ISDA Safe, Efficient Markets

December 18, 2019

# Interbank Offered Rate (IBOR) Fallbacks for 2006 ISDA Definitions

***Supplemental Consultation on Spread and Term Adjustments, including Final Parameters thereof, for Fallbacks in Derivatives Referencing EUR LIBOR and EURIBOR, as well as other less widely used IBORs***

## Executive summary

- ISDA intends to amend its standard documentation to implement fallback reference rates (fallbacks) for certain key IBORs.
- The fallbacks will apply if the relevant IBOR ceases based on defined triggers.[1]
- The fallback rates will be the alternative risk-free rates (RFRs) that have been identified for the relevant IBORs as part of recent global benchmark reform work.
- ISDA previously published a consultation (the July 2018 Consultation[2]) seeking input on the approach for addressing certain technical issues associated with adjustments that will apply to the RFRs if the fallbacks are triggered. This consultation covered GBP LIBOR, CHF LIBOR, JPY LIBOR, TIBOR, Euroyen TIBOR and BBSW, and requested preliminary feedback in respect of USD LIBOR, EUR LIBOR and EURIBOR.
- ISDA subsequently published a supplemental consultation (the May 2019 Consultation[3]) seeking further input on the approach for addressing certain technical issues associated with adjustments that will apply to the RFRs if the fallbacks for USD LIBOR, CDOR or HIBOR are triggered. The May 2019 Consultation also sought feedback on certain aspects of fallbacks for derivatives referencing SOR.

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[1] The fallbacks will definitely apply upon a permanent cessation of the relevant IBOR. ISDA separately consulted on pre-cessation issues. That consultation closed on July 12, 2019 but is available at: https://www.isda.org/a/md6ME/FINAL-Pre-cessation-issues-Consultation.pdf. An anonymized summary of responses to that consultation is available at: http://assets.isda.org/media/e0b1bac2/04397355-pdf/. ISDA is still considering how to implement pre-cessation fallbacks for derivatives and may request additional feedback on this point in the coming months. Additional information is available in a letter from ISDA to the FSB OSSG, available at https://www.isda.org/2019/12/04/isda-letter-to-fsb-ossg-on-pre-cessation-issues/.

[2] The July 2018 Consultation can be found here: http://assets.isda.org/media/f253b540-193/42c13663-pdf/.

[3] The May 2019 Consultation can be found here: https://www.isda.org/a/n6tME/Supplemental-Consultation-on-USD-LIBOR-CDOR-HIBOR-and-SOR.pdf.

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- Respondents to the July 2018 Consultation preferred the compounded setting in arrears rate and the historical mean/median approach for addressing certain technical issues associated with fallbacks for GBP LIBOR, CHF LIBOR, JPY LIBOR, TIBOR, Euroyen TIBOR and BBSW.[4] A majority (approximately 90%) of respondents to the May 2019 Consultation[5] affirmed these approaches as the preferred approaches in relation to fallbacks for USD LIBOR, CDOR and HIBOR. Respondents cited both support for the substance of these approaches and a desire to use the same adjusted RFR and spread adjustment across all of the benchmarks covered by the July 2018 Consultation and the May 2019 Consultation (as well as potentially other benchmarks such as EUR LIBOR and EURIBOR).
- ISDA also published an additional consultation seeking input from market participants on open issues associated with the final parameters of the term and spread adjustments (the Final Parameters Consultation[6]). The Final Parameters Consultation closed on October 23, 2019 and an anonymized summary of responses[7] to the Final Parameters Consultation was published on November 15, 2019. A majority (approximately 61%) of respondents preferred a calculation of a spread adjustment based on a historical median over a five-year lookback period. A majority (approximately 69%) of respondents also thought that consistency of the calculation method for the spread adjustment across IBORs was either critical or very important. A large majority (approximately 70%) of respondents supported an adjustment to the interest accrual period for the RFR to avoid making payments on the same date that a rate becomes known. In addition, 56% of respondents preferred a backward-shift adjustment over a lockout or other adjustment, and 56% of respondents found that two banking days would be an appropriate length of time to effectuate the adjustment.
- **This consultation seeks further input on the approach for addressing the adjustments, including the final parameters of those adjustments that will apply to the RFRs if the fallbacks for EUR LIBOR or EURIBOR are triggered. As with the IBORs**

[4] The preliminary results of the July 2018 Consultation can be found here: http://assets.isda.org/media/736bd0ed/1f0db5ee-pdf/. The Brattle Report which summarises the responses to the July 2018 Consultation can be found here: http://assets.isda.org/media/04d213b6/db0b0fd7-pdf/.

[5] The preliminary results of the May 2019 Consultation can be found here: http://assets.isda.org/media/2d8f2c0d/92ec53e4-pdf/. The second Brattle report which summarises the responses to the May 2019 Consultation can be found here: https://www.isda.org/a/0LPTE/2019.09.18-Anonymized-ISDA-Supplemental-Consultation-Report.pdf.

[6] The Final Parameters Consultation can be found here: https://www.isda.org/a/Ua0TE/Consultation-on-Parameters-for-Fallback-Adjustments.pdf.

[7] The anonymized summary of responses to the Final Parameters Consultation can be found here: https://www.isda.org/a/935TE/2019.11.15-ISDA-Final-Parameters-Consultation-Report.pdf.

