

## Review of JPY LIBOR Transition and Future Initiatives

Financial Markets Department and Financial System and Bank Examination Department, Bank of Japan  
Strategy Development and Management Bureau, Supervision Bureau, Financial Services Agency

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The publication of JPY LIBOR ceased at the end of December 2021. In Japan, practical deliberations on the transition from JPY LIBOR have been carried out mainly by "Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks" established in August 2018, and on this basis, a wide range of market participants have been working on the transition. During this period, the Financial Services Agency (FSA) and the Bank of Japan have supported market participants' efforts through surveys and monitoring of the use of JPY LIBOR by financial institutions and their progress in the transition. It is considered that smooth transition from JPY LIBOR has been achieved due to such cross-sectoral cooperation in the Japanese financial markets. Future challenges include the transition from USD LIBOR, for which the publication of some of the tenor settings will be ceased at the end of June 2023, and the development of infrastructure to facilitate the smooth use of JPY interest rate benchmarks to replace LIBOR. The FSA and the BOJ will continue to work together to support the efforts of market participants in cooperation with overseas authorities.

## Introduction

The London Interbank Offered Rate (LIBOR) was the most widely used interest rate benchmark in the world, and it had been used by financial institutions and non-financial corporates and others for a wide range of financial transactions, including loans, bonds, and derivatives.<sup>1</sup> However, it was announced in March 2021 that the permanent cessation of LIBOR publication for all currencies would be finalized. Specifically, it was made public that LIBOR publication for the Japanese yen (JPY), British pound (GBP), euro (EUR), and Swiss franc (CHF) would be ceased at the end of December 2021, while U.S. dollar (USD) LIBOR, the most widely used LIBOR, would be ceased at the end of June 2023 for major tenor settings and at the end of December 2021 for other tenor settings.<sup>2</sup>

[Chart 1] End dates of LIBOR publication

Currency	Tenors	End dates of LIBOR publication
JPY	All (Overnight, 1-week, 1-, 2-, 3-, 6-, and 12- month)	December 31, 2021
GBP		
EUR		
CHF		
USD	1-week and 2-month	June 30, 2023
	Overnight, 1-, 3-, 6-, and 12-month	(Cessation of new transactions after December 31, 2021, with some limited exceptional use)

Initially, there were concerns that the cessation of LIBOR publication might cause turmoil in global financial markets and subsequently impede economic activity. However, the transition from LIBOR to alternative interest rate benchmarks has progressed smoothly thanks to the initiatives undertaken in each country and region up to the end of December 2021, and no major disruptions have occurred in the global financial markets since the beginning of 2022.<sup>3</sup> The transition from JPY LIBOR in the Japanese markets has been also almost completed by the end of 2021 and is considered to have taken place smoothly.

This paper first briefly reviews the events leading up to the cessation of LIBOR publication, and then focuses on responses to the transition away from JPY LIBOR in the Japanese financial markets, summarizing the initiatives to achieve a smooth transition and explaining points to note and medium- to long-term efforts to be made.

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## Background of the cessation of LIBOR publication

LIBOR was the prevailing market rate for unsecured funding in the London interbank market submitted to the LIBOR administrator by a number of banks selected to act as panel banks. It was calculated and published by the LIBOR administrator based on a specific methodology. However, the manipulation scandal came to light in the summer of 2012; some overseas panel banks had submitted rates that differed from the prevailing market rates during the global financial crisis of the late 2000s. As a result, the reliability of LIBOR started to be seriously questioned.<sup>4</sup>

After that, efforts to restore the reliability of LIBOR were made due to the idea that interest rate benchmarks should be calculated based on actual transactions whenever possible. However, the U.K. Financial Conduct Authority (FCA) which oversees LIBOR stated in 2017 that the underlying market that LIBOR sought to measure -- the interbank market -- was no longer sufficiently active, and many panel banks were experiencing discomfort about submitting rates. The FCA took the view that the framework for LIBOR was therefore not sustainable. Nevertheless, the permanent cessation of LIBOR meant that it would make it impossible to have new transactions that reference LIBOR, and that there would be difficulty calculating and receiving interest payments in existing transactions. For this reason, the FCA clarified that it intended to ask panel banks to continue submitting rates for a certain period of time, while encouraging market participants to shift the referenced interest rate for each transaction from LIBOR to an alternative interest rate benchmark by the time panel bank submissions would cease.<sup>5</sup> This marked the beginning of the preparation for the discontinuation of LIBOR (hereinafter referred to as "LIBOR transition").<sup>6</sup>

In order to proceed with the LIBOR transition, it was necessary for the contracting parties to reach an agreement on the choice and use of alternative interest rate benchmarks. On the operational side, it was essential to develop and change IT systems used for transactions and review administrative procedures. However, the massive volume of the transactions referencing LIBOR made it harder to reach such an agreement and to take such measures. If these measures did not proceed smoothly, there were concerns that the overall financial market might be disrupted, in addition to individual entities, possibly impeding economic activity in the end.

