Compliance with 'Principles for Financial Benchmarks – Final Report – ("IOSCO Principles")' (Description on operational framework of JBA TIBOR)

(Executive Summary)

- ♦ The "Principles for Financial Benchmarks Final Report ("IOSCO Principles")¹" published by the International Organization of Securities Commissions in July 2013 sets out that Benchmark Administrators should publicly disclose the extent of their compliance with the IOSCO Principles on an annual basis. In light of this, JBA TIBOR Administration² ("JBATA") is pleased to announce the results of self-assessment on whether the operational framework of JBA TIBOR (a collective term representing two financial benchmarks, i.e. Japanese Yen TIBOR and Euroyen TIBOR; the same shall apply hereinafter) has been developed and implemented in compliance with the IOSCO Principles (the self-assessment base date: March 31, 2024).
- ❖ In consideration of the IOSCO Principles and international discussions aiming for the financial benchmark reforms at the Financial Stability Board ("FSB") and other bodies, JBATA implemented the First Phase of JBA TIBOR reform on July 24, 2017. Based on this reform and the progress in subsequent discussions, JBATA evaluates that the operational framework of JBA TIBOR has been developed and implemented in compliance with the IOSCO Principles.
- ♦ While a remaining issue for Principle 7(Data sufficiency)³ recognized from a perspective of further enhancing the transparency, robustness, and reliability of JBA TIBOR, JBATA has decided on the permanent cessation of all tenors of Euroyen TIBOR at the end of December 2024,⁴ as outlined below. Therefore, JBATA plans to describe in the next self-

1 "Principles for Financial Benchmarks Final Report" (http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf)

² On April 1, 2014, JBATA was formed to establish a more independent and neutral administration framework for JBA TIBOR. JBA TIBOR calculation and publication operations were transferred from the General Incorporated Association Japanese Bankers Association on the same day and JBATA commenced its operation therefrom. With regard to the background relating to the establishment of JBATA, please see the "Report on the Review of JBA TIBOR Administration" released by the Japanese Bankers Association in December 2013 (https://www.zenginkyo.or.jp/fileadmin/res/en/news/news131227 1.pdf).

³ The low proportion of submission rates of Euroyen TIBOR determined by using data of the underlying market (i.e. the Japan Offshore Market) and the shrink in size of the Japan Offshore Market for a long time compared to the Japan unsecured call market (i.e. the underlying market of Japanese Yen TIBOR).

https://www.jbatibor.or.jp/english/news/tibor_18.html
In addition, JBATA compiled the responses to the questions concerning the "timing to cease entering into new contracts" for products referencing Euroyen TIBOR and published the "Comments on the 'timing to cease entering into new contracts' for products referencing Euroyen TIBOR" in December 2023, prior to the

assessment results published after the permanent cessation of Euroyen TIBOR (at the end of 2024) that "A remaining issue for Principle 7 has been resolved."

- Principle 7 (Data Sufficiency).
 - Taking into account prolonged downsizing of the Japan Offshore Market that is underlying market of Euroyen TIBOR, JBATA published a consultative document "Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR5" in October 2018.
 - In May 2019, JBATA published the results, 6 stating that it would contemplate future actions while deeming "permanent cessation of Euroyen TIBOR" as the most likely option of all, while paying attention to developments in the financial markets and ongoing domestic and international policy discussions, such as those on the cessation of LIBOR, and also stating that, if JBATA permanently ceases Euroyen TIBOR, it envisioned a preparation period of approximately two years following the permanent cessation of LIBOR.
 - Afterwords, JBATA had discussed the implementation of the permanent cessation of Euroyen TIBOR based on Article 51 of the JBA TIBOR Operational Rules. A summary of the discussions and results are as follows.
 - ✓ On August 1, 2024, JBATA published the Public Consultation on permanent cessation of Euroyen TIBOR and related issues ([2nd Consultative Document] Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR). ⁸ As results, JBATA has confirmed that all the respondents supported for "to implement the permanent cessation of Euroyen TIBOR" and "to set its timing at the end of December 2024.9"
 - ✓ JBATA conducted surveys on the exposures of certain products and transactions referencing Euroyen TIBOR and on the status of introduction of fallback provision (as of September 30, 2023). As results, we have concluded that the potential impact on financial and economic stability of the permanent cessation of Euroyen TIBOR at the end of December 2024 would be limited.¹⁰
 - In consideration of above results, JBATA has published the "JBATA statement on future

(https://www.jbatibor.or.jp/english/Statement on future cessation of Euroyen TIBOR.pdf)

determination on the permanent cessation of Euroyen TIBOR.

⁽https://www.jbatibor.or.jp/english/news/tibor 17.html)

⁵ https://www.jbatibor.or.jp/english/news/20181002_tibor_1st_consultation.html

⁶ https://www.jbatibor.or.jp/english/news/consultative%20document.html

⁷ https://www.jbatibor.or.jp/english/public/

⁸ https://www.jbatibor.or.jp/english/news/tibor 16.html

https://www.jbatibor.or.jp/english/Results of Public Consultation on permanent cessation of Euroyen TIBOR.pdf

¹⁰ See Appendix of the following URL.

- cessation of Euroyen TIBOR ¹¹" as of March 6, 2024 and announced that the publication of all tenors (i.e. 1-week, 1-month, 3-month, 6-month, and 12-month) of Euroyen TIBOR will permanently cease immediately after the end of December 2024.
- ♦ Note that this assessment result reports the extent of JBA TIBOR's compliance with the IOSCO Principles as of the base date and does not assure that it will remain unchanged going forward. Taking into consideration that the extent of compliance is subject to changes according to, among other things, changes in an environment of JBA TIBOR's underlying market, JBATA will not only work on the challenges discussed above but also conduct a periodic self-assessment on an annual basis pursuant to the IOSCO Principles and will continue to take appropriate actions in order to comply with the IOSCO Principles as well as to maintain and enhance the transparency, robustness and reliability of JBA TIBOR.

¹¹ See footnote 10.

