



# LIBOR Transition: Valuation and Risk Perspective

## Introduction

The industry knows that the disappearance of LIBOR from the screens at the end of next year is very likely. The global official sector has repeatedly announced this dramatic event, just as many large private sector organizations have been preparing for it and industry workgroups have been thinking and communicating about it for several years. *Yet, nowhere in the market does the largest market structure change in fixed income appear to impact valuation.* Earlier in 2020, pre-COVID-19 crisis, some bonds were observed to have prices reflecting LIBOR cessation. However, the crisis has obscured these valuation differences as other valuation factors have become larger and immediate. When and how should risk and valuation professionals begin to consider the impact of an event that has not moved in time and has become visibly more prominent with the dislocation in short-term-rates markets?

Valuation of fixed income instruments is predicated on a discount curve. The LIBOR curve is composed of a series of market rates on instruments, including repos, deposits, Eurodollar futures, convexity adjustments, U.S. Treasury securities, and swap spreads all embedded in the price of an interest rate swap cleared at the CME and LCH to eliminate counterparty risk. At present, that rate shows no signs of valuation adjustment relative to the disappearance of LIBOR as a reference rate at the end of 2021.

Valuation of fixed income instruments is further driven by the projected cash flows as well as the terms of the contract governing those flows. The predominant reference for variable rate instruments is LIBOR; however, the majority of contracts that reference LIBOR provide no practical alternative in the event of a complete cessation of that benchmark. Furthermore, there appears to be no meaningful valuation impacts in the observable markets for LIBOR-based loans.

These observations about risk and valuation have very recently become an active discussion point in the professional market. As the general market volatility has reduced with a variety of interventions, risk and valuation professionals are beginning to seek a framework to address these questions and discrepancies.

## Deadline Remains End of 2021, Milestones Shift

The FCA, FED, ARRC, and many other official sector and industry groups have released announcements in the past several weeks that absolutely affirm the cessation of LIBOR at the end of 2021 and acknowledge that the interim transition milestones are likely to slip. Three milestones are most critical to a framework for understanding potential valuation impact:

- 1) ISDA/CME/LCH—October 16, 2020.
- 2) FHFA and consumer loans—August 3, 2020, and Q1 2021.
- 3) Vendor readiness deadlines—between July and December 2020.

**Derivatives:** By October 16, 2020, the ISDA will have released its supplement (relative to new transactions) and a protocol (relative to all legacy transactions), which will establish SOFR as the standard fallback base rate and a spread adjustment to minimize value transfer. The CME will adopt this ISDA mechanism and amend existing Eurodollar futures contracts. Over Columbus Day weekend, the CME and LCH will amend the clearing systems to discount all positions on a SOFR curve and call for margin based on those new values. Effectively, the instruments that make up the observable discount curve will be indifferent to the cessation of LIBOR because repos, futures, and swap spreads will have incorporated fallbacks to SOFR.

**Consumer Loans:** The FHFA has established that the ARRC's SOFR-based calculation of consumer interest rate will be accepted for ARMs on August 3, 2020, and that LIBOR-based ARMs will no longer be accepted as soon as June 2020, with other types of instruments already ineligible. While this is not a universal standard, and the SFA and other industry groups are clarifying recommendations, this will establish a reference point for valuation when determining any adjustment relative to legacy or differing new consumer loan interest calculation.

**Vendor Readiness:** The vendors of systems provide the tools not just for booking, but also for valuation. The ARRC is advocating, and vendors are affirming, these readiness targets for 2020:

- 1) Floating rate notes—June 30.
- 2) Business and consumer loans—September 30.
- 3) Securitizations—December 31.

The system modifications will require vendors and all of their clients to agree on standards and specifications. Transition teams within asset managers, lenders, servicers, trustees, and other ecosystem participants will need to focus on details soon, and valuation issues will emerge as participants understand the mechanics of the new risk-free rates (SOFR, SONIA, etc.), or RFRs.