Therefore, working groups were formed in each country and region to support the transition from a practical perspective toward that end, to achieve an orderly transition as a whole. In Japan, "Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks" (hereinafter referred to as the "Committee") was established in August 2018. It sought to prepare for the cessation of JPY LIBOR publication at the end of December 2021 and to support the transition in the Japanese markets with the Bank of Japan (BOJ) as the secretariat and the participation of a diverse set of market participants, including financial institutions, institutional investors, and non-financial corporates.<sup>7</sup> Also, the Financial Services Agency (FSA) and the BOJ have been supporting the efforts of market participants in their capacity as financial authorities, while working closely with overseas authorities.

## Efforts to achieve a smooth transition

### *Market-wide efforts*

LIBOR was created based on the needs of market participants and subsequently designed to be easy to use in various transactions, including loans and bonds. Its use had expanded and became a common market infrastructure. Therefore, a smooth transition from LIBOR to alternative interest rate benchmarks requires a consistent response across a variety of transactions, which needs to be pursued simultaneously by a number of market participants.

Meanwhile, given the considerably large cost of such responses that cannot be reversed, one tends to be cautious in making judgment and have an incentive to wait and see what others are doing and what the market standards will be before deciding on their own actions. If many market participants take the above actions, however, the progress would be delayed and it may be undesirable from a macro perspective and possibly harmful to individual interests in the end.

Motivated by the above considerations, the Committee took on the role of leading the efforts necessary to make progress in the transition from a perspective common to the overall market. Since its establishment, the Committee has held a total of 32 meetings to discuss specific issues and measures regarding the transition.<sup>8</sup> During this process, three rounds of public consultations were held to solicit opinions from those outside of the Committee, enabling the Committee to consider measures that could be commonly applied to the overall market and to disseminate the results of these consultations as market standards.

The role of the public sector is particularly important in the complex process of reviewing systems and practices built around LIBOR in the market. The BOJ has supported its efforts as the secretariat of the Committee, and the FSA and the BOJ have cooperated closely to assist progress in improving the overall market environment, while coordinating different views of various market participants.

Another important perspective in facilitating the transition was global heterogeneity. LIBOR transition took an approach that selected alternative interest rate benchmarks on a currency-by-currency basis, leaving specific considerations to the work of each country and region. Therefore, the choice and the method of usage rules of alternative interest rate benchmarks differ according to actual conditions in each of the financial markets. On the other hand, it is important to achieve a certain degree of heterogeneity across borders to ensure smooth global transactions.

For example, the Working Group on Currency Swaps of the Committee has contributed to cross-sectional deliberations in the currency swap market. It has participated in the discussions of the Alternative Reference Rates Committee (ARRC) which deliberated transitional measures and other issues in the United States. The FSA and the BOJ also participated in the discussions at the Financial Stability Board (FSB). They developed "Global Transition Roadmap for LIBOR," reviewed the progress made in each jurisdiction, and published recommendations to address common issues to each country and region and to facilitate the transition, thereby supporting the global response to the cessation of LIBOR publication in cooperation with overseas authorities.<sup>9</sup>

### Preparing necessary tools

As these market-wide efforts were made successfully, the tools necessary for proceeding with the transition were put in place. Specifically, these tools included choices of alternative interest rate benchmarks for JPY LIBOR and actual transition measures (i.e., an active conversion to alternative interest rate benchmarks or an insertion of fallback provisions,<sup>10</sup> and a spread adjustment methodology at the time of fallback).

Of these, the results of the first round of public consultation conducted by the Committee in July 2019 showed that respondents preferred the following three as alternative interest rate benchmarks: the Tokyo Term Risk Free Rate (TORF), the Tokyo Overnight Average Rate (TONA) Compounding (Fixing in Arrears), and the Tokyo Interbank Offered Rate (TIBOR).<sup>11</sup> The Committee organized the basic concept of discussions

on an active conversion and an insertion of fallback provisions in its first round of the public consultation. They were subsequently sorted in the second round of the public consultation in August 2020, in which the concept of practical measures including a spread adjustment methodology was discussed.

[Chart 2] Three options of alternative interest rate benchmarks in Japan

	TORF (Tokyo Term Risk Free Rate)	TONA Compounding (Fixing in Arrears) (Tokyo Overnight Average Rate)	TIBOR (Tokyo Interbank Offered Rate)
Underlying rate	JPY OIS (Uncollateralized overnight call rate)	Uncollateralized overnight call rate	Interbank rates submitted by major financial institutions
Timing for fixing the interest rate	Fixing in advance	Fixing in arrears (immediately before the interest payment date)	Fixing in advance
Publishing entity	QUICK Benchmarks	Bank of Japan*	JBA TIBOR Administration
Bank's credit risks	Hardly included	Hardly included	Included

\* The Bank of Japan is the TONA publishing entity.

Moreover, the Committee deliberated the publication of TORF, formulated convention tools for the calculation of interests on the TONA Compounding (Fixing in Arrears), and developed a policy for the transition of quoting conventions in the interest rate swaps market ("TONA First").<sup>12</sup>

In parallel with the efforts of the Committee, actions were taken by industry associations, transfer agencies, accounting standard setters, and other entities to make progress in the transition.