Governance

Principle 1 Overall Responsibility of the Administrator

JBA TIBOR is a benchmark for short-term Japanese yen interest rates calculated and published by JBATA and is widely used as a representative benchmark for Japanese yen.

JBATA assumes overall responsibility for JBA TIBOR administration, including the definition of JBA TIBOR, processes for determining benchmark and its governance arrangements. In addition, such processes and arrangements are prescribed in the JBA TIBOR Operational Rules and the JBA TIBOR Code of Conduct (hereinafter collectively referred to as "JBA TIBOR Operational Rules, etc.") and are published on its website.

JBATA is designated as a specified financial benchmark administrator under the revised Financial Instruments and Exchange Act ("Act"), which took effect in May 2015 and is subject to regulation and supervision under the Act. Pursuant to the Act, which reflects the IOSCO Principles and requires specified financial benchmark administrators to develop "operational rules", JBATA developed the JBA TIBOR Operational Rules, etc. and obtained approval from the Financial Services Agency of Japan ("FSA") on November 26, 2015 (and took effect on the sameday).

Subsequently, JBATA partially revised the JBA TIBOR Operational Rules, etc. as part of the First Phase of JBA TIBOR reform, and obtained approval from the FSA on February 20, 2017 (and took effect on July 24, 2017).

JBATA also obtained approval from the FSA on March 24, 2023, to revise the JBA TIBOR Operational Rules and the Contingency Plan for JBA TIBOR Publication considering the "Results of Public Consultation on fallback issues for JBA TIBOR." The revisions became effective on April 1, 2023.¹²

➤ Principle 2 Oversight of Third Parties

The following third parties are related to the calculation and publication of JBA TIBOR. The JBA TIBOR Operational Rules, etc. and the Guidelines on Outsourcing JBA TIBOR Calculation/Publication Operations ("Outsourcing Guidelines") stipulate policies and procedures for JBATA's management or supervision of third parties and the following steps have been taken.

✓ Reference banks

References banks are supervised through monitoring in accordance with the JBA

¹² https://www.jbatibor.or.jp/english/news/revisions Operational Rules 20230401.html

TIBOR Code of Conduct as described below.

- Monitoring of submission rates
- Monitoring of the establishment of internal rules
- Monitoring of the implementation of in-house training
- Monitoring of the results of internal and external audits
- On-site monitoring of the extent of compliance with the Code of Conduct

✓ Service provider (NTT DATA Corp.)

Policies and procedures for the management or supervision of the operations outsourced to NTT DATA Corp., which is the service provider are set out in the JBA TIBOR Operational Rules, the Outsourcing Guidelines and the Outsourcing Agreement. JBATA supervises NTT DATA Corp. through monitoring and other activities as follows:

- Pre-publication check of the rates and permission of official rates publications by JBATA
- Monitoring of the implementation of outsourced services, the establishment of processes and procedures for outsourced services, and recordkeeping of documents (records) by submitting reports regarding the execution of operations (quarterly)
- ✓ Backup organization (Osaka Bankers Association)

The operations outsourced to the Osaka Bankers Association which is the backup organization are provided in the JBA TIBOR Operational Rules, the Outsourcing Guidelines and the Agreement on Outsourced Operations. The Osaka Bankers Association is supervised through monitoring and other activities as follows:

■ Monitoring of the implementation of outsourced services, the establishment of processes and procedures for outsourced services, and recordkeeping of documents (records) by submitting reports regarding the execution of operations (quarterly)

Principle 3 Conflicts of Interest for Administrators

JBATA has established the JBA TIBOR Operational Rules, etc. and the Conflict of Interest Management Policy identifying conflicts of interest that may arise in the course of JBA TIBOR administration and stipulating measures to manage and mitigate such conflicts of interest as described below. JBATA also posts these rules and policy on its website and takes these measures.

- The majority of the Board members of JBATA shall consist of persons who are working for or belonging to financial institutions
- The members of the Oversight Committee of JBATA shall be selected from persons other than those who are working for or belonging to financial institutions

- The revision of JBA TIBOR definitions and other significant matters shall be reviewed by the Oversight Committee
- To ensure the soundness of submissions rates provided by reference banks, the Code of Conduct shall be developed, and reference banks shall be required to establish internal frameworks and JBATA shall monitor their status of compliance with the frameworks
- An appropriate administration framework shall be maintained by, forexample, limiting operations outsourced to the service provider to areas of relative simplicity, such as collection, calculation and publication
- The documents considered material in light of conflicts of interest management and the transparency of JBA TIBOR (e.g. relevant rules and audit results) shall be disclosed. If there is any individual case of a conflict of interest that is considered material to be disclosed to JBA TIBOR users, such a case shall be disclosed to those users. The Oversight Committee shall discuss whether to disclose such a case, with the final decision being made by the Board of Directors
- In respect of conflicts of interest, information shall be treated with the utmost care and be thoroughly managed on a case-by-case basis. JBATA requires that parties shall adopt adequate measures to manage conflicts of interest promptly and fairly. In particular, they shall consider establishing effective procedures to control the exchange of information between relevant persons who are involved in activities that give rise to risks of conflicts of interests
- Management and employees of JBATA and members of the Planning Committee, Administration Committee and the Oversight Committee shall not divulge confidential information concerning JBATA's operations obtained in the course of their duties to third parties
- Management and employees of JBATA and members of the Planning Committee, Administration Committee and Oversight Committee shall not use information obtained concerning JBATA's operations for their own interests or for the interests of third parties
- JBATA shall establish a whistle-blowing system in order to detect manipulation and misconduct related to JBA TIBOR at an earlier stage
- JBATA shall ensure that remuneration plans for its management, employees and committee members are appropriately designed and implemented by giving due regard to risk management and compliance in order to avoid incentivizing manipulation of JBA TIBOR, for example not setting a JBA TIBOR-based remuneration

In addition, the Oversight Committee, which is exclusively comprised of experts who do not work for or belong to financial institutions (e.g. lawyers, CPAs and academics) assesses, through periodic monitoring, whether the above measures for managing conflicts of interest need to be reviewed, and conducts a review (between February and March every year).