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**covered in the July 2018 Consultation and the May 2019 Consultation, these adjustments are warranted because of the differences between the relevant IBORs and the RFRs.**

- **Based on the responses to this consultation, ISDA will determine whether to implement the same adjustments in fallbacks for EUR LIBOR and EURIBOR as the adjustments that are being implemented in fallbacks for GBP LIBOR, CHF LIBOR, JPY LIBOR, TIBOR, Euroyen TIBOR, BBSW, USD LIBOR, CDOR and HIBOR.**
- ISDA previously announced that, following a competitive request for proposal process, Bloomberg Index Services Limited (together with its affiliates, Bloomberg) was selected to act as an independent third-party vendor to produce and publish the compounded setting in arrears rate, the spread adjustment and the "all in" fallback rate (i.e. the term adjusted RFR plus the spread) in respect of the benchmarks covered by the July 2018 Consultation and the May 2019 Consultation.[8] If the results of this consultation indicate that the same approach should be adopted with respect to EUR LIBOR and EURIBOR, Bloomberg will also produce and prepare to publish the approach for these IBORs. If the results differ, ISDA will work with Bloomberg to produce and prepare to publish the selected approach.

**Background**

***Regulatory Context***

As explained in the July 2018 Consultation and the May 2019 Consultation, the Financial Stability Board (FSB) Official Sector Steering Group (OSSG) asked ISDA to participate in work to enhance the robustness of derivative contracts referencing widely used benchmarks. In September 2016, ISDA agreed to convene discussions regarding derivative contract robustness including, specifically, the selection of fallbacks for key benchmarks. You can read more about the background to this work, including IOSCO's *Principles for Financial Benchmarks* and *Statement on Matters to Consider in the Use of Financial Benchmarks* in the July 2018 Consultation.

***Scope of Consultation and Fallbacks***

Please note the following regarding both the scope of this consultation and the scope of the fallbacks ISDA plans to implement:

8 https://www.isda.org/2019/07/31/bloomberg-selected-as-fallback-adjustment-vendor.

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- Implementation of fallbacks for derivatives is one part of ongoing benchmark reform. Efforts are also underway globally to encourage adoption of alternative rates and transition to those rates. These efforts are outside the scope of the fallbacks that ISDA is implementing in the 2006 ISDA Definitions and therefore beyond the scope of this consultation. ISDA continues to work with its members and relevant regulators to determine what additional documentation solutions may be helpful with respect to the adoption of, and transition to, alternative rates.

- ISDA is amending the 2006 ISDA Definitions to include fallbacks that would apply upon a *permanent discontinuation* of the relevant IBOR. Market participants that reference certain IBORs in derivatives and other financial contracts may decide to include contractual triggers pursuant to which their contracts would move to different rates prior to such time. ISDA separately consulted on pre-cessation issues and that consultation is now closed.[9] ISDA has published an anonymized and aggregated summary of the feedback received on that consultation.[10] ISDA is still considering how to implement pre-cessation fallbacks for derivatives and may request additional feedback on this point in the coming months. Additional information on this topic is discussed in a letter from ISDA to the FSB OSSG, available at https://www.isda.org/2019/12/04/isda-letter-to-fsb-ossg-on-pre-cessation-issues/.

- The 2006 ISDA Definitions are intended for incorporation in derivative contracts. Therefore, the fallbacks that ISDA plans to implement via amendments to certain floating rate options in the 2006 ISDA Definitions are intended to apply to derivatives. Efforts are also underway globally to implement fallbacks for other products (e.g., loans, bonds, notes) that reference IBORs. ISDA does not make any representation regarding whether the fallbacks it implements in the 2006 ISDA Definitions would be appropriate for such products. While it is important to consider whether fallbacks would be appropriate for derivatives that hedge these products, this consultation does not discuss or cover whether the adjusted RFRs and spread adjustments would be appropriate for fallbacks in non-derivative securities or other financial products.

[9] https://www.isda.org/a/md6ME/FINAL-Pre-cessation-issues-Consultation.pdf..

[10] http://assets.isda.org/media/e0b1bac2/04397355-pdf/.

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- The fallbacks that ISDA is implementing are to address the systemic disruption that could occur if a key IBOR is permanently discontinued. These fallbacks are not proxies for the relevant IBORs but will provide clarity and certainty to market participants if a relevant IBOR is permanently discontinued.
- ISDA is an observer in the Working group on euro risk-free rates (EU RFR WG). The EU RFR WG was established in February 2018 and is tasked with identifying and recommending RFRs that could serve as an alternative to the current benchmarks used in a variety of financial instruments and contracts in the euro area and studying potential issues in relation to transition to these rates. In this context, the EU RFR WG is considering the fallbacks that should apply to EURIBOR in the event of permanent cessation (and other triggers). The EU RFR WG plans to hold a public consultation on the issue of fallbacks for EURIBOR during the course of 2020. While the EU RFR WG's mandate covers derivatives, its current and future work and planned consultation will primarily focus on cash products and other products that do not incorporate the 2006 ISDA Definitions. In relation to products that do incorporate the 2006 ISDA Definitions, the EU RFR WG will take note of the results of this consultation. The EU RFR WG consultation may consider term adjustments and spread methodologies that are similar to those contemplated in this consultation. However, while ISDA will take into account the EU regulatory framework and EU member state requirements raised in response to this consultation, the EU RFR WG may consider using adjustments and methodologies that differ from those contemplated in this consultation if it deems such adjustments and methodologies more appropriate and still feasible under the EU regulatory framework.
- The FSB OSSG has indicated that the derivatives industry should develop fallbacks that could be used in the absence of suitable forward-looking term rates and, in doing so, should focus on calculations based on the overnight RFRs for the IBORs covered by this consultation.[11]

***Current Fallbacks***

[11] See also "Interest rate benchmark reform – overnight risk-free rates and term rates" published by the FSB OSSG, available at https://www.fsb.org/wp-content/uploads/P120718.pdf.

