Post LIBOR_2021.12.03

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Interest rate swaps traded in Tokyo Yen IRS market are usually cleared by JSCC (Japan Securities Clearing Corporation). JPY LIBOR positions that have been cleared by JSCC will be converted to TONA positions as of the end of operations on December 3, 2021 (Friday). It can be said that the post-LIBOR phase has come to a climax. On and after Monday, December 6, 2021, several changes have been announced by JSCC in exchange for all the IRS that use JPY LIBOR as interest rate benchmark to become non-clearable by JSCC. Let's take a look at these changes later.

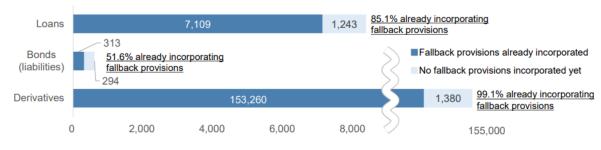
In addition, on November 1, 2021, a summary of the "Key Results of the Brief Survey on the Use of JPY LIBOR" jointly conducted by the Financial Services Agency and the Bank of Japan was released on BOJ's website. According to this survey, as of end-September 2021, significant progress had been made in addressing the transition in the fields of Loans, Bonds, and Derivatives. We will confirm the contents of this survey and, as before, report on what progress was made during the month of November through "Progress toward Post-LIBOR" in Tokyo Yen IRS market and "Movement of TORF, which is Term Japanese Yen RFR".

- 1. Key Results of Brief Survey on Use of JPY LIBOR (as of end-September 2021)
- 2. "Tough Legacy Contracts" and "Synthetic JPY LIBOR"
- 3. Progress toward Post-LIBOR
- 4. Three Changes Announced by JSCC (effective from December 6, 2021)
- 5. Movement of TORF, which is Term Japanese Yen RFR

1. Key Results of Brief Survey on Use of JPY LIBOR

On November 1, 2021, the summary of the "Key Results of Brief Survey on Use of JPY LIBOR" jointly conducted by FSA and BOJ was released on the BOJ's website. The base date for the survey is end-





Reference to: https://www.boj.or.jp/en/announcements/release 2021/data/rel211101c.pdf

September 2021. In order to grasp the current situation of the transition away from JPY LIBOR at Japanese financial institutions in a rapid manner, FSA and BOJ asked large financial institutions about their estimates regarding the number of contracts referencing JPY LIBOR and incorporation of fallback provisions at domestic branches on a non-consolidated basis. According to this survey, the transition away from JPY LIBOR is making great progress with regard to Loans, Bonds (Liabilities), and Derivatives as of end-September 2021.

Among the contracts referencing JPY LIBOR that will mature beyond end-2021 when the publication of JPY LIBOR will cease, the number of those that did not incorporate fallback provisions as of end-September 2021 was 1,243 (14.9% of total) for Loans, 294 (48.4% of total) for Bonds (Liabilities), and 1,380 (0.9% of total) for Derivatives. Many respondents replied that, for a large number of contracts that were not amended yet, they had already agreed with contracting parties on terms and conditions such as alternative interest rate benchmarks and the spread adjustment methodology.

2. "Tough Legacy Contracts" and "Synthetic JPY LIBOR"

The majority of contracts for which transition had not yet been completed as of end-September 2021 are expected to transition away from JPY LIBOR by end-December 2021. And *there were no contracts that would fall under the category of Tough Legacy Contracts and were expected to use Synthetic JPY LIBOR*² at the time of the response³.

Tough Legacy Contracts is the one that cannot feasibly be transitioned away from Japanese Yen LIBOR.

Synthetic JPY LIBOR will be calculated as "Day-count adjusted TORF + ISDA Spread Adjustment (median of past 5 years)" and is expected to be published only for one year after the turn of 2022

Synthetic JPY LIBOR = 1,3,6-month TORFx360/365 + ISDA Spread Adjustment⁴

However, there is a possibility that tough legacy contracts will arise and synthetic JPY LIBOR may be used as a "safety net" for these contracts.

3. Progress toward Post-LIBOR

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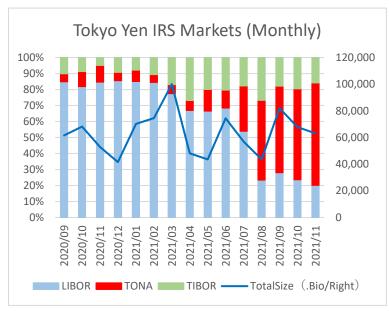
² On September 29, the U.K. Financial Conduct Authority (FCA) published a series of documents on the publication of synthetic LIBOR. With these documents, the FCA confirmed its decision to require *ICE Benchmark Administration* (IBA), the administrator of LIBOR, to calculate and publish synthetic LIBOR for certain tenors of GBP LIBOR and JPY LIBOR.

³ Reference to : https://www.boj.or.jp/en/paym/market/jpy_cmte/cmt211119a.pdf

[&]quot;Final Report on the Results of the Public Consultation on the Treatment of Tough Legacy Contracts in Japan" (November 2021, The Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks)

Spread Adjustment for 6m JPY LIBOR is +0.05809%, 3m JPY LIBOR is +0.00835% and 1m JPY LIBOR is -0.02923%.

