagram of parallel shift method for 6 months and 12 months rates

(Apply in parallel the change in 6 months tenor from TIBOR of previous business day ◎ to the actual transaction on the day ● in deriving 12 months rate ○)



As per the range of the contract period (the number of days) for an actual transaction that corresponds to each tenor, an approach of categorizing the contract period by the following duration would be used. In order to collect a number of actual transactions data, it would be better to set a wider range of the terms that correspond to each tenor to some extent.

[Table 3] shown here as an example is based on actual classification of the actual transactions data that JBATA currently collects from reference banks. Adjacent tenors available in this linear interpolation should be limited to the tenors listed in [Table 3]. This would be more understandable for users from a viewpoint of transparency of benchmarks.[17]

[Table 3] Example of setting a range of contract period (the number of days) by tenor

Tenors	Minimum number of calendar days (days)	Maximum number of calendar days (days)
(O/N)	(1)	(3)
1 week	4	15
1 month	16	45
2 months	46	75
3 months	76	105
6 months	166	195
12 months	346	375

For example, even if actual transaction data happens to exist around 4 months tenor, that should not be reflected in the rate calculation process. The tenors excluded from [Table 3] are not generally used in market practice and have little number of transactions. JBATA discontinued publishing such tenors last April. Reliance on such tenors discontinued cannot expect a significant effect of an increase in actual transactions data, and that may be deemed to lack transparency by users and other stakeholders.

Conversely, while taking this balance into account, the O/N listed in [Table 3] is

[17] The IOSCO Principle 9 (Transparency of Benchmark Determination) requires administrators to disclose the basis of a Benchmark determination. Through the Proposed Reforms, JBATA intends to consider and realize improved transparency by taking certain measures. For example, JBATA will collect information of the Level used (either one from the 1st to 4th Level) in each rate submission process, and then JBATA discloses the calculated percentage of each Level.

expected to have a considerable volume of actual transactions data. Therefore, although the O/N tenor has not been published for TIBOR, it would be used exceptionally as an adjacent tenor in interpolating to derive 1 week rate to anchor more in transactions data.

b.) Retroactive use of actual transactions data

In the event that rate submission is difficult because the linear interpolation cannot be applied, retroactive collection of actual transactions data may be permitted by dating back a certain number of days.

The older data is, the further it is from "as of 11:00 a.m." However, data dating back over approximately 5 business days should be permitted in sub-tier [1-4] although this would not be permitted in sub-tier [1-1], because balancing with the objective of the FSB Report, i.e. reliance on as many actual transactions data as possible, is also important in this reform. (We seek feedback on appropriateness to permit dating back to the past approximately 5 business days. (See Section 3. Questions, (2) Proposed waterfall approach, item b), page 25.))

As a supplementary measure, establishing certain objective criteria to consistently and accurately express the "underlying interests" which TIBOR seeks to represent would be necessary and effective to ensure the quality and reliability of TIBOR in the long run. An example of such criteria is "in the event of any revision to monetary policies or occurrence of market turmoil, data of actual transactions before such event shall not be applicable for direct usage".

c.) Combination of a.) and b.) described above

In the event that a submission rate could not be determined even using all of the approaches stated above, it should be permitted to apply the approach stated in item b.) above, i.e. dating back to the past 5 business days or so, in order to collect actual transactions data for adjacent tenor required in the approach stated in item a.) above. This is also one of measures to strengthen reliance on actual transactions data for as many tenors as possible.

②2nd Level Use data that are considered quasi-equivalent to data in the underlying markets

This is the second highest in the waterfall structure. This 2nd Level enables "Japanese yen TIBOR" and "Euroyen TIBOR" to make reference to the other underlying market each other. (See also Note *1 of [Table 1].)

The reason is because these markets have a common characteristic as a Japanese yen interbank funding market in Tokyo.

Since JBATA also consider that the interbank NCD market has similar characteristics to such concept, interbank NCD transactions will be incorporated proactively in this tier to the extent possible.

Since these have similarities with the underlying market of TIBOR, it would be appropriate to basically apply the same treatment to them as sub-tiers [1-1] to [1-4] described in the 1st Level of the waterfall methodology. (If this is not applicable to certain transactions, e.g. *Tanshi*/broker markets do not exist for the interbank NCD transactions, apply the lower tiers respectively in order.)

