Current status and outlook of JBA TIBOR (June 2023)

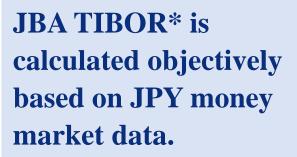


Current status and outlook of JBA TIBOR









* "JBA TIBOR" collectively means "Japanese Yen TIBOR" and "Euroyen TIBOR."

With First Phase of JBA TIBOR Reform in July 2017, JBA TIBOR Administration ("JBATA") introduced the "waterfall methodology" to increase objectivity (removing arbitrariness) of the calculation process based on various data. Japanese Yen TIBOR aims to further enhance its transparency, robustness and reliability as a benchmark for continued publication.

To ensure that Japanese Yen TIBOR is recognized internationally and continues to be widely used in the markets, we will not only comply with the *Principles for Financial Benchmarks*, but also closely pay attention to developments in global financial benchmark reform, with the aim of maintaining and further enhancing its transparency, robustness and reliability of the benchmark.



Euroyen TIBOR is under discussion of its orderly cessation in consideration of the issue.

To resolve the remaining issue recognized for Principles for Financial Benchmarks, JBATA discusses the possibility of permanent cessation of Euroyen TIBOR at the end of 2024. This discussion will be further promoted in FY2023.

Explanatory document





- JBATA conducted Survey on JBA TIBOR Exposures to financial institutions (approximately 280) and <u>published the results</u>.
- The survey revealed that the majority of products referencing Euroyen TIBOR is derivatives, while loans that reference Euroyen TIBOR also reach a certain volume.
 - ✓ The survey indicated that a significant volume of loans and derivatives contracts referencing Euroyen TIBOR have maturities beyond end-2024, the potential permanent cessation date of Euroyen TIBOR.

• Loans and derivatives are the main products that reference Japanese yen TIBOR, with an extremely large volume of loans.

Euroyen TIBOR

(Total of all business types, as of December 2021)

Account and breakdown		Amount outstanding (JPY tri.)	Number of contracts
Asse	ets	3.8	2,725
	Loans	3.8	2,716
	Maturities beyond end-2024	1.6	1,397
	Bonds	0.02	9
	Maturities beyond end-2024	0.02	9
Liat	oilities	0.004	9
	Bonds	0.004	9
	Maturities beyond end-2024	0.004	9
	Insurance products	0	0
	Maturities beyond end-2024	0	0
Derivatives (notional amount)		347.7	30,688
	Maturities beyond end-2024	206.1	21,532
	OTC (ISDA)	345.1	30,307
Maturities beyond end-2024		205.4	21,368

■ Japanese Yen TIBOR (Total of all business types, as of December 2021)

Account and breakdown		Amount outstanding (JPY tri.)	Number of contracts	
Asse	ets	120.3	291,128	
	Loans	119.8	290,824	
	Bonds	0.5	304	
Liabilities		0.5	1,119	
	Bonds	0.4	87	
	Insurance products	0.1	1,032	
Der	ivatives (notional amount)	180.4	47,187	
	OTC (ISDA)	158.4	27,309	



- JBA TIBOR was reformed as one of the major interest rate benchmarks in July 2017 ("First Phase of JBA TIBOR reform") to enhance its transparency, robustness and reliability based on the following international initiatives:
 - ✓ "Final Report on Principles for Financial Benchmarks" published by IOSCO^(*1) in July 2013 ("IOSCO Principles")
 - \checkmark "Reforming Major Interest Rate Benchmarks" published by the FSB ^(*2) in July 2014

Background of "First Phase of JBA TIBOR Reform" (International initiatives)

