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December 24, 2014

General Incorporated Association JBA TIBOR Administration

【Consultative Document】 Promoting the JBA Tokyo Inter Bank Offered Rate ("JBA TIBOR"[1]) Reforms following reports by Financial Stability Boards ("FSB"[2]) and International Organization of Securities Commissions ("IOSCO"[3]).

We, General Incorporated Association JBA TIBOR Administration ("JBATA") (the chairman is Akihiro Wani), took over the JBA TIBOR calculation and publication operations from the Japanese Bankers Association ("JBA") on April 1, 2014, and since then have been engaged in these operations.

Given international discussions on financial benchmark reforms, JBATA has been promoting the JBA TIBOR reforms. In considering the direction of our reforms, JBATA has decided to widely seek comments on key issues from users and other stakeholders through public consultation.

Any comments on this consultative document are to be submitted by no later than Tuesday, February 10, 2015.

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1 In Japan, two types of rates, "Japanese Yen TIBOR" and "Euroyen TIBOR" are published. 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.

2 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.

3 IOSCO is the international body that is comprised of the world's securities regulators and exchanges. It develops and implements global standards including principles and guideline on securities regulation.

【Overview】

- ✧ On July 22, 2014, FSB published "Reforming Major Interest Rate Benchmarks" and the IOSCO published "Review of the Implementation of IOSCO's Principles for Financial Benchmarks by Administrators of Euribor, Libor and Tibor" (collectively, the "FSB/IOSCO Reports"). In response to issues about interest rate benchmarks including LIBOR manipulations, the FSB/IOSCO Reports call for reform of EURIBOR and TIBOR, along with LIBOR, as they are widely used across the world as a financial benchmark ("three major interest rate benchmarks").
- ✧ Specifically, the FSB/IOSCO Reports recommends, in the first instance, reference rates to be based exclusively in actual transactions to enhance their fairness and transparency. On the other hand, given a significant decline, affected by recent financial crisis and post-crisis monetary policies, in the volume of transactions executed in interbank unsecured funding markets which the three major interest rate benchmarks intend to represent, the FSB/IOSCO Reports recommend considering the design of alternative benchmark (e.g. a benchmark whose underlying markets cover a broader scope of markets, ranging from so-called interbank markets [4] where transactions are executed between banks to wholesale funding markets [5] where transactions are executed between banks and non-bank financial institutions or large corporates).
- ✧ JBATA believes that continuous efforts should be made to maintain the reliability of and international confidence in TIBOR by improving its accountability. In addition to various enhancements that have been made to date, we have initiated discussions on further reform of TIBOR following the FSB/IOSCO Reports in reference to LIBOR and EURIBOR reform developments. Such TIBOR reforms include increased reliance on actual transactions including expansion of the scope of markets (expanding to "underlying markets" and "relevant markets"[6]) and the review of the calculation methodology.
- ✧ We also acknowledge that alternation of the calculation methodology may change the nature of the benchmark and may cause some impact on users of TIBOR. Therefore, in

[4] A market in which participants are limited to financial institutions, securities companies, and so forth.

[5] A market whose scope is conceptually broader than interbank markets and includes transactions with large corporates and financial entities.

[6] The expansion of "underlying markets" and "relevant markets" are similar in that they both take into account actual transactions on the expanded markets. These two however differ in that actual transactions on the expanded markets are directly reflected in the determination process (i.e., transactions are directly used), or that actual transactions are taken into account as references on the relevant market.

further promoting the TIBOR reforms, it would be necessary to take into account conditions of financial markets as well as business practices specific to Japan and to thoroughly consider measures to minimize impact on users.

✧ This consultative document therefore intends to seek views from actual users with regard to key issues in the further reform to enhance the reliability of TIBOR. Section 2 "Issues that may cause impact on users and questions" gives specific descriptions on those points for which we invite your comments.

【Issues that may cause an impact on users and questions】

1. Increased reliance on actual transactions including expansion of the scope of markets
2. Impact on existing contracts and other concerns.
3. Timing of the JBA TIBOR publication
4. Suspension of simultaneous publication of individual submissions
5. Discontinuation of certain tenors for TIBOR and the whole Euroyen TIBOR
6. Others

✧ A considerable change in the nature of TIBOR due to increased reliance on actual transactions by expansion of the scope of markets for instance should give rise to challenges when transitioning to the alternative rate. We intend to consider the benchmark calculation methodology and transition method based on comments received from users through this public consultation, and would like to request your cooperation in this respect.