③3rd Level Use data in relevant markets, such as the wholesale funding market

This 3rd Level expands the scope of actual transactions data to include surrounding related markets in order to increase the volume of actual transactions data to be used.

In order to reduce the frequency of relying on rate submission based on expert judgment in the 4th Level as possible, key points will be how to use actual transactions data acquired from NCD (non-interbank) and Large Term Deposits, and how to use, in the waterfall design, Quotes data collected from broker screens for the short-term government bonds market, GC repos market and OIS market, i.e. the markets deemed to move in close alignment with risk-free rates.

The former transactions data (i.e. NCD (non-interbank) and Large Term Deposits) individually reflects each vis-à-vis relationship between a bank and its counterparty and may contain an element regarded as noise when viewed from the market-wide movement. JBATA therefore considers that it is inappropriate to use such rate as a submission rate unless weighted-averaged from a large number of data samples (cf. Based on the data collected from reference banks, the average number of data available per day would be limited up to a few per one tenor. That also varies among banks.).

However, those (i.e. NCD (non-interbank) and Large Term Deposits) are still the actual transactions data which FSB Report recommends to use. JBATA will, therefore, proactively use them as follows:

Similarly to the method applied in sub-tier [1-3], JBATA will calculate the change of those rates from the previous business day by transaction type (e.g. deduct the weighted average rate for the previous business day from that for the current day), as well as the 1-day changes of Quotes in the short-term government bonds market, GC repo market, and OIS market. A rationale behind the method, which JBATA believes, is that such actual transactions data collected from NCD (non-interbank) and Large Term Deposit would be usable as part of the elements to gauge up/down movement of the entire market, as long as the data is used through average-comparison method against the same type of transactions of the previous business day, even though the absolute levels of such transaction rates might contain some factors which could decrease reliability.

The possibility to incur inexplicable volatility would be effectively reduced by applying the "weighted-average approach with appropriately predefined weight allocation" to the "estimated change from the previous business day" estimated by actual transactions or quotes for "a set of multiple types of the transactions appropriated selected in advance".

As one example, Reference Banks would apply a weighted-average approach using the data acquired from the five markets we discussed so far, and the change from previous business day will be equally (i.e. 20% for each) weighted and averaged among those five. Submission rate will be then derived from sum of the previous submission rate and the calculated change. In this weight allocation, we can utilize wholesale market data (NCD (non-interbank) and Large Term Deposit) being balanced with 60%-weighted simple and "near risk-free" markets (the short-term government bonds market, GC repos market and OIS market) to capture the fluctuation of the market environment appropriately therein.

Further, it would be important to incorporate a framework for JBATA to periodically review and revise the weight allocation and eligible relevant markets to be referenced, so as to address changes in market environment at all times.

Given the above, and since the submission rate on the previous business day exists every business day, and since at least one of five relevant markets data is basically expected to have actual transactions or quotes, the design discussed above would be optimal also from a viewpoint of minimizing a potential application of the 4th Level of the waterfall methodology.

This 3rd Level involves more types of transactions than other Levels and methods of using data is somewhat broad, as shown in [Table 2]. We therefore seek comments particularly on the contents of the 3rd Level (see Section 3. Questions, (2) Proposed waterfall approach, item c), page 25).

④4th Level Expert Judgment

This 4th Level is placed just in case of the Expert Judgment is required.

As explained in the 3rd Level, in light of the objective of the FSB Report, JBATA believes that the waterfall design shall enable the daily rate determination process to be basically completed at either of the the 1st to 3rd Levels of the proposed waterfall methodology.

However, it would be also useful and essential to retain the room for rate submission based on Expert Judgment in order for users to capture prevailing market rates in the occurrence of unexpected events, such as disaster, sudden market turmoil, and a change in a financial policy, etc.

In exercising reference banks' respective judgment, the relevant markets and methods listed in the 1st to 3rd Levels in principle should be used or utilized to the extent possible, even partially applied. However, considering that Expert Judgment is supposed to be used only in times of emergency, JBATA will not prescribe the list of relevant markets to be referenced, not to deprive latitude necessary for determining the rate and impair the stability (i.e. consistent rate publication) of JBA TIBOR. From a viewpoint of ensuring transparency of the rate determination process, the basis of rate calculation shall be recorded and retained in the form prescribed by JBATA.