Furthermore, statements of whether the Board members and the Oversight Committee

members have conflicts of interest are collected from all of them and published on the website, disclosing information on the management of conflicts of interest, together with relevant rules, to users and related authorities.

Principle 4 Control Framework for Administrators

JBATA assumes overall responsibility for the integrity of the calculation and publication of JBA TIBOR and has in place a governance framework needed to ensure the integrity and transparency of the benchmark administration.

The Board of Directors is formed as a decision-making body of JBATA. As prescribed by the JBA TIBOR Operational Rules, the majority of its members are being selected from the persons other than those who are working for or belonging to financial institutions.

Under the Board of Directors, the Oversight Committee is formed so that it is exclusively comprised of experts who do not work for or belong to financial institutions (e.g. lawyers, CPAs and academics) and has a high level of independence. This committee reviews the appropriateness of the benchmark administration and provides recommendations to the Board of Directors on remedial measures.

Furthermore, JBATA establishes a whistle-blowing system in order to detect manipulation and misconduct related to JBA TIBOR at an earlier stage as well as the Code of Conduct which sets out, among other things, rate submission rules to be abided by reference banks and frameworks which need to be established byreference banks. JBATA discloses the Code of Conduct on its website and it has been implemented.

JBATA supervises references banks by monitoring their compliance with the Code of Conduct as described below.

- Monitoring of submission rates
- Monitoring of the establishment of internal rules
- Monitoring of the implementation of in-house training
- Monitoring of the results of internal and external audits
- On-site monitoring of the extent of compliance with the Code of Conduct

The above control framework is stipulated in the JBA TIBOR Operational Rules, which is disclosed on its website.

Principle 5 Internal Oversight

The JBA TIBOR Operational Rules provide that the Oversight Committee which is exclusively comprised of experts who do not work for or belong to financial institutions (e.g. lawyers, CPAs and academics) shall assess the appropriateness of JBA TIBOR administration framework and shall provide recommendations onremedial measures to the

Board of Directors. The Oversight Committee has been implementing such rules.

More specifically, the Oversight Committee assesses the appropriateness and provides recommendations on remedial measures to the Board of Directors with respect to the following matters.

- Matters relating to the management of conflicts of interest arising from JBA TIBOR administration
- Matters relating to responses to findings, complaints and other similar actions by relevant authorities or external parties in relation to JBA TIBOR administration
- Matters relating to periodic assessments of reasonableness and appropriateness of the Code of Conduct
- Matters relating to monitoring of reference banks' compliance with the Code of Conduct and rate submissions (including monitoring of the status of establishing internal policies and procedures, the status of implementing internal training, results of internal and external audits and rate submissions)
- Matters relating to the review of establishment, amendments and termination of the rules and regulations related to JBA TIBOR (including amendments of the JBA TIBOR Operational Rules, etc.)
- Matters relating to review of an internal audit plan and the results of such audits of JBATA
- Matters relating to the punishment of reference banks

The term of the Oversight Committee members is two years (which may be extendedup to four terms, in principle). They are selected by the Board of Directors.

When replacing a member, a replacement shall be selected from experts who are well-versed and well-experienced in the fields of financial economy, law and financial accounting, etc., who are capable of independently reviewing the appropriateness of conducting specified financial benchmark administration activities and if necessary, of providing recommendation to the Board of Directors, and who do not work for or belong to financial institutions.

Quality of the Benchmark

Principle 6 Benchmark Design

"Underlying interest" which JBA TIBOR seeks to measure is indicated explicitly by, among other things, the name of the benchmark as described in Article 1 of the JBA TIBOR Operational Rules (i.e. "JBA TIBOR (Tokyo Interbank Offered Rate))" and by the definition prescribed in Article 4 (i.e. "rates which reference banks deem as prevailingmarket rates, assuming transactions between prime banks on the underlying market (Japan unsecured call market) (the Japan Offshore Market in case of the Euroyen TIBOR) as of 11:00a.m."), and JBA TIBOR is calculated as the simple average of interest rates provided by reference banks which excludes the two highest and two lowest rate.

In order to ensure appropriate rate submission based on the definition of JBA TIBOR by reference banks, JBATA has established, disclosed on its website and implemented the Code of Conduct which sets out, among other things, rate submission rules to be abided by reference banks, frameworks which need to be established by reference banks and other relevant matters.

As part the First Phase of JBA TIBOR reform efforts, the Code of Conduct was partially revised on February 20, 2017 (and took effect on July 24, 2017). With this revision, in particular, the waterfall methodology was introduced, standardizing and clarifying the calculation and determination process of reference banks' submission rates, with a view to realizing a benchmark "better anchored in actual transactions". Since July 24, 2017, reference banks are calculating and determining their submission rates using a calculation method that does not give rise to arbitrariness in accordance with the waterfall methodology (see Appendix for details of the waterfall methodology).

Furthermore, in order to ensure reference banks' compliance with the Code of Conduct, reference banks are obliged to conduct external and internal audits on an annual basis, in principle, and are required to report the audit results which are escalated to the Oversight Committee to assess their appropriateness.

Starting from April 2015, the Oversight Committee conducts monitoring to ensure that JBA TIBOR appropriately reflects "underlying interest" which it seeks to measure by comparing data of interbank transactions in the Japan unsecured call market (or data of interbank transactions in the Japan Offshore Market in case of Euroyen TIBOR) collected from reference banks with each reference bank's submission rates.

To make the benchmark design of JBA TIBOR more appropriate, JBATA has taken the following actions, including the First Phase of JBA TIBOR reform.

(1) Introduction of minimum data criteria

The Code of Conduct partially amended on July 4, 2014 (and took effect on October 6,

2014) stipulates that where Japan unsecured call transactions ("Euroyentransactions" in case of Euroyen TIBOR) between prime banks are observable, reference banks must take such transactions into consideration.

