Asset
Management

May 2019

LIBOR Transition FAQ: What You Need To Know

Overview

1. What is happening to LIBOR?

The UK Financial Conduct Authority (FCA) has stated LIBOR will be phased out by year-end 2021 given there is insufficient transaction-based data to sustain this benchmark which underpins $370T+ securities. The LIBOR phase out will likely be accompanied by the retirement of other global IBORs. In anticipation of this transition, the US, UK, EU, Switzerland, and Japan have all selected alternative “risk-free” rate benchmarks. The industry expects the phase-out of LIBOR may lead to tighter swap markets, lower rates, increased volatility, and reduced liquidity in the near term. It is also expected that financial products based on the alternative rates will continue to increase and develop.

2. What is the rationale for the LIBOR transition?

For decades, LIBOR has provided a reliable way to determine the cost of everything from student loans and mortgages to complex derivatives. It’s derived from a daily survey of ~20 large banks that estimate how much it would cost to borrow from each other overnight without posting collateral. Banks that submit LIBOR answer the following question daily: "At what rate could you borrow funds, were you to do so by asking for and then accepting interbank offers in a reasonable market size just prior to 11 am?." LIBOR has become more theoretical in nature over the last decade as fewer banks make such unsecured loans. This has been vastly compounded by the discovery of rampant manipulation by US and European lenders, who were forced to pay billions of dollars to settle charges over rigging and collusion. Both factors ultimately led to the FCA’s pledge to stop compelling banks to provide LIBOR submission by the end of 2021, and why regulators around the world are encouraging alternatives rates.

3. Will LIBOR exist after 2021?

Despite recent efforts to reform existing LIBOR benchmarks, international regulatory bodies are promoting new interest rate benchmarks (i.e. Alternative Risk Free Rates), due to a number of factors:

- Limitations in the relevance of LIBOR as a benchmark rate (e.g., it is based on expert judgment rather than actual transactions);
- Questions around the sustainability and stability of LIBOR in stressed market conditions, given the lack of an active and highly liquid underlying market;
- Instances of LIBOR manipulation in the 2008 financial crisis and the 2012 LIBOR scandal.

While LIBOR is likely to exist for the foreseeable future in some form, its importance for the financial industry and transactions around the globe is expected to be greatly reduced by 2021.

4. What is the ARRC?

In 2014, the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee (ARRC). The ARRC was created to identify best practices for alternative reference rates and contract robustness, develop an adoption plan, and create an implementation plan.

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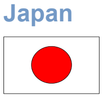
The focus of the ARRC was to provide alternatives to LIBOR as well as develop a plan for users to voluntarily adopt their recommended rate rather than mandate a transition away from LIBOR.

5. What is replacing LIBOR and how is it different from LIBOR?

In June 2017, the ARRC announced a broad Treasury repo financing rate, SOFR (Secured Overnight Financing Rate), as its recommended alternative to USD LIBOR. SOFR is based on actual transactional data (real and observable underlying repo transactions, a ~$800B market), has a wide coverage range, and is a good representation of general funding conditions in the overnight Treasury repo market. SOFR correlates closely with other money market rates and is published daily at 8 am ET based on the prior day's trading activity. This is a significant departure from LIBOR, which is an estimate of the rate banks would be charged if they were to borrow from other banks. As stated in FAQ #2, fewer banks make these uncollateralized loans compared to historic levels.