• IOSCO Principles

No.	Principles	No.	Principles
1	Overall Responsibility of the Administrator	11	Content of the Methodology
2	Oversight of Third Parties	12	Changes to the Methodology
3	Conflicts of Interest for Administrators	13	Transition
4	Control Framework for Administrators	14	Submitter Code of Conduct
5	Internal Oversight	15	Internal Controls over Data Collection
6	Benchmark Design	16	Complaints Procedures
7	Data Sufficiency	17	Audits
8	Hierarchy of Data Inputs	18	Audit Trail
9	Transparency of Benchmark Determinations	19	Cooperation with Regulatory Authorities
10	Periodic Review	/	

• FSB "Reforming Major Interest Rate Benchmarks"

© IBOR reform

Reform existing major interest rate benchmarks (LIBOR, EURIBOR, TIBOR) to enhance transparency/robustness/reliability as a benchmark by eliminating the possibility of arbitrary judgment by reference banks as much as practicable.

• Development of a risk-free rates (RFR)

As for the major currencies (i.e. USD, EUR, GBP, JPY, CHF), it is necessary to develop a risk-free rate that does not include bank credit risk.

O In addition to the above, the "multiple-rate approach" that uses each interest rate benchmark based on the nature of financial instruments or transactions was recommended.



Source) Partially edited in reference to the consultation document "Appropriate Choice and Usage of Japanese Yen Interest Rate Benchmarks" published by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks

*1: The International Organization of Securities Commissions (IOSCO) is the international body that consists of the world's securities supervisors and securities exchanges, etc.. It primarily engages in developing international rules pertaining to securities supervision (e.g. principles, guidelines).

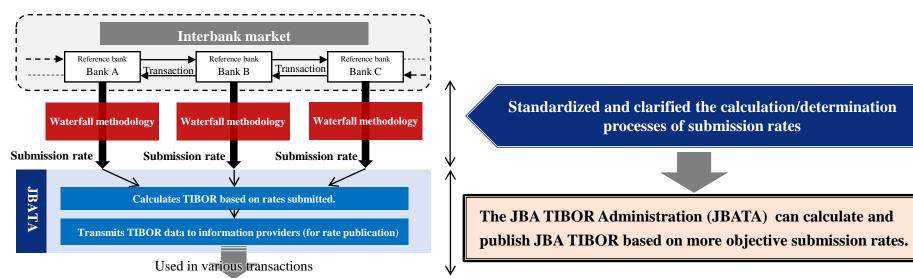
*2: The Financial Stability Board (FSB) conducts activities to promote coordination among authorities addressing vulnerabilities of the financial system and ensuring its stability. Its members include the representative of the central bank, financial supervisors, the ministry of finance and major standard setters of major jurisdictions, the International Monetary Fund (IMF), the World Bank, the Bank for International Settlements (BIS) and the Organization for Economic Co-operation and Development (OECD).



One of the key concepts under First Phase of JBA TIBOR Reform was to enhance the transparency and reliability of JBA TIBOR calculation/determination processes in order to have JBA TIBOR be more anchored in actual transactions, as required by the FSB Report.

• Overview of reform (standardization and clarification of the calculation/determination processes of submission rates)

- O Before First Phase of JBA TIBOR Reform, the calculation and determination processes of (reference banks') submission rates were not clearly defined. This could have been raised as an issue that may lead to rate manipulation, such as enabling reference banks to arbitrarily adjust their submission rates in their calculation/determination processes.
- First Phase of JBA TIBOR Reform, introduced "waterfall methodology" (see next page for details) which standardized and clarified the calculation/determination processes of reference banks' submission rates and realized a more objective process that removes any arbitrarily manipulated rates as much as practicable.
 - ✓ Under "waterfall methodology," actual transaction data and other related data are referenced in the order of their prescribed priority when calculating and determining submission rates.



<First Phase of JBA TIBOR Reform>



- "Waterfall methodology" defined by First Phase of JBA TIBOR Reform is as explained below.
- According to the post-reform inputs, there have been no cases where submission rates were determined based on "expert judgment" (i.e. Priority 4). All submission rates have been objectively calculated and published based on related data.