1. Background of the JBA TIBOR reform

(1) Publication of the final report on "Principles for Financial Benchmarks" ("IOSCO Principles" [7])

✧ In response to attempted manipulation of LIBOR and other issues, in September 2012, the Board of the IOSCO created the Board Level Task Force on Financial Market Benchmarks, and in July 2013 published the final report on IOSCO Principles, setting forth 19 principles.

✧ The final report explicitly stated that the administrators of major benchmarks used in financial markets should assume the primary responsibility for their governance as well as the quality of benchmark and its calculation methodology.

✧ Following the publication of the final report, JBA, which had been engaged in the TIBOR calculation and publication processes until last March, has started its initiatives to enhance governance related to the benchmark calculation and publication process and to review the calculation methodology of benchmark.

(2) Initiatives related to the JBA TIBOR

(i) Enhancement of governance

✧ JBA established the Working Committee on TIBOR in April 2013 to review the TIBOR administration from the perspectives of enhancing governance of both panel banks and administrator in the TIBOR calculation and publication process. At the end of the year, JBA published the "Report on the Review of JBA TIBOR Administration"[8] as well as the "JBA TIBOR Code of Conduct"[9] which sets forth the rules to be obeyed by panel banks in submitting rates.

✧ With a view to establishing a more independent administration framework, JBATA was established in April 1, 2014, taking over the TIBOR calculation and publication operations from the JBA. JBATA reworked the JBA TIBOR Code of Conduct and has started its application to panel banks.

✧ In order to establish a governance system, which focuses on the fairness and transparency of benchmark administration, JBATA established the Board of

[7] http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf

[8] http://www.zenginkyo.or.jp/en/news/2013/12/27230000.html. Meanwhile, Japan's Financial Services Agency established the Study Group on Regulations of Financial Benchmarks in November 2014 and published the summary of discussions by the Study Group on December 25, 2014.

[9] http://www.jbatibor.or.jp/english/pdf/Code%20of%20Conduct%20revise.pdf

Directors (less than half of its members are nominated from banks) as a decision-making body of the legal entity and formed the Oversight Committee (whose members are solely comprised of external experts) as a sub-committee of the Board of Directors. The Oversight Committee maintains high level of independence and provides recommendations to the Board of Directors that contribute to appropriate and transparent benchmark administration.

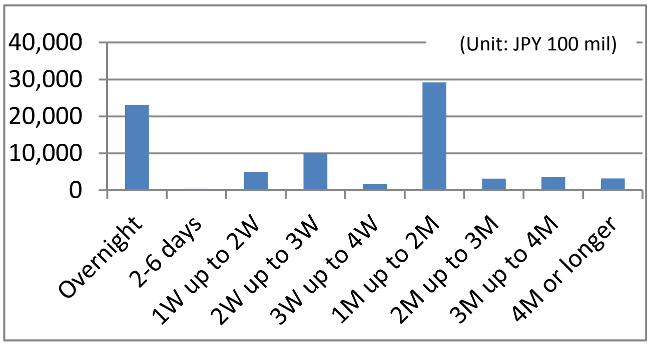
- ✧ JBATA requires panel banks to comply with the Code of Conduct and monitors their compliance as well as rate submissions.

(ii) Review of the calculation methodology --- in light of market environment

- ✧ The “underlying values” represented by current Japanese yen TIBOR is “the rates which panel banks deem as prevailing market rates, assuming transactions between prime banks on the Japan unsecured call market as of 11:00 a.m.” (or “the rates which panel banks deem as prevailing market rates, assuming transactions between prime banks on the Japan Offshore Market as of 11:00 a.m.” in the case of Euroyen TIBOR). More specifically, each panel bank, as a benchmark submission expert, calculates and determines comprehensively assumed rates applied to transactions between prime banks which are financially resilient and major players on the Japan unsecured call market. If the Japan unsecured call market is active, reference rates could be produced based on sufficient actual transactions. However, where insufficient or no actual transaction is available on the market due to market environment, referent rates will be determined in a comprehensive manner by taking into account other types of transactions for instance.