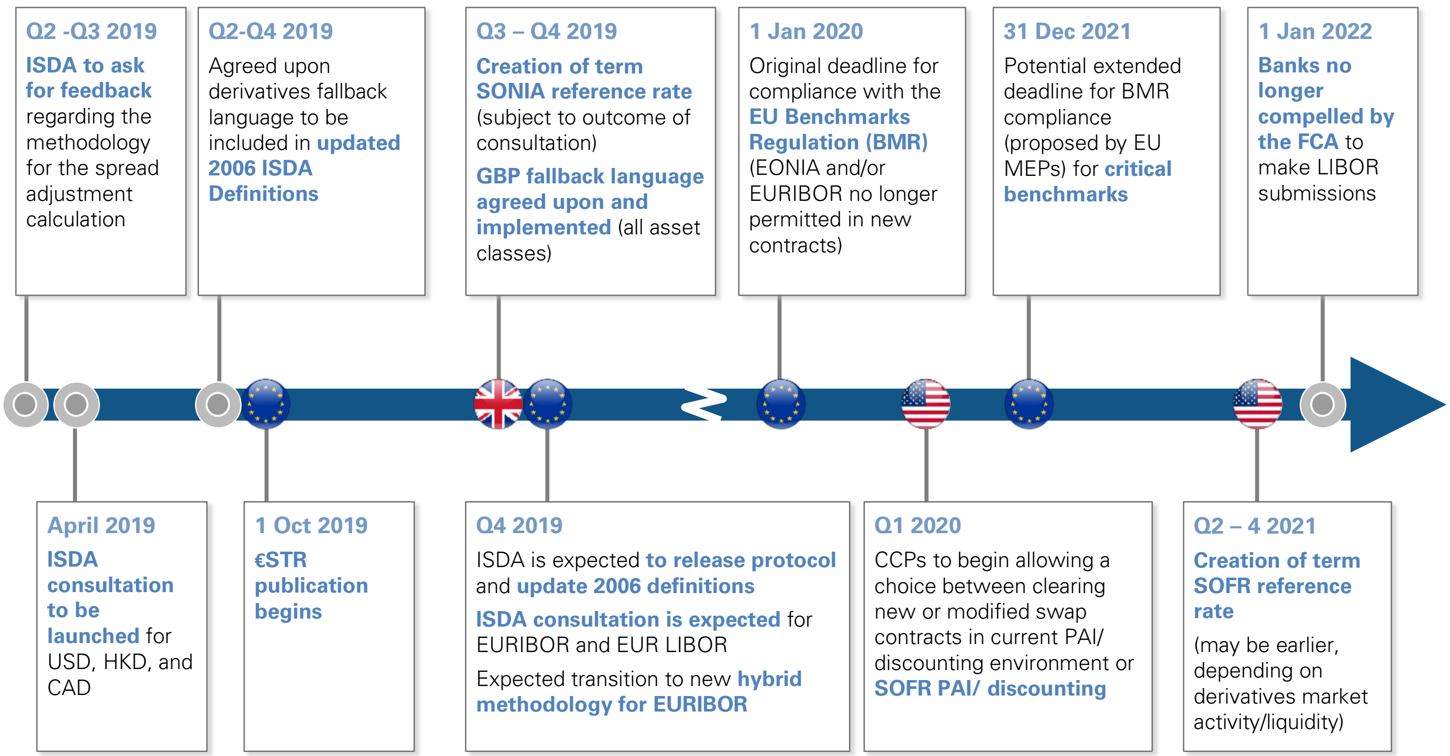
6. Are there alternative rates in other currencies?

We would define the ones in the below chart as the most developed alternative rates and have included them for reference:

Junction	Working Group	Alternative RFR	Rate Administration	Secured vs. Unsecured	First Publication	Description
UK 	Working Group on Sterling Risk-Free Reference Rates	Reformed Sterling Overnight Index Average (SONIA)	Bank of England	Unsecured	23 April 2018	■ Fully transaction-based benchmark ■ Encompasses a robust underlying market ■ Overnight, nearly risk-free reference rate ■ Includes an expanded scope of transaction to overnight unsecured transactions negotiated and arranged with brokers ■ Includes a volume-weighted trimmed mean
Europe 	Working Group on Risk-Free Reference Rates for the Euro Area	Euro Short-Term Rates (€STR)	European Central Bank	Unsecured	Anticipated October 2019	■ Based upon overnight borrowing costa of banks ■ Excludes Money Market Fund (MMF) activity ■ Will include deposits, but exclude CP/CD transactions (therefore, "some" MMF activity will be captured) ■ Calculated as a volume-weighted trimmed mean
Switzerland 	The National Working Group on CHIF Reference Rates	Swiss Average Rate Overnight (SARON)	SIX Swiss Exchange	Unsecured	Already published prior to 2018	■ Became the reference interbank overnight repo on 25 August 2009 ■ Secured rate that reflects interest paid interbank overnight
Japan 	Study Group on Risk-Free Reference Rates	Tokyo Overnight Average Rate (TONAR)	Bank of Japan	Unsecured	Already published prior to 2018	■ Fully transaction-based benchmark for the uncollateralized overnight call rate market ■ The Bank of Japan calculates and publishes the rate on a daily basis, using information provided by money market brokers known as Tanshi, as an average, weighted by the volume of transactions corresponding to the rate

7. What's next?

Preparedness is key from both the industry and investors. It is essential that clients inventory and understand their exposure as well as trade with the alternative rates to understand operational readiness, downstream effects, continue to develop the markets and increase liquidity. Please see the below timeline for next steps:



8. Where can I get more information on the transition from LIBOR to alternative "risk-free" rates?

White papers and industry/regulator publications can be obtained by reaching out to the LIBOR working group within GS. Further background can also be obtained from Central Bank websites, which are included in the Appendix.