Waterfall methodology" defined by First Phase of JBA TIBOR Reform

• First Phase of JBA TIBOR Reform standardized/clarified the processes so that submission rates are calculated/determined by referring to data in the order of the following Priority 1 to 3. Under this mechanism, only when data specified in Priority 1 to 3 does not exist, factors other than actual transactions data (i.e. Priority 4) may be taken into account.

<Waterfall methodology> (regarding Japanese Yen TIBOR)

* As for Priority 1 and 2, Data in the unsecured call market submission rates are calculated **Priority** (1) Data of actual transactions of the day in the unsecured call market and determined by referring to (2) Quotes in the unsecured call market data in the order from (1) to (3)(3) Historical actual transaction data in the unsecured call market (note that data of (1) and (3) are referenced only when the bank's Data in the interbank markets similar to the unsecured call market own transactions data exist). (1) Data of actual transactions of the day in the Japan Offshore Market and **Priority** the Interbank NCD market(*1) (2) Quotes in the Japan Offshore Market (3) Historical actual transactions data in the Japan Offshore Market and the Interbank NCD market Data in the relevant markets, including the wholesale market **Priority** Data of NCD transactions (except for certain transactions), large term If data does not exist in 3 deposits, short-term government bonds market, GC repos^(*2) market, and any of Priority 1 to 3 OIS^(*3) market Expert judgment^(*4) **Priority 4**

- *1 NCD stands for Negotiable Certificate of Deposit, can be traded before maturity and is traded in the money market.
- *2 "GC (General Collateral) repos" is one of the approaches to bond lending transactions collateralized by cash used mainly for funding without specifying the security.
- *3 OIS stands for Overnight Index Swap. In Japan, OIS transactions are executed by exchanging the unsecured overnight call rate over a certain period as a floating rate with a fixed rate. *4 Each reference bank's Person Responsible for Rate Submission and Staff Performing Rate Submission Tasks exercises expert judgment and submits rates. This is retained at the lowest
- level of the waterfall methodology (Priority 4) so that users will be able to appropriately capture prevailing rates in the money market even when an unpredictable event occurs (e.g. rapid financial market turmoil due to large disaster) and data in Priority 1 to 3 are not available.



- JBATA evaluates that compliance with the IOSCO Principles has been achieved as a result of First Phase of JBA TIBOR Reform.
- However, With the aim of further enhance its transparency, robustness and reliability of JBA TIBOR, JBATA continues its efforts (Second Phase of JBA TIBOR Reform) to resolve some remaining issues recognized for the IOSCO Principles (Principles 7 and 13) after First Phase of JBA TIBOR Reform.

• Overview of Second Phase of JBA TIBOR Reform (remaining issues under the IOSCO Principles and the progress of the initiative)

]	Description of IOSCO Principles	Progress as of March 2023 (Issues recognized)	Self-assessment and action policy as of March 2023*2		
Principle <u>13</u> Transition	Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark. Administrators' written policies and procedures to address the possibility of Benchmark cessation could include the criteria to guide the selection of a credible, alternative Benchmark, if determined to be reasonable and appropriate by the Administrator.	 ✓ The written policies and procedures to address transition to fallback rates were published in March 2020. ✓ Appropriate fallback rates for JBA TIBOR have been considered. 	[Fully Complied] ✓ The remaining issue has been resolved with the publication of <i>Results of Public</i> <u>Consultation on fallback issues for JBA</u> <u>TIBOR</u> (see "ii" for details) and revision of Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication.		
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.	✓ The lack of an active underlying market will make it difficult for Euroyen TIBOR to determine submission rates on the basis of the data in the Japan Offshore Market. *1	[Complied (with remaining issue)] ✓ The action has been discussed, deeming "retaining Japanese Yen TIBOR and discontinuing Euroyen TIBOR" as the most likely option.		

*1 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 0.3 trillion (as of July 31, 2022), and its market size continues to be smaller compared to the Japan unsecured call market (the outstanding balance: approx. 34.9 trillion) (the figures are as of July-end, 2022))

*2 See next and subsequent pages for the latest status of compliance with each principle.