(3) Open issues

JBATA will continue considerations on the following issues, ① to ④:

① **Necessity of integrating Japanese yen TIBOR and Euroyen TIBOR**

② **Further discontinuation of a part of tenors**

③ **Discontinuation of simultaneous publication of individual submissions**

④ **Sophistication of data collection by JBATA**

Issue ① to Issue ③ were raised in the 1st public consultation and JBATA sought feedback. These are critical for JBATA in achieving TIBOR+ from viewpoints of increasing reliance on actual transactions and enhancing the degree of compliance with the IOSCO Principles to a higher level.

With regard to the Issue ④, further we need to consider and implement a more sophisticated collection process of transactions data promptly after the Proposed Reform to achieve TIBOR+ is finalized.

<①Necessity of integrating Japanese yen TIBOR and Euroyen TIBOR>

- At this moment, neither “integration of Japanese Yen TIBOR and Euroyen TIBOR” nor “discontinuation of either one of those two TIBORs” will be implemented. JBATA will keep considering this topic as an open issue.

(Explanation)

The 1st consultative document provided a question: “Do you think there will be any significant impact if the whole Euroyen TIBOR rates are discontinued?”, following the explanatory sentence that if the difference between Japanese yen and Euroyen TIBOR rates is eliminated by expanding the scope of the underlying markets, Euroyen TIBOR that is used in relatively low frequency may be discontinued and only the Japanese yen TIBOR rate may be published.”

In response to this question, many respondents noted that their firm executes no transaction that refer to Euroyen TIBOR and hence the discontinuation of Euroyen

TIBOR would have no impact. On the other hand, some respondents commented that such discontinuation would impact on contract renewal procedures to some extent.

JBATA also pays attention to 3 months Euroyen TIBOR from a viewpoint of an impact on users, although we received no particular comments through the 1st public consultation. 3 months Euroyen TIBOR is used as an underlying benchmark of “Euroyen interest rate futures” which is a product listed on the Tokyo Financial Exchange Inc. In the interest swap market, in addition, that may be widely used as the index of “IMM swap” which is linked to the “contract month calendar” of the futures. JBATA will keep considering about this issue based on such understanding.

<②Further discontinuation of a part of tenors>

- JBATA considers additional discontinuation of tenors with limited use, such as 2 months and 12 months, if consistent calculation and publication with objectivity become difficult, in order to achieve higher accuracy of the waterfall design discussed above.

(Explanation)

In the 1st public consultation, we asked a question about an impact of discontinuation of some tenors (e.g. 12 months TIBOR rate). Accordingly, the comments received were mostly limited to “12 months rate”. Many respondents commented on “no impact”, whereas some responded that “the rate is referred to in intergroup funding transactions”, etc.

JBATA started collecting anonymous, actual transactions data from reference banks following the recommendations in the FSB Report since January 2015. Through this data collection, we renewed our recognition that longer tenors (6 months and 12 months) and 2 months (not common tenor in the market convention) have relatively smaller number of transactions even after expanding scope from Unsecured Call Market and Japan Offshore Market to NCDs and Large Term Deposits.

Among those, it is projected that the 6 months is used more frequently than 12 months particularly in derivatives market and loans, etc. Therefore, our question will pick up 12 months and 2 months. We seek comments from users and other stakeholders on any impact that discontinuation of those tenors may have.

<③Discontinuation of simultaneous publication of individual submissions>

- JBATA considers discontinuing simultaneous publication of individual submissions when the Proposed Reforms will be implemented.

(Explanation)

In the 1st public consultation, we sought comments on the impact that the discontinuation of simultaneous publication of individual submissions may have.

Many respondents commented that there would be no particular problem as long as individual submissions would be published after a certain period of time (e.g. 3 months period).

Thus, JBATA intends to basically consider the discontinuation of simultaneous publication of individual submissions at the same timing as implementing TIBOR+.

However, this discontinuation may incur a certain constraints to the current practices in some cases, where individual submissions are referenced in loan agreements with a reference bank, etc. Such constraints may include the necessity to inquire rates from the bank individually.

