Revised on October 13, 2021

TORF Code of Conduct

QUICK Benchmarks Inc.

In connection with the calculation and publication of the Tokyo Term Risk Free Rate ("TORF"), which are defined in Section 1, QUICK Benchmarks Inc. ("QBS") hereby establishes the Code of Conduct (including Attachment 1 and 2). This Code of Conduct sets forth the rules that reporting brokers should abide by in rate reporting, and thereby aims to ensure compliance with the International Organization of Securities Commissions ("IOSCO")'s Principles for Financial Benchmarks and to gain trust from markets and users.

The reporting brokers shall observe the Code of Conduct as well as other applicable laws and regulations, in reporting rates appropriately subject to the definition of TORF.

1. Definition

(1) TORF

TORF refers to the respective averages of three different rates (6th decimal place is rounded half up to the 5th decimal place) calculated by QBS using the method specified in the Calculation Guidelines, for each period of the 1-month, 3-month and 6-month transaction rates (Note 1) reported by reporting brokers to QBS in accordance with the provisions of the Code of Conduct.

In a case where a reporting broker fails to report a part of rates for some reason, they shall be calculated for each period using the above method based on the rates reported by two or more brokers.

(Note 1) Execution rates and quote rates for Japanese yen OIS transactions in the Japanese interest rate swap market from 15:00 JST on the previous business day to 15:00 JST on the day of calculation. The rates are quoted on a 365-day basis, as spot starts.

(2) Japanese Yen OIS Transactions

OIS stands for Overnight Index Swap. Japanese yen OIS transaction is an interest rate swap in which the average uncollateralized overnight call rate (Tokyo Overnight Average rate: TONA) for Japanese yen is used as the reference floating rate. The execution rate or the quote rate reported by the reporting brokers for TORF calculation are the fixed rate to be swapped with TONA which is a floating rate.

(3) Reporting Broker

Reporting broker is a money broker or other transaction intermediary selected by QBS in accordance with the procedures set forth in the TORF Operational Rules to report rates to QBS for the purpose of calculating and publishing TORF.

(4) Reporting Rate

Reporting rate is the rate reported by the reporting broker to QBS for TORF in accordance with the provisions of the TORF Operational Rules and the TORF Code of Conduct, which is for transactions that fall under the transactions to report specified in Appendix 1 and Appendix 2 in 2 (1) B). There are two types of rates: the rate at which the transaction is executed at the broker (execution rate) and the quote rate submitted to the broker.

(5) Quote Data

Quote data is an order data submitted on the premise of a transaction. Indicative data, which is submitted but not based on the premise of a transaction, such as the data delivered by brokers and financial institutions via information terminals etc., is not used in the TORF production rate.

(6) Quote Rate

Quote rate is the interest rate portion of the quote data.

(7) Official Rate

Official rate is the rate calculated by aggregating the reporting rates for TORF and published by QBS.

2. Rules to be Complied by Reporting Brokers

Reporting brokers shall comply with the following rules pertaining to the rate reporting for TORF. Except for the rules related to obligations for notification or reporting to QBS, paragraphs (2) to (10) set out guidelines on standard processes which are recommended to be put in place by reporting brokers. Reporting brokers shall give due regard to these guidelines and put in place processes and controls which will ensure appropriate and sound rate reporting, in an appropriate manner.

(1) Reporting Rate Based on the Definition

- A) Subject to the definition set out in Section 1, reporting brokers shall report the rates for all maturities to report to QBS on a daily basis. Although rates are reported on a daily basis, QBS may request reports on the progress of rates up to a certain point in the day for smooth calculation and publication.
- B) In order to report the rates subject to the definition, reporting brokers shall report the reporting rates as specified below.
 - (i) Voice broking data (See Appendix 1 for details)
 - (a) Executed transaction data executed in voice broking
 - (b) Quote data submitted in voice broking

Appendix 1: Voice Broking Data

Item	Executed transaction data	Quote data				
Transaction to report	 spot-start Japanese yen OIS out months, 6 months) transactions during Tokyo busine centrally-cleared transaction (traat either JSCC or LCH) transactions executed or orders 	transactions during Tokyo business days centrally-cleared transaction (transactions supposed to be cleared it either JSCC or LCH) transactions executed or orders submitted between 15:00:01 JST on the previous business day and 15:00:00 JST on the current				
Item to report	At a minimum, the following items shall be included. • Execution rate • Notional amount • Date, time, minutes and seconds of execution • CCP information	At a minimum, the following items shall be included. (Note 2) • Quote rate • Direction of the order (Bid / Offer, etc.) • Notional amount • CCP information • Date, time, minutes and seconds of submission (information update) • Information for determining the best quote (if the quote data to report includes a quote other than the best quote) • Status of the quote rate (information that distinguishes between actual orders, reference orders, etc.)				