- ✧ In fact, on the Japan unsecured call market (or on the Japan Offshore Market in the case of Euroyen TIBOR), interbank transactions with maturities greater than two months have been traded on a sporadic basis over a long period, as banks tend to avoid credit risk arising from such transactions after the global financial crisis and also due to the Bank of Japan’s easy monetary policies (i.e. a zero interest rate from 1999, quantitative easing from 2001, further easing since the financial crisis, and quantitative and qualitative monetary easing since 2013). The chart below shows the balance of transactions on the unsecured call market published by the Bank of Japan (“BOJ”).

【Chart】 Balance of Unsecured Call Market (in Total) (as of end of Nov. , 2014)[10]



- To continue the TIBOR calculation and publication for longer-tenor rates under such circumstances, the determination of TIBOR is not based solely on transaction data of the Japan unsecured call market (or the Japan Offshore Market in the case of Euroyen TIBOR). On the other hand, TIBOR is comprehensively determined with actual transactions in different types of markets to the greatest extent possible and relevant factors such as daily interest rate movements.

- More specifically, JBATA states in the Code of Conduct (as amended on October 6, 2014) that unsecured call transactions (or Euroyen transactions on the Japan offshore market in the case of Euroyen TIBOR), if observable, should take precedence over other inputs into the calculation of a reference rate. If, on the other hand, such transactions are not observable, it is permitted to supplement the calculation of the rate by taking into account price movements of other types of transactions (e.g. Overnight Index Swaps (OISs), short-term government bonds, negotiable certificate of deposit (NCDs) and Commercial Papers (CPs)). At the same time, the Code of Conduct clarified the criteria for using expert judgment[11]. If a panel bank considers that transactions meet any of the following conditions and thus data on above-mentioned transactions is not sufficient to calculate reference rates in accordance with the TIBOR definition, the panel bank shall use expert judgment to determine the reference rates.

  - Transactions between prime banks on the Japan unsecured call market (or Euroyen transactions on the Japan Offshore Market in the case of Euroyen TIBOR) are not constantly observable

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[10] Bank of Japan Homepage>Statistics >Financial Markets >Short-term Money Market > Balance of the call market

[11] Expert judgment means refers to the exercise of discretion by an Administrator or Submitter with respect to the use of data in determining a benchmark. Expert judgment includes extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data such as market events or impairment of a buyer or seller's credit quality, or weighting firm bids or offers greater than a particular concluded transaction.

- ➢ No data is observable around 11:00 a.m.
- ➢ Standard-size transactions are not observable

- ✧ In this way, the reference rates are determined primarily based on transactions on the Japan unsecured call market (or the Euroyen transactions on the Japan Offshore Market in the case of Euroyen TIBOR), and by also taking into account other types of transactions as supplementary inputs as well as using expert judgment. For the TIBOR calculation and publication purposes, panel banks are requested to thoroughly understand the TIBOR's role in the financial system. They are also committed to maintaining and enhancing the reliability of TIBOR by complying with the Code of Conduct so as to contribute to executing financial transactions in a smooth manner that are capable of accommodating to various changes in market environment.

(3) Current challenges (Based on IOSCO's review results[12] and FSB report[13])

- ✧ In the first half of 2014, IOSCO reviewed the degree of implementation of the IOSCO Principles that the administrators of three major interest rate benchmarks achieved, and reported the result in July of the same year.
- ✧ Based on the aforementioned initiatives for governance of JBA TIBOR, the report concluded that "JBATA has demonstrated an encouraging degree of implementation" of most of 19 principles but has not yet reached full implementation for some principles due to limited time from the start of its reform initiatives, as was the case with other benchmark administrators (see Appendix A for details of 19 principles). The report provides recommendations for remediation to implement these principles and states that a follow-up review will be conducted in mid 2015.
- ✧ The IOSCO's recommendations for remediation on the three major interest rate benchmarks specifically relate to Principle 6 "Benchmark design", Principle 7 "Data sufficiency" , and Principle 9 "Transparency of benchmark determinations" (see Appendix B for detail of the recommended remediation). FSB, in its report of "Reforming Major Interest Rate Benchmarks," recommends consideration of potential alternative rates as uncertainty surrounding the integrity of the three major interest rate benchmarks that are widely used in the global financial system represents a potentially serious systemic vulnerability and systemic risk. In the

12 http://www.financialstabilityboard.org/wp-content/uploads/r_140722a.pdf
13 http://www.financialstabilityboard.org/wp-content/uploads/r_140722.pdf

report, FSB further sets out possible alternative rates that are based on a broader scope of markets, ranging from so-called interbank markets where transactions are executed between banks to wholesale funding markets where transactions are executed between banks and non-bank financial institutions or large corporates, and that are used actual transactions on these markets to the greatest extent possible to generate a reference rate.