We seek again comments on a material impact, if any, which simultaneous publication is discontinued and changed to disclosure after a certain period may give rise to.

<④Sophistication of data collection by JBATA>

- JBATA will consider sophisticating current framework of collecting data from reference banks after confirming the direction of the further reforms of JBA TIBOR.

(Explanation)

Based on the IOSCO Principles and FSB Report, it is necessary to further sophisticate the framework of collecting data of transactions along with the implementation of TIBOR Reforms.

JBATA will consider the type, granularity, and frequency (cf. currently monthly) of required data in the determined direction of further TIBOR reforms.

In response to this sophistication effort, reference banks will also be required to sophisticate their internal work stream such as collecting transaction data, use them as the ground of the rate submissions, and then, submit data to JBATA.

We recognize that the range of the transaction types that the rate submission department at a reference bank can reference to and the timings at which actual transactions data can be delivered internally between departments should vary across reference banks. JBATA will therefore ask reference bank for further cooperation to the data collection as well as further sophistication of each internal work stream, based on such recognition.

Regarding proposed time window of 24-hours for data collection, from 11:00 a.m. on previous business day till 11:00 a.m. on the day, for example, flexibility in design will be preferable to a certain permissible extent, which will be prescribed to minimize the arbitrariness, such as to apply 24 hours from 10:00 a.m. on the previous business day till 10:00 a.m. on the day or from 9:00 a.m. on the previous business day till 9:00 a.m. on the day.

In so far as minimum threshold for actual transaction size, given that the trading amounts and trading organizations should vary across reference banks, our priority should be placed on securing more number of actual transactions data to the extent possible by giving certain flexibility in setting the threshold in a manner to commensurate with reference banks' trading amounts and trading organizations as well as reduce the burden of Reference Banks, rather than applying a uniformed threshold amount.

3. Questions

Taking into account the direction of the JBA TIBOR reforms which is described above, JBATA would like to seek comments on the following four issues through this public consultation.

(1) Basic concept of TIBOR reforms (additional questions)

As previously mentioned, JBATA intends to achieve TIBOR+ through the ongoing TIBOR reform initiative and in doing so aims to achieve the reform seamlessly by maintaining identity with the definition of the current TIBOR.

If you have any comments on the basic concept (cf. P. 8 2. (1)), please submit with reasons.

(2) Proposed waterfall approach (new questions)

Please provide your views or comments, if any, on the proposed waterfall methodology described in pages 9 to 20, particularly in respect of: (a) the priority of quotes and relevant markets and (b) the scope of relevant markets to be included in the 3rd Level of the waterfall.

a.) The priority of quotes and relevant markets

While pages 9 to 20 set out our current proposed waterfall methodology, there is also an alternative design in order to make TIBOR a benchmark that reflects actual transactions in the wholesale market. Specifically, as indicated in the FSB Report[18], transaction data regarding relevant markets currently described in the 2nd and the 3rd Level, such as NCD transactions with corporates and Large Term Deposits, could be alternatively incorporated right below sub-tier [1-1] (so that it will be referenced in preference to current sub-tier [1-2] and [1-3]).

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[18] While it is suggested that IBOR+ should be anchored in actual transactions in the first instance, the Page 12 of the FSB Report also allows to reference different forms of data using a waterfall approach in some cases depending on conditions of currency and market liquidity, etc. by stipulating that “authorities should work with and guide the private sector to promote rates which are derived on a waterfall of different data types: underlying market transactions first, then transactions in related markets, then committed quotes, and then indicative quotes”. As specified here, the FSB Report suggests the prioritization in the following order: “underlying market transactions”, “transactions in related markets”, “committed quotes” and “indicative quotes”, indicating that the transactions in related markets which correspond to the 2nd and the 3rd Level of our proposed waterfall methodology should be referenced before “committed quotes”.

