USD LIBOR transition to SOFR

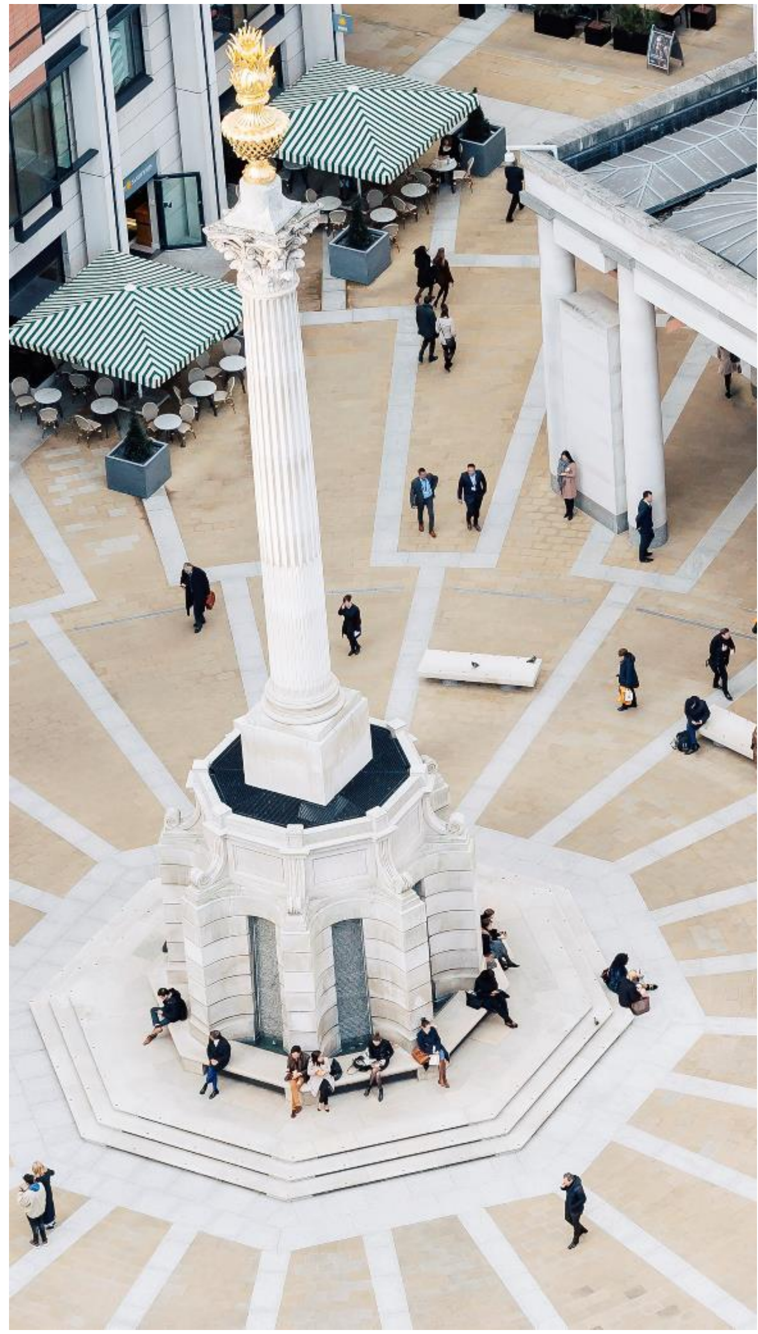
Making it happen

Background

LIBOR transition is less than two years away, but many market participants remain unclear about the level of risk that converting existing contracts might pose, and they're unsure about engaging new business with recommended replacement rates. This is a particularly acute issue where the market is very large (over $200 trillion in notional value of derivative and cash contracts) and where product breadth touches all client segments, including individual borrowers.

The Secured Overnight Financing Rate (SOFR) was announced as the recommended USD LIBOR replacement in June 2017 and has since been adopted in select product areas (e.g., futures, floating rate notes), but the liquidity in the broader derivative and lending market is yet to fully materialize.