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Under the 2006 ISDA Definitions, if EUR LIBOR or EURIBOR is not available (including if it has been permanently discontinued) current fallbacks require the calculation agent to obtain quotations for what the IBOR should be from major dealers in the relevant interdealer market. If an IBOR has been permanently discontinued, it is likely that major dealers would be unwilling and/or unable to give such quotations. Even if quotations were available in the near-term after the permanent discontinuation, it is unlikely that they would be available for each future reset date over the remaining tenor of long dated derivative contracts. It is also likely that quotations could vary materially across the market. The fallbacks that ISDA plans to implement in the 2006 ISDA Definitions would apply upon any permanent discontinuation (based on the triggers described in the July 2018 Consultation), regardless of its cause.

The current fallbacks, as described above, were not designed to cover permanent discontinuations.

***Description of Fallbacks***

Amendments to the floating rate options in Section 7.1 of the 2006 ISDA Definitions for EUR LIBOR and EURIBOR will, as with the IBORs covered in the July 2018 Consultation and the May 2019 Consultation, take the form of:

- a statement identifying the objective triggers that would activate the selected fallbacks; and
- a description of the fallback that would apply upon the occurrence of that trigger, which will be to the relevant RFR adjusted using methodologies to account for (i) the fact that the RFR is an overnight rate and (ii) the various premia included within the IBOR.

Permanent cessation (or an 'index cessation event') for EUR LIBOR and EURIBOR will be defined to include:

(i) a public statement or publication of information by or on behalf of the administrator of [the relevant IBOR] announcing that it has ceased or will cease to provide [the relevant IBOR] permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide [the relevant IBOR]; or

(ii) a public statement or publication of information by the regulatory supervisor for the administrator of [the relevant IBOR], the central bank for the currency of [the relevant IBOR], an insolvency official with jurisdiction over the administrator for [the relevant IBOR], a resolution authority with jurisdiction over the administrator for the [the relevant IBOR] or a court or an entity with similar insolvency or resolution authority over the administrator for [the relevant IBOR], which states that the administrator of [the relevant IBOR] has ceased or will cease

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to provide [the relevant IBOR] permanently or indefinitely, provided that, at the time of the statement or publication, there is no successor administrator that will continue to provide [the relevant IBOR].

Note that the fallbacks will not apply until the actual discontinuation of the relevant IBOR (if that is after the announcement date).

As explained in the July 2018 Consultation and the May 2019 Consultation, ISDA has determined, after consultation with industry participants, regulators and the FSB OSSG, that for a given IBOR, the fallback rate will be the overnight RFR identified by the relevant public-private sector RFR working group as an alternative to that IBOR or, if no such RFR working group exists, the RFR identified by relevant regulators.[12] For EUR LIBOR and EURIBOR these include:

| **Relevant IBOR and corresponding floating rate option in 2006 ISDA Definitions** | | **Fallback rate** |
|---|---|---|
| EUR LIBOR | EUR-LIBOR-BBA<br>EUR-LIBOR-BBA-Bloomberg | €STR[13] |
| EURIBOR | EUR-EURIBOR-Reuters | €STR |

[12] The scope of this consultation focuses on the 2006 ISDA Definitions and the circumstances in which the RFRs are used as the fallback rates for EUR LIBOR and EURIBOR. However, this consultation does not affect the possibility of market participants agreeing on a bilateral basis to use a different fallback rate or arrangement.

[13] On September 13, 2018, the EU RFR WG recommended that the euro short-term rate (€STR) should be used as the risk-free rate for the euro area. The EU RFR WG has also stated that "market participants should seek to use €STR as the primary basis for a fallback rate, where this is considered appropriate and feasible." https://www.ecb.europa.eu/pub/pdf/other/ecb.sg3guidingprinciples201901.en.pdf.

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€STR reflects the wholesale euro unsecured overnight borrowing costs of euro area banks. €STR was first published on October 2, 2019. The ECB has also made available preliminary figures, referred to as pre-€STR, dating back to March 15, 2017.[14]

The Euro RFR WG has recommended €STR as the alternative euro RFR and replacement for EONIA.[15] EONIA, which is administered by EMMI, reflects the rate at which banks of sound financial standing in the EU and European Free Trade Area countries lend funds in the interbank money market in euro. As of October 2, 2019, EONIA is calculated based on a recalibrated methodology that uses €STR for the relevant day plus a fixed spread of 8.5 basis points. This spread is meant to measure the economic difference between the underlying interests of EONIA and €STR. EMMI has announced that it will cease publication of EONIA after January 3, 2022.[16]

***Adjusted RFRs***

The RFRs are overnight rates but the relevant IBORs are published for various tenors. To account for the move from a "term" rate (i.e., the IBOR) to an overnight rate (i.e., the overnight RFR), the fallbacks ISDA implements will apply an adjustment to the applicable overnight RFR so that it is comparable to the relevant IBOR. The adjusted rate is called the "adjusted RFR".

