## **Brattle Report**

SUMMARY OF RESPONSES TO THE ISDA 2021 CONSULTATION ON FALLBACKS FOR GBP LIBOR® ICE SWAP RATE® AND USD LIBOR® ICE SWAP RATE®

**PREPARED BY** 

The Brattle Group

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PREPARED FOR

The International Swaps and

Derivatives Association ("ISDA")



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## **Executive Summary**

- 1. Earlier this year, the Non-Linear Task Force ("NLTF") of the Working Group on Sterling Risk Free Reference Rates in the UK and a Subcommittee of the Alternative Reference Rates Committee ("ARRC") in the US published papers suggesting fallbacks that could apply for GBP LIBOR ICE Swap Rate ("GBP LIBOR ISR") and USD LIBOR ICE Swap Rate ("USD LIBOR ISR"), respectively, upon a permanent cessation of LIBOR in the relevant currency. On June 11, 2021, the International Swaps and Derivatives Association, Inc. ("ISDA") launched a market-wide consultation on how to implement the suggested fallbacks for GBP LIBOR ISR and USD LIBOR ISR ("2021 ISR Consultation" or "Consultation"). <sup>2</sup>
- 2. In order to implement the suggested fallbacks in the NLTF Paper and the ARRC Paper, ISDA proposes to publish amendments to (1) the GBP LIBOR ISR and USD LIBOR ISR Rate Options listed above in Section 7 of the 2006 ISDA Definitions and (2) the relevant settlement provisions in Sections 13 and 18 of the 2006 ISDA Definitions ("Draft Amendments"). The 2021 ISR Consultation asked whether respondents agree with the ISR fallback provisions set out in the Draft Amendments. The Consultation also seeks additional input on the implementation of the suggested fallbacks.
- 3. The criteria specified in the ISDA 2021 ISR Consultation intended to achieve:
  - "Transition in Sterling Non-Linear Derivatives referencing GBP LIBOR ICE Swap Rate (ISR)," Working Group on Sterling Risk-Free Reference Rates, February 2021 ("NLTF Paper"), and "Suggested Fallback Formula for the USD LIBOR ICE Swap Rate," Alternative Reference Rates Committee (ARRC), March 2021 ("ARRC Paper"). The Brattle Group also independently reviewed the NLTF Paper and the ARRC Paper and found that the adjustments proposed in the papers are necessary for applying additional precision to the spread adjustment calculation in order to account for differences in day count convention and in payment frequency between the LIBOR-based ISRs and the SONIA-based and SOFR-based ISRs ("Brattle ISR Report"). The Brattle ISR Report noted that the adjustments do not appear to result in economic changes other than those necessary for applying additional precision to the spread adjustments to be included in those fallbacks and making those spread adjustments consistent with the framework for the fallbacks in the IBOR Fallbacks Supplement. See, <a href="https://www.isda.org/a/jGDgE/Brattle-Report-on-Technical-Adjustment-for-ICE-Swap-Rates.pdf">https://www.isda.org/a/jGDgE/Brattle-Report-on-Technical-Adjustment-for-ICE-Swap-Rates.pdf</a>.
  - https://www.isda.org/2021/06/11/isda-launches-consultation-on-fallbacks-for-gbp-libor-ice-swap-rate-and-usd-libor-ice-swap-rate/. See also https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf.
  - https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf. Based on feedback to the 2021 ISR Consultation and in accordance with the criteria of the Consultation, ISDA has published these amendments as a Supplement to the 2006 ISDA Definitions (the substance of which would then be translated into the 2021 ISDA Interest Rate Derivatives Definitions). Upon publication of such a Supplement on August 6, 2021, all transactions incorporating the 2006 ISDA Definitions that are entered into on or after August 6, 2021, the effective date of the Supplement (i.e., the date on which the 2006 ISDA Definitions are amended), include the amended terms (i.e., the updated fallback provisions). Transactions entered into prior to August 6, 2021 (so called 'legacy derivative contracts') will continue to be based on the 2006 ISDA Definitions as the 2006 ISDA Definitions existed at the time of trading (i.e., before they were amended pursuant to the Supplement), and therefore will not include the updated fallback provisions. However, ISDA has also published template language that counterparties could use to negotiate bilateral amendments for incorporation of the amended terms, and therefore the fallback provisions, in legacy derivative contracts.