We have explained above (P. 9 to 20) what we consider as the best waterfall methodology from the perspective of maintaining identity with the definition of the current TIBOR. Please provide your comments, if any, on this proposed approach with reasons.

b.) As explained earlier (P. 17), the retroactive use of actual transaction data of the 1rst Level (i.e. to collect and use actual transactions data by dating back a certain number of days) is proposed. Please provide your comments, if any, on this "certain number of days" with reasons. For example, what are your views on our proposal to apply the "past 5 business days or so" as the certain number of days?

c.) Approaches to use actual transaction data, etc. at the 3rd Level are described above (P.9 to 20) for ① transactions (NCD transactions ((non-interbank) and Large Term Deposits) and ② relevant markets (short-term government bonds market, GC repo market, and OIS market).

Specifically, possible approach for data stated in ① is either to use the change from the previous business day or to use actual rate directly. As for data stated in ②, possible approach is either to use the change in Indicative Quotes from the previous business day or not to use any of ②. Please provide your comments, if any, on these approaches with reasons.

(3) Discontinuation of publication of 2 months & 12 months tenor (additional question)

Comments were sought in the 1st public consultation regarding possible impact if the publication of certain tenors of TIBOR, 12 months for example, is discontinued. In this 2nd public consultation, we would like to again seek comments from users on the impact that may be caused specifically by discontinuing 2 months and 12 months TIBOR rates (cf. see also P. 21 ② for a detailed explanation).

Do you think there would be any significant impact if the publication of 2 months and 12 months TIBOR rates is discontinued? If so, please provide your comments.

(4) Discontinuation of simultaneous publication of individual submissions (re-question)

According to the comments to the first consultative document, many respondents expected no particular impact so long as individual submissions will be published after a certain period of time (e.g. 3 months). Given this, we will proceed with the TIBOR reform under the policy to basically discontinue the simultaneous publication of individual submissions at the same timing.

However, this may give rise to a certain extent of constraints relative to the current practice in some cases where such individual submissions are used in banking transactions, particularly loans, with reference banks. Such constraints might include the necessity to inquire disclosing individual submission rates separately.

We would therefore like to seek comments again on this issue by also taking into account the point mentioned above. Do you think there will be any significant impact if the current simultaneous publication of individual submissions is changed to publication after a certain period of time? If so, please provide your comments (cf. see also P. 21 ③ for a detailed explanation).

[How to submit your comments]

(1) Consultation period

From Friday August 28, 2015 to Friday November 20, 2015

(Comments should arrive at JBATA no later than November 20, 2015)

(2) Submission

Comments would be submitted:

・by post to

Operation Department,

General Incorporated Association JBA TIBOR Administration

(Address: 1-3-1 Marunouchi, Chiyoda, Tokyo 100-8216, JAPAN); or

・by e-mail to

contact@jbatibor.or.jp.

[Notes]

Your comment would be titled "Comment on Promoting JBA TIBOR Reforms (2nd Consultative Document)" and would include the following information:

・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.

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]

Operation Department,

General Incorporated Association JBA TIBOR Administration

Phone: +81 (0)3-5252-4131

[Appendix 1] Overview of the Result of the 1st Public Consultation

- The overview of main comments submitted in response to the 1st consultative document "Promoting the JBA Tokyo Inter Bank Offered Rate Reforms following reports by Financial Stability Board ("FSB") and International Organization of Securities Commissions ("IOSCO")" published on December 24, 2014 (comment due date: February 10, 2015), and JBATA's approach to such comments is as summarized in the following table.
- By the comment due date, a total of 40 companies and organizations (i.e. 16 corporates and 24 non-corporates organizations) submitted their comments. We would like to take this opportunity to express our gratitude to your cooperation.

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
(1) Increased reliance on actual transactions including expansion of the scope of markets ・Assuming increased reliance on actual transactions to further enhance the transparency of TIBOR, the following questions were asked. ①Whether adjustments to address gaps from the current TIBOR level are necessary	①Many commented that adjustments should be made to mitigate changes from the current TIBOR level if the scope of the underlying market is expanded to include the wholesale funding market from the perspectives of maintaining the concept of the current TIBOR and ensuring continuity. On the other hand, some commented that calculation adjustments should not be made from the perspective of transparency.	➢ Taking into account comments, etc., we will further enhance the transparency of TIBOR by maintaining the concept of the current TIBOR while at the same time increasing reliance on actual transactions. ➢ We are considering ensuring transparency and integrity by prescribing a common design of waterfall methodology, which is to be used by reference banks in determining reference rates and sets out prioritization according to characteristics of the underlying market (i.e. the Japan Unsecured Call Market in the case of Japanese yen TIBOR or the Japan Offshore Market in the case of Euroyen TIBOR) and the wholesale funding market, etc.
②Whether to incorporate a mechanism which mitigates the volatility that may arise from	② Some requested that JBATA, as an administrator, should incorporate a mechanism to mitigate volatility on the basis that it would be difficult for users to address the volatility on a	➢ Taking into account comments, etc., we will further enhance the transparency of TIBOR by increasing reliance on actual transactions. ➢ From the perspective of