- ✧ JBATA believes that continuous efforts through improving its accountability should be made to maintain reliability of and international confidence in financial benchmarks used by many users. In addition to various initiatives that have been made to date for TIBOR, we have started to discuss further reform of TIBOR following the FSB/IOSCO Reports in reference to LIBOR and EURIBOR reform developments. Such reform includes increased reliance on actual transactions by, for example, expanding the scope of markets, and the review of the calculation methodology[14].

- ✧ We also acknowledge that alternation of the calculation methodologies may change the nature of the benchmark and may cause some impact on users of TIBOR. Therefore, in further promoting the TIBOR reform, it would be necessary to take into account conditions of financial markets as well as business practices specific to Japan and to thoroughly consider measures to minimize impact on users (e.g. financial impact, impact on contract referencing TIBOR). This consultative document intends to seek views from users with regard to key points of the further reform of TIBOR to be implemented to enhance its reliability in accordance with recommendations from FSB and other authorities. The details are provided in the next section 2.

- ✧ We would like to take this opportunity to express our gratitude to the related personnel of Japan's Financial Services Agency ("FSA"), BOJ, and so on, who have provided cooperation in relation to this consultative document.

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[14] The administrator of LIBOR, IBA, published a position paper regarding future LIBOR reforms October 20, 2014 and has sought comments until December 19. In this position paper, IBA states that eligible counterparty types should be all wholesale and professional entities (e.g. state-owned financial institutions and MMF), including central banks and large corporates, given diversifying sources for bank's unsecured funding in recent years. (https://www.theice.com/iba/libor)

2. Issues that may cause an impact on users and questions

- ✧ Given that unsecured interbank market activity has declined in many jurisdictions, the FSB/IOSCO Reports recommend that banks should expand the scope of markets to include the wholesale funding market and use actual transactions on these markets to the greatest extent possible to generate a reference rate. JBATA considers that there are two possible approaches as described in the following, or a combination of the two, to respond to the recommendation by the FSB/IOSCO Reports.

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

  - ➢ 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[15]) 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.
    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.

- ✧ The above two approaches are similar in that they both take into account actual wholesale market transactions, but considerably differ in that the former directly includes actual wholesale market transactions whereas the latter treats such transactions only as references on the relevant markets. In the former case where actual transactions are directly included, the use of expert judgment would not be necessary to derive the rate, and therefore a high level of transparency of benchmark determinations from user's perspectives can be realized. In the latter case, on the other hand, transparency can be improved accordingly while maintaining the current concept of TIBOR to treat the interbank markets as the underlying markets.

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[15] The waterfall approach is an approach that depicts water flowing downstream. Under the approach, priority is assigned to the markets or rate characteristics and rates are determined from those with higher priority.

- ✧ Based on the above, TIBOR users are requested to comment on the following issues, and to submit the comments in accordance with section 4.

(1) Increased reliance on actual transactions including expansion of the scope of markets

(Issues that may cause an impact on users)

If reliance on actual transactions is increased to enhance transparency of TIBOR, the volatility and rate level may change from the current TIBOR. Further, in light of the current interbank unsecured call market activity (or the Japan offshore market activity in the case of Euroyen TIBOR), actual transactions in other markets need to be referenced in order to derive the TIBOR as for long tenors. Given the above, actual transactions of, for example, NCDs and large term deposits (large transactions with financial institutions or corporates), which are bank's unsecured funding sources on the wholesale funding markets, could be included in the scope of the underlying markets (or the relevant markets).

(Questions)

(i) If the rate level changes from the current TIBOR level due to increased reliance on actual transactions, what approaches should JBATA take as the administrator of the JBA TIBOR? For example, is it appropriate to calculate the rate after, for example, adjusting the difference between the interest rate used in actual transactions on the interbank unsecured call market (or the Japan Offshore Market in the case of Euroyen TIBOR) which takes precedence over other inputs under the current TIBOR framework and the actual funding rate applied on the wholesale funding market?