4 https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf.

- a minimum number of 25 responses from market participants (which do not include professional services firms or trade associations);
- a minimum of 25% of responses from market participants other than bank/broker-dealers and infrastructure providers;
- a minimum of 65% "Yes" responses from market participants and at least 25% of those "Yes" responses from market participants who are not bank/broker-dealers or infrastructure providers; and
- assurance that no major portion of a particular segment of the market would be unavoidably harmed and/or be unable to use the fallback provisions.<sup>5,6</sup>
- 4. A total of 40 non-affiliated entities submitted valid responses to the 2021 ISR Consultation<sup>7</sup>, of which 39 were market participant respondents and one was a professional services firm or trade association.<sup>8</sup> The respondents to the 2021 ISR Consultation represent a diverse group of market participants reflecting a broad range of geographies and industry affiliations, which capture perspectives from different industries and regions. All of the above criteria were satisfied. Section II of this report discusses the criteria in detail.
- 5. In summary, 95% of the market participant respondents to the 2021 ISR Consultation (37 out of 39 respondents) answered "Yes" to the Consultation question. A few "Yes" respondents chose to provide additional explanation for their responses. Several of these respondents' explanation focused on the implementation of the suggested fallbacks.

- <sup>7</sup> Pursuant to the 2021 ISR Consolation criteria, affiliated entities will be counted as one market participant.
- The 2021 ISR Consultation was open to anyone (including ISDA members and non-members) but the criteria to determine the outcome of the Consultation were based on the number of market participant respondents, which do not include professional firms or trade associations.

The 2021 ISR Consultation criteria provided: "Respondents who select 'No' <u>and</u> indicate that they would be unavoidably harmed by, and/or unable to use, the fallback provisions do not represent a significant portion of a particular segment of the market (e.g., all insurance companies who respond, all corporates who respond)." <a href="https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf">https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf</a>.

If the criteria set forth above are not satisfied but the following criteria are satisfied, ISDA intended to publish template language that counterparties could use to negotiate bilateral amendments for incorporation of the amended terms, and therefore the fallback provisions, in both new and legacy derivative contracts: 1) At least 15 market participants (which do not include professional services firms or trade associations) submit responses. Any responses that do not clearly indicate "Yes" or "No" will not be counted in this number. Affiliated entities will be counted as one market participant for purposes of this count and for calculating the percentages below. 2) At least 10% of responses are from market participants other than bank/broker-dealers and infrastructure providers. 3) At least 50% of respondents select "Yes" and at least 10% of those who select "Yes" are not bank/broker-dealers or infrastructure providers. 4) Respondents who select "No" and indicate that they would be unavoidably harmed by, and/or unable to use the fallback provisions do not represent a significant portion of a particular segment of the market (e.g., all insurance companies who respond, all corporates who respond). https://www.isda.org/a/TzDgE/Consultation-on-GBP-and-USD-ISR-Fallbacks-Final.pdf.

## Demographics of Respondents to the 2021 ISR Consultation

6. ISDA received responses from 40 respondents from 10 countries across Europe, Asia-Pacific, and the Americas. Collectively, the responses to the 2021 ISR Consultation represent a diverse group of different industries and regions. Table 1 summarizes the industry affiliation, as self-identified by each of the 40 respondents based on seven categories included in the 2021 ISR Consultation. Table 1 shows that the 40 respondents fall most commonly in the categories of "Bank/Broker-dealer" (28 respondents) and "Asset Manager" (5 respondents). Other respondents include insurance companies, local or regional government entities/government sponsored entities, a central counterparty, a professional services firm/trade association and another end user. Note that while Brattle reviewed all 40 responses, we do not include the preferences from the one professional service firm/trade association in the assessment of the 2021 ISR Consultation criteria.