The graph⁵ below shows the percentages of JPY LIBOR swaps (Light Blue), TONA swaps (Red), TIBOR swaps (Light Green), and the face value of transactions (Blue Line, Unit: billion yen) in Tokyo Yen IRS markets for the past 14 months from September 2020 to November 2021.



TONA swap volume as a percentage of the total JSCC volume has increased to about 65% in November, and the total JSCC volume since September 2020 has been hovering around 60 trillion yen per month, with large upward and downward swings but no clear direction yet. TONA swaps are well established in the market, and we expect trading volume to increase in the near future.

4. Three Changes Announced by JSCC (effective from December 6, 2021)

JPY LIBOR positions that have been cleared by JSCC will be converted to TONA positions as of the end of operations on December 3, 2021 (Friday). In accordance with this, the following changes have been announced⁶ by JSCC from Monday, December 6, the beginning of the week.

- (a) IRS that use JPY LIBOR as interest rate benchmark are ineligible for JSCC clearing.
- (b) DTIBOR⁷ vs TONA basis and ZTIBOR vs TONA basis will be subject to JSCC clearing.
- (c) The remaining term of IRS that use DTIBOR as interest rate benchmark will be extended from 20 years to 30 years.
- (a) Since IRS with JPY LIBOR as interest rate benchmark will become ineligible for clearing by JSCC, it is expected that IRS with JPY LIBOR as interest rate benchmark will no longer be traded in the interbank market.
- (b) The position of ZTIBOR vs JPY LIBOR Basis and DTIBOR vs JPY LIBOR Basis, which used to be traded under the names of TL and DTL spreads, will be converted to the form of ZTIBOR vs TONA $\pm\alpha$ and

⁵ Based on data from JSCC (Japan Securities Clearing Corporation). The total of JPY LIBOR swap, TONA swap and TIBOR swap (: sum of Euroyen TIBOR and Japanese Yen TIBOR) is "1", and the percentage (%) of each is shown in the graph.

⁶ Reference to: https://www.jpx.co.jp/jscc/en/information/news/20211008_01.html

⁷ DTIBOR: Japanese TIBOR (Acct/365), ZTIBOR: Euroyen TIBOR (Act/360)

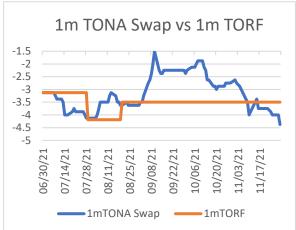
DTIBOR vs TONA $\pm \alpha$. As a result, ZTIBOR vs TONA Basis and DTIBOR vs TONA Basis are considered to be acceptable for clearing.

As successors to the TL and DTL spreads, ZTIBOR vs TONA basis and DTIBOR vs TONA basis have seen increased trading volume since this summer. However, until now, two transactions (ZTIBOR swap and TONA swap, or DTIBOR swap and TONA swap) had to be executed in order to make this transaction eligible for JSCC clearing because it was not certified. But, after December 6, 2021, it will be possible to trade in the form of a single basis swap: ZTIBOR vs TONA $\pm \alpha$ or DTIBOR vs TONA $\pm \alpha$.

(c) IRS that use DTIBOR as interest rate benchmark can now be traded for up to 30 years, whereas previously it was only possible to trade for up to 20 years. As a result, (6-month, 3-month and 1-month) DZ basis swaps, which exchange DTIBOR and ZTIBOR, and 6v3DTIBOR, 6v1DTIBOR and 3v1DTIBOR basis swaps, respectively, will also be tradable for up to 30 years.

5. Movement of TORF, which is Term Japanese Yen RFR

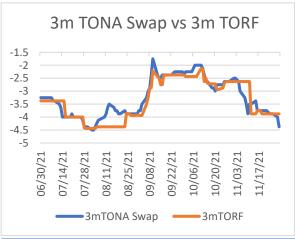
There are three types of TORF: 1-month, 3-month, and 6-month. The TORF reference interest rate for each tenor is calculated based on the actual trading data and quote data for 1-month, 3-month, and 6-

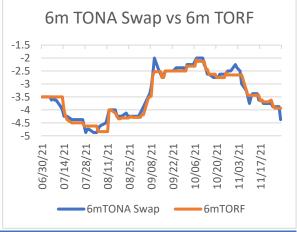


month at TONA swap market.

These three graphs show the 1-month, 3-month, and 6-month TORF (: Red line) and the TONA swap quote (: Blue line) over the same period from June 30, 2021 to November 30, 2021.

The 3-month and 6-month TORFs (Red line) have increasingly been at the same level as the TONA swap quote (Blue line) for the same period.





However, the 1-month TORF (Red line), which has limited participants, has not moved in the past 3 months or more and continues to deviate from the TONA swap quote (Blue line).

QBS (: QUICK Benchmarks), the company that calculates and publishes TORF data, has adopted a waterfall structure in which the first priority is actual trading data, and if there is no data available, the data of the next priority is adopted. However, under the current system, if it was only one of offer/bid, the price of the previous day will be used as TORF for the day. As a result, the 1-month TORF has been stuck in a state of no movement for more than 3 months.

While it is important to increase the liquidity of the short-term TONA swap market, further measures may be necessary on the part of the TORF calculation and publication.

The end.

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