The July 2018 Consultation and the May 2019 Consultation set out four approaches for calculating the adjustment. These are:

(i) **The spot overnight rate approach**

The fallback could be to the RFR that sets on the date that is one or two business days (depending on the relevant IBOR) prior to the beginning of the relevant IBOR tenor.

(ii) **The convexity-adjusted overnight rate approach**

[14] Additional information about €STR is available on the European Central Bank's (ECB) website at https://www.ecb.europa.eu/stats/financial_markets_and_interest_rates/euro_short-term_rate/html/eurostr_qa.en.html.

[15] https://www.ecb.europa.eu/press/pr/date/2018/html/ecb.pr180913.en.html.

[16] Additional information is available on EMMI's website at https://www.emmi-benchmarks.eu/assets/files/D0257A-2019%20-%20EONIA%20Questions%20and%20Answers.pdf.

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This approach is very similar to the spot overnight rate approach, with a first-order modification to adjust for convexity.[17] The modification attempts to account for the difference between flat overnight interest at the spot overnight rate versus the realized rate of interest that would be delivered by daily compounding of the RFR over the IBOR's term. This is achieved by using an approximation in which "today's" overnight RFR is assumed to hold constant at "today's" value on each day during the relevant IBOR's tenor.

(iii) **The compounded setting in arrears rate approach**

The fallback could be to the relevant RFR observed over the relevant IBOR tenor and compounded daily during that period.

(iv) **The compounded setting in advance rate approach**

This approach is mathematically the same as the compounded setting in arrears rate approach but, while the observation period would be equal in length to the IBOR tenor, it would end immediately prior to the start of the relevant IBOR tenor so that the rate would be available at the beginning of that period.

Potential advantages and disadvantages of these approaches are discussed in the July 2018 Consultation.[18] Those discussions are provided for information only. They are not intended to be comprehensive and ISDA makes no representation regarding their accuracy or applicability to the particular circumstances of an individual market participant. Respondents are strongly encouraged to formulate their own views regarding the advantages and disadvantages of each approach, taking into account their particular circumstances, and to consult with their own professional advisors in doing so.

As noted in the July 2018 Consultation and the May 2019 Consultation, these approaches are different from the forward-looking term rates that certain public-private sector working groups are considering, primarily for cash products referencing the RFR.

[17] A lag before an interest rate is observed typically results in greater uncertainty as to that interest rate. As earned returns reflect compounding over time, interest rate uncertainty changes the expected return from that which would be earned at the expected rate. This implies that, even if expectations of interest rate levels were not changing over time, increased uncertainty in interest rates would lead to changes in interest rates over different tenors. This effect is called "convexity" although, more generally, convexity is often used to refer to any curvature in the graph of interest rates versus tenor.

[18] See pages 8-11 of the July 2018 Consultation.

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The approaches were identified based on the following criteria: (1) simplicity and ease of calculating; (2) data requirements; and (3) similarity with the structure of overnight index swaps that reference the RFRs. Note that the different approaches satisfy these criteria to differing degrees. When considering the approaches and answering the questions below, respondents must determine for themselves how to weight each criterion. Respondents may also want to consider their own additional criteria.

See also Annex A of the July 2018 Consultation for a more detailed description of each approach.

***Spread Adjustment Methodologies***

The overnight RFRs are risk-free or nearly risk-free whereas the relevant IBORs incorporate a bank credit risk premium and a variety of other factors (e.g., liquidity, fluctuations in supply and demand). While it would not be possible to replicate these factors upon a permanent discontinuation of the relevant IBOR, a spread adjustment could apply to the relevant adjusted RFR as a rough proxy.

As explained in the July 2018 Consultation and the May 2019 Consultation, the spread adjustment will be calculated as of the business day before the fallback is triggered (i.e., the business day before the public statement is made or the formal publication of information regarding permanent discontinuation) but will not apply until the fallback takes effect (i.e., the first day that the relevant IBOR is not published following a permanent discontinuation).[19] Once calculated, the spread adjustment will be set (i.e., it will not be dynamic or reflect any changes in the interbank market once the fallback applies after the permanent discontinuation of the relevant IBOR). Calculating the spread adjustment as of the business day before the fallback is triggered is necessary to avoid distortions due to market disruption during the period between the fallback being triggered and actual discontinuation of the relevant IBOR.

The July 2018 Consultation and the May 2019 Consultation set out three methodologies for calculating the spread. These are:

(i) **The forward approach**

The spread adjustment could be calculated based on observed market prices for the forward spread between the relevant IBOR and the adjusted RFR in the relevant tenor at the time the fallback is triggered. A forward spread curve up to 30-60 years for the adjusted RFR in

[19] There is the potential, in rare circumstances, to lead to negative spread adjustments based on the interest rates and market conditions leading to a trigger event.

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each relevant tenor could be published on a daily basis up until the date the fallback is triggered. Upon the permanent discontinuation of the relevant IBOR, the fallback would consist of the adjusted RFR (as published each day going forward), plus a spread based on the relevant curve (which would specify the spread to be applied for every future date and would be frozen at the point of trigger). For future dates beyond the length of the curve, the spread would remain static at the spread for the last date on the curve.