(Note 2) For the quote data, the best quote (the best Bid / the best Offer) shall be reported. However, if the data to report includes quote other than the best quote, information to identify the best quote (e.g., dealer name or number, trade serial number, etc.) shall be included to enable QBS to extract the best quote.

- (ii) CLOB (Note 3) data (See Appendix 2 for details)
 - (a) Executed transaction data executed on CLOB
 - (b) Quote data submitted on CLOB

Appendix 2: CLOB Data

Item	Executed transaction data	Quote data
Transaction to report	(Same as Appendix 1)	
Item to report	(Same as Appendix 1)	At a minimum, the following items shall be included. • Data time (date, time, minute, second) • Quote rate • Direction of the order (Bid / Offer, etc.) • Notional amount

(Note 3) CLOB: Central Limit Order Book. CLOB is a centralized limit order book. It is a system in which over-the-counter limit orders (Bid and Offer) are centralized on a single board and matched according to the principles of price and time priority.

(2) Establishment of Processes for Appropriate Rate Reporting

Reporting brokers shall put in place the processes set forth below in order to ensure the appropriateness and accuracy of daily rate reporting.

- A) Notification to QBS regarding the department responsible for rate reporting, person responsible for rate reporting and staff performing rate reporting task
 - (i) Reporting brokers shall identify the department responsible for rate reporting, the person(s) assuming responsibility for rate reporting ("Person Responsible for Rate Reporting") and staff member(s) performing tasks related to rate reporting ("Staff Performing Rate Reporting Tasks"); and shall notify such information to QBS in the form separately designated by QBS when they are selected as a reporting broker and immediately after any change occurs in such information.
 - (ii) The Person Responsible for Rate Reporting shall be the member(s) of management who take(s) responsibility for the reporting broker's rate reporting, and who is(are) deemed by the reporting broker as having sufficient experience and capability in relation to transactions in the interest rate derivatives market, short-term money market, or other relevant markets. The Staff Performing Rate Reporting Tasks shall be the person(s) who is(are) deemed by the reporting broker as being capable of appropriately performing tasks related to rate reporting under the supervision of the Person Responsible for Rate Reporting.
 - (iii) Reporting brokers shall retain the details of their filings with QBS for a minimum of five years.

- B) Establishment of checking processes and controls for reporting rates
 - (i) Reporting brokers shall confirm manually or through the use of a system, etc., that there are no errors in reporting rates, and shall establish a system to promptly report any errors to QBS.
 - (ii) Reporting brokers shall monitor the reporting rates for intentional falsification or unintentional changes due to system malfunctions, and if any problems are identified, they shall promptly report them to QBS. This monitoring process includes checking the samples of reporting rates appropriately extracted that will be conducted for inspection or other similar purposes by the reporting broker's internal audit or internal management functions and responding according to the results.
- C) Establishment of processes to appropriately address inquiries, etc. concerning reporting rates

Reporting brokers shall put in place processes to respond appropriately when they receive any inquiry etc. regarding reporting rates from QBS or relevant authorities. Reporting brokers shall retain the record of the above information such as inquiries regarding reporting rates and their responses at least for five years.

(3) Establishment of Processes for Management of Conflicts of Interest in relation to Rate Reporting

- A) Reporting brokers shall put in place processes to appropriately manage conflicts of interest that arise in relation to rate reporting. These processes should include involvement of the compliance department etc., as well as regular assessment by the internal audit function to check whether conflicts of interest are appropriately managed.
- B) The conflicts of interest that arise in relation to rate reporting, referred to in the above A), shall mean conflicts of interest between the Code of Conduct which requires appropriate rate reporting subject to the TORF definition and the benefits (including non-financial benefits) of individual reporting brokers.
- C) Reporting brokers could put in place processes to manage conflicts of interest, depending on the degree of risk that may lead to manipulation of rates, at each reporting broker, for example:
 - (i) Prohibit information sharing or coordinating information regarding rate reporting between the Person Responsible for Rate Reporting/Staff Performing Rate Reporting Tasks and the person responsible for/person(s) performing the tasks of broking with individual customers, unless there is a justifiable reason to do so.
 - (ii) Take appropriate measures to ensure that the remuneration arrangement for the Person Responsible for Rate Reporting or Staff Performing Rate Reporting Tasks, their departments, reporting lines, and work areas during rate reporting do not give rise to incentives for rate manipulation.