TABLE 1: BREAKDOWN OF RESPONSES BY INDUSTRY AFFILIATION

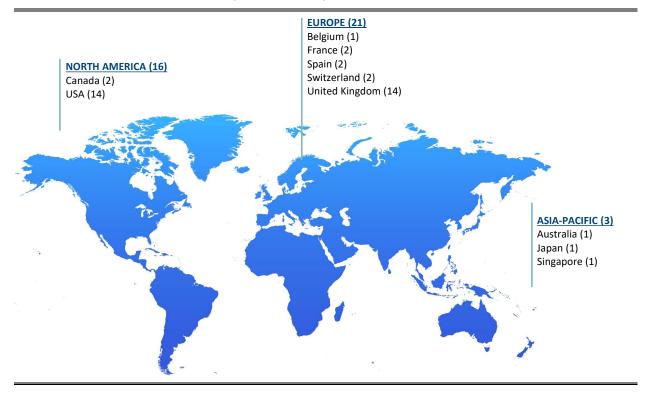
Respondent Type Industry Classification	Number of entities
[A]	[B]
[1] Asset Manager	5
[2] Bank/broker-dealer	28
[3] Insurance Company	2
[4] Local or regional gov entity/gov sponsored entity	2
[5] Market Infrastructure - central counterparty	1
[6] Professional Services/Trade Association	1
[7] Other end user (e.g. corporate)	1
Total	40

Sources and notes:

Regions and countries represented by the entities that responded to the ISDA 2021 ISR Consultation. One market participant did not report its industry affiliation. Brattle relied on the industry classification for the same participant from a previous consultation.

7. Figure 1 and Table 2 break down the respondents by region and by country. The largest number of respondents by region came from Europe (21 entities), including 14 entities from the United Kingdom. North America accounted for 16 of the responding entities, 14 of which came from the United States. There are three respondents from Asia-Pacific—from Australia, Japan, and Singapore, respectively.

FIGURE 1: BREAKDOWN OF ENTITIES (RESPONDENTS) BY GEOGRAPHY



### Sources and notes:

Regions and countries represented by the entities that responded to the ISDA 2021 ISR Consultation. One market participant reported its geography as US/UK. One market participant did not report its geography. One market participant reported its geography differently from what it reported in a previous consultation. Brattle relied on the geography classification for these participants from a previous consultation. 40 entities total.

TABLE 2: BREAKDOWN OF RESPONDENTS (ENTITIES) BY GEOGRAPHY

Region	Country	Number of entities
[A]	[B]	[C]
Asia-Pacific		3
	Australia	1
	Japan	1
	Singapore	1
Europe		21
	Belgium	1
	France	2
	Spain	2
	Switzerland	2
	United Kingdom	14
North Ar	merica	16
	Canada	2
	USA	14
Total		40

#### Sources and notes:

Regions and countries represented by the entities that responded to the ISDA 2021 ISR Consultation. One market participant reported its geography as US/UK. One market participant did not report its geography. One market participant reported its geography differently from what it reported in a previous consultation. Brattle relied on the geography classification for these participants from a previous consultation.

8. Figure 2 summarizes the demographics of the respondents by both industry affiliation and geography. Figure 2 shows that the majority of banks/broker-dealers that responded to the 2021 ISR Consultation are from Europe. All of the local or regional government entities/government-sponsored entities that responded to the Consultation are from either North America or Europe. In comparison, there are banks/broker-dealers across North America, Europe as well as Asia-Pacific that participated in the Consultation.

#### **NORTH AMERICA (16)**

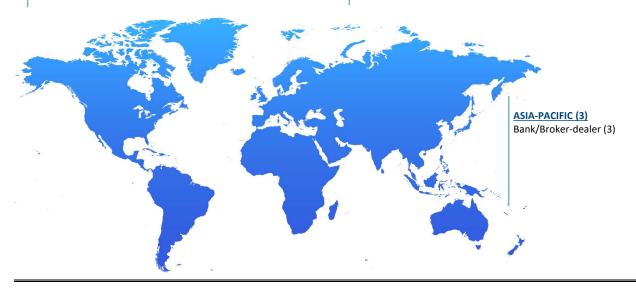
Asset Manager (2) Bank/Broker-dealer (10) Insurance Company (2)

Local or regional gov entity/gov sponsored entity (1)

Other end user (e.g. corporate) (1)

#### EUROPE (21

Asset Manager (3)
Bank/Broker-dealer (15)
Local or regional gov entitiy/gov sponsored entity (1)
Market Infrastructure - central counterparty (1)
Professional Services/Trade Association (1)



### Sources and notes:

Regions and countries represented by the entities that responded to the ISDA 2021 ISR Consultation. One market participant did not report its industry affiliation. Brattle relied on the industry classification for the same participant from a previous consultation. One market participant reported its geography as US/UK. One market participant did not report its geography. One market participant reported its geography differently from what it reported in a previous consultation. Brattle relied on the geography classification for these participants from a previous consultation. 40 entities total.