For example, industry associations worked to develop the practical treatment of fallback provisions according to the product type<sup>13</sup> and the Japan Securities Depository Center (JASDEC) identified the bonds that need LIBOR transition and encouraged issuers to do so.<sup>14</sup> The Accounting Standards Board of Japan (ASBJ) clarified the treatment of hedge accounting after LIBOR transition<sup>15</sup> and the Financial Law Board has defined legal issues related to LIBOR transition.<sup>16</sup>

[Chart 3] Major initiatives by the Committee

Support in the transition of loans and bonds
<ul style="list-style-type: none"> <li>Implementation of the first public consultation (July–November 2019) <ul style="list-style-type: none"> <li>Consolidation of opinions on the basic arrangement regarding the options of alternative benchmarks for JPY LIBOR and the introduction of advance transition and fallback provisions</li> </ul> </li> <li>Determination of the calculating and publishing entity of prototype rates for term reference rates (February 2020)</li> <li>Support for publication of production rates</li> </ul>
<ul style="list-style-type: none"> <li>Implementation of the "Second Public Consultation" (August - November 2020) <ul style="list-style-type: none"> <li>Opinion gathering on fallback handling (e.g., spread adjustment methods, etc.)</li> </ul> </li> <li>Publication of TONA (Fixing in Arrears) conventions to use in loans (December 2020)</li> <li>Publication of convention tools for the calculation of interests on the TONA Compounding (Fixing in Arrears) (September 2021)</li> </ul>
Support in the transition of derivatives
<ul style="list-style-type: none"> <li>Adherence to the IBOR fallback protocol launched by ISDA (November 2020)</li> <li>Release of transition of quoting conventions in the JPY interest rate swaps market ("TONA First") (March, July, and September 2021)</li> <li>Publication of recommendations on inter-dealer trading practices in the currency swap market (January 2020)</li> <li>Release of transition of quoting conventions in the cross-currency swap market (August 2021)</li> </ul>
Establishment of the Roadmap in Japan
<ul style="list-style-type: none"> <li>Publication of "Roadmap to Prepare for the Discontinuation of Japanese Yen LIBOR" (August 2020)</li> </ul>
Development of a safety net
<ul style="list-style-type: none"> <li>Response to "Consultation on proposed policy with respect to the exercise of the FCA's powers under new Article 23D" (February and August 2021)</li> <li>Implementation of the third public consultation (September - November 2021) <ul style="list-style-type: none"> <li>Gathering opinions on how to deal with contracts that are truly difficult to transition (tough legacy) and the use of safety nets (synthetic yen LIBOR)</li> </ul> </li> </ul>

### Efforts made by market participants and encouragement by the public sector

As such an environment was developed, individual market participants including financial institutions, institutional investors, and non-financial corporates, were required to shift their transaction practices and organizational structures built around the conventional LIBOR to a framework based on an alternative interest rate benchmark. Efforts and burdens that come with them varied in degree depending on the status of LIBOR use in each case. They entailed, for example, developing a system including the establishment of a department dedicated to the transition to an alternative interest rate benchmark, securing internal resources such as personnel and budgets to deal with the transition, reviewing systems and operations according to internal LIBOR use, and negotiating with the parties concerned to obtain their agreement on the revision of contracts. All of them were costly and time consuming.

To encourage progress in these transition measures was one of the roles required of the public sector. As mentioned above, there was a latent incentive to wait and see what others would do prior to the transition, and it was important to remove such an incentive. To this end, the FSA and the BOJ jointly conducted "Survey on the Use of LIBOR"<sup>17</sup> three times and published the results in order to accurately grasp the scale of transactions referencing LIBOR held by financial institutions,<sup>18</sup> the main players of these transactions, and the progress in development of their administrative preparation, as well as to encourage financial institutions to steadily make progress in the transition. In June 2020, just before the transition was to go to stride, the FSA and the BOJ jointly sent a "Dear CEO" letter to the representatives of major financial institutions. The letter outlined the actions they would like financial institutions to take and requested the submission of related materials, including transition plans, to encourage further progress in their transition.<sup>19</sup>

A milestone in the transition by market participants was the "Roadmap to Prepare for the Discontinuation of Japanese Yen LIBOR" (hereinafter referred to as the "Roadmap in Japan"), which was formulated by the Committee in August 2020. The Roadmap in Japan suggested a timing for the transition to an alternative interest rate benchmark, for example, with reference to international discussions, and it has been regarded by individual market participants as the standard in the formulation of transition plans.<sup>20</sup>

[Chart 4] Roadmap in Japan

	2020	2021				2022
	Oct.-Dec.	Jan.-Mar.	Apr.-Jun.	July-Sep.	Oct.-Dec.	
Loans and bonds			■ Develop system and operations for OIN RFR Compounding (Fixing in Arrears)	■ Cease the issuance of new loans and bonds	■ Significantly reduce the amount of loans and bonds	Permanent discontinuation of LIBOR
Interest rate swaps			■ Adopt the new quoting conventions for the interest rate swaps based on TONA	■ Cease the initiation of new interest rate swaps		
Term reference rates	■ Start the daily publication of prototype rates		■ Start the publication of production rates			

(Source: Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks)

Publicly announcing the need for transition and milestones for the timing of the transition has enabled individual market participants to scrutinize their own transaction conditions and to steadily proceed with the transition. For example, in the case of major financial institutions with a large number of LIBOR-referencing transactions, they have been working on the transition systematically under a strong commitment of their

management, by establishing a cross-functional project team, formulating their own transition plans in line with the Roadmap in Japan, and by regularly reporting the progress and issues to their managers.