- (2) Clarification of criteria for use of expert judgment For clarification, the Code of Conduct partially amended on July 4, 2014 (and took effect on October 6, 2014) sets out specific criteria for the use of expert judgment.
- (3) Clarification of the procedure for overseas financial institutions to apply for a reference bank and the selection procedure.
 - The JBA TIBOR Operational Rules were partially revised on March 2, 2015 (and took effect on April 1, 2015), stipulating that when the applying bank is located in a jurisdiction outside Japan, any issues which may arise from its location should be considered in the selection process.
- (4) Standardization and clarification of the processes for calculating and determining reference banks' submission rates through implementation of the First Phase of JBA TIBOR reform
 - In order to make JBA TIBOR a benchmark "better anchored in actual transactions", the Code of Conduct was partially amended on February 20, 2017 (and took effect on July 24, 2017), standardizing and clarifying the processes for calculating and determining reference banks' submission rates.

In particular, the waterfall methodology which applies prioritization when referencing actual transaction data (i.e. places the highest priority on the underlying market data, followed by data of those relevant markets highly similar to the underlying market) was introduced, and reference banks calculate and determine their submission rates using a calculation method that does not give rise to arbitrariness since July 24, 2017.

Principle 7 Data Sufficiency

In the Code of Conduct which was partially amended on February 20, 2017 (and took effect on July 24, 2017) for the First Phase of JBA TIBOR reform, the waterfall methodology has been introduced to standardize and clarify the calculation and determination process of reference banks' submission rates, aiming to realize benchmarks that are "better anchored in actual transactions". In accordance with this amendment, reference banks have started to calculate and determine their submission rates using acalculation method based on the waterfall methodology that does not give rise to arbitrariness since July 24, 2017.

The waterfall methodology applies a calculation method that is based on actual transaction data of the underlying market and other relevant data as shown below, and that avoids arbitrariness. Particularly in the following I to III, the use of expert judgment is completely removed.

As for both Japanese Yen TIBOR and Euroyen TIBOR, there is no case where the "expert judgement (the below IV)" was used to calculate and determine submission rates during the period between the implementation of the First Phase of JBA TIBOR reform on July 24, 2017 and the date as of the self-assessment. Submission rates have been calculated and determined based on various data including actual transaction data in the underling market and other relevant data (see Appendix for details of the waterfall methodology).

- I. The level in which data of the underlying market are used
- II. The level in which data of the markets equivalent to the underlying market are used
- III. The level in which data of the relevant market, including the wholesale market, are used

IV. Expert judgment

For Japanese Yen TIBOR, the estimated market size (Overall) of the Japan unsecured call market (i.e. the underlying market) reached JPY 40.1 trillion ¹³ (as of July 31, 2023), increasing by approximately JPY 5.2 trillion from the prior year. Furthermore, reference banks determine their submission rates in "The level in which data of the underlying markets are used ¹⁴ (the above I)" ranges from a minimum of 73.0% (12 months tenor) up to 98.0% (3 months tenor).

With respect to Euroyen TIBOR, on the other hand, the amount of the transaction balance for deposits and calls denominated in Japanese yen in the Japan Offshore Market (i.e. the underlying market) is only JPY 0.6 trillion (as of July 31, 2023), and its market size continues to be smaller compared to the Japan unsecured call market. Furthermore, the percentage of submission rates determined in "The level in which data of the underlying market are used (the above I)" ranges from a minimum of 35.1% (1 week tenor) up to 99.0% (12 months tenor)¹⁵. The ratio is lower compared to Japanese Yen TIBOR.

In consideration of such circumstance, JBATA published the "[1st Consultative Document] Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR" in October 2018,

_

The estimated market size of "(Overall)" represents the sum of transactions via brokers and transactions through direct dealing with unaffiliated banks, whereas the size of "(Term rates)" and "(Overnight rate)" includes intragroup transactions. Therefore, the sum of the "(Term rates)" and the "(Overnight rate)" does not match the "(Overall)." Furthermore, JBATA does not calculate and publish the overnight JBA TIBOR tenor, therefore, the "(Overnight rate)" transactions are not referenced in most cases.

The "(Term rates)" also include various terms that do not necessarily correspond to the given TIBOR tenors. For details, see the *Result of a Periodic Review of the JBA TIBOR Operational Framework*:

⁽https://www.jbatibor.or.jp/english/news/periodical_review_2024.html)

"The level in which data of the underlying market are used" means the total number of cases where submission rates were determined based on data of actual transactions executed on the same day or in the past, and cases where they were determined based on quotes. In most cases, they were calculated based on quotes (Level 1-3) and in limited cases, based on actual transactions (Level 1-1). For details, see the URL provided in the preceding footnote

¹⁵ Same as the preceding footnote.

inviting comments on the approach for reform, preparation period, and other related issues.

In May 2019, JBATA published the result of its public consultation stating that "we will contemplate further actions while deeming "Retaining Japanese Yen TIBOR (retaining Japanese Yen TIBOR and discontinuing Euroyen TIBOR)" as the most likely option of all at this stage, while paying attention to developments in the financial markets and ongoing domestic and international policy discussions, such as those on the cessation of LIBOR" and that "As to the timing of implementation, we currently envision a preparation period of approximately two years following the permanent cessation of LIBOR."

In this respect, the Financial Conduct Authority (FCA) made the announcement¹⁶ relating to the future cessation and loss of representativeness of the LIBOR benchmarks on March 5, 2021, and, thereby, it clarified that the timing when LIBOR settings would either permanently cease to be published or become non-representative may differ depending on currencies and tenors. In light of this, JBATA announced the following in March 2021:

- I. It considered that the timing of "permanent cessation of LIBOR" described in the result of the 1st Consultation means "permanent cessation or loss of representativeness of LIBOR's all currencies and tenors (35 types) (i.e. end of June 2023)";
- II. In view of the above, JBATA expected that the timing of implementing the permanent cessation of Euroyen TIBOR, if adopted, would be at the end of December 2024, ¹⁷ to ensure a preparation period following the permanent cessation; and
- III. JBATA planned to seek comments on whether to implement the permanent cessation of Euroyen TIBOR, the specifics of the reform and the timing through public consultation.