# II. Assessing the Criteria of the 2021 ISR Consultation

9. Table 3 summarizes the criteria set out in the 2021 ISR Consultation and the corresponding assessment based on the market participant responses to the consultation.

TABLE 3: ASSESSMENT OF THE 2021 ISR CONSULTATION CRITERIA

Criteria		Criterion Satisfied
At least 25 market participants submit responses, excluding professional services firms or trade associations	[A]	YES
At least 25% of responses are from market participants other than bank/broker-dealers and infrastructure providers	[B]	YES
At least 65% of respondents select "Yes"	[C]	YES
At least 25% of those who select "Yes" are not bank/broker-dealers or infrastructure providers	[D]	YES
Respondents who select "No" and indicate that they would be unavoidably harmed by, and/or unable to use, the fallback provisions do not represent a significant portion of a particular segment of the market (e.g., all insurance companies who respond, all corporates who respond).	[E]	YES

10. Table 4 shows the assessment of the first four criteria set out in Table 3. Overall, all criteria were met. With regard to the last criterion, of the two market participant respondents who selected "No", none indicated that they would be unavoidably harmed by, and/or unable to use the ISR fallback provisions as specified in the Consultation question.

TABLE 4: ASSESSMENT OF THE 2021 ISR CONSULTATION CRITERIA

Criteria		Count of Relevant Responses [1]	Count (%)	Consultation Criteria	Criterion Satisfied
Total number of market participant respondents	[A]	39	NA NA	25	YES
Percentage of market participant respondents that are not bank/broker-dealers or infrastructure providers	[B]	10	26%	25%	YES
Percentage of market participant respondents that selected "YES"	[C]	37	95%	65%	YES
Percentage of market participant respondents that selected "YES" and are not bank/broker-dealers or infrastructure providers	[D]	10	27%	25%	YES

Notes:

[B][2]: [B][1]/[A][1]. [C][2]: [C][1]/[A][1]. [D][2]: [D][1]/[C][1].

# III. Preferences Regarding the 2021 ISR Consultation

11. This section summarizes the responses to the question in the 2021 ISR Consultation. As mentioned above, while Brattle reviewed all 40 responses to the 2021 ISR Consultation, the criteria set by ISDA to assess the results are based on responses from market participants, which do not include professional services firms or trade associations. Subsections A and B analyze the responses from the 39 market

- participant respondents. For completeness, Brattle provides a discussion of the response from the one professional services firm/trade association in subsection C.
- 12. The 2021 ISR Consultation asked whether respondents agree with the ISR fallback provisions set out in the Draft Amendments, the hyperlinks of which are included in the Consultation.

## A. Summary of Market Participant Respondents' Preferences

13. Table 5 summarizes the market participants' responses to the question in the 2021 ISR Consultation. Overall, Table 5 shows that 95% of market participant respondents (37 out of 39 market participant respondents) answered "Yes" to the Consultation question and 5% (2 out of 39 respondents) answered "No."

TABLE 5: SUMMARY STATISTICS OF RESPONSES TO THE 2021 ISR CONSULTATION

Response	Total	% of Total		
Yes	37	95%		
No	2	5%		
Total	39	100%		

14. Table 6 shows a breakdown of respondent preferences by affiliation. The two respondents that answered "No" are banks/broker-dealers. That means of the 28 banks/broker-dealers, 7% answered "No" and 93% answered "Yes" to the Consultation question. Market participant respondents in all other industry affiliations, including asset managers, central counterparties and insurance companies, were unanimous in their preference (i.e., all respondents in these industry affiliations answered "Yes" to the Consultation question).

TABLE 6: SUMMARY STATISTICS OF RESPONSES TO THE 2021 ISR CONSULATATION BY INDUSTRY AFFILIATION

Respondent Type Industry Classification	Yes	No	Total	Yes (%)	No (%)
	[1]	[2]	[3]	[4]	[5]
Asset Manager	5	0	5	100%	0%
Bank/broker-dealer	26	2	28	93%	7%
Insurance Company	2	0	2	100%	0%
Local or regional gov entity/gov sponsored entity	2	0	2	100%	0%
Market Infrastructure - central counterparty	1	0	1	100%	0%
Other end user (e.g. corporate)	1	0	1	100%	0%
Total Across All Market Participant Respondents	37	2	39	95%	5%

Notes:

[3]: [1] + [2].