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
increased reliance on actual transactions	contract-by-contract basis. While, some commented that such volatility is acceptable if reflects market situations on the condition that transparency is ensured and outliers are removed.	mitigating volatility, we are considering determining prioritization according to characteristics of the underlying market and the wholesale funding market, etc. by prescribing a common design of waterfall approach to be used by reference banks in determining reference rates. ➢ We are considering keeping the current practice to omit the two highest and two lowest rates submitted from reference banks and then to simply average remaining rates submitted thereby removing outliers.
③Whether there is any type of markets that should, or should not, be additionally included given market/transaction characteristics when expanding the scope of underlying markets to include the wholesale funding market (NCDs and large term deposits)	③ Comments from the perspectives of maintaining the concept of current TIBOR and continuity requested not to expand the scope of underlying market to include the wholesale funding market. Others commented that such expansion is acceptable provided that transparency shall be ensured.	➢ Taking into account comments, etc., we will further enhance the transparency of TIBOR by maintaining the concept of the current TIBOR while at the same time increasing reliance on actual transactions. To this end, we are considering determining prioritization according to characteristics of the underlying market and the wholesale funding market, etc. by prescribing a common design of waterfall approach to be used by reference banks in determining reference rates.
(2) Impact on existing contracts and other concerns ・Assuming that	①While many preferred parallel run on the basis that they would need time to prepare for the transition to a new alternative benchmark from	➢ Taking into account comments, etc., we will further enhance the transparency of TIBOR by maintaining the concept of the

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
significant changes will occur as a result of the benchmark reform, questions were asked in respect of following issues which may have impact on users. ①Whether parallel run (to publish in parallel both the current TIBOR and its alternative) is preferable	the current TIBOR, some raised concern that publishing two benchmarks in parallel may cause confusion in the market.	current TIBOR while at the same time increasing reliance on actual transactions. To this end, we are considering determining prioritization according to characteristics of the underlying market and the wholesale funding market, etc. by prescribing a common design of waterfall approach to be used by reference banks in determining reference rates. ➢ With the above reform, we believe that a seamless transition to TIBOR+ can be realized and thus consider not implementing parallel run.
②An appropriate duration for the parallel run period	②Many commented that at least about one year would be necessary to capture various events, seasonal factors and other matters, while some commented that five years would be necessary as many of the existing contracts presumably terminate during that period.	➢ As mentioned above, we are considering not implementing parallel run.
③Whether guidelines on transition to the alternative benchmark should be provided by independent third-party members (e.g. a meeting comprised of experts including scholars)	③Many commented that they would like to have guidelines on transition provided by an independent third-party institution which does not have any interests so as to realize smooth transition to a new alternative benchmark from the current TIBOR.	➢ As a result of maintaining the current TIBOR concept, it is considered that implementation of parallel run will be unnecessary. Therefore, we are considering not presenting the guidelines by an independent third-party institution.