Afterwords, JBATA had discussed the implementation of the permanent cessation of Euroyen TIBOR based on Article 51 of the JBA TIBOR Operational Rules. A summary of the discussions and results are as follows.

- On August 1, 2024, JBATA published the Public Consultation on permanent cessation of Euroyen TIBOR and related issues ([2nd Consultative Document] Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR). As results, JBATA has confirmed that all the respondents supported for "to implement the permanent cessation of Euroyen TIBOR" and "to set its timing at the end of December 2024."
- JBATA conducted surveys on the exposures of certain products and transactions referencing Euroyen TIBOR and on the status of introduction of fallback provision (as of September 30, 2023). As results, we have concluded that the potential impact on financial and economic stability of the permanent cessation of Euroyen TIBOR at the

¹⁶ https://www.fca.org.uk/news/press-releases/announcements-end-libor

¹⁷ This reflects that many respondents supported the preparation period of 1.5 years (18 months) as proposed in the 1st Consultation if the option of the permanent cessation of Euroyen TIBOR is implemented.

end of December 2024 would be limited.

In consideration of above results, JBATA has published the "JBATA statement on future cessation of Euroyen TIBOR" as of March 6, 2024 and announced that the publication of all tenors (i.e. 1-week, 1-month, 3-month, 6-month, and 12-month) of Euroyen TIBOR will permanently cease immediately after the end of December 2024.

Therefore, JBATA plans to describe in the next self-assessment results published after the permanent cessation of Euroyen TIBOR (at the end of 2024) that "A remaining issue for Principle 7 has been resolved."

➤ Principle 8 Hierarchy of Data Inputs

JBATA sets out the following waterfall methodology as the hierarchy of data inputs in the Code of Conduct partially revised on February 20, 2017 (and took effect on July24, 2017), and discloses it on its website. The waterfall methodology is a mechanism where data of the underlying market placed at the top of the hierarchy are referenced first, followed by data of those relevant markets highly similar to the underlying market (see Appendix for details of the waterfall methodology).

- I. The level in which data of the underlying market are used
- II. The level in which data of the markets equivalent to the underlying market are used
- III. The level in which data of the relevant market, including the wholesale market, are used
- IV. Expert judgment

Principle 9 Transparency of Benchmark Determinations

The Code of Conduct partially revised on February 20, 2017 (and took effect on July 24, 2017) sets out the waterfall methodology to be used by reference banks in the process for calculating and determining their submission rates. It prescribes that the waterfall methodology is a mechanism where data of the underlying market placed at the top of the hierarchy are referenced first, followed by data of those relevant markets highly similar to the underlying market. The Code of Conduct defining the waterfall methodology is disclosed on the website (see Appendix for details of the waterfall methodology).

- I. The level in which data of the underlying market are used
- II. The level in which data of the markets equivalent to the underlying market are used
- III. The level in which data of the relevant market, including the wholesale market, are used

IV. Expert judgment

Rates provided by reference banks are the sole data sources used in JBA TIBOR determination process and published through the service provider¹⁸. JBA TIBOR and the rates provided by reference banks, including the two highest and two lowest rates excluded from the calculation of JBA TIBOR, are available to users and related regulatory authorities.

JBATA also publishes the breakdown (in percentage) of data factored in the calculation of each reference bank's submission rates on annual basis (in March every year)¹⁹.

¹⁸ From April 1, 2019, JBATA terminated the simultaneous publication of rates provided by reference banks and JBA TIBOR. The rates will be published three months after JBA TIBOR of that dayis published. (http://www.jbatibor.or.jp/english/news/tibor 7.html)

¹⁹ For details of the breakdown published in FY2023, see the URL referred to in footnote 13.

Principle 10 Periodic Review

JBATA stipulates in the JBA TIBOR Operational Rules that the definition of JBA TIBOR, thebenchmark calculation and determination process to appropriately reflect the "underlying interest" which JBA TIBOR seeks to measure, and inquiries/complaints, etc. by third parties shall be assessed and reviewed on a periodic basis. The JBA TIBOR Operational Rules are disclosed on the website and JBATA is conducting such periodic assessments and reviews accordingly.

JBATA also analyzes, among other things, the volume and market share of transactions executed by reference banks in the Japan unsecured call market, the Japan Offshore Market and other relevant markets based on actual transaction data collected from reference banks and other information, and then conducts a periodic review in light of changes in market conditions to assess whether it is necessary to revise the calculation methodology of JBA TIBOR (and such a periodic review has been conducted in March every year). When necessity arises in the course of ongoing discussions for maintaining and enhancing the transparency, robustness, and reliability of JBA TIBOR, public consultation will be conducted to change the calculation methodology.

The JBA TIBOR Operational Rules sets out the criteria for carrying out public consultation, the required notification period for such a review on the website (three months prior to the effective date) and the decision making process (such a review shall be decided by the Board of Directors after discussion at the Administration Committee and confirmation by the Oversight Committee), and is disclosed on the website.

To date, there has been no feedback or complaint from third parties requiring review of JBA TIBOR's calculation methodology.

Taking into account the status of using JBA TIBOR, a total of seven tenors (i.e. 4 months, 5 months, 7 months, 8 months, 9 months, 10 months and 11 months) were discontinued from the publication of April 1, 2015, and the 2 months tenor was discontinued from the publication of April 1, 2019. In addition, JBATA has decided on the permanent cessation of all tenors (i.e.1- week,1-month,3-month,6-month, and 12-month) of Euroyen TIBOR at the end of December 2024.

Quality of the Methodology

Principle 11 Content of the Methodology

"Underlying interest" which JBA TIBOR seeks to measure is indicated explicitly by, among other things, the name of the benchmark as described in Article 1 of the JBA TIBOR Operational Rules (i.e. "JBA TIBOR (Tokyo Interbank Offered Rate))" and by the definition prescribed in Article 4 (i.e. "rates which reference banks deem as prevailingmarket rates, assuming transactions between prime banks on the underlying market(Japan unsecured call market) (the Japan Offshore Market in case of the Euroyen TIBOR) as of 11:00a.m."), and JBA TIBOR is calculated as the simple average of interest rates provided by reference banks which excludes the two highest and two lowest rates.