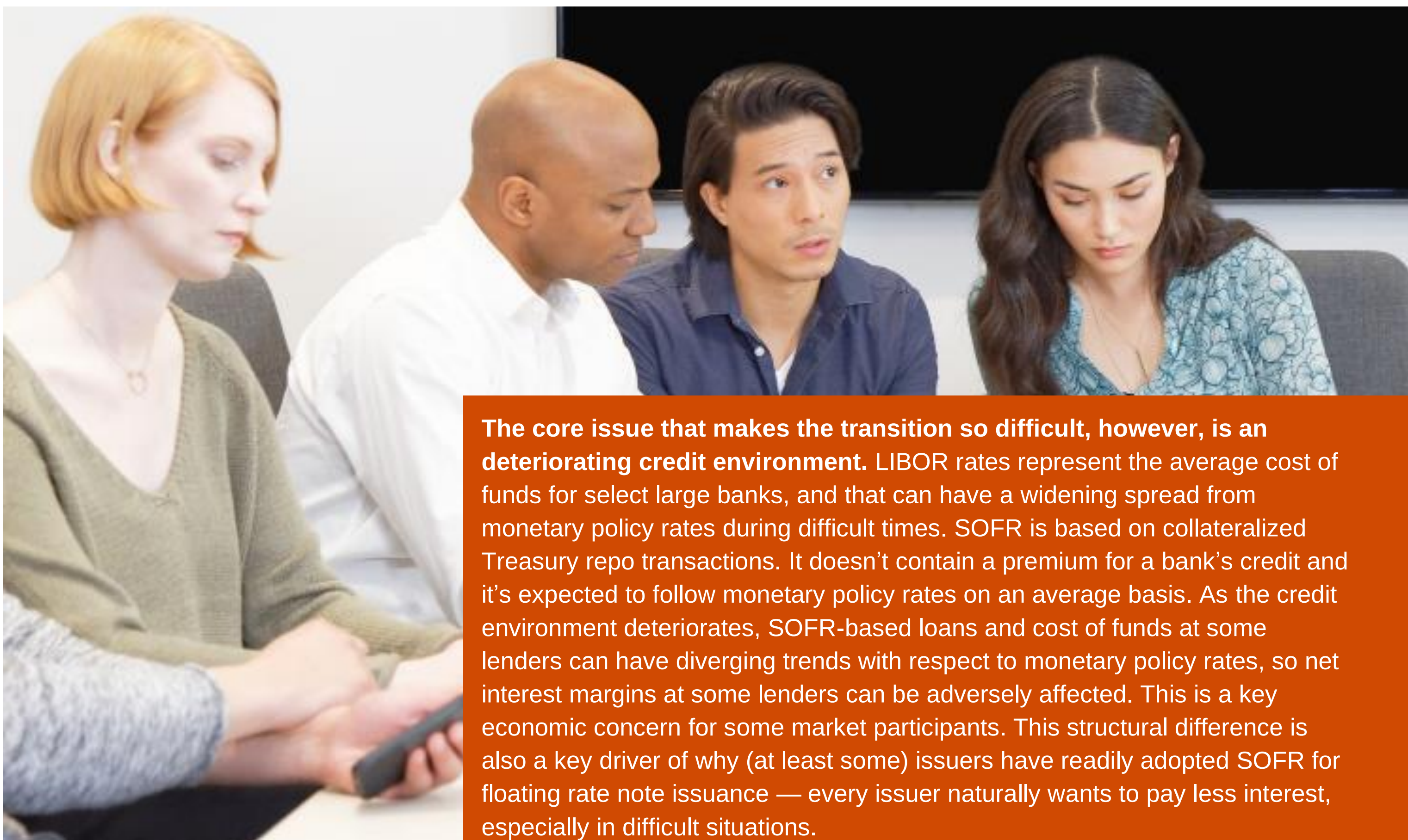
Here we'll explore the most likely transition scenario as well as potential strategies for using SOFR to price and risk manage both financial products and funding. We'll also discuss its potential and the challenges faced in trying to introduce credit sensitive alternatives to LIBOR.



