March 25, 2022 General Incorporated Association JBA TIBOR Administration

Result of a Periodic Review of the JBA TIBOR Operational Framework

General Incorporated Association JBA TIBOR Administration (Chairman: Akihiro Wani; "JBATA") conducted a periodic review of the JBA TIBOR operational framework pursuant to the Article 48(1) of the JBA TIBOR Operational Rules as described below. JBATA concludes that it is not necessary to change the JBA TIBOR operational framework based on the result of periodic review.

In light of international discussions on the financial benchmark reforms, JBATA will continue its efforts to comply with the IOSCO principle and maintain the operational framework with a view to enhancing the transparency, robustness and reliability of JBA TIBOR.

1. Underlying markets of JBA TIBOR

The conditions of the underlying markets (i.e. the Japan unsecured call market in the case of Japanese yen TIBOR and the Japan Offshore market in the case of Euroyen TIBOR; the same shall apply hereinafter) and other relevant markets of JBA TIBOR are as described in this section. The percentage of the transactions executed by reference banks in the JBA TIBOR underlying markets is approximately 20% to 70%. Note that the figures shown below are estimates calculated based on, among other things, published statistical data solely for the purposes of the JBATA's assessment and consideration. Therefore, JBATA is not liable for any loss or damage arising indirectly or directly from the use of these figures.

(1) Estimated market size of the Japan unsecured call market	(Overall)	Approx. JPY33.5 tril.	*1
	(Term rates)	Approx. JPY13.1 tril.	
	(Overnight rate)	Approx. JPY24.7 tril.	
Estimated share of transactions by reference bas (Calculated by including overnight rate. The denominat		Approx. 18% utions.)	
(2) Estimated market size of the Japan Offshore market	(Financing side)	Approx. JPY0.3 tril.	*2
	(Funding side)	Approx. JPY0.5 tril.	*2
Estimated share of transactions by reference banks (Calculated by including overnight rate.)		Approx. 70%	
(3) Estimated market size of NCD transactions		Approx. JPY29.2 tril.	*3
(4) Estimated market size of large-account, time deposit transactions		(Approx. JPY29.3 tril.)	*4

*1 Estimated from the funding side based on the "Trend in the Money Market in Japan - Tokyo Money Market Survey (August 2021)" published by the Bank of Japan

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 setting, therefore, the "(Overnight rate)" transactions are not referenced in most cases.

- *2 Estimated based on the "Balance of Offshore Account (end of July 2021)" published bythe Mistry of Finance Japan. In light of feature of the Japan Offshore market, the market size was estimated from both the financing side (Total Assets/ Deposits and Call Loans/ Denominated in JPY) and the funding side (Total Liabilities/ Deposits and Call Money/ Denominated in JPY)
- *3 Estimated based on statistics related to the Deposits and Loan Market (DL) (January 2021 to November 2021) published by the Bank of Japan
- *4 Estimated based on the "Amounts Outstanding of Deposits by Depositor (semi-annual research <for domestic banks>) (end of September 2021)" published by the Bank of Japan (Transactions for corporate entities only)

The"(Term rates)" also include various terms that do not necessarily correspond to the given TIBOR tenors.

2. Basis for submission rate calculation by reference banks

The basis for calculation of submission rate by reference banks from January 4, 2021 to December 30, 2021 (245 business days in total) is shown in the tables below. During the period, there was no rate submission using the expert judgement by reference bank in both Japanese Yen TIBOR and Euroyen TIBOR.

(1) Japanese Fen TIBOK (sublinued by 15 ferefence banks)						
L	Tenor evel	1W	1 M	3M	6M	12M
15	st Level	99.0 %	68.7 %	100.0%	100.0%	100.0%
	1-1	1.6%	1.6%	0.2%	0.0 %	—
	1-2	—	_	—	—	—
	1-3	97.4%	65.9%	99.8%	100.0%	100.0%
	1-4	_	1.3%	_	_	_
21	nd Level	_	11.3%	_	_	_
	2-1	_	_	_	_	_
	2-2					
	2-3	_	11.3%		_	
	2-4					
31	rd Level	1.0%	20.0%			
41	h Level					

(1) Japanese Yen TIBOR (submitted by 15 reference banks)

(2) Euroyen TIBOR (submitted by 14 reference banks)

Le	Tenor	1W	1M	3M	6M	12M
1 s	t Level	12.8%	37.5%	48.3%	70.7%	100.0%
	1-1		_	_	_	_
	1-2	_	_	_	_	_
	1-3	12.8%	37.5%	48.3%	70.7%	100.0%
	1-4	_	_		_	—
2r	nd Level	80.8%	39.4%	51.7 %	29.3%	_
	2-1	1.7%	1.3%	0.1%	—	—
	2-2	_	_	<u> </u>	_	_
	2-3	79.2%	37.0%	51.6%	29.3%	—
	2-4	_	1.2%		_	_
3r	•d Level	6.3%	23.1%			
4t	h Level	_				

IDOR)			
1st Level	1-1: Actual transaction data on the unsecured call market on		
Data of the unsecured call	thebusiness day.		
market	1-2: Committed quotes in the unsecured call market		
	1-3: Indicative quotes in the unsecured call market		
	1-4: Actual transaction data on the unsecured call market on		
	the previous business days, etc.		
	%Reference banks determine their submission rates in the order		
	of 1-1 to 1-4 (in the case where there is no available data for 1st		
	Level, move to 2nd Level).		
2nd Level	2-1: Actual transaction data on the Japan Offshore market		
Data of the inter-bank market	and Interbank NCD market on the relevant business day		
which is similar to the	2-2: Committed quotes in the Japan Offshore market		
unsecured call market	2-3: Indicative quotes in the Japan Offshore market		
	2-4: Actual transaction data on the Japan Offshore market		
	and Interbank NCD market on the previous business		
	days, etc.		
	*Reference banks determine their submission rates in the		
	order of 2-1 to 2-4 (in the case where there is no data		
	available for 2nd Level, move to 3rd Level).		
3rd Level	· Actual transaction data on the NCD market (excluding the		
Data of the relevant market	interbank NCD market), large term deposits, quotes in the short-		
including the whole sale market	term government bonds market, the GC repos market and the		
	OIS market		
	* There is no hierarchy among the markets in the same level.		
4th Level	• Only in the instance where there is no data available for 1st		
	Level, 2nd Level and 3rd Level, a reference bank may		
	determine their submission rates considering other factors		
	(e.g. expert judgment).		
	1		

(Overview of the calculation and determination process for submission rates in Japanese Yen TIBOR)

X In the calculation and determination process of submission rate for Euroyen TIBOR, "unsecured call market" in the 1st Level is replaced by "Japan Offshore market", "Japan Offshore market" in the 2nd Level is replaced by "unsecured call market".