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IBOR Project

June 2021

IBOR reform

What rates are being reformed?

Overview

- Interest rate benchmarks mostly used for the past decades are being reformed. These are mostly:
    - the London Interbank Offered Rate (LIBOR),
    - the Euro Interbank Offered Rate (EURIBOR),
    - the Euro Overnight Index Average (EONIA)
    - and certain other Interbank Offered Rates (IBORs)
- These benchmarks will either cease or no longer be representative.
- The market has already identified their successors to be the RFRs (Risk-Free Rates).
- The respective Regulatory authorities and the different working groups, including the International Swaps and Derivatives Association (ISDA), the Alternative Reference Rates Committee (ARRC), the Sterling Risk-Free Rates Working Group, and the Working Group on Euro Risk-Free Rates, have been discussing alternative benchmark rates to replace the IBORs and have identified the benchmarks successors to be the RFRs (Risk-Free Rates).
- The working groups have been publishing several recommendations to support a transition to the new Risk-Free Rates.

Existing IBOR rate(s)	Identified Successors
GBP LIBOR	Reformed-SONIA
USD LIBOR	SOFR
EUR LIBOR, EURIBOR	ESTER
CHF LIBOR	SARON
JPY LIBOR, TIBOR	TONAR

Original Major Assumptions and Highlights

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IBOR reform - refresher

- Before 1 January 2022, new, risk-free interest rates based on real market transactions should have replaced the old reference interest rates
- Working groups across the globe have proposed alternative reference rates in each respective jurisdictions

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- The following are the main deadlines:
  - **30 June 2021** - after this date all new contracts should have new RFR rates embedded,
  - **31 December 2021** - after this date Libor rates for all tenors of GBP, EUR, CHF and JPY as well one-week and 2M of USD will disappear – thus, all existing active contracts maturing beyond 2021 need to be converted to new rates before this date,
  - **30 June 2023** - the remaining USD LIBOR rates will be discontinued thus all USD Libor contracts will need to mature or to be converted into new rates by this date.

- EURIBOR may continue to be used in new and legacy contracts, subject to compliance re-assessment in Q4 2021, Replacing EURIBOR is still dependent on development of liquidity in the €STR market.

- Our intention is to use RFR rates with forward looking term rates, calculated and published by one external trusted provider .

- If on respective conversion dates/deadlines forward looking rates are not available we will use RFR rates with backward looking term rates, but still provided by external trusted market data provider.

- Spreads adjustments to ensure assumed neutral economic impact of the conversion – will be applied to existing active contracts only, and should be done changing current spreads and not by introducing additional component of the total rate.

- New RFR rates with backward looking term rates are accessible, however, the new RFR rates with forward looking term rates are not available yet for all currencies. The market expectation is to have them available by Q2/Q3 2021.

FCA and IBA Libors cessation formal announcement - 5th March

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LIBOR	Tenor	End of Panel Bank Submissions		Potential Synthetic LIBOR Publication	
		Date	Result	Begin	End[2]
CHF	ALL	December 31, 2021	Permanent cessation	Not applicable	
EUR	ALL	December 31, 2021	Permanent cessation	Not applicable	
GBP	Overnight, 1-week, 2-month, 12-month	December 31, 2021	Permanent cessation	Not applicable	
	1-month, 3-month, 6-month	December 31, 2021	Loss of representativeness	January 1, 2022	December 31, 2031
JPY	Overnight, 1-week, 2-month, 12-month	December 31, 2021	Permanent cessation	Not applicable	
	1-month, 3-month, 6-month	December 31, 2021	Loss of representativeness	January 1, 2022	December 31, 2022
USD	1-week, 2-month	December 31, 2021	Permanent cessation[4]	Not applicable	
	Overnight, 12-month	June 30, 2023	Permanent cessation	Not applicable	
	1-month, 3-month, 6-month	June 30, 2023	Loss of representativeness	July 1, 2023	June 30, 2033

- The Financial Conduct Authority (FCA) has formally announced the future cessation and loss of representativeness of LIBOR benchmarks. The announcement follows the results of a consultation by ICE Benchmark Administration (IBA), LIBOR's administrator, which confirmed IBA's plans for the benchmark's cessation.
- The FCA statement includes declarations on the future permanent cessation or loss of representativeness of all 35 LIBOR settings.
- The announcement of non-representativeness for some LIBOR settings leaves the door open for their continued publication on a "synthetic" basis, i.e., ending their reliance on panel bank submissions.
- The FCA affirmed that it intends to base synthetic LIBOR rates on a calculation-based methodology that would employ forward-looking term rate versions of LIBOR's respective risk-free rate (RFR) replacements, plus a spread adjustment to account for the economic differences between LIBOR and its replacements.
- As part of its statement, the FCA announced it would later this year consult on requiring such a publication for 1-month, 3-month and 6-month tenors of both GBP and JPY LIBOR after December 31, 2021.
- No decision has yet been made on the possible publication of synthetic 1-month, 3-month and 6-month USD LIBOR, which will remain under the FCA's consideration.

FCA and IBA Libors cessation formal announcement - conclusions

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- At last, LIBOR has a definitive expiration date
- The use of USD LIBOR settings published after 2021 will be severely limited
- The use of any synthetic LIBOR settings is expected to be restricted to narrowly defined cases
- The fixing of the spread adjustment provides an economic baseline from which to transition exposures
- The announcements triggered some immediate actions including respective regulators stronger involvement
- Pressures to accelerate the shift to RFRs for new product issuances will become greater and greater

Latest Market Developments

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- ARRC (SOFR, USD) working group - as per the announcement as of 23rd march - recommends and encourages all financial entities not to wait for forward looking rates, but to do the conversion based on backward looking rates and follow respective recommended deadline for new contrast define as 30 June 21.