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
④Whether are any other concerns	④There was a comment raising concern about impact that may be caused by the reform given that the current TIBOR is used not only for existing financial transactions but also for intra-group funding transactions, internal evaluation, such as fair valuation, and interest rate risk control system, etc.	➢ Taking into account comments, etc., we will further enhance the transparency of TIBOR by maintaining the concept of the current TIBOR while at the same time increasing reliance on actual transactions. ➢ We are considering determining prioritization according to characteristics of the underlying market and the wholesale funding market, etc. by prescribing a common design of waterfall approach to be used by reference banks in determining reference rates, and are considering not implementing parallel run.
(3) Timing of the JBA TIBOR publication ・A question was asked for an acceptable time window if the publication of the TIBOR rates delays from the current timing, which is by 12 p.m. of the day.	○ Many commented that preferably the current timing of publication should be maintained as it affects procedures related to contracts, etc. and that even if the timing of publication becomes later than as it currently is, the TIBOR rates should be published at least within the day.	➢ Taking into account comments, etc., we are considering not changing the timing of publication from the current timing, which is by 12 p.m. of the day.
(4) Suspension of simultaneous publication of individual submissions ・If reliance on actual transactions	○ Many commented that there should be no particular impact so long as reference banks' reference rates are published after a certain period of time (e.g. three months later).	➢ We have discussed, and will further discuss, the suspension of simultaneous publication of individual submissions by taking into account comments, etc.

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
increases, it may become easier to estimate from individual submissions the creditworthiness of each panel bank. Therefore, a question was asked regarding the impact that may be caused by ceasing simultaneous publication of individual submissions and instead publishing them after, for example, 3 months		
(5) Discontinuation of certain tenors for TIBOR and the whole Euroyen TIBOR ・Questions were asked regarding the following points by taking into consideration that actual transactions data available may be small for some tenors even if the scope of markets expands, and the difference between	①Many commented that there would be no impact from the discontinuation of 12 months TIBOR rate because no transaction references that rate. On the other hand, some preferred the continuation of the 12 months rate as they reference it for intra-group funding transactions.	➢ Having discussed this issue by taking into account comments, etc., we have identified that the number of actual transactions to rely on is small for some tenors of TIBOR (e.g. 2 months and 12 months). We will further discuss this issue.

Questions in the 1st consultative document	Overview of main comments submitted	JBATA's approach
Japanese yen and Euroyen TIBOR rates may be eliminated if the scope of the underlying markets expands. ①Discontinuation of 12 months TIBOR rate		
②Discontinuation of Euroyen TIBOR	②Many commented that there would be no impact from the discontinuation of Euroyen TIBOR rate because no transaction references to that rate. On the other hand, concerns were submitted: discontinuation will cause certain impact, necessitating, for example, modification of contracts.	➢ Having discussed this issue by taking into account comments, etc., we have decided to continue discussing the integration of Japanese yen TIBOR and Euroyen TIBOR or the discontinuation of either of the rates by taking into consideration that the discontinuation of Euroyen TIBOR may cause a certain impact on users, such as necessitating them to make changes to transactions referencing to that rate.

[Appendix 2] Supplementary explanation on JBATA's approach based on the results of the 1st public consultation

1. Maintaining the current definitions

The current TIBOR is defined as rates which reference banks deem as prevailing market rates assuming transactions between prime banks on the Japan unsecured call market (or the Japan Offshore Market in the case of Euroyen TIBOR) as of 11:00 a.m., Tokyo time.

Further, the term "prime bank" is defined in the Code of Conduct as "a bank which is financially resilient (e.g. a bank having adequate capital and sufficient liquid assets) and which is a major player in the Japan unsecured call market (or in the Japan Offshore Market in the case of Euroyen TIBOR)".

While we are not denying the possibility of reviewing the definitions in the future according to users' needs and market conditions, as a result of the 1st public consultation, many raised concern that using data of, for example, deposits and other transactions with those corporate which have totally different nature from the definitions of the current TIBOR, may undermine the identity of the definitions and may result in undermining meaning of continuing TIBOR for users.

Given above, JBATA considers that it is important to proceed with and discuss the TIBOR reform by basically maintaining the currently-applied definitions. Further, when designing the structure of a proposed waterfall methodology, it is considered as appropriate to incorporate relevant markets in the 3rd Level. Designing the structure from such a point of view would also contribute to achieving a seamless transition.

Of those terms used in the definitions, the concept of "prime banks" and "rates deemed as prevailing market rates" in particular has enabled the continuous publication of TIBOR over the past 20 years during which various market events have occurred. Specifically, even in situations where actual transactions to be referenced were not available, each reference bank looked at the movement in the overall market from a market expert's viewpoint, analyzing at which rate a prime bank would be able to raise a fair amount of additional funds. We expect that such an aspect will continue to work effectively going forward from the perspectives of the continuity of and the stability in times of sudden market changes of the benchmark.

