Fallbacks for Derivatives – Background and Role of A Vendor

ISDA Safe, Efficient Markets

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IBOR Fallbacks: ISDA's Work

- ISDA is currently undertaking work to amend the **2006 ISDA Definitions** to implement **fallbacks for:**
  - **LIBOR in USD, GBP, JPY, CHF and EUR;**
  - **EURIBOR;**
  - **JPY TIBOR and Euroyen TIBOR;**
  - **BBSW;**
  - **HIBOR; and**
  - **CDOR (the 'IBORs').**

- The fallbacks will apply upon the ***permanent discontinuation*** of the relevant IBOR (based on pre-determined, objective triggers) and will be to the ***relevant alternative risk-free rate*** ('RFR'), subject to certain adjustments.

IBOR Fallbacks: ISDA's Work

- **Triggers.** The fallbacks in the 2006 ISDA Definitions will be triggered upon:
  - 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 that time, there is no successor administrator that will continue to provide [the relevant IBOR]; or
  - 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 to provide [the relevant IBOR] permanently or indefinitely, provided that, at that time, 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).
- *ISDA continues to work with its members and relevant regulators to determine what additional documentation solutions may be helpful with respect to adoption of, and transition to, alternative rates prior to the permanent discontinuation of an IBOR.*

IBOR Fallbacks: ISDA's Work

- **Form of Amendments.** To account for any permanent discontinuation of relevant IBORs, we anticipate that the amendments to the floating rate options in Section 7.1 of the 2006 ISDA Definitions for any such IBORs will 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 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.
- ISDA also anticipates publishing a protocol to facilitate inclusion of the amended definitions (*i.e.,* the definitions with fallbacks) into existing derivatives contracts (as amendments to the 2006 ISDA Definitions apply to transactions entered into on or after the date of such amendments only).

IBOR Fallbacks: ISDA's Work

Relevant IBOR and corresponding floating rate options in 2006 ISDA Definitions		Fallback rate
GBP LIBOR	GBP-LIBOR-BBA GBP-LIBOR-BBA-Bloomberg	SONIA
CHF LIBOR	CHF-LIBOR-BBA CHF-LIBOR-BBA-Bloomberg	SARON
JPY LIBOR	JPY-LIBOR-FRASETT JPY-LIBOR-BBA JPY-LIBOR-BBA-Bloomberg	TONA
TIBOR	JPY-TIBOR-TIBM JPY-TIBOR-17096 JPY-TIBOR-17097 JPY-TIBOR-TIBM (All Banks)-Bloomberg	TONA
Euroyen TIBOR	JPY-TIBOR-ZTIBOR	TONA
BBSW	AUD-BBR-AUBBSW AUD-BBR-BBSW AUD-BBR-BBSW-Bloomberg	RBA Cash Rate
USD LIBOR	USD-LIBOR-BBA USD-LIBOR-BBA-Bloomberg USD-LIBOR-LIBO	SOFR
HIBOR	HKD-HIBOR-HKAB HKD-HIBOR-HKAB-Bloomberg HKD-HIBOR-HIBOR= HKD-HIBOR-HIBOR-Bloomberg	Adjusted HONIA [Note that Adjustments still subject to work within HKMA]
CDOR	CAD-BA-CDOR CAD-BA-CDOR-Bloomberg	CORRA
EUR LIBOR	EUR-LIBOR-BBA EUR-LIBOR-BBA-Bloomberg	ESTER
EURIBOR	EUR-EURIBOR-Reuters	ESTER

IBOR Fallbacks: Market Consultation on Approaches to Term and Spread Adjustments

- On July 12, 2018, ISDA launched a **market consultation (of ISDA members and non-members)** to inform final decisions regarding the approaches to **term and spread adjustments** for derivatives fallbacks. It is necessary to address these issues because the fallback RFRs are overnight and risk-free (or nearly risk-free) whereas the relevant IBORs have term structures and incorporate a bank credit risk premium and a variety of other factors (*e.g.,* liquidity, fluctuations in supply and demand).

- The consultation covered GBP LIBOR, JYP LIBOR, CHF LIBOR, JPY TIBOR, Euroyen TIBOR and BBSW. It asked preliminary questions about USD LIBOR, EUR LIBOR and EURIBOR. ISDA will launch supplemental consultations covering these IBORs, CDOR and HIBOR. The supplemental consultation covering USD LIBOR, CDOR and HIBOR is expected in Q1 2019.
- On December 20, 2018, ISDA published the consultation results and an aggregated and anonymized summary of the responses received.
  - For the benchmarks covered by the consultation, ISDA is developing fallbacks based on the **compounded setting in arrears rate** and the **historical mean/median approach** to the spread adjustment.
  - For additional information: https://www.isda.org/2018/12/20/isda-publishes-final-results-of-benchmark-fallback-consultation/

- Before implementing any changes to its standard documentation, ISDA will publish the final approach for review and comment.
  - ISDA expects that this will occur sometime in mid-2019.
  - The approach published for review and comment will incorporate feedback from the vendor selected to publish the compounded setting in arrears rate and the spread adjustment based on the historical mean/median approach.