JBATA provides for JBA TIBOR calculation methodology, including the definition of important terms (e.g. prime bank), in the JBA TIBOR Operational Rules, etc. and discloses them on its website.

In particular, the Code of Conduct partially revised on February 20, 2017 (and took effect on July 24, 2017) sets out the waterfall methodology to be used by reference banks in the process for calculating and determining their submission rates. It prescribes that the waterfall methodology is a mechanism where data of the underlying market placed at the top of the hierarchy are referenced first, followed by data of those relevant markets highly similar to the underlying market. The Code of Conduct prescribing the waterfall methodology is disclosed on the website (see Appendix for details of the waterfall methodology).

- I. The level in which data of the underlying market are used
- II. The level in which data of the markets equivalent to the underlying market are used
- III. The level in which data of the relevant market, including the wholesale market, are used

IV. Expert judgment

Furthermore, in preparation for those cases where it becomes difficult for JBATA to calculate and publish JBA TIBOR against its intention because, for example, related facilities are affected by disaster, electricity power outages or other similar events take place, an extreme market stress occurs and the number of the reference banks decreases; JBATA has established the Contingency Plan for JBA TIBOR Publication and the Policy on Treatment of Revisions to JBA TIBOR Official Rates on May 31, 2017 (and took effect on July 24, 2017), clarifying actions to be taken for the inappropriate calculation of JBA TIBOR official rates and reference banks' submission rates.

JBATA also analyzes, among other things, the volume and market share of transactions executed by reference banks in the Japan unsecured call market, the Japan Offshore Market and other relevant markets based on actual transaction data collected from reference banks

and other information, and then conducts a periodic review in light of changes in market conditions to assess whether it is necessary to revise the calculation methodology of JBA TIBOR (and such a periodic review has been conducted in March every year). When necessity arises in the course of ongoing discussions for maintaining and enhancing the transparency, robustness, and reliability of JBA TIBOR, public consultation will be conducted to change the calculation methodology.

With respect to public consultation, the JBA TIBOR Operational Rules sets out, among other things, the criteria for carrying out public consultation, the required notification period for such a review on the website (three months prior to the effective date) and the decision making process (such a review shall be decided by the Board of Directors after discussion at the Administration Committee and confirmation by the Oversight Committee), and is disclosed on the website.

JBATA seeks application for, and selects reference banks every year. The criteria for selecting reference banks and reasons for cancelling the designation of the reference bank status are prescribed in the JBA TIBOR Operational Rules.

In order to enhance the quality of JBA TIBOR calculation method, JBATA takes following actions, including the First Phase of JBA TIBOR reform:

- (1) Introduction of minimum data criteria
 - The Code of Conduct partially amended on July 4, 2014 (and took effect on October 6, 2014) stipulates that where Japan unsecured call transactions ("Euroyen transactions" in case of Euroyen TIBOR) between prime banks are observable, reference banks must take such transactions into consideration.
- (2) Clarification of criteria for use of expert judgment For clarification, the Code of Conduct partially amended on July 4, 2014 (and took effect on October 6, 2014) sets out specific criteria for the use of expert judgment.
- (3) Clarification of the procedure for overseas financial institutions to apply for a reference bank and the selection procedure.
 - The JBA TIBOR Operational Rules was partially revised on March 2, 2015 (and took effect on April 1, 2015), stipulating that when the applying bank is located in a jurisdiction outside of Japan, any issues which may arise from its location should be considered in the selection process.
- (4) Standardization and clarification of the processes for calculating and determining reference banks' submission rates through implementation of the First Phase of JBA TIBOR reform
 - In order to make JBA TIBOR a benchmark "better anchored in actual transactions", the Code of Conduct was partially amended on February 20, 2017 (and took effect on July 24, 2017), standardizing and clarifying the processes for calculating and determining

reference banks' submission rates.

In particular, the waterfall methodology which applies prioritization when referencing actual transaction data (i.e. places the highest priority on the underlying market data, followed by data of those relevant markets highly similar to the underlying market) was introduced, and reference banks are calculating and determining their submission rates using a calculation method that does not give rise to arbitrariness since July 24, 2017.

Principle 12 Changes to the Methodology

JBATA has established and disclosed on its website, the JBA TIBOR Operational Rules setting out procedures for changes in the definitions or calculation methods of JBA TIBOR, including criteria for carrying out public consultation, the required notification period for such changes on its website (three months prior to the effective date), and the decision making process (such changes shall be decided by the Board of Directors after discussion at the Administration Committee and confirmation by the Oversight Committee).

JBATA shall consider changes in the definitions or calculation methods of JBA TIBOR in cases where either or both of the following situations are likely to continue to exist for a certain period of time and there is no prospect of early restoration of such situation(s), which has led to a conclusion that JBA TIBOR may no longer be representative as a benchmark:

- Where there have been any structural changes in the Japan unsecured call market or the Japan Offshore Market that may require changes in the definitions, calculation methods of JBA TIBOR; or
- Where underlying interest which JBA TIBOR seeks to measures is no longer generally used or is not functioning, and hence is deemed to be not fulfilling its role as a reliable benchmark.

Notwithstanding the above situation(s), JBATA shall consider changes in definitions, calculation methods of JBA TIBOR, as appropriate, where it is deemed necessary to make such changes in light of a change in users' needs and actual market conditions, JBATA determines that it is necessary to make such changes.

Principle 13 Transition

JBATA has established, and disclosed on its website, the JBA TIBOR Operational Rules stipulating processes for ceasing JBA TIBOR publication.

In addition, JBATA recommends on its website updated April 1, 2014, users of JBA TIBOR to agree on a fallback provision as an alternative arrangement or measure to prepare for the situation where JBA TIBOR has not been published.

In consideration of the deliberations by "Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks", which was established by the Bank of Japan on August 1, 2018 to consider transition to JPY risk-free rate and international discussions²⁰ by the International Swaps and Derivatives Association (ISDA) on the robustness of contracts for fallback plans in the event that publication of IBORs are permanently ceased, JBATA established, and published on its website, the Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication²¹ on March 19, 2020.