On the other hand, JBATA strongly recognizes the importance of enhancing the transparency and objectivity from users' perspectives in light of the FSB Report, etc. and considers that this can be realized without changing the current definitions by reviewing and clarifying the calculation method and through appropriate communication and disclosure by JBATA.

For information purpose, we have summarized below key elements of "underlying interest" which TIBOR seeks to represent, based on key words included in the name and definition of TIBOR.

① Geographical aspect	・It is assumed that Japanese yen TIBOR is an interest rate benchmark in the Japanese (Tokyo) market. ・Further, it is assumed that Euroyen TIBOR is a benchmark for transactions in the Japan Offshore Market where at least one of the parties to the funding transaction is located in Japan.
② "Parties" to the transaction	・ As indicated by its name, TIBOR (Acronym of Tokyo Inter Bank Offered Rate), TIBOR is assumed as a benchmark representing an interest rate in funding transactions between banks. Further, by the term "prime bank" included in the definition, it is assumed that parties to such transactions are banks (or deposit taking institutions) with high credit quality. (Namely, transactions with corporates are not basically assumed.) ・There are at least two reasons why transactions assumed for TIBOR are "transactions between prime banks". Namely: i) when the JBA TIBOR was introduced in Japan in 1995, it was intended to represent the underlying interest it seeks to represent as sharply as possible because at that time, a difference in interest rates used for funding between banks started to emerge in the Tokyo money market; and ii) a more realistic reason is that LIBOR also used the same term "prime bank" in its definition at that time. ・LIBOR changed its definition in 1998 to directly link with each reference bank's funding rate, instead of prime bank's funding rate.
③ Transaction types	・The Code of Conduct (section 1. "Definition") describes about the Unsecured Call Market (Japanese yen TIBOR) and Japan Offshore Market (Euroyen TIBOR).
④"Point of time" of transactions	・The Code of Conduct (section 1. "Definition") describes about assumption about transactions as of 11 a.m.
⑤"Side" of transactions	・It is assumed from its name that TIBOR is an offered rate. An offered rate is a rate at which a bank offers its intention to provide funds to its counterparty in the interbank market (i.e. a rate that is deemed as an acceptable rate for lending money, and thus offered to the counterparty; and corresponds to the ask price. But since funding transactions are not a purchase/sale, it is expressed as a desired interest rate for lending money). ・ Taking into consideration the above and other key elements included in the definition comprehensively,

	what TIBOR basically seeks to represent is as described in the following: . Assuming that a prime bank attempts to raise a fair amount of additional funds in Japanese yen around 11 a.m., each reference bank analyzes at which level of interest rates (a fund-providing bank will exist and thus) a funding transaction will be able to be executed, by taking into account actual conditions of the Unsecured Call market or the Japan Euroyen market which is the underlying market of TIBOR. The average of such interest rates is deemed as what TIBOR seeks to represent.

2. Importance of seamless transition

If any substantial changes are made to the current definition of TIBOR in the process of realizing TIBOR+, users referencing TIBOR under contracts are considered to face the issue of transition and accompanying workload.

In fact, it has been confirmed as a result of the 1st consultation that TIBOR users place emphasis on the "Underlying Interest" that TIBOR seeks to represent. Specifically, many responded to the question regarding increased reliance on actual transactions including the expansion of the scope of market by commenting that it is necessary to maintain the concept of TIBOR to ensure continuity (cf. Appendix 1(1) ①).

A specific example of workload required when the current definition of TIBOR is changed and TIBOR+ is transformed from traditional TIBOR would be that the parties to a contract need to consider and negotiate whether the benchmark to be referenced under the contract should be maintained.

In this 2nd consultative document, we propose an approach to realize a seamless transition to TIBOR+ through the TIBOR reform and introduce as a specific measure a waterfall methodology which is appropriately designed.

If this approach is taken, it is considered that the parallel run of the current TIBOR and its alternative can be avoided.

In the event that there is no other choice but to take an approach involving the parallel run, the needs of the users to capture differences in the characteristics of the old and new benchmarks could be met but confusion could prevail instead as it would take time to transition from the old to the new benchmark. We believe that this perspective also justifies the merits of selecting a seamless transition as proposed in this consultation document.