[4]: [1] / [3]. [5]: [2] / [3].

15. Table 7 shows a breakdown of respondent preferences by region. Except for Asia-Pacific, each of the other two regions has one respondent who answered "No"; however, the vast majority of respondents in every region answered "Yes" to the Consultation question.

TABLE 7: SUMMARY STATISTICS OF RESPONSES TO THE 2021 ISR CONSULTATION BY RESPONDENT REGION

Respondent Region	Yes	No	Total	Yes (%)	No (%)
	[1]	[2]	[3]	[4]	[5]
Asia-Pacific	3	0	3	100%	0%
Europe	19	1	20	95%	5%
North America	15	1	16	94%	6%
Total Across All Market Participant Respondents	37	2	39	95%	5%

Notes:

[3]: [1] + [2].

[4]: [1] / [3].

[5]: [2] / [3].

# B. Commentary from Market Participant Respondents

### 1. Review of "Yes" Responses

- 16. Of the 95% of overall respondents (37 out of 39 market participant respondents) that answered "Yes" to the Consultation question, 26 respondents did not provide further explanations for their answer. The remaining 11 respondents provided several rationales for their answers and some highlighted a few issues for ISDA to consider. A number of respondents noted that the suggested fallbacks for GBP and USD LIBOR ISRs is consistent with other fallbacks. For example, a North American insurance company noted that the proposed approach "is in the same spirit as the ISDA Fallbacks Protocol and should be a fair and manageable approach to implement." In a similar vein, a North American bank/broker-dealer noted that "[t]he ISR fallbacks provisions are consistent with other fallback language."
- 17. Several respondents provided further commentary regarding the implementation of the suggested fallback for GBP and USD LIBOR ISRs. For example, one European bank/broker-dealer stated that it "support[s] the publication of the amendments as part of a Supplement to the ISDA Definitions and also request[s] that ISDA consider publishing bilateral template agreements as set out in the consultation." Similarly, a North American bank/broker-dealer noted that it "strongly support[s] ISDA publishing the amendments as a Supplement to the 2006 Definitions so that all new transactions that are entered into

- on or after the effective date of the Supplement and which incorporate the 2006 ISDA Definitions will include the updated fallback provisions."
- 18. A European bank/broker-dealer that answered "Yes" asked for updates on solutions for Japanese Yen ("JPY") LIBOR Tokyo Swap Rate ("JPY LIBOR TSR"). JPY LIBOR TSR is similar to the ICE Swap Rates but with transactions referencing JPY LIBOR as inputs. Refinitiv is the administrator of JPY LIBOR TSR and recently consulted on fallbacks consistent with the GBP and USR ISR fallbacks suggested by the ARRC and the NLTF. ISDA is currently working with Refinitiv, the Bank of Japan, and the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks—the Japanese working group on IBOR transition regarding implementation of the suggested fallback for JPY LIBOR TSR. The Appendix to this report provides more discussion on the suggested fallback for JPY LIBOR TSR.