In August 2022, JBATA published the Public Consultation on Fallback Issues for JBA TIBOR ("Public Consultation") in consideration of the results of the Survey on JBA TIBOR Exposures. The Public Consultation sought comments from a wide range of market participants with respect to main fallback issues for cash products (loans and bonds) referencing Japanese Yen TIBOR or Euroyen TIBOR subject to applicable laws in Japan. These included (I) conditions on which fallback provisions are activated (triggers), (ii) options of fallback rates, and (iii) methodologies of the spread adjustment between JBA TIBOR and the fallback rate.

Subsequently, JBATA published the Results of Public Consultation on fallback issues for JBA TIBOR ("Results of Public Consultation") in March 2023, and also revised the Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication (taking effect on April 1, 2023)²², specifying that the users of JBA TIBOR could use the results of the Public Consultation as a reference in consideration of fallback issues.

As a result of the above initiatives, JBATA evaluates that the remaining issue recognized for this Principle from a perspective of further enhancing the transparency, robustness, and reliability of JBA TIBOR has been resolved in FY2022.

Principle 14 Submitter Code of Conduct

JBATA has established, disclosed on its website, and implemented the Code of Conduct setting out, as described below, rules to be complied with and necessary procedures to be established by reference banks in connection with their rate submission.

■ Set out the waterfall methodology to standardize and clarify the process for calculating and determining reference banks' submission rates. The waterfall methodology is a mechanism where data of the underlying market placed at the top of the hierarchy are

²⁰ ISDA implemented public consultation from July 12,2018 to October 22,2018 on technicalissues related to new benchmark fallbacks for derivatives contracts that reference certain interbank offered rates (IBORs). ISDA published Preliminary Results of the consultation on November 27,2018 and final results on December 20,2018. (https://www.isda.org/a/WVEME/ISDA-Publishes-Final-Results-of-Benchmark-Fallback-Con)

http://www.jbatibor.or.jp/english/news/Compliance_with_IOSCO_19principles_2019.html

https://www.jbatibor.or.jp/english/news/Results of Public Consultation on fallback issues for jba tibor.html

referenced first, followed by data of those relevant markets highly similar to the underlying market

- Establish a framework that ensures appropriate rate submissions, including the criteria for selecting submitters and reporting to JBATA
- Establish a framework for managing conflicts of interest, including an appropriate information barrier from personnel engaging in trading activities
- Establish a framework for prohibiting exchange/adjustments, etc. of information regarding rate submissions
- Establish a procedure for accountability regarding the rationale for rate submissions
- Establish a procedure for retaining communication records regarding rate submissions
- Conduct internal and external audits
- Establish a procedure for escalating problems, when identified, to JBATA
- Obligation for holding in-house training
- Obligation for cooperation in reviewing the administrative flow resulting from a change to the service provider, etc.
- Obligation for cooperation for inquiries from and investigation by JBATA in connection with rate submissions
- Obligation for establishing internal policies and procedures

Furthermore, JBATA supervises reference banks through monitoring of, among other things, their compliance with the Code of Conduct as follows:

- Monitoring of submission rates
- Monitoring of the establishment of internal rules
- Monitoring of the implementation of in-house training
- Monitoring of the results of internal and external audits
- On-site monitoring of the extent of compliance with the Code of Conduct

Principle 15 Internal Controls over Data Collection

Currently, submission rates provided only by reference banks are used to calculate JBA TIBOR and JBATA does not collect data from external parties. Accordingly, this Principle is not applicable to our assessment.

JBATA checks the submission rates provided by reference banks to ensure their accuracy on a daily basis as well as the Oversight Committee monitors the appropriateness of submission rates.

Accountability

➤ Principle 16 Complaints Procedures

The JBA TIBOR Operational Rules and the Complaints Consultation Management Rule of JBATA set out management of complaints from users or other beneficiaries, in relation to JBA TIBOR determination. Also, JBATA discloses information on a liaison that responses to complaints/consultation on its website.

The liaison established within Oversight Committee Office receives inquiries and complaints regarding JBA TIBOR via phone and e-mail and periodically reports the status of receipt of such inquiries/complaints and actions taken to address them to the Oversight Committee.

The Oversight Committee monitors the status of receipt of complaints/consultation and actions taken to address them by the liaison, and assesses the appropriateness thereof.

Records of those complaints/consultation, etc. received and addressed by the liaison are retained for five years as required by the JBA TIBOR Operational Rules.

➤ Principle 17 Audits

As required by the JBA TIBOR Operational Rules to conduct internal and external audits on an annual basis, in principle, JBATA has been carrying out internal and external audits every year from the FY2014.

Results of the internal and external audit are reported to the Board of Directors and the Oversight Committee, and the overview of the results have been disclosed on the website (Between July and August every year).

Principle 18 Audit Trail

Pursuant to the JBA TIBOR Operational Rules, JBATA retains the following evidence required bythe IOSCO Principles for five years.

- Submission rates and official rates
- If applicable, records concerning expert judgment used in determining JBA TIBOR
- Documents, etc. submitted from reference banks to JBATA in accordance with the Code of Conduct
- Records of communication with reference banks and the service provider in connection with the determination of official rates
- Records identifying the personnel of JBATA and service provider involved in JBATA TIBOR-related operations
- External feedback, complaints and other responses to overall JBA TIBOR

administration

- Records of internal and external audits
- If applicable, records of extraordinary measures which are not those procedures specified in the Operational Rules but are taken in determining JBA TIBOR official rates

Furthermore, in the Code of Conduct, JBATA requires reference banks to retain the following evidence required by the IOSCO Principles for five years.