## Fallback and Mitigation Generates Valuation Impact

We addressed the coalescing of the derivative instruments to create a LIBOR curve that is effectively the same as a SOFR curve. This is predicated on the implementation of standard fallback language in all relevant instruments. The same fallback language will also be promulgated for acceptance in the cash markets by the LSTA, SFA, CRE, and other industry groups. The impact on valuation will occur as three steps happen:

- 1) Include market-standard fallback language in every new deal.
- 2) Amend every legacy deal to include the language.
- 3) Issue new transactions with the new RFR.

Each of these steps will impact valuation, but unlike the universality of the discount curve, the fallback language in each and every transaction will create observable market distinctions with potential valuation impacts. The following examples demonstrate the kinds of existing fallback with significant valuation-impact potential:

- 1) If LIBOR is not available, use the last quoted LIBOR.
- 2) If LIBOR is not available, use Prime (with no spread adjustment).

This valuation impact will be increasingly visible as a result of easily accessible information about the specific fallback language in every transaction. At present, Bloomberg is extracting and indexing some standard fallback terms for bonds and plans to expand that database to other securities. Individual asset managers, some law firms, and possibly dealers are developing private databases of fallback language for use in determining prices for the purchase and sale of LIBOR-referencing assets without fallback language. As 2020 progresses, valuation will be affected by an increase in buyers and sellers with accessible knowledge of these idiosyncratic contract provisions.

Amending fallback to industry standards is substantially equivalent to switching to SOFR today—from a valuation perspective—because the discount curve will be equivalent by October 16, 2020, and the contract terms would be the market standard. Since the likelihood of LIBOR cessation is much higher than continuation, the valuation professional must consider the existing unremediated fallback language, even if there is no observable difference in price. The discount curve may not show a difference (as discussed earlier), but the examination of the specific fallback language for unmodified transactions should result in a valuation consideration.

Besides fallback language, systemic mitigations will affect valuation. The most potentially significant systemic action could be the legislative proposal advanced to New York by the ARRC. It is a detailed proposal to address the large number of legacy transactions that will likely not be amended before cessation and might cause significant congestion in the New York court system. These contracts do not address permanent cessation or imply that absence could have a significant economic effect, but despite that motivation, the amendment process may be challenging or impossible. The proposal addresses many potential situations for securities, loans, and other LIBOR-referencing contracts, but could also be challenged by any owner of an asset who has purchased in expectation of an economic gain in the event of LIBOR cessation. A valuation professional would have to consider factors, including the likelihood of such legislation, the potential challenges, and if the legislation would succeed in economically changing the contract terms.

## Short-Term-Rates Markets Are Dislocated

The Bloomberg graphic on the following page shows the dislocations in the market between SOFR and three-month LIBOR over the past year. From the perspective of the valuation professional, it is clear that these two rates operate very differently in times of stress. However, the typical usage of SOFR will average these daily rates over the equivalent LIBOR tenor of 30 or 90 days to moderate the daily variability. The industry is discussing the virtues and appropriateness of each rate as a benchmark, but valuation adjustments will be driven by the spread adjustment (five-year historical range is approximately 23bps–27bps) vs. the spot difference (a range of -144bps to +308bps).



## Does a LIBOR Swap Equal a SOFR Swap?

Why is using SOFR as a base rate (instead of LIBOR) not expected to have a significant effect on valuation? This is because at cessation, LIBOR will be replaced by SOFR plus spread adjustment. This is intended to be close to value-neutral; however, until the remedies expected through October 16 are implemented, the curve should still have differences captured in a SOFR vs. LIBOR basis curve. That basis is also evident in the series of ED vs. SOFR futures, including those that now trade past the cessation date. The table below shows futures prices and the difference in forward rates. Given that the current value of the spread adjustment is approximately 28bps, the futures appear to be forecasting a compression in the spreads between LIBOR and SOFR.