(iii) If the Person Responsible for Rate Reporting or Staff Performing Rate Reporting Tasks has other duties within the company or group companies, the duties they are concurrently engaged in shall reported in the notification to QBS as specified in 2 (2) A). If those duties include a trading activity related to financial instruments that refer to TORF, the report should also include the appropriate internal validation processes put in place.

Further, reporting brokers could establish processes to identify other transactions and business activities that may cause conflicts of interest and to manage such conflicts of interest, depending on the degree of the risk of manipulation.

- D) Reporting brokers shall retain documents which record conflicts of interest issues relating to rate reporting (that may include, but not limited to, materials used to consider the establishment of processes, materials recording individual cases and reporting materials to the management), if any, for at least five years.
- E) Reporting brokers shall inform QBS of any exposures with regard to instruments which refer to TORF and shall retain the detailed information of those exposures for at least five years.

(4) Prohibition of Information Sharing, Coordination and Similar Behaviors regarding the Reporting Content

- A) A reporting broker's Person Responsible for Rate Reporting and Staff Performing Rate Reporting Tasks as well as the person responsible for/person(s) performing the tasks of broking with individual customers shall not share or coordinate information regarding rate reporting with persons outside the company (including, but not limited to, customers, the reporting broker's group companies and other reporting brokers), and persons other than internal staff in charge of Japanese yen OIS transactions, unless there is a justifiable reason to do so.
- B) Reporting brokers shall put in place a process, such as blocking the exchange of information on reporting rates without justifiable reasons, between the rate reporting department and internal and external parties in order to ensure the effectiveness of A) above.

(5) Establishment of Processes to Enable Post-Reporting Explanations on the Ground of Rate Reporting

- A) Reporting brokers shall put in place processes that enable post-reporting explanations about the ground of reporting rates.
- B) The processes to be established under the item A) above include the following:
 - (i) Maintenance of records relating to the generation of reporting rates

Records that identify the person who generated the reporting rate and who approved it, such as daily business reports, and other records that are sufficient to provide explanations when explanations regarding the reporting rate are needed after the fact, such as the storage of order sounds, are required.

- C) The retention period for the information that is required to be retained under the item B) above, shall be at least five years.
- D) Reporting brokers shall disclose to QBS and relevant authorities the information that is required to be retained, if they request to do so.

(6) Retention of Communication Records regarding Rate Reporting

- A) Reporting brokers shall retain communication records (e.g. e-mail, messages or chat using information vendors and phone calls) regarding rate reporting of the Person Responsible for Rate Reporting and Staff Performing Rate Reporting Tasks, in an appropriate manner.
- B) The retention period for the records under the item A) above, shall be five years in principle.

(7) Implementation of Audits

- A) Reporting brokers shall implement an internal audit annually in principle by an internal audit division/department independent of the rate reporting division/department with regard to their compliance with the Code of Conduct or other applicable rules regarding rate reporting.
- B) Reporting brokers shall report the results of internal audits after completion to QBS in the form separately designated by QBS.
- C) Reporting Brokers shall cooperate with QBS when QBS requests additional materials after reporting the results of the internal audit to QBS. In addition, if QBS instructs them to take action after receiving a report on the results of the internal audit, they shall take action as soon as possible in cooperation with QBS.

If QBS receives a report on the results of an internal audit and needs to confirm the results, QBS or an independent audit firm may audit the relevant reporting broker. In this case, the relevant reporting broker must cooperate with the additional audit.

D) Reporting broker shall retain the results of an internal audit and, if QBS requests additional information, the submitted information and related materials for a minimum of five years after the audit.