Under these circumstances, the FSA and the BOJ have been deepening dialogue with financial institutions in order to promote the transition as soon as practicable in accordance with the Roadmap in Japan. In addition, the FSA and the BOJ have actively engaged in public relations to progress the LIBOR transition. They have given talks at numerous occasions and worked closely with industry associations, in cooperation with the Committee to raise public awareness of the LIBOR transition and to seek understanding and cooperation from a wide range of entities other than financial institutions, including non-financial corporates.

[Chart 5] Major initiatives by the FSA and the BOJ

FSA and BOJ
<ul style="list-style-type: none"> <li>• Monitoring and encouraging financial institutions to respond to LIBOR transition, cooperating with overseas authorities (as needed)</li> </ul>
<ul style="list-style-type: none"> <li>• Conduct the survey on the use of LIBOR (March 2020, May 2021, November 2021 &lt;simple survey&gt;, March 2022)</li> </ul>
<ul style="list-style-type: none"> <li>• A "Dear CEO" letter to the representatives of major financial institutions regarding LIBOR Transition (June 2020)</li> </ul>
<ul style="list-style-type: none"> <li>• Publication of FSA and Bank of Japan's approach (March and November 2021)               <ul style="list-style-type: none"> <li>— Response to the announcement on the end date of LIBOR panel publication and the announcement on the intention to consult on the publication of synthetic yen LIBOR</li> <li>— Responses in Light of the "Summary Report on the "Public Consultation on the Treatment of Tough Legacy Contracts in Japan" by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Information dissemination (as needed)               <ul style="list-style-type: none"> <li>— Speeches, opinion exchange meetings with industry associations, promotional activities for business corporations, contributions, setting up a special LIBOR page, the publication of several reports ("Financial Stability Report"), etc.</li> </ul> </li> </ul>
FSA
<ul style="list-style-type: none"> <li>• Publication of Q&amp;A on various regulations (February and March 2021)               <ul style="list-style-type: none"> <li>— Q&amp;A on capital adequacy and TLAC regulations in light of the cessation of LIBOR publication</li> <li>— Q&amp;A on application of transition measures to OTC derivative transactions regulations for legacy contracts with changed reference rates, etc. due to interest rate benchmark reform (permanent cessation of LIBOR publication)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Publication of no-action letter (March 2021)               <ul style="list-style-type: none"> <li>— Cases where the reference interest rate benchmark is changed due to fallbacks, etc. of interest rate swaps entered into for the purpose of hedging interest rate fluctuations on loans referencing LIBOR</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Publication of handling of transactions referencing foreign currency LIBOR (June 2021)</li> </ul>

### Developing a safety net

There may be contracts that cannot feasibly be transitioned away from LIBOR ("tough legacy" contracts) even after market-wide efforts and active transition by individual market participants. For this reason, the FCA, the LIBOR supervisory authority, has considered the publication of calculations only for the certain tenor settings of GBP LIBOR and JPY LIBOR using market data on a synthetic basis ("synthetic LIBOR") in international coordination to respond to tough legacy contracts.<sup>21</sup>

In the course of this deliberation, the Committee sent a comment letter in support of the FCA at the time of its public consultation, explaining its approach in the Japanese markets. Moreover, the Committee also discussed the use of synthetic yen LIBOR as a safety net and a response to tough legacy contracts in the Japanese markets. In the third round of its public consultation in September 2021, the Committee discussed and summarized (1) the concept of contracts that would fall under tough legacy contracts and for which the use of synthetic yen LIBOR might be considered, and (2) points to note when using synthetic yen LIBOR between contracting parties. They received support from a wide range of market participants.

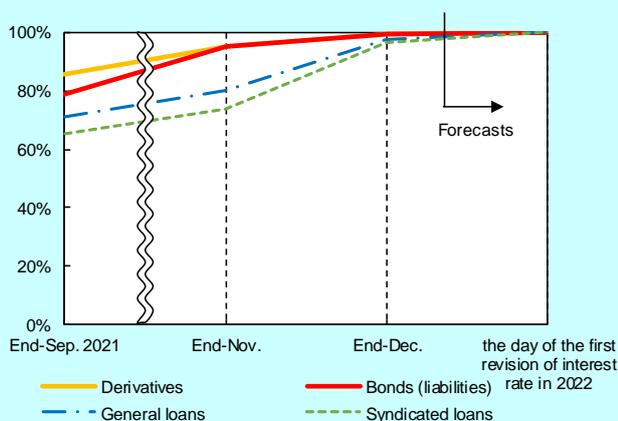
In the meantime, the FSA and the BOJ sent joint letters to financial institutions in March and November 2021. The letters stated that the transition should be progressed steadily and the use of synthetic yen LIBOR as a safety net for the tough legacy contracts should be limited. Moreover, they noted that synthetic yen LIBOR should be used in accordance with the results of the public consultation by the Committee which should be referred to as standards in the Japanese markets. They presented the views of financial authorities based on the discussions of the Committee and requested that necessary actions be thoroughly taken.<sup>22</sup>

### Steady progress in JPY LIBOR transition

Owing to the success of the above efforts, the transition from JPY LIBOR in the Japanese markets has made steady progress.<sup>23</sup> The questionnaire survey<sup>24</sup> conducted in January 2022 and asked 42 entities among those participating in the Committee about the transition away from JPY LIBOR showed that between 97 and 99 percent of contracts had completed the transition by the end of December 2021. While there were only few contracts for which the transition had not been completed, the transition was expected to be completed by the day of the first revision of interest

rates in 2022, when the interest rate benchmark would be actually used.