A variation would be to use the average of the spreads based on the curves for a period of days or months (e.g., 5 trading days, 10 trading days, 1 month or 3 months) before the trigger as opposed to one day before the trigger.

The forward approach requires a forward IBOR curve and a forward adjusted RFR discount curve, both of which would ideally extend out to 30-60 years.

The forward approach is not compatible with the spot overnight rate approach or the convexity-adjusted overnight rate approach.

(ii) **The historical mean/median approach**

The spread adjustment could be based on the mean or median spot spread between the IBOR and the adjusted RFR calculated over a significant, static lookback period (e.g., 5 years, 10 years) prior to the relevant announcement or publication triggering the fallback provisions.

The historical mean/median approach requires historical spot IBOR fixings for each relevant tenor and historical spot adjusted RFR fixings, in each case over the relevant lookback period. As mentioned below, the lookback period could be shorter for IBORs with fallbacks to new RFRs (such as €STR, which was published from October 2, 2019) or preliminary data could be used in place of historical spot adjusted RFR fixings.

(iii) **The spot-spread approach**

The spread adjustment could be based on the spot spread between the IBOR and the adjusted RFR on the day preceding the relevant announcement or publication triggering the fallback provisions. A variation would be to use the average of the daily spot spread between the IBOR and the adjusted RFR over a specified number of days (e.g., 5 trading days, 10 trading days or 1 month). This approach is similar to the historic mean/median approach but for a very short time.

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The spot-spread approach requires spot IBOR fixings for each relevant tenor and spot adjusted RFR fixings.

The spot-spread approach is not compatible with the compounded setting in arrears rate.

Potential advantages and disadvantages of these approaches are discussed in the July 2018 Consultation.[20] These discussions are provided for information only. They are not intended to be comprehensive, and ISDA makes no representation regarding their accuracy or applicability to the particular circumstances of an individual market participant. Respondents are strongly encouraged to formulate their own views regarding the advantages and disadvantages of each methodology, taking into account their particular circumstances, and to consult with their own professional advisors in doing so.

The methodologies were identified based on the following criteria: (1) eliminating or minimizing value transfer at the time the fallback is applied; (2) eliminating or minimizing any potential for manipulation; and (3) eliminating or mitigating against the impact of market disruption at the time the fallback is applied. Note that the different methodologies satisfy these criteria to differing degrees. When considering the methodologies and answering the questions below, respondents must determine for themselves how to weight each criterion. Respondents may also want to consider their own additional criteria.

See also Annex B of the July 2018 Consultation for a more detailed description of each methodology.

**Preliminary feedback from the July 2018 Consultation and the May 2019 Consultation**

***July 2018 Consultation***

ISDA engaged the Brattle Group to provide an independent overview, summary and analysis of market participants' responses to the July 2018 Consultation. This anonymised summary of responses (the Brattle Report) is available at: http://assets.isda.org/media/04d213b6/db0b0fd7-pdf/.

The majority of respondents to the July 2018 Consultation preferred the 'compounded setting in arrears rate' approach for the adjusted RFR, and a substantial majority across different types of market participants preferred the 'historical mean/median approach' for the spread adjustment. The majority of respondents also preferred to use the same adjusted RFR and spread adjustment across all benchmarks covered by

[20] See pages 12-14 of the July 2018 Consultation.

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that consultation. The July 2018 Consultation also asked for preliminary feedback in respect of EUR LIBOR/€STR and EURIBOR/€STR. Respondents indicated that the compounded setting in arrears rate and the historical mean/median approach to the spread adjustment may also be appropriate for EUR LIBOR and EURIBOR, and potentially other benchmarks.

In response to the question in the July 2018 Consultation regarding whether the same approach should be used across all benchmarks, approximately 78 percent found it appropriate to use the same methodology across all benchmarks. Respondents indicated that using a consistent approach across different IBORs would allow market participants to better manage risk exposure (*e.g.,* by mitigating basis risk in cross-currency swaps). Respondents noted that having different methodologies for different IBORs would be difficult to implement, increase complexity and result in operational challenges.[21] In contrast, approximately seven percent of respondents commented that their preferences would not apply universally across different benchmarks, mostly because different market features (such as liquidity) might require different approaches.[22] See pages 59-62 of the Brattle Report for a more in-depth discussion of the feedback received in respect of the use of the same approach across benchmarks.

In relation to the historical mean/median approach, which requires the use of historical data relating to the RFR to calculate the spread, some respondents acknowledged that consideration will need to be given to the limited history of published data for new RFRs. Although the European Central Bank started officially publishing €STR on October 2, 2019, it has also made available preliminary figures, referred to as pre-€STR, dating back to March 15, 2017. If EUR LIBOR or EURIBOR is discontinued before €STR data is published for the entire lookback period under the historical mean/median approach to the spread adjustment, this additional data could be used. In addition, ISDA is considering to rely on daily values of EONIA minus a fixed spread of 8.5 basis points if data for €STR prior to March 15, 2017 is required to calculate the spread adjustment for longer lookback periods.