9. What is GS doing about the transition?

GS has established a central program to manage the LIBOR Transition that has the full commitment and support of senior management, co-sponsored by Risk and Corporate Treasury. The firm has appointed Jason Granet (MD) as the Chief LIBOR Transition Officer to lead this program. Among other activities, firm leaders are centrally and locally engaged in: proactively managing client communications, identifying exposures to understand the full impact of the transition, assessing different scenarios for the future of LIBOR and alternative "risk-free" rates, and actively contributing to industry discussions on the selection and design of alternate rates. These efforts will inform ongoing engagement with clients, counterparties and other stakeholders to ensure preparedness for the transition.

10. How will GSAM approach the transition from LIBOR to alternative "risk-free" rates?

GSAM is committed to transition away from LIBOR to alternative "risk-free" rates. The transition is dependent on the necessary market evolutions, as well as the successful conclusion of a number of consultation papers on key barriers and questions to transition.

There is both a firmwide and GSAM specific LIBOR Transition programme. Resources have been identified to manage the transition at both levels.

GSAM plans to take a two-staged approach to the transition, firstly confirming readiness to transition – namely implementing required system, policy and procedure enhancements. Secondly, GSAM will begin the transition away from LIBOR, following initial preparation and contingent on market conditions.

Trading & Portfolio Management

11. How will GSAM be managing the transition away from LIBOR to alternative "risk-free" rates?

GSAM is currently conducting analysis on its trading inventory, identifying positions that reference LIBOR, confirming their maturity date and assessing the contract's ability to convert to alternative reference rates.

Long dated positions identified in the current analysis transition when financially viable. The market will also potentially receive additional guidance from ISDA and other organisations on how to change the rate referenced.

GSAM will also be tracking liquidity in the new "risk-free" rates in order to keep the transition as smooth as possible.

12. Will GSAM continue to trade in products referencing LIBOR?

In the near-term, yes. Whilst the transition from LIBOR contracts to products using alternative rates is gaining momentum with the recent issuance of Floating Rate Notes (FRNs) using SOFR and the launch of SOFR and SONIA OIS Swaps and Futures, further liquidity in these contracts, and transparency into how new alternative rates will react to market events is required to facilitate a wholesale transition away from LIBOR.

GSAM makes trading decisions based on several execution factors in order to achieve the best possible outcome for a portfolio. GSAM will always attempt to achieve the best possible outcome and this will involve trading positions referencing LIBOR until the market can adequately support trading on alternative "risk-free" rates.

13. Will GSAM be trading in both "risk-free" rate products and LIBOR based products?

Yes. At this time, the transition will not be a major event where on a certain date all LIBOR based transactions will cease. GSAM is involved in alternative rate based transactions whilst still executing transactions referencing LIBOR. As part of the programme, GSAM will be preparing to operate in a multi-rate environment, considering challenges such as paying in LIBOR but receiving in a different alternative rate. GSAM will ensure that controls are in place to manage risks that arise from operating in a multi rate environment.

14. How will the transition to alternative "risk-free" rates impact investment strategy?

Please contact the relevant portfolio manager to discuss impacts to investment strategy.

15. Do you anticipate any changes to GSAM’s trading infrastructure?

LIBOR Transition has a broad impact and accordingly requires changes to systems across the business, including our trading systems. System enhancements will be made in order to trade the new products alongside any operational enhancements to support settlement and confirmation processes.

Separate Accounts

16. How will LIBOR Transition impact my portfolio?

If your portfolio utilizes LIBOR to benchmark performance or set performance fees, the use of LIBOR will be reviewed as part of the GSAM Transition Programme. Certain financial products reference LIBOR. If utilized by your portfolio, analysis can be conducted to determine if a) the contracts will expire before 2021 and if not b) whether those contracts contain sufficient language to support a transition to an alternative rate.