Date	SOFR Futures	ED Futures	Yield Eq. Diff. bps
Mar-20	99.905	99.670	23.5
Jun-20	99.955	99.730	22.5
Dec-20	99.985	99.720	26.5
Mar-21	100.080	99.800	28.0
Jun-21	100.010	99.815	19.5
Sep-21	100.010	99.820	19.0
Dec-21	100.000	99.805	19.5
Mar-22	99.980	99.805	17.5

Source: Bloomberg.

## Conclusion

The framework suggested here includes several mechanisms and market evolutions that require further investigation for a valuation and risk professional prior to implementation. The framework does consider three concepts; this is the largest market structure change ever, and it must eventually affect some existing transaction prices. There are fallbacks and proposals that provide systemic mitigation, but there are idiosyncratic features of a large group of transactions that merit further consideration in terms of risk and valuation. Many resources are available from the official sector, industry groups, and market participants that will assist in the creation of a valuation policy as part of a LIBOR transition program. Some of the source documents for the announcements and proposals mentioned here can be found in the links below.

ISDA: [https://www.isda.org/2020/05/11/benchmark-reform-and-transition-from-libor/?\\_zs=ikEk01&\\_zl=lvc15](https://www.isda.org/2020/05/11/benchmark-reform-and-transition-from-libor/?_zs=ikEk01&_zl=lvc15).

FHFA: <https://www.fhfa.gov/SupervisionRegulation/LIBORTransition>.

ARRC Vendor Recommendations: <https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC-Vendor-Recommended-Best-Practices.pdf>.

ARRC Legislative Proposal: [https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC\\_Press\\_Release\\_Proposed\\_Legislative\\_Solution.pdf](https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC_Press_Release_Proposed_Legislative_Solution.pdf).

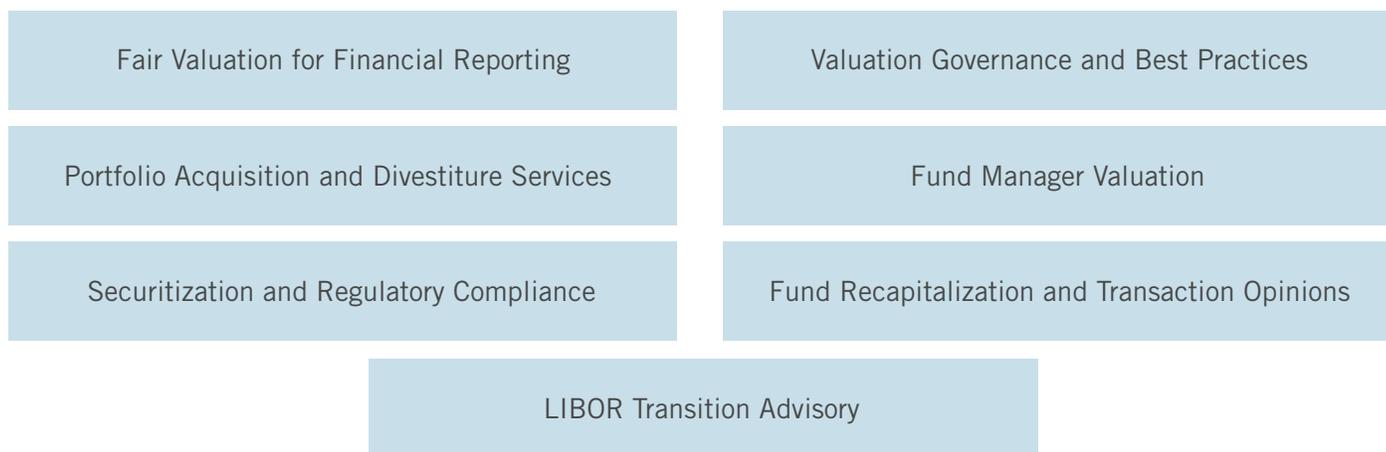
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