[21] Respondents did not express concerns about variations in the final parameters for the methodologies. As noted above, ISDA requested feedback on the final parameters for all of the relevant IBORs (i.e. via the Final Parameters Consultation). A majority of respondents to the Final Parameters Consultation noted that having a consistent approach across IBORs was important in respect of the calculation method for the spread adjustment and that they preferred consistency across IBORs above implementation of their preferred approach to the spread adjustment.

[22] In most cases these respondents supported the forward approach to the spread adjustment instead of the historical mean/median approach to the spread adjustment.

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*May 2019 Consultation*

As with the July 2018 Consultation, ISDA engaged the Brattle Group to provide an independent overview, summary and analysis of market participants' responses to the May 2019 Consultation. This anonymised summary of responses is available at: https://www.isda.org/a/0LPTE/2019.09.18-Anonymized-ISDA-Supplemental-Consultation-Report.pdf.

Consistent with the response to the July 2018 Consultation, a majority (approximately 90%) of respondents to the May 2019 Consultation indicated that they prefer to use the compounded setting in arrears rate with the historical mean/median approach to the spread adjustment for USD LIBOR, CDOR and HIBOR fallbacks, with many citing a strong desire to use the same adjusted RFR and spread adjustment across all benchmarks covered by the May 2019 Consultation and the July 2018 Consultation (as well as potentially other benchmarks such as EUR LIBOR and EURIBOR).

**Feedback from the Final Parameters Consultation**

Pursuant to the results of the July 2018 Consultation and the May 2019 Consultation, ISDA is in the process of developing fallbacks based on the compounded setting in arrears rate approach and the historical mean/median approach in respect of the benchmarks covered by those consultations. In relation to this, ISDA published a further consultation (the Final Parameters Consultation) seeking input from market participants to get feedback on open issues associated with the final parameters of the term and spread adjustments before implementing fallbacks in the 2006 ISDA Definitions for those benchmarks.

In particular, the Final Parameters Consultation sought feedback in relation to certain parameters of the compounded setting in arrears rate approach (such as whether it is necessary to apply a backward-shift, lockout or similar adjustment to avoid making payments on the same date that the fallback rate is known) and the historical mean/median approach to the spread adjustment (such as whether the mean or median should be used to calculate the spread and the length of the lookback period).

A majority (approximately 61%) of respondents to the Final Parameters Consultation preferred a calculation of a spread adjustment based on a historical median over a five-year lookback period. This was more than double the percentage of respondents (29%) who preferred a calculation of a spread adjustment based on a historical trimmed mean over a ten-year lookback period. Reasons given included the median

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being simple, transparent and a more stable method that is less sensitive to outliers and would not require data treatment such as trimming. A historical median approach over a five-year lookback period was thought by respondents to be more reflective of current market conditions, would not include data from the financial crisis, and would minimize reliance on proxy or indicative data for certain IBORs. 52% of respondents stated that they would not be opposed to or harmed by an option that did not reflect their top choice for calculating a spread adjustment. Additionally, 69% of respondents also thought that consistency of the calculation method for the spread adjustment across IBORs was either critical or very important.

In response to the question in the Final Parameters Consultation as to whether a transitional period (as defined in the July 2018 Consultation) should be included in the calculation of the spread adjustment, approximately 71% of respondents preferred not to include a transitional period in the calculation of the spread adjustment for reasons including the operational difficulty and costs associated with a transitional period.

Approximately 49% of respondents preferred that outliers not be excluded in the calculation of the spread adjustment and 19% did not provide a preference. In response to the question of whether to exclude negative spreads from the calculation of the spread adjustment, a majority (79%) found no compelling reason to exclude any negative spreads from the calculation of the spread adjustment.

Respondents supported an adjustment to the compounded setting in arrears rate in order to accommodate payment and operational issues. Approximately 70% of respondents supported an adjustment to the interest accrual period for the RFR to avoid making payments on the same date that a rate becomes known. 56% of respondents preferred a backward-shift adjustment over a lockout or other adjustment, indicating that a backward-shift adjustment is consistent with the overnight index swap (OIS) market standards and would be less likely to exaggerate extreme movements in the RFR during the compounding interval. 81% of respondents preferred an adjustment option by reference to the city or to banking days for which the RFR is published, and more than half (56%) of respondents found that two banking days would be the appropriate length of time to effectuate an adjustment.

The Final Parameters Consultation also asked respondents whether it would be problematic to use the “calculation period” instead of the IBOR period to calculate the compounded setting in arrears rate. There was no majority in respondents’ preferences as to whether it would be problematic to use the calculation period instead of the IBOR period. Approximately 49% of respondents did not find it problematic to use the calculation period and approximately 28% found that it would be problematic.

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As to whether the proposed adjustment options would work for specific products, 21% of respondents indicated that the options would work for all products and 46% of respondents indicated no preference. The remaining 33% of respondents identified at least one product that they thought may not work.

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## Questions

**The deadline for responses is January 21, 2020. This deadline will not be extended. Please email your response to FallbackConsult@isda.org and clearly indicate that you are submitting a response in the subject line of your email. For your convenience, you can use this form for your responses (but you are not required to do so).**

You can submit questions to fallbackconsult@isda.org at any time during the consultation period.