- The remaining issue in Principle 13 (Transition) has been resolved with the publication of Results of Public Consultation on fallback issues for JBA TIBOR (the "Results") and revision of Policy on Material Changes in the Definition or Calculation Method and Continuous Suspension of the JBA TIBOR Publication.
- The Results summarize "JBATA's position" for each benchmark on respective fallback issues for JBA TIBOR (triggers, fallback rates and spread adjustments) based on the responses received in the public consultation.
- "JBATA's position" specified in *Results of Public Consultation on fallback issues for JBA TIBOR* <JBATA's position> (the case of fallback from Japanese Yen TIBOR)

(Excerpt from published information, with partially edits)

ssue	S	JBATA's position					
ſrigg	er	✓ It would be appropriate to at least include in the stating that JBATA has ceased or will cease to pr				iggers that assume an announcement	
Benc	hmark replac	ement					
Fallback rates (Options and setting priorities in the fallback provisions)							
	Options*1	Compounded TONA (fixing in arrears) *1, Term	RFR *2				
		Setting priorities option 1		Setting priorities option 2			
	Setting priorities			1 st priority Terr		Term RFR	
	I	Compounded TONA (fixing in arrears)	2 nd priority		Compounded TONA (fixing in arrea		
		Fallback rate	Compounded TONA (fixing in arrears)		Term RFR		
		Spread adjustment methodology	Historical five-year median spread adjustment methodology *2			djustment methodology *2	
Spread adjustment		Historical data of term RFRs	— (No consideration required)		Use data of compounded TONA (fixing in arread		
	Transition period for the spread adjustment		Not set				
		The officially published spread adjustment	Spread adjustments published by Bloomberg			hed by Bloomberg	

*2 The contracting parties should note that this methodology may give rise to a certain "difference" in a level of spread adjustments compared to the case of adopting a methodology based only on the latest market trends.

*1 TONA stands for Tokyo Overnight Average Rate, and refers to unsecured overnight call rate published by the Bank of Japan.

*2 TORF (Tokyo Term Risk Free Rate) published by QUICK Benchmarks Inc. is assumed.



- JBATA has been discussing the permanent cessation of Euroyen TIBOR to resolve the remaining issue (the lack of an active underlying market for Euroyen TIBOR to determine submission rates) for IOSCO Principle 7 (Data Sufficiency).
- In the first-half of the fiscal year ending March 31, 2024, JBATA intends to publish consultation on whether to permanently cease to publish Euroyen TIBOR at the end of December 2024, while its results are expected to be published in the second-half of the fiscal year.

Key milestones for Euroyen TIBOR *1

Year and month	JBATA's (planned) actions	Remarks
October 2018	Published public consultation [1 st Consultative Document] Approach for Integrating Japanese Yen TIBOR and Euroyen TIBOR	_
May 2019	Published the results of public consultation (October 2018)	✓ Announced that we will contemplate further actions while deeming "retaining Japanese Yen TIBOR and discontinuing Euroyen TIBOR ('retaining Japanese Yen TIBOR')" as the most likely option.
March 2021	Announced that the timing of permanent cessation of Euroyen TIBOR, if adopted, would be at end of December 2024	_
August 2022	Published Public Consultation on fallback issues for JBA TIBOR	—
March 2023	Published the results of public consultation (August 2022)	\checkmark Identified fallback issues on Euroyen TIBOR.
First-half of FY2023	Plan to publish public consultation on whether to permanently cease to publish Euroyen TIBOR	✓ Intend to seek to comments from a wide range of market participants on whether to permanently cease to publish Euroyen TIBOR at the end of December 2024.
Second-half of FY2023	Plan to announce results of public consultation (in the first-half of FY 2023)*2	✓ Article 51 of the JBA TIBOR Operational Rules stipulates that, when JBATA ceases JBA TIBOR publication, it shall disclose matters including the timing at least six months prior to the effective date.