GSAM will be in contact with you throughout this process to discuss latest developments, portfolio impacts, and proposed actions. Dependent on the results of the analysis, additional changes to investment guidelines and your Investment Management Agreement may be required.

17. Will I receive any new documentation?

An Investment Management Agreement (IMA)/ or Investment Advisory Agreement (IAA) amendment might be sent to you, to update the terms of your existing agreement with GSAM, in preparation for the transition to “risk-free” rates. If any investment guideline changes are agreed then new investment guidelines will be sent to you.

18. What do I need to do with this documentation?

Please keep in touch with your contact here at GSAM. If you receive an updated IMA/ IAA document, ensure it is executed in accordance with your Authorised Signatory List. Once it has been executed please return a soft copy to you Client Relationship Manager. There is no need to send a hard copy of this document.

19. My portfolio’s performance fees utilise LIBOR, will this change?

Yes, GSAM will be in touch in the future to discuss new benchmarks to use to determine performance associated fees for the portfolio.

20. My portfolio’s performance is benchmarked to LIBOR, will this change?

Yes, GSAM will be in touch in the future to discuss new benchmarks to use to determine the performance of a portfolio.

Funds

21. Will the LIBOR reform affect the fund I am invested in?

Certain GSAM Funds reference LIBOR to benchmark performance or calculate performance fees. Certain financial instruments utilised by GSAM Funds reference LIBOR in different ways. Analysis will be conducted to determine if a) the contracts will expire before 2021 and if not b) whether those contracts contain sufficient language to support a transition to an alternative rate.

22. When will I hear from GSAM about any changes?

Fund Boards are currently being educated on the move to “risk-free” rates and this will continue until at least the end of the year. No Significant Adaptations will be made to a fund without notifying the Fund’s board and shareholders. At this time, there is no set timing to transition GSAM Funds to alternative reference rates, however a project team is reviewing required actions and working towards establishing a transition timeline.

23. Will there be any financial impact to my shareholding resulting from the change to “risk-free” rates?

GSAM will continue to work through this complex issue and are analysing various impacts including any financial impact to our clients. We have not yet reached a decision on our approach.

24. Will new funds still use LIBOR to benchmark performance or calculate performance fees?

Yes, in some cases GSAM will still utilize LIBOR until further clarity is received on suitable alternative reference rates

25. Will the fund’s prospectus change?

Yes, where a fund’s prospectus references LIBOR it will be updated. A timeline for prospectus updates is yet to be determined.

26. The fund’s performance fees and hurdle rates reference LIBOR, will this change?

Yes, in the future GSAM will aim to transition away from LIBOR and performance fees and hurdle rates will be calculated using alternative but still suitable “risk-free” rates. No changes will be made without the approval of fund boards and shareholders being notified.

Glossary

ARRC - Alternative Reference Rates Committee is a US working group formed by the New York Fed to provide US dollar alternatives to LIBOR.

EFFR – Effected Fed Funds Rate, based on volume-weighted median of overnight federal funds transactions.

€STR – European Short term Rate, based on daily unsecured transactions (successor to EONIA and EURIBOR). Unpublished.

EURIBOR – Euro Interbank Offered Rate, based on the average quotes for interbank lending in euros.

ICE – Intercontinental Exchange who are the current administrator for LIBOR.

LIBOR – London Interbank Offered Rate, based on the average quotes for interbank lending.

SOFR - Secured Overnight Financing Rate, based on overnight unsecured transactions (successor to USD LIBOR). Published from April 2018.

SONIA – Sterling Over Night Index Average, based on an overnight unsecured transactions (successor to GBP LIBOR). Published from April 2018.

SARON – Swiss Rate Rate Overnight, based on overnight interbank repo market. This is the current Swiss Franc "risk-free" rate (successor the CHF LIBOR). Published.

TONAR – Tokyo Overnight Average Rate, based on unsecured overnight call rates. This is the Japanese Yen "risk-free" rate (successor to JPY LIBOR). Unpublished.

Helpful Links:

Bank of England

A User's Guide to SOFR

New York Fed Alternative Reference Rates Committee (ARRC)

ECB Working Group on Euro Risk-Free Rates

Swiss National Bank Working Group on Swiss Franc Reference Rates

Bank of Japan Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks

Bailey speech

Megan Butler Speech

Quarles Speech

ARRC Guiding Principles

ARRC Press Release

FSB

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