(ii) Should we incorporate into the benchmark calculation methodology a mechanism which mitigates the volatility that may arise from increased reliance on actual transactions while at the same time ensuring transparency of TIBOR? Or, given that how the volatility is viewed would differ depending on the purpose of use of TIBOR for instance, do you think it is more preferable to allow individual users to address the mitigation of such volatility by including additional measures in a contract (e.g. use of a moving average) as necessary, instead of incorporating a certain mechanism into the calculation methodology?

(iii) With regard to the inclusion of NCDs and large term deposits (large transactions with financial institutions or corporates), which are bank's unsecured funding sources on the wholesale funding markets, into the scope of markets to generate TIBOR , is there any type of market that should not be or should be additionally included given their characteristics?

(2) Impact on existing contracts and other concerns

(Issues that may cause an impact on users)

If any significant changes occur to TIBOR as a result of the benchmark reform, the parties to the existing financial transactions referencing TIBOR would need to discuss and agree to some reasonable contractual modifications and/or to conclude a revised contract or memorandum.

(Questions)

(i) Do you think it is preferable to publish parallel over a certain period (“parallel run”) both the current TIBOR and its alternative which is more anchored by actual transactions including expansion of the scope of markets in order to obtain insight that could be used in discussions on possible reasonable modifications between the parties on the contract?

(ii) What do you think is an appropriate duration for the parallel run period?

(iii) Should we organize a meeting where third-party members independent from the parties on the contract (e.g. experts including scholars and lawyers) participate and express their opinions on possible approaches to be taken by users in transitioning to an alternative benchmark?

(iv) Other than concerns related to existing financial contracts referencing TIBOR, is there any other concern; for example, concerns related to use of TIBOR for internal management purposes?

(3) Timing of the JBA TIBOR publication

(Issues that may cause an impact on users)

The more scope of markets and timeframe to be referred to calculate TIBOR expands, the more time panel banks will need to aggregate data. Therefore, the timing when the rates can be published by JBATA could be in the afternoon of the day, in the morning of the following day, in the day after the following day, or even later.

(Questions)

(i) What is an acceptable time window for JBATA to publish the TIBOR rates? (e.g. by

12 p.m. as it currently is, 1 p.m., 3 p.m. or 5 p.m., in the morning of the following day, and within the following day)

(4) Suspension of simultaneous publication of individual submissions

(Issues that may cause an impact on users)

If reliance on actual transactions increases, it may become easier to estimate from individual submissions the creditworthiness of each panel bank, disincentivizing some panel banks to cooperate in submitting reference rates. As a result, this could undermine the stability of the TIBOR administration. To address this concern, JBATA could cease publishing panel banks' reference rates along with the TIBOR rates and instead publish them after about a three-month period (e.g. to publish reference rates for January and February in the beginning of May and June, respectively). In fact, the LIBOR administrator has started to take this approach since July 2013. In this case, however, if financial instruments reference individual submissions by panel banks, the parties to the contract and the panel bank would need to individually consult how to publish the panel bank's rate.

(Questions)

(i) Do you think that the suspension of simultaneous publication of individual submissions will give rise to any impact?

(5) Discontinuation of certain tenors for TIBOR and the whole Euroyen TIBOR

(Issues that may cause an impact on users)

Actual transactions data available would be relatively small for some tenors (e.g. 12-month TIBOR rate) even if the scope of markets expands, or the difference between Japanese yen and Euroyen TIBOR rates eliminated if the scope of the underlying markets expands. In those cases, the publication of such tenors may be discontinued or only the Japanese yen TIBOR rate may be published for such tenors. (The use of Euroyen TIBOR rates is considered to be less than the use of Japanese yen TIBOR rates.)

(Questions)

(i) Do you think there will be any significant impact if the publication of certain tenors of TIBOR (e.g. 12 months) or the whole Euroyen TIBOR rates is discontinued?

(ii) If yes, do you think, as a user of TIBOR, that alternative measures could be taken; such as including into the contract a provision to allow compounding[16] of 3-month or 6-month TIBOR for certain tenors or applying Japanese yen TIBOR in place of Euroyen TIBOR?

(6) Others

(Questions)

✧ If you have any comments on other issues, please provide as such additional comments.

✧ JBATA also welcomes comments on the following issues, which were not included in this consultative document as they cover technical aspects. For details, please contact the responsible personnel mentioned later in this document.