IBOR Fallbacks: Term and Spread Adjustments

- **ISDA is conducting a request-for-proposal process open to all interested vendors in order to select the vendor that will publish the compounded setting in arrears rate and the spread adjustment based on the historical mean/median approach**

- The selected **independent third-party** vendor(s) will
  - Obtain the data necessary to perform the relevant calculations;
  - Run the calculations; and
  - Publish the compounded setting in arrears rate and the spread adjustment so that users can access the information in the same way that they access the relevant IBOR or RFR.

- Qualified vendors must:
  - Be able to access and use the data required to calculate the compounded setting in arrears rate and the spread adjustment based on the historical mean/median approach;
  - Have all relevant regulatory approvals and authorizations to produce the compounded setting in arrears rate and the spread adjustment based on the historical mean/median approach;
  - Not have any conflicts of interest with respect to the permanent discontinuation of the relevant IBOR;
  - Be able to produce and publish the compounded setting in arrears rate and the spread adjustment in a way that is accessible to derivatives market participants and as user friendly as possible; and
  - Come to commercially agreeable terms with ISDA.

- The amendments to the 2006 ISDA Definitions will reference where the compounded setting in arrears rate and spread adjustment are published. This will provide certainty to counterparties regarding the rate that would apply to their contracts if and when the fallback is triggered and avoid disputes and inefficiencies that could arise if market participants all performed their own calculations.

- It is possible that one vendor could publish the compounded setting in arrears rate and a different vendor could publish the spread adjustment. It is also possible that one vendor could produce the compounded setting in arrears rate and the spread adjustment and a different vendor could publish the information.

IBOR Fallbacks: Term and Spread Adjustments

The **Compounded Setting in Arrears Rate** is the relevant RFR observed over the relevant IBOR tenor and compounded daily during that period.

- Need to calculated and published for each relevant IBOR tenor
- Need to analyze and address technical adjustments necessary to fallback from a forward-looking term rate that is available at the beginning of the period to a compounded rate that is not available until the end of the period (including, e.g., adjustments to payment dates, lock-out periods)

The **Historical Mean/Median Approach** to the spread adjustment is based on the mean or median spot spread between the IBOR and the adjusted RFR calculated over a significant, static lookback period prior to the relevant announcement or publication triggering the fallback provisions.

- Need to calculate and publish for each relevant IBOR tenor based on historical differences between the IBOR for that tenor and the relevant RFR compounded over the relevant tenor (so, the spread will differ across different tenors for the same IBOR).
- Need to determine final parameters, including whether to use the mean or the median, the length of the relevant lookback period, whether to use a transitional period (as described in the recent consultation) and whether to apply any other variations (some of which are described in the summary of consultation results).

IBOR Fallbacks: Additional Information

Recent ISDA Consultation on Spread and Term Adjustments for Certain IBOR Fallbacks:
https://www.isda.org/2018/12/20/interbank-offered-rate-ibor-fallbacks-for-2006-isda-definitions/

ISDA presentation on IBOR Fallbacks at the ARRC July 2018 roundtable:
http://frbny.honeycast.com/20180719/

Annex – Formulas for Adjustments

Compounded Setting in Arrears Rate

The date T will denote the start date of the IBOR accrual period. The time interval f is the length of the IBOR term, which could be overnight, 1w, 1m, 2m, 3m, 6m or 12m. The accrual end date is $T + f$, which is also the date on which the IBOR is naturally paid. The setting date for this IBOR is denoted by t which we will assume is two business days before the start date, that is $t = T - 2\text{bd}$. Note that for some currencies, such as GBP and AUD, the setting delay is 0bd rather than 2bd.

The spot IBOR of term f which sets at time $t = T - 2\text{bd}$ and accrues over the period from T to $T + f$ is defined as $L_f(t)$. The accrual period from T to $T + f$ can also be written as $[T, T + f]$.

The *calibration date*, t_0, is the business day prior to the date on which it is announced that IBOR publication will be discontinued. The *discontinuation date*, t_1, is the first day on which the IBOR will not be published.

The compounded setting in arrears rate is calculated by observing the overnight rates over the relevant IBOR period from T to $T + f$ and compounding them daily to get the arrears setting, $ARR_f(t)$. It is equal to:

$$ARR_f(t) = \frac{1}{\delta_f}\left(\prod_{u=T}^{T+f-1\text{bd}} (1 + \delta_u RFR_u) - 1\right),$$

where δ_f is the cash day count fraction for the accrual period, and δ_u is the cash day count fraction for the overnight accrual period from u to $u + 1\text{bd}$.

Historical Mean/Median Approach

Under this approach, the spread adjustment for each existing IBOR tenor is based on the mean or median spot IBOR-adjusted RFR (i.e., compounded setting in arrears rate) spread calculated over a significant, static lookback period such as 5 years or 10 years.

If a mean is used, the relevant spread adjustment for IBORs of period f is calculated as:

$$CS_f(t_1) = \frac{1}{L}\int_{t_0-L}^{t_0} \big(L_f(t) - R_f(t)\big),$$

where the average is performed over a period of length L which runs up to the calibration date t_0 and where $L_f(t)$ is the spot IBOR rate for the accrual period beginning in two business days, and $R_f(t)$ is the compounded setting in arrears rate over a period, f. Note that the bounds for the integral may need to be adjusted by a number of business days.

If a transitional period is used immediately following the discontinuation date, the spread would be calculated differently during that period.