- ISDA spreads adjustment were calculated (based on median) and published by Bloomberg, the adjustments are well received by the market and recommended to be used for derivatives contracts only. For all other contracts the financial institutions are obligated to define their own spread adjustments.

- FED and ARRC(SOFR, USD) working group have selected respective administrator of SOFR forward looking term rates - it is CME Group.

- ESMA (ESTR,EUR) working group has announced respective principle for the forward looking term rates, but the ESTR forward looking term rates are not available yet.

What actions FIMBank has taken ?

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- FIMBANK focuses on 2 major work streams:
  - develop and issue new products/facilities based on alternative reference rates, and
  - remediate existing LIBOR-based transactions.

- We follow the earlier assumed, agreed deadlines:
  - **30 June 2021** - after this date, all new contracts must have new RFR rates embedded,
  - **31 December 2021** - after this date Libor rates for all tenors of GBP, EUR, CHF and JPY as well one-week and 2M of USD will disappear – thus all existing active contracts maturing beyond 2021 need to be converted to new rates before this date,
  - **30 June 2023** - the remaining USD LIBOR rates will be discontinued thus all USD Libor contracts will need to mature or to be converted into new rates by this date.

- The agreed and recommended conversion strategies are now embedded in the IBOR contract conversion database for all FIMGroup transactions and includes 4 conversion scenarios:
  - mature in 2021, for all contracts maturing in 2021
  - mature by 30 June 2023 - for all USD Libor, but other than O/N and 2 months, contracts
  - convert to SOFR FLTR - by 30 June 2023 - for all USD Libor contracts (other than O/N and 2 months) maturing beyond 30 June 2023
  - convert to RFR with BLTR first and then to RFR with FLTR for EUR and GBP contracts maturing beyond 2021.

- Conversion triggers were defined as follow:
  - overall deadlines, recommended by working groups/authorities,
  - respective RFR rate entering the convergence zone (so the difference between the RFR and Libor rates is lower than respective population standard deviation),
  - market adoption, so no specific reservations or showstoppers.

Target RFR rates principles

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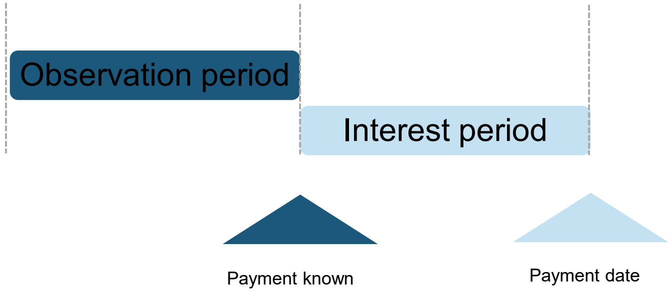
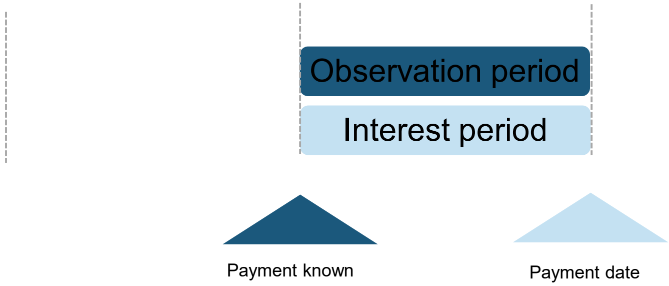
- The final target reference rates are as follow:
  - EUR - ESTER
  - USD - SOFR
  - GBP - SONIA
  - CHF - SARON
  - JPY - TONAR
- All new reference rates will have initially Backward Looking and than when available Forward Looking term rates.
- Only the following term buckets of the RFR term rates will be available: O/N (this is actually the main RFR rate), 1 Month, 3 Months, 6 Months, 12 Months
- All other term buckets will be discontinued.

Target RFR rates principles - part II

- Selected Backward Looking - Last Reset - term rates and interest accruals calculation methodology



- Selected Forward Looking term rates and interest accruals calculation methodology



- In the Backward Looking Last Reset methodology the RFR term rates are determined based on the compounded averaged RFR of the previous period.

- In the Forward Looking methodology the term rates are determined based on OIS or Futures market for interest period.

- Assuming the respective RFR term rates are provided by external trusted provided and not calculated by the Bank, the interest accruals and interest payments are calculated same way in both methodologies, so interest accruals are calculated daily using the rates provided during the contract booking, and interest payment is executed based on payment schedule set also on contract level during the contract booking.

Spread Adjustments and Overall Conversion Formula

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- It is assumed the entire IBOR conversion will have neutral economic impact
- Since the LIBORS and RFRs rate have different economic build-up, respective one time spread adjustment are needed to ensure the conversion neutrality.
- Spreads adjustments will apply to existing active contracts only, and will be done changing current spreads and not by introducing additional component of the total rate.
- The respective one-time spread adjustments calculation methodology includes the following steps:
  - build new and all rates quoting and differences data populations for the period as per availability (5 years),
  - define respective standard deviation for the rates differences data population,
  - take the standard deviation as final spread adjustment, indicating the rates differences population convergence.
- The final spread adjustments were calculated as of 5th March, so as of IBA official LIOBRs caseation announcements
- Overall conversion formula will be as follow :

new total rate = new base rate + (fix spread adjustment + current spread) = new base rate + new spread =
= RFR backward or forward looking term rate + new spread