[Chart 6] Timing of completion of JPY LIBOR transition



(Notes)

1. The survey covers contracts that reference JPY LIBOR under governing Japanese law.
2. This chart shows shares of contracts as of the end of December 2020 at each point in time (simple averages of the responses), for which the transition (i.e. an active conversion, an introduction of fallback provisions, the bulk CCP conversion, the presupposition of early redemption or cancellation of bond contracts, etc.) had been completed.
3. The percentages for the day of the first revision of interest rates in 2022 are estimates based on the transition plans of the respondents (survey reference date is the end of December 2021). With regard to the percentages at the end of September 2021, the definition of "completion" is different in some cases, as they include contracts for which the agreement on the transition had already been reached at the end of September although the renewal was underway.

(Source: Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks)

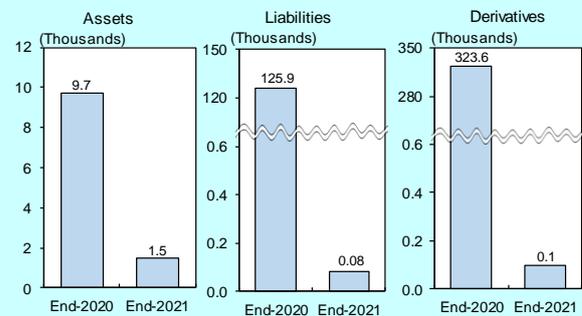
Progress in the transition is also shown by a joint survey conducted by the FSA and the BOJ. "Third survey on the use of LIBOR"<sup>25</sup> of 278 Japanese financial institutions -- of which results were released at the end of March 2022 -- confirmed that the number of contracts referencing JPY LIBOR that did not yet incorporate fallback provisions had declined significantly as of the end of December 2021. For the remainder of contracts without fallback provisions, transition policies had already been decided in general, meaning that the transition was almost completed. The use of synthetic yen LIBOR, which had been developed as a safety net, was also expected to be limited to only a small number of contracts.

Moreover, transactions using alternative interest rate benchmarks after the start of 2022 have been conducted without any particular issues according to the deliberations at the Committee and the discussions with financial institutions. Operational measures, including IT system arrangements, are also progressing smoothly.

The smooth transition from JPY LIBOR in the Japanese markets as a whole was made possible due to

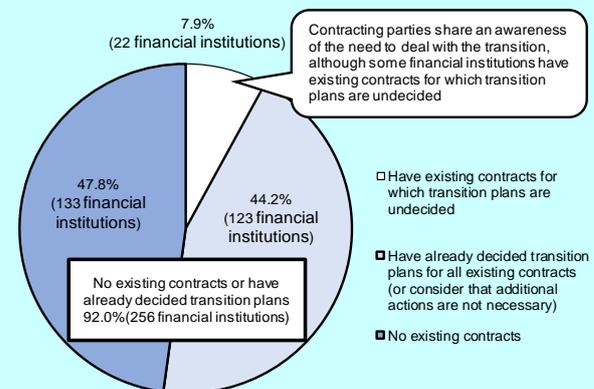
the cross-industry efforts by many market participants, supported by the public sector, and to this comprehensive, effective approach.<sup>26</sup>

[Chart 7] Progress in transition of contracts referencing JPY LIBOR



(Notes)

1. Number of contracts without fallback provisions.
2. The number at the end of December 2020 is that of contracts maturing beyond the end of December 2021.



(Notes)

1. Subjects are LIBOR for JPY, GBP, EUR, CHF, and USD (1-week and 2-month tenors).
2. Existing contracts include those that do not incorporate fallback provisions and those that have incorporated fallback provisions based on the amendment approach. The use of synthetic yen LIBOR is expected to be limited and temporary during 2022. Fallback provisions that specify a single replacement rate or a rate to be determined by waterfall methodology when introducing a fallback provision are referred to as the hardwired approach and those other than that are referred to as the amendment approach.

(Source: Financial Services Agency and Bank of Japan, "Third survey on the use of LIBOR.")

