(Tentative translation)

[II] Comparison of requirements for option (3) Term Reference Rates (Swap) with IOSCO Principles for Financial Benchmarks (Overview)

The Sub-Group for the Development of Term Reference Rates has attempted to evaluate the currently proposed requirements for option (3) Term Reference Rates (Swap) according to the globally recognized IOSCO Principles for Financial Benchmarks (hereinafter referred to as "IOSCO Principles").

The proposed requirements are compared with principles 6, 7, and 8 comparable at the moment to the requirements among those set out to address the "Quality of the Benchmark" (principles 6-10) in the IOSCO Principles. Also, the proposed requirements are compared with "Compliance with 'IOSCO Principles for Financial Benchmarks (19 Principles)'" published yearly by the JBA TIBOR Administration (JBATA), which is designated as the Specified Financial Benchmark Administrator in the Financial Instruments and Exchange Act.

The evaluation on principle 6 "Benchmark Design" which appears to be particularly important under "Quality of the Benchmark" in the IOSCO Principles is shown below. (See Annex for details)

Principle 6. Benchmark Design

Overview	The design of the Benchmark should seek to achieve 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.
Evaluation	・ The design of the requirements could represent the economic realities of the Interest it seeks to measure based on the premise that the waterfall method which is better anchored in actual transactions is adopted. ・ The design makes use of quote data on CLOBs or, in principle, uses the best bid and best offer on voice brokers, which in turn could increase the objectivity of quote data and eliminate factors that might result in a distortion of value. ・ The objectivity of quote data could also increase through outlier checks and quality-weighting.

Other:

Principle 7 "Data Sufficiency" specifies that it "does not mean that every individual Benchmark determination must be constructed solely of transaction data." Also, based on the description that "a low liquidity market that reflects the commercial realities of a market and functions as a price discovery market could support a Benchmark consistent with this Principle, even though non-transactional data such as verifiable (firm) bids and offers might be used as an adjunct to the low number of transactions in compiling a Benchmark," the design in which quote data on CLOBs or quote data on voice brokers (in principle, the best bid and best offer) are used when there are no executed transaction data appears reasonable. See Appendix for the underlying market volume.

Annex

(Tentative translation)

Comparison of requirements for option (3) Term Reference Rates (Swap) with IOSCO Principles (Principles 6, 7, and 8)

Overview[1]	Term Reference Rates (Swap)	(Reference) Implementation of IOSCO Principles by the JBA TIBOR administration[2]
Quality of the Benchmark		
Principle 6. Benchmark Design		
The design of the Benchmark should seek to achieve 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.	・Based on the premise of adopting the waterfall method which prioritizes executed transaction data and quote data if there are no executed transaction data. ・Ensures the objectivity of quote data to some degree because the design makes use of quote data on CLOBs or, in principle, uses the best bid and best offer on voice brokers. ・Outlier data are eliminated by statistical methods (percentile estimation) and Quote data on voice brokers are weighted by the quality-weighted average. ・It may be possible to verify that Term Reference Rates (Swap) appropriately reflects the Interest by comparing the level of Term Reference Rates (Swap) with the compounded actual rate in the uncollateralized overnight call market.	・The waterfall method was introduced with a view to realizing a benchmark that is “better anchored in actual transactions.” Reference banks calculate and determine their submission rates using a calculation method that does not give rise to arbitrariness. ・Calculated as the simple average of interest rates submitted by reference banks which excludes two highest quotes and two lowest quotes from reference banks. ・Reference banks are obliged to conduct external and internal audits on an annual basis, in principle. ・The Oversight Committee performs monitoring to ensure that JBA TIBOR appropriately reflects “underlying interest” which it seeks to measure by comparing data of transactions collected from reference banks with each reference bank’s submission rates.

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

[2] “Compliance with ”IOSCO Principles for Financial Benchmarks (19 Principles)” (published on March 7, 2019) (http://www.jbatibor.or.jp/english/%E3%80%90%E8%8B%B1%E8%AA%9E%E7%89%88%E3%80%91IOSCO%E5%8E%9F%E5%89%87%E3%81%AE%E8%87%AA%E5%B7%B1%E8%A9%95%E4%BE%A1%E7%B5%90%E6%9E%9C%20.pdf).

(Tentative translation)

Overview[1]	Term Reference Rates (Swap)	(Reference) Implementation of IOSCO Principles by the JBA TIBOR administration[2]
Principle 7. Data Sufficiency		
The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should be (a) based mainly on prices in an active market, and (b) anchored by observable transactions entered into at arm's length between buyers and sellers[3] in the market for the Interest *This does not mean that every individual Benchmark determination must be constructed solely of transaction data. It could result in an individual Benchmark determination being based predominantly, or exclusively, on bids and offers or extrapolations from prior transactions. It could be appropriate in a market where overall transaction volume is high over sustained periods, though on any given day there might be more firm bids and offers than posted transactions taking place. *A low liquidity market that reflects the commercial realities of a market and functions as a price discovery market could support a Benchmark	・Based on the premise of adopting the waterfall method which prioritizes executed transaction data and quote data if there are no executed transaction data. ・The design makes use of quote data on CLOBs or, in principle, uses the best bid and best offer, on voice brokers. (According to the IOSCO Principles, [firm] bids and offers could be used as an adjunct to the low number of transactions.) ・No expert judgement.	・The waterfall method applies a calculation method that is based on actual transaction data of the underlying market and other relevant data, and one that avoids arbitrariness. In particular, the use of expert judgment is completely removed on three levels. ・For Japanese Yen TIBOR, the amount of the transaction balance in the Japan unsecured call market (i.e., the underlying market) temporarily decreased due to the introduction of Quantitative and Qualitative Monetary Easing with Negative Interest Rates in February 2016 but has recovered to JPY18.6 trillion (as of July 31, 2018) which is the level before the introduction of such policy. ・For all tenors, reference banks almost always determine their submission rates in the "level in which data of the underlying market (including committed quotes, indicative quotes, and linear interpolation) are used." ・There were no cases where "expert judgement" was used to calculate and determine reference rates as

[3] A transaction between two parties that is concluded on terms that are not influenced by a conflict of interest (e.g., conflicts of interest that arise from a relationship such as a transaction between affiliates).