- The content of filing to JBATA with respect to submitters
- The nature of inquiries/complaints, etc. regarding rate submissions, and records as to how such inquiries/complaints, etc. have been addressed
- Materials regarding the problem of conflicts of interest in relation to rate submissions
- Exposures to products, etc. referencing JBA TIBOR (on a basis of the entire bank, individual traders or individual desks)
- Documents relating to the determination of submission rates, and data referenced in determining submission rates, etc.
- Communication records relating to rate submissions
- Records of internal and external audits
- Records of in-house training
- Records as to how inquiries from, and investigation, by JBATA with respect to rate submissions have been addressed
- Records of revisions to internal policies and procedures

Principle 19 Cooperation with Regulatory Authorities

JBATA is designated as a specified financial benchmark administrator under the Financial Instruments and Exchange Act and works closely with regulatory authorities.

The JBA TIBOR Operational Rules set forth that JBATA shall cooperate with relevant regulatory authorities by submitting and reporting records and audit results regarding JBA TIBOR calculation and other relevant information immediately upon their request.

JBATA also cooperates with the IOSCO and addresses their review of the extent of compliance with the IOSCO Principles appropriately.

(Appendix) Details of the Waterfall Methodology1. Waterfall methodology for Japanese yen TIBOR

	eriall methodology for Japan vel Data in the observable Japan	•
1-1	•	Ī
1-1	Actual Japan Unsecured Call transactions	• Rates in observable actual transactions data are weighted averaged to arrive at a submission rate.
1-2	Committed Quotes of Japan Unsecured Call transactions	Of Committed Quotes presented by brokers based on which transactions are committed to be executed, those relating to offered rates are weighted averaged to arrive at a submission rate.
1-3	Indicative Quotes of Japan Unsecured Call transactions	 A change from the previous business day in the mean rate of quotes presented by brokers is referenced. (A change from the previous day in the mean rate of quotes is added/deducted to/from the submission rate provided on the previous day to arrive at the submission rate of the day.)
1-4 (1)	Linear Interpolation	• If a submission rate of an adjacent tenor is calculated in line with the sub-tier [1-1], the linear interpolation method is applied to arrive at a submission rate.
1-4 (2)	Retroactive Use of actual transactions data	• Date back day by day up to the number of business days separately defined by JBATA, and if a submission rate is calculated line with the sub-tier [1-1] in a business day, that submission rate is determined as a submission rate of the day.
1-4	Linear interpolation based on	• If a submission rate of an adjacent tenor is calculated in line with
(3)	retroactively-used actual	the
	transactions data	sub-tier [1-1] or [1-4(2)], the linear interpolation method is
2 11		applied to arrive at a submission rate.
2nd Le	Data in the Japan Offshore	Offshore Market and Interbank NCD market The treatment under the sub-tiers from [1-1] to [1-4(3)] are applied
2-1	Market, Data in the Interbank NCD market	mutatis mutandis.
3rd Level Data in the observable NCD market (other than the Interbank NCD market), large term deposits, short-term government bonds market, GC repos market and OIS market		
	Data in the NCD market (other than the Interbank NCD market), Large Term Deposits, short-term government bonds market, GC repos market and OIS market	 With respect to the following data, reference a change from the previous business day. (Respective changes from the previous business day in the following data (1) to (5) are added to, or deducted from, the submission rate provided on the previous day in accordance with the method predetermined by JBATA to arrive at a submission rate of the day.) (1) Actual transactions in the NCD market (other than the Interbank NCD market) (2) Actual transactions in large term deposits (3) Quotes in the short-term government bonds market (4) Quotes in the GC repos market (5) Quotes in the OIS market
4th Lev	vel Expert Judgment	
	_	expert judgment by a Person Responsible for Rate Submission and
	Staff Performing Rate Subm	nission Tasks at reference banks.

2. Waterfall methodology for Euroyen TIBOR

1st Level Data in the observable Japan Offshore Market			
1-1	Actual Euroyen transactions	• Rates in observable actual transactions data are weighted averaged to arrive at a submission rate.	
1-2	Committed Quotes of Euroyen transactions	• Of Committed Quotes presented by brokers based on which transactions are committed to be executed, those relating to offered rates are weighted averaged to arrive at a submission rate.	
1-3	Indicative Quotes of Euroyen transactions	 A change from the previous business day in the mean rate of quotes presented by brokers is referenced. (A change from the previous day in the mean rate of quotes is added/deducted to/from the submission rate provided on the previous day to arrive at the submission rate of the day.) 	
1-4 (1)	Linear Interpolation	• If a submission rate of an adjacent tenor is calculated in line with the sub-tier [1-1], the linear interpolation method is applied to arrive at a submission rate.	
1-4 (2)	Retroactive Use of actual transactions data	• Date back day by day up to the number of business days separately defined by JBATA, and if a submission rate is calculated in line with the sub-tier [1-1] in a business day, that submission rate is determined as a submission rate of the day.	
1-4 (3)	Linear interpolation based on retroactively-used actual transactions data	• If a submission rate of an adjacent tenor is calculated in line with the sub-tier [1-1] or [1-4(2)], the linear interpolation method is applied to arrive at a submission rate.	
2nd Le	vel Data in the observable Japan	unsecured call market and Interbank NCD market	
2-1	Data in the observable Japan unsecured call market, Data in the Interbank NCD market	•The treatment under the sub-tiers from [1-1] to [1-4(3)] are applied mutatis mutandis.	
3rd Le	3rd Level Data in the observable NCD market (other than the Interbank NCD market), large term deposits short-term government bonds market, GC repos market and OIS market		
	Data in the NCD market (other than the Interbank NCD market), Large Term Deposits, short-term government bonds market, GC repos market and OIS market	 With respect to the following data, reference a change from the previous business day. (Respective changes from the previous business day in the following data (1) to (5) are added to, or deducted from, the submission rate provided on the previous day in accordance with the method predetermined by JBATA to arrive at a submission rate of the day.) (1) Actual transactions in the NCD market (other than the Interbank NCD market) (2) Actual transactions in large term deposits (3) Quotes in the short-term government bonds market (4) Quotes in the GC repos market (5) Quotes in the OIS market 	
4th Lev	4th Level Expert Judgment		
	I -	expert judgment by a Person Responsible for Rate Submission and	
	Staff Performing Rate Submission Tasks at reference banks.		