  (i) Priority order among underlying markets when expanding into various markets

  (ii) Approaches and statistical techniques to be taken when panel banks fail to capture transaction data

  (iii) Time window to derive reference rate when increasing reliance on actual transactions

  (iv) JBATA's calculation methodology for JBA TIBOR after collecting reference rates from bankers

  (v) Criteria for reasonable market size

3. Timeline

✧ Individual comments will not be published. JBATA will, however, summarize those comments submitted and later publish our view on such comments.

[16] For example, in the case of compounding the 6-month rate, interest on principal for the first six months and interest on the second six months are used for the compound-interest method, with the difference between the resulting amount and the amount of principal being treated as the interest rate during the 12-month interest calculation period.

✧ In accordance with FSB’s propose, JBATA schedules as follows.

End of March 2015	● Will have analysed available transaction data
End of June 2015	● Will have considered the recommended TIBOR methodology and the feasibility of each rate and tenor in conjunction with FSA and BOJ.
End of December 2015	● Will have publically consulted on changes

4. How to submit your comments

(1) Consultation period

From Wednesday December 24, 2014 to Tuesday February 10, 2015 (Comments should arrive no later than February 10, 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); or

・by email to contact@jbatibor.or.jp.

[Notes]

Your comment would be entitled "Comment on Promoting JBA TIBOR Reforms following reports by FSB and IOSCO" 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 opinions 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]

Responsible personnel: Operation Department, General Incorporated Association JBA TIBOR Administration

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

Appendix A : The Summary of Principles for Financial Benchmarks

Governance	(1) The retention by the Administrator of primary responsibility for all aspects of the Benchmark determination process. (2) Where activities relating to the Benchmark determination process are undertaken by third parties, the Administrator should maintain appropriate oversight of such third parties and adopt policies and procedures written arrangements the roles and obligations of third parties. (3) Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest. Administrators should disclose any material conflicts of interest to their users and any relevant Regulatory Authority, if any. (4) An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark.(a. Management of conflict of interest, b. Integrity and quality of Benchmark determination, c. Whistleblowing mechanism, d. Expertise) (5) Administrators should establish an oversight function to review and provide challenge on all aspects (e.g.: the benchmark design, the integrity of benchmark determination, the control framework) of the Benchmark determination process.
Quality of the Benchmark	(6) The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure. (7) A Benchmark should be based upon (i.e., anchored in) an active market having observable Bona Fide, Arms-Length Transactions. (8) An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. (9) The Administrator should publish, with each Benchmark determination, a concise explanation including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions

	submitted), the range and average volume and range and average of price. （10）The Administrator should periodically review the conditions in the underlying Interest.
Quality of the Methodology	（11）The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology (Where a Benchmark is based on Submissions; The Administrator should clearly establish criteria for including and excluding Submitters.). （12）An Administrator should publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes. （13）Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark. （14）The Administrator should develop guidelines for Submitters(ubmittersstrator should develop guidelines for s and procedures, to address the need for possible cessation of a h changes.dministrator should provide （15）The Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes.
Accountability	（16）The Administrator should establish and Publish or Make Available a written complaints procedures policy. （17）The Administrator should appoint an independent internal or external auditor to periodically review and report on the Administratorbs adherence to the Principles (Where appropriate to the level of existing or potential conflicts of interest, an Administrator should appoint an independent external auditor) （18）Written records should be retained by the Administrator for five years. （19）Relevant documents, Audit Trails and other documents shall be made readily available to the relevant Regulatory Authorities.

Appendix B：FSB/IOSCO Reports recommendations

- ✧ Recommendations in "the Reforming Major Interest Rate Benchmarks" published by FSB and "Review of the Implementation of IOSCO's Principles for Financial Benchmarks by Administrators of Euribor, Libor, Tibor" published by IOSCO on 22 July, 2014, are below.
- ✧ The adoption of "an alternative benchmarks with bank credit risk component" recommended by FSB will be achieved not by the development of the whole new benchmark different from the existing JBA TIBOR , but promoting JBA TIBOR Reforms.