*Note to Recipients: By participating in this consultation, you agree not to use this process for any anticompetitive purpose, and further agree and warrant that you will not engage in any conduct that would cause any other party participating in this consultation to be in violation of any competition or antitrust law or regulation. ISDA has taken and will continue to take safeguards and protections to ensure that the use of the results of this consultation comply with applicable laws and regulations.*

Relying on the responses to this consultation, ISDA will identify the approaches for calculating the adjusted RFR and spread adjustments for each of EUR LIBOR and EURIBOR pursuant to the process described on page 19 of the July 2018 Consultation. ***In responding to questions 1-4 below, please indicate whether your answers apply to both EUR LIBOR and EURIBOR or otherwise indicate the relevant IBORs to which your answers apply. You are welcome to provide different answers for different IBORs.***

1. Based on the results of the July 2018 Consultation, the May 2019 Consultation and the Final Parameters Consultation, (a) the compounded setting in arrears rate approach with a backward-shift adjustment and (b) a spread adjustment based on a historical median over a five-year lookback period will be used to calculate the fallbacks for GBP LIBOR, CHF LIBOR, JPY LIBOR, TIBOR, Euroyen TIBOR, BBSW, USD LIBOR, CDOR and HIBOR. Are these adjustments also appropriate for EUR LIBOR and EURIBOR fallbacks? Please explain why or why not.
2. The ECB started officially publishing €STR on October 2, 2019. It has also made available preliminary figures, referred to as pre-€STR, dating back to March 15, 2017. Would it be acceptable to use this preliminary data when calculating the spread adjustment in respect of adjusted €STR (i.e., as part of a lookback period)? Please explain why or why not. As discussed above, EONIA is currently calculated by reference to €STR plus a fixed spread of 8.5 basis points. If data for €STR prior to March 15, 2017 is required to calculate the spread adjustment, would it be appropriate to use daily values of EONIA minus a fixed spread of 8.5 basis points as a proxy for €STR?

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3. Please indicate whether you would not be able to transact using definitions for EURIBOR and EUR LIBOR that incorporate fallbacks based on the adjustments described in question 1. If you would not be able to transact, please give specific examples of the types of derivatives for which the fallbacks would be problematic and explain why.

4. If the adjustments described in question 1 are not suitable for fallbacks for EUR LIBOR and EURIBOR, is another combination of approaches more appropriate?

   As explained on page 16 of the July 2018 Consultation, the following pairs of adjusted RFR and spread adjustment approaches are possible:

   1. Compounded Setting in Arrears Rate with Forward Approach
   2. Compounded Setting in Advance Rate with Forward Approach
   3. Spot Overnight Rate with Historical Mean/Median Approach
   4. Convexity-adjusted Overnight Rate with Historical Mean/Median Approach
   5. Compounded Setting in Arrears Rate with Historical Mean/Median Approach
   6. Compounded Setting in Advance Rate with Historical Mean/Median Approach
   7. Spot Overnight Rate with Spot-Spread Approach
   8. Convexity-adjusted Overnight Rate with Spot-Spread Approach
   9. Compounded Setting in Advance Rate with Spot-Spread Approach

5. ISDA may be asked to implement fallbacks for other less widely used IBORs in the future. Are (a) the compounded setting in arrears rate approach with a backward-shift adjustment and (b) a spread adjustment based on a historical median over a five-year lookback period also appropriate for fallbacks for those other less widely used IBORs? Please explain why or why not.

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## Glossary

**2006 ISDA Definitions**: A definitional booklet published by ISDA to provide a basic framework for the documentation of privately negotiated interest rate and currency derivative transactions. The 2006 ISDA Definitions are intended for use in confirmations of individual transactions governed by ISDA Master Agreements and are also referenced by CCPs that clear interest rate and currency derivative transactions. From time to time, ISDA publishes 'Supplements' to amend the 2006 ISDA Definitions on its website. The amendments made by these Supplements apply to transactions referencing the 2006 ISDA Definitions that are entered into on or after the date the relevant Supplement is effective.

**Bank Bill Swap Rate (BBSW)**: The Bank Bill Swap Rate administered by the Australian Securities Exchange.

**Brattle Report**: The Anonymized Narrative Summary of Responses to the ISDA Consultation on Term Fixings and Spread Adjustment Methodologies prepared for ISDA by the Brattle Group dated December 20, 2018 and available here.

**CDOR**: The Canadian Dollar Offered Rate administered by Refinitiv Benchmark Services (UK) Limited.

**Central Counterparty (CCP)**: A financial entity that stands between counterparties of a trade in order to mitigate counterparty credit risk, acting as the buyer to every seller and the seller to every buyer. A CCP nets transactions between counterparties on a multilateral basis, resulting in lower gross exposures. Counterparties are required to contribute margin and other resources on a regular basis to cover losses. Once the resources contributed by a defaulting entity are depleted, any further losses are mutualized.

**CORRA**: The Canadian Overnight Repo Rate Average administered by Refinitiv Benchmark Services (UK) Limited.

**Euro Interbank Offered Rate (EURIBOR)**: The Euro Interbank Offered Rate administered by the European Money Markets Institute.

**Euro Short Term Rate (€STR)**: The Euro Short Term Rate administered by the European Central Bank.

**European Central Bank (ECB)**: The central bank of the 19 European Union countries which have adopted the euro.

**European Money Markets Institute (EMMI)**: The administrator of EURIBOR and EONIA.

**Final Parameters Consultation**: The Consultation on Final Parameters for the Spread and Term Adjustments in Derivatives Fallbacks for Key IBORs published by ISDA on September 18, 2019 and available here.