(8) Establishment of Reporting Process to QBS in the Event of Incidents

- A) If reporting brokers recognize violations of the Code of Conduct or other similar incidents in connection with the rate reporting to QBS, they shall report such incidents to QBS immediately.
- B) Reporting brokers shall put in place processes to enable immediate reporting to their compliance and audit functions and management in the event of recognizing violations of the Code of Conduct or other similar incidents. These processes shall include whistle-blowing processes within the reporting brokers. Reporting brokers should provide proper protection for whistle-blowers not to be treated in an unfair manner when they establish their internal whistle-blowing frameworks.

(9) In-house Training

- A) Reporting brokers shall conduct in-house training in line with the Code of Conduct at least annually, targeting the Person Responsible for Rate Reporting and Staff Performing Rate Reporting Tasks; and shall retain the results for at least five years after the completion of such training.
- B) Reporting brokers shall report the result of the above in-house training to QBS in the form separately designated by QBS.
- C) In addition to the above in-house training, reporting brokers shall provide training to the personnel who are involved in broking Japanese yen OIS transactions. The training shall provide participating personnel with a thorough understanding of the Code of Conduct to the extent deemed as appropriate in terms of scope and degree of their roles, and shall be conducted at least on an annual basis. The results of this training shall be retained at least for five years after the completion of such training.

When appointing a new Person Responsible for Rate Reporting and Staff Performing Rate Reporting Tasks, the training shall be provided to them before or immediately after the appointment.

(10) Cooperation for QBS's Inquiries/Inspections regarding Rate Reporting

- A) Reporting brokers shall respond in good faith to inquiries about rate submissions from QBS or relevant authorities, and shall cooperate and respond to their requests, if any, to submit documents, data and other related materials set out in paragraph (5) of Section 2.
- B) Reporting brokers shall cooperate and respond to requests for cooperation from QBS and audit firms or other firms concluding an outsourcing agreement with QBS, with regard to assessments and inspections on the compliance with the Code of Conduct.
- C) Reporting brokers shall retain the records of communication with QBS and the other firms at least for five years with related to above A) and B).

(11) Assessment of Compliance with the Code of Conduct

QBS shall assess reporting brokers' compliance with the Code of Conduct on an annual basis and whenever the Code of Conduct is amended; and reporting brokers shall allow QBS to do so. The annual assessment pertaining to reporting brokers' compliance with the Code of Conduct shall be performed at the same time as QBS performs the annual selection of reporting brokers.

(12) Establishment of Internal Rules

- A) Reporting brokers shall establish internal rules including those pertaining to the matters set out paragraph (1) to (11) described above of this section.
- B) Reporting brokers shall submit their internal rules to QBS when they are selected as a reporting broker, and shall immediately submit amended rules to QBS whenever an amendment is made to such rules.

C) The internal rules, including information related to the process of their amendment, shall be retained for at least five years. The same shall apply when a company ceases to be a reporting broker.

3. Amendment and Abolition of the Code of Conduct

The amendment and abolition of the Code of Conduct shall be subject to the approval of QBS's Oversight Committee and the decision of the Board of Directors. In amending the Code of Conduct, QBS shall set a sufficient transition period or take other measures so that reporting brokers have enough time to prepare for the change in the process.

4. Others

- (1) Reporting brokers shall also be mindful and comply with "Contingency Plan for TORF Calculation and Publication" designated separately by QBS as they comply with this Code of Conduct.
- (2) Reporting brokers and market participants must comply the Code of Conduct and exercise caution in handing TORF so that they will avoid engaging in activities that would constitute a violation of the Antimonopoly Law.

Supplementary Provisions

1. Date of Implementation

This Code of Conduct will be in effective on April 26, 2021.

2. Amendment

October 13, 2021

(This English translation is provided exclusively as a convenience. Any questions that may arise in interpretation of words and provisions of these rules shall be interpreted in accordance with the Japanese original version.)