The Reform and Transition to alternative benchmarks （"Reforming Major Interest Rate Benchmarks"）
【Background of Reforming】 The major interest reference rates (such as LIBOR, EURIBOR, and TIBOR) are widely used in the global financial system as benchmarks for a large volume and broad range of financial products and contracts. The cases of attempted market manipulation and false reporting of global reference rates, together with the post-crisis decline in liquidity in interbank unsecured funding markets, have undermined confidence in the reliability and robustness of existing interbank benchmark interest rates. Uncertainty surrounding the integrity of these reference rates represents a potentially serious source of vulnerability and systemic risk. Against this background, the G20 asked the FSB to undertake a fundamental review of major interest rate benchmarks and plans for reform to ensure that those plans are consistent and coordinated, and that interest rate benchmarks are robust and appropriately used by market participants. 【The adoption of alternative benchmarks】 While each currency area faces particular conditions that influence the specific recommendations, members agree on the general principles to guide the reform and transition to alternative benchmarks. These principles suggest a multiple-rate approach that is very much in line with the MPG's recommendations: （1） Strengthening existing IBORs and other potential reference rates based on unsecured bank funding costs by underpinning them to the greatest extent possible with transactions data (the MPG calls these enhanced rates "IBOR+"). （2）Developing alternative, nearly risk-free reference rates. Members believe that there are certain financial transactions, including many derivatives transactions, that are better suited to reference rates that are closer to risk-free. Developing such alternative reference rates meets the principle of encouraging market choice.

While there is widespread support for the multiple-rate approach, there will necessarily be heterogeneity across currencies in terms of how this approach is implemented. There are several reasons for this heterogeneity including differing availability of underlying transactions data, different markets for near-risk-free rates, and different levels of willingness and scope to use supervisory or other means to encourage market articipants to adapt to the multiple-rate approach.

The OSSG[2] recommends implementation of the multiple-rate approach in line with the agreed principles to guide transition. The currency subgroups should work with and guide the private sector to implement new designs and methodologies for IBOR+; and, where currently absent, identify viable near-Risk Free Rates (RFR) supported by robust methodologies in their currency areas. Each group should focus on the feasibility of new rate methodologies, including identification of suitable administrators and any necessary infrastructure to support these rates.

The FSB has endorsed the recommendations and mandated the OSSG to monitor and to oversee the implementation of the benchmark reforms. Going forward, the main duties of the OSSG will be to monitor progress against the recommendations of this report, to promote effective information exchange and to coordinate international transition efforts. A final monitoring report would be delivered 24 months after publication of the FSB report – an interim progress report would be provided after 12 months.

【IOSCO "Principles for Financial Benchmarks"】

The starting point for any robust reference rates should be the agreed international standards created by IOSCO.

The July 2013 IOSCO Principles for Financial Benchmarks ('IOSCO Principles') set out an overarching framework of recommended practices for benchmarks used in financial markets. They address the governance, quality of the benchmark design, methodology and accountability of these benchmarks.

Implementation of these Principles by the administrators of current and any proposed alternative reference rate is necessary as the IOSCO principles provide the key elements for robust rates:

- The governance and accountability provisions are intended to ensure arrangement are in place to protect the integrity of the benchmark determination process.
- The design provisions are intended to ensure that any reference rate reliably reflects a credible market for the interest measured by the benchmark and is anchored in

[2] Official Sector Steering Group (OSSG) of regulators and central banks.

transactions.

- Transparency provisions are intended to support users to better understand the features of the benchmark, and of the underlying interest, which should aid their choice.

【Additional principles for change (excerpts)】

Whilst each currency faces specific conditions that will determine recommendations for the appropriate reference rates, there are some general factors and criteria that should be applicable across each jurisdiction to guide the reform and transition to alternative benchmarks. These guiding principles for change should be seen as additional to the core IOSCO Principles. In developing their recommendations, authorities should work with and guide the private sector.

- The overarching objective should be to transition to rates which are anchored in transactions. More precisely, in the first instance, reference rates should be based exclusively in actual transactions. However, in many cases insufficient transactions will be available to do this and so the exact degree of dependence on transactions should vary by currency and will depend on market liquidity, depth and data sufficiency. When the conditions in the local market do not allow pure transaction rates, i.e., ones derived mechanically from transacted data without use of expert judgement, 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.
- In pursuing the objective of moving to transactions-based rates, transition risks and costs should be minimised as much as possible. These risks and costs can include legal risks arising from litigation and contract frustration and increased hedging costs resulting from reduced liquidity in instruments referencing the alternative rate or from the greater volatility that may naturally occur in more transactions-based reference rates. However, whilst risks and costs arising from legacy contracts should not be ignored, they should not be used to prevent changes regarded as necessary from a systemic perspective.
- Administrators should design benchmarks which are resilient to market stress and adaptable to varying conditions in the underlying markets.