## Future considerations and medium- to long-term efforts

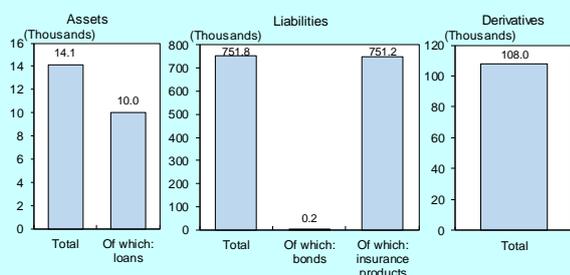
### Points to note

Going forward, it will be required to complete the transition of a small number of contracts -- for which the transition away from JPY LIBOR had not yet been completed -- as soon as practicable, before the next revision of interest rates. In addition, when using synthetic yen LIBOR, the transition to an alternative interest rate benchmark needs to be proceeded in a planned manner, while keeping in mind that synthetic

yen LIBOR is published only for one year until the end of December 2022.

The publication of USD LIBOR will be ceased at the end of June 2023. It is still widely used by Japanese financial institutions and non-financial corporates at this time. While a globally balanced approach is required for future use and transition measures, users in Japan are also expected to follow guidelines provided by U.S. authorities and working groups. For this reason, the FSA and the BOJ have requested that the transition be carried out with the timeframe until the end of June 2023 in mind, taking into account initiatives undertaken mainly by U.S. authorities.<sup>27</sup> The FSA and the BOJ will continue to cooperate and engage in dialogue with financial institutions and other relevant parties.

[Chart 8] Number of USD LIBOR-referencing contracts



(Notes)

1. Number of contracts that have not yet incorporated fallback provisions.
2. The figures in the charts are for contracts maturing beyond end-June 2023 among those referencing USD LIBOR tenors (overnight, 1-, 3-, 6-, and 12-month) for which the publication will be ceased at the end of June 2023.

(Source: Financial Services Agency and Bank of Japan, "Third survey on the use of LIBOR.")

### Medium- to long-term efforts

In financial markets after the cessation of LIBOR publication, multiple interest rate benchmarks are selected and used according to their characteristics and the needs of market participants.

In this regard, it is important to further enhance the reliability and robustness of each benchmark. A series of initiatives known as "JBA TIBOR reform" were undertaken from 2014 to 2017 to strengthen the governance structure and clarify the calculation method for TIBOR.<sup>28</sup> Currently, the JBA TIBOR Administration (JBATA) is discussing maintaining the Japanese Yen TIBOR and discontinuing Euroyen TIBOR, as well as examples of candidates for fallback rates to be applied in preparation for a possible permanent discontinuation of TIBOR publication.

TORF was designated as a specified financial benchmark under the Financial Instruments and

Exchange Act after the publication of TORF production rates in April 2021,<sup>29</sup> and efforts are underway to strengthen the governance system and to enhance and improve the transparency of the calculation method. In October 2021, QUICK Benchmarks, which is the administrator of TORF, received approval from the FSA for a series of operational rules under the Financial Instruments and Exchange Act. Going forward, operational frameworks will be verified and reviewed based on these rules.<sup>30</sup>

Moreover, active transactions in loans and bonds referencing the TONA Compounding (Fixing in Arrears) will increase OIS transactions through an increase in the need for hedging transactions since TORF is an interest rate benchmark based on OIS transactions.<sup>31</sup> Such an increase is expected to enhance in turn the robustness of TORF. Meanwhile, the environment for transactions referencing a compounding rate (fixing in arrears) -- which have been unfamiliar to the Japanese markets -- is likely to improve, and market participants are expected to continue improving their systems and operations and increasing the number of staff.

Various efforts are ongoing to improve the reliability and robustness of interest rate benchmarks to replace JPY LIBOR. The reliability and robustness of TORF and TIBOR are expected to further improve through the progress of these efforts in the future.

At the same time, it is necessary to keep an eye on how changes in financial market trading practices will affect the risk management and trading behavior of individual market participants and, ultimately, market structure.<sup>32</sup> The transition from JPY LIBOR to alternative interest rate benchmarks has been almost completed. Market transactions using alternative interest rate benchmarks are expected to take root, and further development of market infrastructure in a broad sense, including trading practices, systems, and risk management, to support such market transactions.

Owing to these efforts, the robustness of the market as a whole is considered to improve through enhanced price discovery function in financial markets, increase in transactions, and reduced risks of fluctuations in interest rate differentials associated with the use of interest rate benchmarks unsuitable for transactions.<sup>33</sup>

[Chart 9] Future considerations and medium- to long-term efforts

Points to note
<ul style="list-style-type: none"> <li>■ Transition support for contracts referencing JPY LIBOR (including synthetic yen LIBOR) for which the transition has not been completed</li> <li>■ Transition support for contracts referencing USD LIBOR reference contracts</li> </ul>
Medium- to long-term efforts
<ul style="list-style-type: none"> <li>■ Further improve the reliability and robustness of interest rate benchmarks</li> <li>■ Understanding of changes in market structure and development of market infrastructure in a broad sense</li> </ul>

Under these circumstances, the Committee announced in March 2022 that it would shift its activities to the newly established "Cross-Industry Forum on Interest Rate Benchmarks" since the

<sup>1</sup> According to a study by the FSB, contracts referencing USD LIBOR amounted to 150 trillion U.S. dollars and those referencing JPY LIBOR to 30 trillion U.S. dollars in March 2014.

<sup>2</sup> Financial Conduct Authority, "FCA announcement on future cessation and loss of representativeness of the LIBOR benchmarks," March 5, 2021.