*1 The information on the plan is as of the publication of this document.

*2 Publishing the results of the consultation (specifically, determining whether and when to cease Euroyen TIBOR) and announcing that JBATA has ceased or will cease to provide Euroyen TIBOR permanently would be intended to constitute a "Permanent Cessation Trigger".

- The table below shows an overview of compliance with the IOSCO Principles published by JBATA every year.
- With the progress of "Second Phase of JBA TIBOR Reform" Initiative, self-assessment in March 2023 concluded that the remaining issue in Principle 13 was resolved and the status has been changed to "Fully complied (◎)".
- JBATA will address the remaining issue for Principle 7 to further enhance transparency, robustness and reliability.

Status of compliance with IOSCO Principles by JBATA (for the last two years)

No.	Principles	Self-assessment				Self-assessment		
		March 2022	March 2023	No.	Principles	March 2022	March 2023	
1	Overall Responsibility of the Administrator	Ô	0	11	Content of the Methodology	Ô	\bigcirc	
2	Oversight of Third Parties	0	0	12	2 Changes to the Methodology		\bigcirc	
3	Conflicts of Interest for Administrators	0	0	13	Transition	0	\bigcirc	
4	Control Framework for Administrators	0	\bigcirc	14	Submitter Code of Conduct	0	\bigcirc	
5	Internal Oversight	0	0	15*	Internal Controls over Data Collection	_	_	
6	Benchmark Design	0	0	16	Complaints Procedures	0	\bigcirc	
7	Data Sufficiency	0	0	17	Audits	0	\bigcirc	
8	Hierarchy of Data Inputs	\bigcirc	0	18	Audit Trail	0	\bigcirc	
9	Transparency of Benchmark Determinations	0	0	19	Cooperation with Regulatory Authorities	0	0	
10	Periodic Review	0	0	 O: Assessed as fully complied. O: Assessed as complied but some issues are left. 				

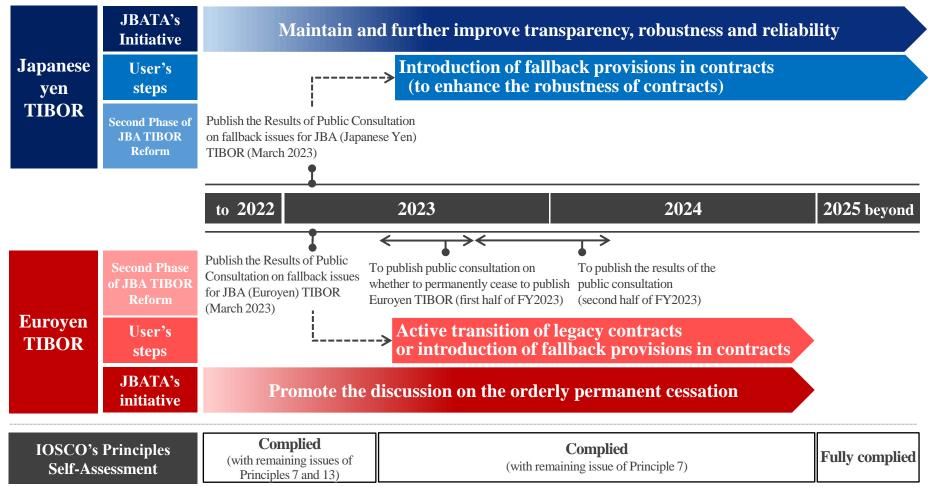
* This principle is determined not to be applicable to our assessment.

Outlook



- To ensure that Japanese yen TIBOR is recognized internationally and continues to be widely used in the markets, JBATA aims to maintain and further enhance its transparency, robustness and reliability of the benchmark.
- The discussion on the orderly cessation of Euroyen TIBOR will be further promoted in line with the "Second Phase of JBA TIBOR Reform" Initiative.

Outlook of JBA TIBOR Reform*



* The information on the plan is as of the date of publication of this document.