Principle	Recommended remediation （Review of the Implementation of IOSCO's Principles ）

<table>
<tr><td>Principle 6</td><td>JBATA should:
●Adopt and follow a design process that incorporates the factors in Key Indicia and provide any evidence that it has taken steps to assess the underlying market and incorporate this assessment into the design of Tibor.

［Key Indicia of implementation of Principle］
・ Seeks to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark
・ Takes into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:
a) Adequacy of the sample used to represent the Interest;
b) Size and liquidity of the relevant market (for example whether there is sufficient trading to provide observable, transparent pricing);
c) Relative size of the underlying market in relation to the volume of trading in the market that references the Benchmark;
d) The distribution of trading among Market Participants (market concentration);
e) Market dynamics (e.g., to ensure that the Benchmark reflects changes to the assets underpinning a Benchmark).</td></tr>
<tr><td>Principle 7</td><td>JBATA should continue addressing Principle 7 as a matter of urgency by:
●Initiating work on collecting and sharing with IOSCO and other relevant authorities the data and analysis that was requested by the Methodology in connection with Principle 7.
●Continuing to work on exploring options to anchor Tibor in actual transactions drawn from active markets, including necessary further design, methodological and/or definition changes. This would include:
○Defining what it considers an ‘active’ market in the interest Tibor seeks to represent, including describing the minimal acceptable level of activity necessary to demonstrate an active market;
○Completing an analysis of methodologies to provide a basis for deciding whether the transactions are anchored in active markets; and
○Making the necessary consequential changes from any broadening of permissible transactions beyond interbank unsecured transactions.</td></tr>
</table>

	●Following the recommendations in connection with Principle 9. ［Key Indicia of implementation of Principle］ ・ Data used to construct a Benchmark determination is sufficient to accurately and reliably represent the Interest measured by the Benchmark and is: a) Based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand; b) Anchored by observable arm's length transactions entered into between buyers and sellers in the market for the Interest the Benchmark measures. ・ Benchmark should be based upon (i.e. anchored in) an active market with observable, Bona Fide, Arms-Length Transactions in the market for the Interest the benchmark measures. Notes: The term "active market" was deliberately left undefined in the Principle as this is a determination that is made by the Administrator during the design of the Benchmark and in its periodic review of the selected reference market. The consultation report published in January 2013 sets out a number of factors such as market size, liquidity, market concentration and dynamics that will be relevant to the determination of an active market. The relevant pages from the consultation report are set out in full in Annex II and should be considered part of this Key Indicium. An Administrator's belief or assertion that an active market exists will not be conclusive in assessing whether Principle 7 has been implemented. ・ This does not mean that every individual Benchmark determination must be constructed solely of transaction data. Provided that an active market exists, conditions in the market on any given day might require the Administrator to rely on different forms of data tied to observable market data as an adjunct or supplement to transactions. Depending upon the Administrator's Methodology, this could result in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. (See Principle 8). ・ Further, provided paragraph 7.1 is met, Administrators may use executable bids or offers as a means to construct Benchmarks where anchored in an observable market consisting of Bona Fide, Arms-Length transactions.

Principle 9	JBATA should: ●Work decisively towards publishing with each benchmark determination the concise statements called for by Principle 9. ●Work in close cooperation with the Reference Banks on a facility that would permit Reference Banks to disclose to JBATA the data upon which their rate submissions are based, subject to appropriate confidentiality protection. ［Key Indicia of implementation of Principle］ ・ Administrators describe and publish with each Benchmark determination, to the extent reasonable without delaying the publication deadline, concise explanations: a) Sufficient to facilitate a Stakeholder's or Market Authority's ability to understand how the determination was developed, including, at a minimum, the size and liquidity of the market being assessed (meaning the number and volume of transactions submitted), the range and average volume and range and average of price, and indicative percentages of each type of market data that have been considered in a Benchmark determination; terms referring to the pricing Methodology should be included (e.g., transaction-based, spread-based or interpolated/extrapolated). b) Of the extent to which and the basis upon which Expert Judgment if any, was used in establishing a Benchmark determination