<sup>3</sup> On April 5, 2022, the FSB published a statement welcoming the smooth transition from LIBOR to a robust alternative interest rate benchmark, in light of the cessation of LIBOR publication at the end of 2021 (except for some tenor settings in USD LIBOR). It stated that the transition was achieved without significant market disruption, in part due to significant efforts by the market participants. The FSB welcomed the smooth transition from LIBOR to robust alternative interest rate benchmarks in the global financial markets.

<sup>4</sup> Initially, the rate quoted by the panel banks was the funding rates of "prime" banks, but from 1998, it was changed to the banks' own funding rates. In the global financial crisis of the late 2000s, when credit risks of banks became apparent, some banks submitted rates for their own benefit by, for example, making it appear as though their creditworthiness was higher than it actually was.

<sup>5</sup> Andrew Bailey, "The future of LIBOR," speech at Bloomberg London, July 27, 2017.

<sup>6</sup> Subsequently, in its July 2020 statement, the FSB also pointed out an issue concerning the spillover channels of monetary policy. In other words, the statement pointed out that although central banks had lowered policy rates in response to the spread of COVID-19, the markets that underpinned the LIBOR calculation were not sufficiently active, which instead caused LIBOR to rise, thereby reducing the effects of the policy rate cuts.

<sup>7</sup> Bank of Japan, "Establishment of the 'Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks'" (July 2018).

<sup>8</sup> Several subgroups (and a task force) were formed within the Committee to discuss specific issues. They deliberated matters that required practical and technical views, and the deliberation has been used in the Committee's discussions. For details, see the webpage of the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks.

transition from JPY LIBOR in the Japanese markets had progressed smoothly and its activities had come to an end.<sup>34</sup> The Forum plans to provide opportunities to exchange opinions for a wide range of market participants on the above issues.

As shown in this paper, the transition from JPY LIBOR in the Japanese markets has progressed very smoothly due to efforts made by many market participants. Future challenges will focus on addressing a small number of contracts in Japan for which the transition from JPY LIBOR has not been completed, the transition from USD LIBOR, and efforts on the enhancement of the reliability and robustness of Japanese yen interest rate benchmarks, such as TORF and TIBOR. The FSA and the BOJ will continue to work together to support the efforts of market participants.

<sup>9</sup> In addition, the FSA and the BOJ have also exchanged views with overseas authorities as needed.

<sup>10</sup> A contractual clause that agreed in advance that the reference interest rate would shift to an alternative interest rate benchmark from LIBOR on the day of the cessation of the LIBOR publication.

<sup>11</sup> "Multiple rate approach" refers to the choice and usage of an interest rate benchmark from multiple options according to the needs of the relevant parties and the nature of the financial instrument or transaction. In Japan, under this approach, multiple options were prepared through public consultations by the Committee. These factors may have also contributed to the smooth transition away from JPY LIBOR.

<sup>12</sup> This was a response based on the development of a transition policy for quotations in the currency swap market where cross-border transactions take place ("RFR First"), and there was also an aspect of international coordination in the development of the "TONA First" policy.

<sup>13</sup> Japanese Bankers Association, "Publication of Reference Example (Sample) of Fallback Provisions for Direct Lending Concerning Possible Permanent Cessation of LIBOR Publication" (January 2021, available only in Japanese).

Japan Syndication and Loan-Trading Association, "Reference Example (Sample) and Explanation of Syndicated Loan Fallback Provisions" (October 2020, available only in Japanese).

Japan Securities Dealers Association, "Fallbacks of Bonds and Others" (May 2020, available only in Japanese).

ISDA, "ISDA Launches IBOR Fallbacks Supplement and Protocol," October 23, 2020.

<sup>14</sup> Japan Securities Depository Center, "Results of Investigation into Policy on Response to the Cessation of LIBOR Publication for LIBOR Reference Issues" (meeting materials for the Committee's 22nd Meeting, available only in Japanese).

<sup>15</sup> Accounting Standards Board of Japan, "Release of Practical Issues Task Force (PITF) No. 40, Treatment of Hedge Accounting for Financial Instruments Referencing LIBOR" (September 2020; for details, refer to the document in Japanese).

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Accounting Standards Board of Japan, "Revised Practical Issues Task Force No. 40, Treatment of Hedge Accounting for Financial Instruments Referencing LIBOR" (March 2022; for details, refer to the document in Japanese).

<sup>16</sup> Financial Law Board, "Discussion Paper on Responses to the Permanent Cessation of LIBOR Publication" (October 2020, available only in Japanese).

<sup>17</sup> The Joint Survey on the Use of LIBOR is a comprehensive survey involving nearly 300 Japanese financial institutions (banks, securities companies, insurance companies, and others) that is conducted regularly by the FSA and the BOJ, covering qualitative information, including policies for transitioning from LIBOR, as well as quantitative information, such as the amount and number of LIBOR-referencing transactions. It is a unique initiative from a global perspective, because it allows the financial authorities to accurately assess the situation and is expected to encourage financial institutions to take action through the compilation and publication of the information.