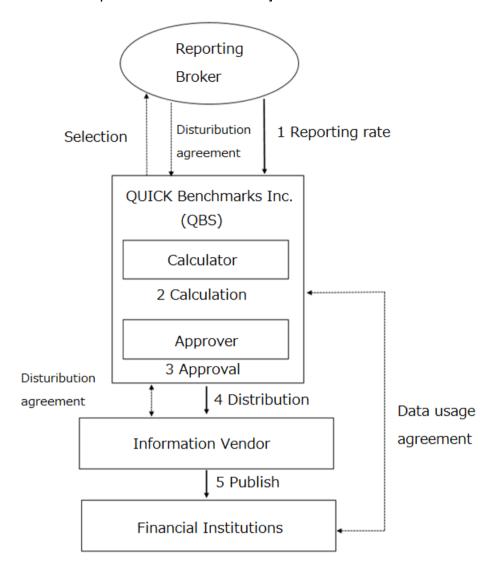
(Attachment 1) Rate Reporting Procedures

[Workflow for Publication of Official Rates]

The following outlines the workflow for the tabulation, calculation and publication of TORF. (See the diagram below.)

- (1) Each reporting broker shall send data to QBS on the execution rate and quote rate from 15:00 JST on the previous business day to 15:00 JST on the current day ("1") (reporting time limit: 15:15 JST). Reporting brokers are responsible for checking and verifying the rates they report. (See Table 1 for an image of the data format.)
- (2) The person in charge of the calculation at QBS shall confirm the completion of the rate reporting and execute the calculation ("2").
- (3) The approver in QBS shall confirm "normal reception of reporting rates from each reporting broker," "existence of abnormal values in each reporting rate," and "accuracy of classification and calculation based on the waterfall methodology of each reporting rate," and approve the calculation results if there are no problems ("3").
- (4) After approval, QBS shall distribute the official rates through each information vendor at 17:00 JST ("4").
- (5) The information vendor shall promptly publish the official rates ("5").
- (6) In principle, the reporting rates and the official rates are not revised after 15:15 JST. However, should there be need to revise the reported rates after 15:15 JST, revisions shall be made before 16:15 JST on the same day upon consultation with QBS.

[Diagram: workflow for publication of official rates]



Note: A transmission system via the Internet has been constructed between the reporting broker and QBS. In the event of a failure, alternative methods such as manual data transfer will be used.

Table 1: Data Format for Reporting Rates (Image)

The following are images (samples) of the data format of the reporting rate. In principle, the following information shall be included as a minimum. However, the actual item name, number of items, data format, etc. will differ from the samples below.

1. Execution Data

ProductCode	Tenor	LegType	DealDateTime	StartDate	CCP	Rate	Amount
JPY-TONA-OIS-COMPOUND	3m	Outright	20200518144842	20200520	JSCC	-0.07625	10000000000

2. Quote (order) data

- Example of a reporting broker reporting only the best bid and best offer

ProductCode	Tenor	LegType	DealDateTime	StartDate	BidCCP	BidRate	BidAmount	BidStatus
JPY-TONA-OIS- COMPOUND	3m	Outright	20200518144842	20200520	JSCC	-0.07625	100000000000	Firm

OfferCCP	OfferRate	OfferAmount	OfferStatus
JSCC	-0.06625	10000000000	Firm

- Example of a reporting broker reporting more than just best bid/best offer

ProductCode	Order_ID	Tenor	DealDateTime	direction	Amount	Rate	Status	ССР
JPY-TONA-OIS-COMPOUND	28565	3m	20200518144842	RECEIVE	50	-6.25	Firm	JSCC

Table 2: Publication Screen (Image) (QUICK Screen)

TORF@

東京ターム物リスク・フリー・レート Tokyo Term Risk Free Rate

解説ヘルプ

				公表日時:	2021/ 1/2217:00
[TORF]					(Act/365)
(単位:%)	1 M		ЗМ		6M
TORF	DRP -0. 02750) s -	0.03843	D -	0. 04575
	+0.00		+0.000		+0.00290
	開始日 終了	日 開始	i日 終了E	引 開始	日 終了日
期間	2021/ 1/26 2021/	2/26 2021/	1/26 2021/4	/26 2021/	1/26 2021/ 7/26