### 2. Review of "No" Responses

- 19. Two (out of 39) market participant respondents answered "No" to the Consultation question. One European bank/broker-dealer expressed support for the suggested fallback for the GBP LIBOR ISR but not for the USD LIBOR ISR, citing concern that the suggested fallback for USD LIBOR ISR may be premature as "the market has not decided to use Annual Act/360 for SOFR." The same respondent also recommended an initiative to develop a protocol solution for inclusion of the new fallbacks in legacy transactions. The other market participant respondent that answered "No"—a North American bank/broker-dealer—raised concern, in its view, that the suggested fallbacks would create different valuation impacts to cash-settled swaptions and physically settled swaptions, which should be equivalent to each other from a pricing perspective. It stated that in its view, "[u]nder the supplement, a collateralized cash price trade stops being equivalent to the same cleared, physically settled trade."
- 20. It is worth mentioning that these two market participant respondents did not provide alternatives to the suggested fallbacks for GBP and USD LIBOR ISRs, nor did they indicate that they would be unavoidably harmed. They also did not raise concern about the consistency between the suggested fallbacks and the framework of the fallbacks for IBOR derivatives.
  - The same respondent also asked for update on solutions for "CHF LIBOR ISR". For Swiss Franc, there is no published benchmark for the LIBOR swap curve and therefore banks and calculation agents solicit quotes from reference banks. The National Working Group on Swiss Franc Reference Rates published fallback guidance for settlement of Swiss Franc swaptions, which depends on the CHF LIBOR swap curve, in the minutes of their meeting on July 1, 2021. See, "Minutes 27th Meeting of the Working Group," The National Working Group on Swiss Franc Reference Rates, July 1, 2021, Slides 50-51, accessed August 12, 2021, <a href="https://www.snb.ch/n/mmr/reference/minutes">https://www.snb.ch/n/mmr/reference/minutes</a> 20210701/source/minutes 20210701.n.pdf.
  - "Methodology Consultation: Summary Tokyo Swap Rate (TSR)," Refinitiv Limited, July 19, 2021 ("TSR Consultation Summary"), p. 3 ("Refinitiv calculates and administers the Tokyo Swap Rate (TSR), a Japanese Yen (JPY) interest rate swap (IRS) benchmark family comprising benchmarks rates for JPY LIBOR (6-month) swaps with tenors from 1 year to 40 years and TIBOR (6-month) swaps with tenors from 1 year to 10 years. LIBOR TSR benchmarks are determined using input data from a panel of seven banks and TIBOR TSR benchmarks are determined using input data from a panel of five banks."), accessed August 6, 2021, <a href="https://www.refinitiv.com/content/dam/marketing/en\_us/documents/methodology/tokyo-swap-rate-methodology-consultation-summary.pdf">https://www.refinitiv.com/content/dam/marketing/en\_us/documents/methodology/tokyo-swap-rate-methodology-consultation-summary.pdf</a>.
  - <sup>11</sup> TSR Consultation Summary, pp. 3 and 5.
  - <sup>12</sup> "LIBOR Transition," Japanese Bankers Association, accessed August 6, 2021, <a href="https://www.zenginkyo.or.jp/en/libor/">https://www.zenginkyo.or.jp/en/libor/</a>.

### C. Commentary from Non-Market Participant Respondents

21. One European professional services firm/trade association responded to the 2021 ISR Consultation. This respondent answered "No" and indicated that it would be unavoidably harmed by the suggested fallback provision. Specifically, this European professional services firm noted, in its view, "[t]he different fallbacks proposed for LIBOR and for the ICE Swap Rate are not coherent with the current definitions and among them" and "the adjustments are not sufficient to obtain a coherent fallback within a reasonable margin."

### IV. Conclusion

22. Overall, 95% of market participant respondents to the 2021 ISR Consultation showed support for the fallback provisions set out in the Draft Amendments to implement the suggested fallback for GBP and USD LIBOR ISRs. All the criteria set in advance by ISDA to assess the 2021 ISR Consultation results were met.

## Appendix: Additional Discussions on the Suggested Fallback for JPY LIBOR TSR

23. On April 19, 2021, Refinitiv launched a public consultation seeking feedback on a number of questions relating to the future development of the Tokyo Swap Rate in the context of LIBOR cessation, including fallbacks for JPY LIBOR TSR. <sup>13</sup> On July 19, 2021, Refinitiv published a summary of the consultation responses. <sup>14</sup> Based on the responses, Refinitiv will implement the following fallback for JPY LIBOR TSR:

$$2 \times \left(\sqrt{1 + TSR_{12M}^{TONA}} - 1\right) + s_{6M} \times \frac{365}{360} \tag{1}$$

<sup>&</sup>quot;Tokyo Swap Rate (TSR) Methodology Consultation," Refinitiv Limited, April 19, 2021 ("TSR Consultation"), accessed August 13, 2021, <a href="https://www.refinitiv.com/content/dam/marketing/en-us/documents/white-papers/re1384668-ia-whitepaper.pdf">https://www.refinitiv.com/content/dam/marketing/en-us/documents/white-papers/re1384668-ia-whitepaper.pdf</a>.