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**Financial Stability Board (FSB)**: An international body that monitors and makes recommendations about the global financial system. The FSB was established in April 2009, as the successor to the Financial Stability Forum, with a broadened mandate to promote financial stability.

**Floating Rate Option (FRO)**: The price source or 'interest rate benchmark' for the floating rate leg of a swap transaction. The FROs are set forth in Section 7.1 of the 2006 ISDA Definitions. Counterparties to swap transactions that reference the 2006 ISDA Definitions may specify one of the FROs in their confirmations. By doing so, the counterparties agree that the terms of that FRO will govern the amount that is payable by the floating rate payer on the applicable payment date. The fallbacks that ISDA is implementing for certain IBORs will be amendments to the FROs for the relevant IBORs.

**HKD Overnight Index Average (HONIA)**: The Hong Kong Dollar Overnight Index Average administered by the Treasury Markets Association.

**Hong Kong Interbank Offered Rate (HIBOR)**: The Hong Kong Interbank Offered Rate administered by the Treasury Markets Association.

**Interbank Offered Rates (IBORs)**: Average rates at which certain banks could borrow in the interbank market, which range in tenors from overnight to 12 months. The rates include a spread reflecting the credit risk involved in lending money to banks. In this document, LIBOR, EURIBOR, TIBOR, BBSW, CDOR and HIBOR are collectively known as the 'IBORs'.

**International Organization of Securities Commissions (IOSCO)**: An international body that brings together securities regulators and is recognized as the global standard setter for the securities sector. IOSCO was established in 1983. Its membership regulates more than 95% of the world's securities markets in more than 115 jurisdictions and includes all the major emerging markets. IOSCO develops, implements and promotes adherence to internationally recognized standards for securities regulation. It works closely with the G-20 and the FSB on the global regulatory reform agenda. IOSCO published its *Principles for Financial Benchmarks* in July 2013 and *Statement on Matters to Consider in the Use of Financial Benchmarks* in January 2018.

**July 2018 Consultation**: The Consultation on Certain Aspects of Fallbacks for Derivatives Referencing GBP LIBOR, CHF LIBOR, JPY LIBOR, TIBOR, Euroyen TIBOR and BBSW published by ISDA on July 12, 2018 and available here.

**London Interbank Offered Rate (LIBOR)**: The London Interbank Offered Rate administered by the ICE Benchmark Administration.

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**May 2019 Consultation**: The Supplemental Consultation on Spread and Term Adjustments for Fallbacks in Derivatives Referencing USD LIBOR, CDOR and HIBOR and Certain Aspects of Fallbacks for Derivatives Referencing SOR published by ISDA on May 16, 2019 and available here.

**Official Sector Steering Group (OSSG)**: In February 2013, the G-20 nations commissioned the FSB to review and reform major interest rate benchmarks. In June 2013, the Financial Stability Board established the OSSG comprised of senior officials from central banks and regulatory agencies to focus on interest rate benchmarks. The OSSG recommended enhancing LIBOR and other IBOR benchmarks, selecting alternative risk-free benchmarks and developing plans to transition to them, and implementing contractual fallbacks that would apply in the event of permanent discontinuation of an IBOR. The OSSG published its Reforming Major Interest Rate Benchmarks report in July 2014 and has since published updates in 2015, 2016, 2017 and 2018.

**Protocol**: A multilateral contractual amendment mechanism that has been used to effectuate standard amendments to ISDA documentation among adhering counterparties. The first protocol that ISDA launched was the ISDA EMU Protocol in 1998, which addressed contractual and legal certainty issues arising from the implementation of the European Monetary Union. This protocol and many others since 1998 have provided an efficient way of implementing industry standard contractual changes over a broad number of counterparties. Legally, the effect of protocols is the same as bilateral amendments among adhering parties but protocols have the benefit of eliminating the need for costly and time-consuming bilateral negotiations.

**Reserve Bank of Australia (RBA) Cash Rate**: The interbank overnight cash rate administered by the Reserve Bank of Australia. The 2006 ISDA Definitions refer to this rate as the AUD Overnight Index Average (AONIA).

**Risk-free Rates (RFRs)**: Average rates of investments that are risk free or nearly risk free. Unlike the IBORs, RFRs do not account for credit risk involved in lending money to banks. In this document, SONIA, TONA, SARON, SOFR, the RBA cash rate, €STR, CORRA and HONIA are collectively known as the 'RFRs'.

**Secured Overnight Financing Rate (SOFR)**: The Secured Overnight Financing Rate administered by the Federal Reserve Bank of New York.

**Singapore Dollar Swap Offer Rate (SOR)**: The Singapore Dollar Swap Offer Rate administered by the ABS Benchmarks Administration Co Pte Ltd.

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**Sterling Overnight Index Average (SONIA)**: The Sterling Overnight Index Average administered by the Bank of England.

**Swiss Average Rate Overnight (SARON)**: The Swiss Average Rate Overnight administered by SIX Swiss Exchange.

**Tokyo Interbank Offered Rate (TIBOR)**: The Tokyo Interbank Offered Rate administered by the JBA TIBOR Administration (JBATA).

**Tokyo Overnight Average Rate (TONA)**: The Tokyo Overnight Average Rate administered by the Bank of Japan.

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