<sup>18</sup> For the results of the first survey on the use of LIBOR conducted in October through December 2019, see "Financial Institutions' Preparedness for LIBOR Cessation and Future Actions with a Focus on the Results of the Joint Survey by the Financial Services Agency and the Bank of Japan," Bank of Japan and Financial Services Agency, Bank of Japan Review Series 20-E-6. In addition, in order to quickly ascertain the progress in the transition of transactions referencing JPY LIBOR as of the end of September 2021, the Brief Survey on the Use of JPY LIBOR was conducted. It narrowed down the institutions subject to the survey and questionnaires, and the results were published on November 1.

<sup>19</sup> Financial Services Agency and Bank of Japan, "Taking Actions for Permanent Cessation of LIBOR" (June 2020).

<sup>20</sup> Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, "Roadmap to Prepare for the Discontinuation of Japanese Yen LIBOR" (August 2020).

<sup>21</sup> In September 2021, the FCA decided to compel the publication of synthetic yen LIBOR. In its statement, the FCA indicated that synthetic yen LIBOR would be published for a limited time period after end-2021 and thus transition should be carried out without relying on the use of synthetic yen LIBOR. For details, see Financial Conduct Authority, "Further arrangements for the orderly wind-down of LIBOR at end-2021" (September 2021).

<sup>22</sup> Financial Services Agency and Bank of Japan, "Response to the Announcement on the End Date of LIBOR Panel Publication and the Announcement on the Intention to Consult on the Publication of Synthetic Yen LIBOR" (March 2021).

Financial Services Agency and Bank of Japan, "Future Responses in Light of the 'Summary Report on the 'Public Consultation on Coping with Tough Legacy in Japan'" by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks" (November 2021).

<sup>23</sup> The Japan Securities Clearing Corporation (JSCC) implemented a bulk conversion of transactions referencing JPY LIBOR cleared by the JSCC to TONA (OIS) in December 2021, which made a significant contribution to the transition of derivatives. For more information, see Japan Securities Clearing Corporation, "Handling of Cleared Contracts at JSCC IRS Clearing Service (Bulk Conversion to OIS) towards Benchmark Reform (Permanent Cessation of LIBOR)" (October 2021), and "The Bulk Conversion of LIBOR-Referenced Interest Rate Swaps to OIS trades (OTC Derivatives Clearing System)

will go live on Monday, December 6, as scheduled" (December 2021).

<sup>24</sup> Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, "Key Results of the Questionnaire Survey on the Progress in the Transition away from JPY LIBOR" (meeting materials for the 31st meeting of the Committee).

<sup>25</sup> Financial Services Agency and Bank of Japan, "Summary of Results of the Third Survey on the Use of LIBOR" (March 2022).

<sup>26</sup> The LIBOR transition was handled smoothly in Japan without taking special legislative measures. From this point of view, the comprehensive approach is deemed successful.

<sup>27</sup> "Summary of Results of the Third Survey on the Use of LIBOR" (footnote 25 above).

Financial Services Agency, "Handling Transactions Referencing Foreign Currency LIBOR" (June 2021, available only in Japanese).

<sup>28</sup> TIBOR had been published by the Japanese Bankers Association (JBA), but the JBATA was formed in April 2014 to establish a more neutral management structure for TIBOR, and the JBA's TIBOR calculation and publication duties were transferred to the JBATA. In May 2015, it was also clarified that TIBOR was subject to regulation by the FSA as a Specified Financial Benchmark under the Financial Instruments and Exchange Act. Subsequently, in July 2017, quoted rates were made to be calculated in accordance with a unified and clarified process for calculating and determining quoted rates.

<sup>29</sup> A financial benchmark that may have a significant impact on the capital markets in Japan due to a decrease in reliability.

<sup>30</sup> The TORF Operational Rules stipulate the basic matters related to the management of benchmarks that QUICK Benchmarks shall follow in calculating and publishing TORF in accordance with the provisions of the Financial Instruments and Exchange Act. For details, see QUICK Benchmarks, "TORF Operational Rules" (October 2021).

<sup>31</sup> OIS is a type of interest rate swap in which a floating rate calculated as the (compounded) weighted average of the overnight call rate (TONA in the case of Japanese yen) for a certain period is exchanged for a fixed rate prescribed in the contract. For details, see Study Group on Risk-Free Reference Rates, "Japanese Yen Overnight Index Swap: Overview of transactions and case studies" (April 2018, available only in Japanese).

<sup>32</sup> See, for example, Iijima, S., Hosokawa, T., Oda, T., and Tao, K., "A Note on Monitoring the U.S. Dollar Funding Premium in FX Swaps after the Cessation of LIBOR," Bank of Japan Review 2022-J-3, for a discussion of how the funding environment in the money market is being monitored (February 2022, available only in Japanese).

<sup>33</sup> The FSB's report points out that "by moving away from a reliance on a single, dominant reference rate, the financial system as a whole would be more resilient" with the multiple-rate approach, as it would allow users to choose amongst a range of reference rates. For details, see Financial Stability Board, "Reforming Major Interest Rate Benchmarks" (July 2014).

<sup>34</sup> Bank of Japan, "Establishment of the 'Cross-Industry Forum on Interest Rate Benchmarks'" (March 2022).

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