<免責事項/Disclaimer>

※基準時刻:東京営業日 15時時点 ※公表時刻:東京営業日 17時頃

	カルデータ】					チャート≫
(単位:%)	1 M		3	M	6M	
日付	レート	前日比	レート	前日比	レート	前日比
(01/21)	-0.02793	-0.00043	-0.03918	+0.00063	-0.04865	+0.00063
(01/20)	-0.02750	+0.00125	-0.03981	-0.00128	-0.04928	-0.00251
(01/19)	-0.02875	-0.00812	-0.03853	+0.00000	-0.04677	-0.00145
(01/18)	-0.02063	+0.00281	-0.03853	+0.00022	-0.04532	+0.00051
(01/15)	-0.02344	+0.00094	-0.03875	+0.00150	-0.04583	+0.00106
(01/14)	-0.02438	+0.00585	-0.04025	-0.00086	-0.04689	-0.00011
(01/13)	-0.03023	+0.00352	-0.03939	+0.00061	-0.04678	-0.00053
(01/12)	-0.03375	+0.00000	-0.04000	+0.00000	-0.04625	+0.00000
(01/08)	-0.03375	+0.00063	-0.04000	+0.00057	-0.04625	+0.00125
(01/07)	-0.03438	+0.00020	-0.04057	-0.00057	-0.04750	+0.00063

(Attachment 2) Procedures for Reporting Brokers Selection

- 1. Selection of Reporting Brokers
- (1) QBS, in principle, selects reporting brokers and announces its result at the end of each fiscal year.
- (2) QBS takes into account the following factors in selecting reporting brokers.

QBS also takes into account the TORF continuity and the diversification of financial industry to which reporting brokers conduct for the selection. Furthermore, QBS also shall consider any issues arising from the location of a reporting broker being in jurisdiction different to that of QBS.

- A) Amount of executed Japanese yen OIS transactions (based on notional amount) and the number of those transactions
- B) Frequency of quote rate updates
- C) Reputation
- D) Whether there is any punishment by the supervising authority
- E) Degree of establishment of the processes required to comply with the Code of Conduct
- F) (In the case of having a location for Japanese yen OIS transactions outside Japan) the status of supervision by the relevant country/region's regulatory authority
- (3) Upon being selected as a reporting broker, the reporting broker shall conclude with/submit to QBS a contract/acceptance by using the form separately designated by QBS.
- (4) QBS selects a sufficient number of reporting brokers for the stable operations of the TORF publication. Whenever QBS recognizes the necessity, it selects new reporting brokers even during a fiscal year.
- (5) QBS sets a "floor" (minimum limit: 2 brokers) for the number of reporting brokers. Should the number of reporting brokers temporarily decline below the floor—for example, because two reporting brokers merge—TORF is calculated by using the same method as described in Section 1 of the Code of Conduct based on reporting from the remaining reporting brokers only until additional reporting brokers are selected to satisfy the minimum number.
- (6) Unless otherwise instructed by QBS, reporting brokers shall provide reference rates for all maturities subject to publication.
- 2. Resignation of Reporting Brokers
- (1) In principle, reporting brokers may not resign their position as a reporting broker during a fiscal year, and shall perform their rate reporting responsibilities on an ongoing basis.
- (2) Regardless of paragraph (1) above, if a reporting broker needs to resign its reporting broker designation for unavoidable reasons, the reporting broker shall report to QBS at the stage of

considering the resignation and coordinate with QBS, including whether the resignation is acceptable or not. If, as a result of the coordination, the reporting broker decides to resign, it must notify QBS in writing at least three months in advance of the date on which it will cease rate reporting.

- (3) QBS shall announce on its website the offer of resignation as well as the (planned) date of resignation in principle within three business days, including the date of receipt, of receiving an offer of resignation in writing from the reporting broker as per paragraph (2) above.
- 3. Revocation of the Reporting Brokers Selection
- (1) QBS may revoke a reporting broker's reporting broker selection if the reference broker meets any of the following conditions:
- i) The reference broker is consistently late in providing rate reporting, frequently requires revision of its reporting or encounters other difficulties with regard to rate reporting that make its continued participation unsuitable for the smooth administration of the TORF publication;
- ii) The reference broker cannot take appropriate actions within a reasonable period in response to QBS's request for improvement, if any problem is found in the reference broker's compliance with the Code of Conduct;
- iii) The reference broker is assessed as being no longer eligible for the reporting broker selection in light of the criteria set out in paragraph (2) of Section 1 above due to changes in its business or for other reasons; or
- iv) The reporting broker is assessed as being not suitable as a reporting broker in light of its violation of laws, its receipt of administrative punishment, damage to its reputation and or other incidents.
- (2) In the event that QBS revokes the reporting broker selection as per the preceding paragraph (1), QBS shall announce such a fact on its website or by other means.