<sup>&</sup>lt;sup>14</sup> TSR Consultation Summary, pp. 1-8.

where  $TSR_{12M}^{TONA}$  is the swap rate based on TONA (which is the overnight risk-free rate for JPY) and  $s_{6M}$  is the fixed spread adjustment for 6-month JPY LIBOR under the IBOR Fallbacks in Supplement 70 to the 2006 ISDA Definitions.

24. The design of Formula (1) follows a similar logic as described in the NLTF Paper and the ARRC Paper for the fallbacks for the GBP LIBOR ISR and the USD LIBOR ISR, respectively. <sup>15</sup> In particular, Formula (1) resembles the following suggested fallback for GBO LIBOR ISR for swaps with tenors longer than one year: <sup>16</sup>

$$2 \times \left(\sqrt{1 + SONIA \, ISR} - 1\right) + s_{6M} \tag{2}$$

where  $SONIA\ ISR$  represents the fixed rate in a standard fixed-for-floating interest rate swap with the floating leg referencing SONIA compounded in arrears for twelve months and  $s_{6M}$  is the fixed spread adjustment for 6-month GBP LIBOR under the IBOR Fallbacks in Supplement 70 to the 2006 ISDA Definitions.

- 25. One difference between Formula (1) and Formula (2) is that Formula (1) has an adjustment factor of  $\frac{365}{360}$  applied to  $s_{6M}$ . This adjustment accounts for the different day count conventions between JPY LIBOR TSR—which uses the ACT/365 convention—and JPY LIBOR (and therefore  $s_{6M}$ )—which uses the ACT/360 convention. <sup>17</sup>
- 26. As discussed in the Brattle ISR Report, accounting for differences in payment frequency and day count convention leads to different functional forms of the suggested fallbacks for GBP and USD LIBOR ISRs. The similarity between Formula (1) and Formula (2) results from the similar day count convention and payment frequency shared by GBP LIBOR-based swaps and their JPY counterparts, and by SONIA-based swaps and their JPY counterparts as follows:
  - a. GBP LIBOR-based swaps with tenors longer than one year pay GBP LIBOR ISR semi-annually with the ACT/365 day count convention on the fixed leg, and pay 6-month GBP LIBOR semi-annually with the ACT/365 day count convention on the floating leg.  $^{18}$  JPY LIBOR-based swaps pay JPY LIBOR TSR semi-annually with the ACT/365 day count convention on the fixed leg, and pay 6-month JPY LIBOR semi-annually with the ACT/360 day count convention on the floating leg.  $^{19}$  The difference in the day count convention leads to the additional adjustment applied to  $s_{6M}$  in Formula (1) discussed above.

<sup>&</sup>lt;sup>15</sup> TSR Consultation, p. 7. See also Brattle ISR Report for discussions on the suggested fallbacks for GBP LIBOR ISR and the USD LIBOR ISR.

<sup>&</sup>lt;sup>16</sup> See also NLTF Paper and Brattle ISR Report.

TSR Consultation, p. 7. For GBP LIBOR-based swaps, such difference does not exist, as both the fixed leg and the floating leg use the ACT/365 day count convention.

NLTF Paper, p. 4 and Brattle ISR Report, Tables 1, 2 and 3.

<sup>19</sup> TSR Consultation, pp. 5 and 7.

- b. SONIA-based swaps pay SONIA ISR annually with the ACT/365 day count convention on the fixed leg, and pay SONIA compounded in arrears annually with the ACT/365 day count convention on the floating leg.<sup>20</sup> Similarly, TONA-based swaps pay TONA TSR annually with the ACT/365 day count convention on the fixed leg, and pay TONA compounded in arrears annually with the ACT/365 day count convention on the floating leg.<sup>21</sup>
- 27. As the TSR Consultation Summary pointed out, Formula (1) results in additional precision to the fallback calculation and is consistent with the approach taken for comparable swap rate benchmarks in other currencies, such as the GBP LIBOR ISR and the USD LIBOR ISR,<sup>22</sup> for which adjustments to the fallback formulas do not appear to result in economic changes other than those necessary to apply additional precision.

NLTF Paper, p. 4 and Brattle ISR Report, Tables 1, 2 and 3.

<sup>&</sup>lt;sup>21</sup> TSR Consultation, pp. 5 and 7.

<sup>&</sup>lt;sup>22</sup> TSR Consultation Summary, p. 5.