(Tentative translation)

Overview[1]	Term Reference Rates (Swap)	(Reference) Implementation of IOSCO Principles by the JBA TIBOR administration[2]
consistent with this Principle, even though non-transactional data such as verifiable (firm) bids and offers might be used as an adjunct to the low number of transactions in compiling a Benchmark.		of the date of the self-assessment. Submission rates are calculated and determined based on various data including actual transaction data in the underlying market and other relevant data.
Principle 8. Hierarchy of Data Inputs		
An Administrator should establish, publish, or make available clear guidelines regarding the hierarchy of data inputs and the exercise of expert judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include (excerpt): (a) reported or observed concluded Arm's-length Transactions in the underlying interest; and (b) firm (executable) bids and offers. *"IOSCO recognizes that there might be circumstances (e.g., a low liquidity market) where a confirmed bid or offer might carry more meaning than an outlier transaction. Under these circumstances, non-transactional data such as bids and offers and extrapolations from prior transactions might predominate in a given Benchmark determination.	・ Based on the premise of adopting the waterfall method which prioritizes executed transaction data and quote data if there are no executed transaction data. ・ The design makes use of executed transaction data if the total notional amount of executed transactions is equal to or greater than the threshold. Otherwise, only quote data are used. ・ Regarding quote data, the design prioritizes data for use in the below order. (1) Tradable quote data on CLOBs (2) Tradable quote data on voice brokers (3) Quote data on voice brokers ・ It is assumed that contingency plans (e.g., continuous use of preceding benchmarks) will be implemented when quote data are not updated.	・ JBATA sets out the waterfall method as the hierarchy of data inputs. The waterfall method 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.

(Tentative translation)

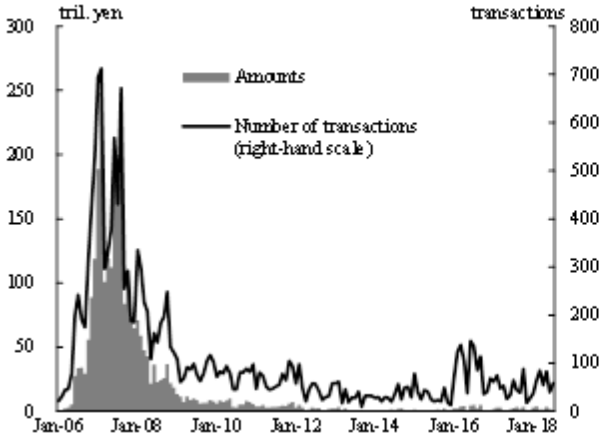
Appendix

Underlying market volume

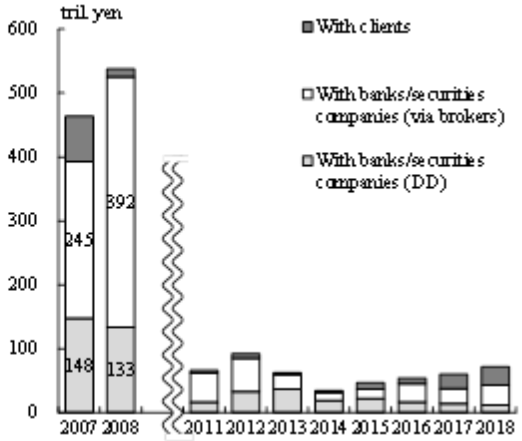
Benchmark	JPY OIS	(Reference) Japanese Yen TIBOR	(Reference) Uncollateralized overnight call rate
Market volume[1]	71.7 tril. yen ・The share via brokers in the amount outstanding of JPY OIS transactions (based on notional amounts) is approximately 40 percent.	18.6 tril. yen ・The share of reference banks in the uncollateralized call market is approximately 30 to 60 percent.[2]	15.1 tril.yen ・The share of broking in the uncollateralized call market is approximately 30 percent.[3] ・The transaction volume in the uncollateralized overnight call market generated by broking is 4.9 tril. yen[4]

JPY OIS Market

Volume and Number of JPY OIS Transaction via Brokers



Amount Outstanding in the JPY OIS Market



Source: Tokyo Money Market Survey (August 2018).

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[1] Based on the "Tokyo Money Market Survey" published on Oct. 2018 by the Bank Of Japan (data is as at the end of July 2018)

[2] Based on "Result of a Periodic Review of the JBA TIBOR Operational Framework" published in March 2019 by the JBATA.

[3] The total amount outstanding of transactions via brokers and non-group DD transactions are aggregated in the "Tokyo Money Market Survey."

[4] Annual average in 2018. Based on "Call Money Market Data (Updated every business day)" published by the Bank.