Key challenges

Many operational issues are slowing the transition to SOFR. To name a few:

- **Lack of industry consensus building on conventions for using SOFR (e.g., how to average?)** Different standards are emerging across product types.
- **Contract identification and remediation** Contract digitization remains in the early stages, leaving significant contract review work for most.
- **Volatility in overnight SOFR** This is clearly a PR issue but it's economically not as material because market participants effectively use compounding or averaging.
- **System changes and model development requirements across the industry** The scale of the work is large and varying SOFR conventions by product type don't help.
- **Finalization of accounting, tax, and regulatory relief to support the transition** US regulatory and accounting bodies reacted fast and finalization is expected in the coming months.



The core issue that makes the transition so difficult, however, is an deteriorating credit environment. LIBOR rates represent the average cost of funds for select large banks, and that can have a widening spread from monetary policy rates during difficult times. SOFR is based on collateralized Treasury repo transactions. It doesn't contain a premium for a bank's credit and it's expected to follow monetary policy rates on an average basis. As the credit environment deteriorates, SOFR-based loans and cost of funds at some lenders can have diverging trends with respect to monetary policy rates, so net interest margins at some lenders can be adversely affected. This is a key economic concern for some market participants. This structural difference is also a key driver of why (at least some) issuers have readily adopted SOFR for floating rate note issuance — every issuer naturally wants to pay less interest, especially in difficult situations.

The economic difference between SOFR and USD LIBOR doesn't imply a fatal flaw. The most important challenge in the transition is a limited understanding regarding how SOFR can be used across assets and liabilities to mitigate risk. As such, the transition cannot be viewed simply as an operational exercise of contract remediation. Financial institutions, corporate entities, and investors will require a holistic review of both pricing strategy and risk management approach to make SOFR economics work for them.

Making the economics work

We believe it would be imprudent to assume that “an alternative to SOFR” or “any dynamic credit spread as a supplement to SOFR” will emerge in the market prior to the discontinuation of LIBOR. Given this situation, let’s explore what practical steps can be taken across financial institutions, corporate/individual borrowers, and investors. Each segment shares the overall goal of successful transition, but each has a slightly different set of objectives on post-transition economics.

Financial institution perspective

For financial institutions of all sizes, the two most common questions about the LIBOR-to-SOFR transition concern term rate approach and credit spread adjustment. These are the key issues, but this is an incomplete approach. We believe the transition to SOFR also warrants that financial institutions review their funding sources holistically for potential alignment with SOFR. Here are our key recommendations on each of these three topics.

Term rate approach

Many financial institutions are waiting for a forward-looking term SOFR to emerge, especially for lending products. It’s important to appreciate that the only path for creation of a forward-looking term SOFR is to have deep liquidity in SOFR derivative markets that provide a deep pool of real transactions for future expectations of overnight SOFR rate, which in turn can be used to construct a forward-looking term rate. **If most market participants were to adopt forward-looking term SOFR, it would have very much of the ‘LIBOR problem’: transactions in SOFR, underlying rate to forward-looking term SOFR, may dry up.** Regulators are sensitive to this issue and hence there is a critical need for most of the market participants to use compounded or average SOFR. Forward-looking term SOFR (if and when it develops) is expected to be used only in those segments of market where it is a genuine “need” rather than a “want” (for example, individual borrowers, where most US states have legislations and/or regulations requiring advance information of the interest rate, may be one candidate for forward-looking term SOFR).

We believe the reality is that executable, forward-looking term SOFR is unlikely to develop — at least this year — and financial institutions may have no choice but to build capabilities using compounded or average SOFR. Institutional lending products are expected to follow a compounding-in-arrears approach, similar to the derivatives market. Retail lending products may also have to rely on a compounding- (or averaging-) in-advance approach (e.g., SOFR compounded from a prior accrual period is applied to the upcoming accrual period and the rate is known in advance). The residential mortgage market, led by GSEs (e.g., Fannie Mae, Freddie Mac), is clearly gravitating toward this approach.

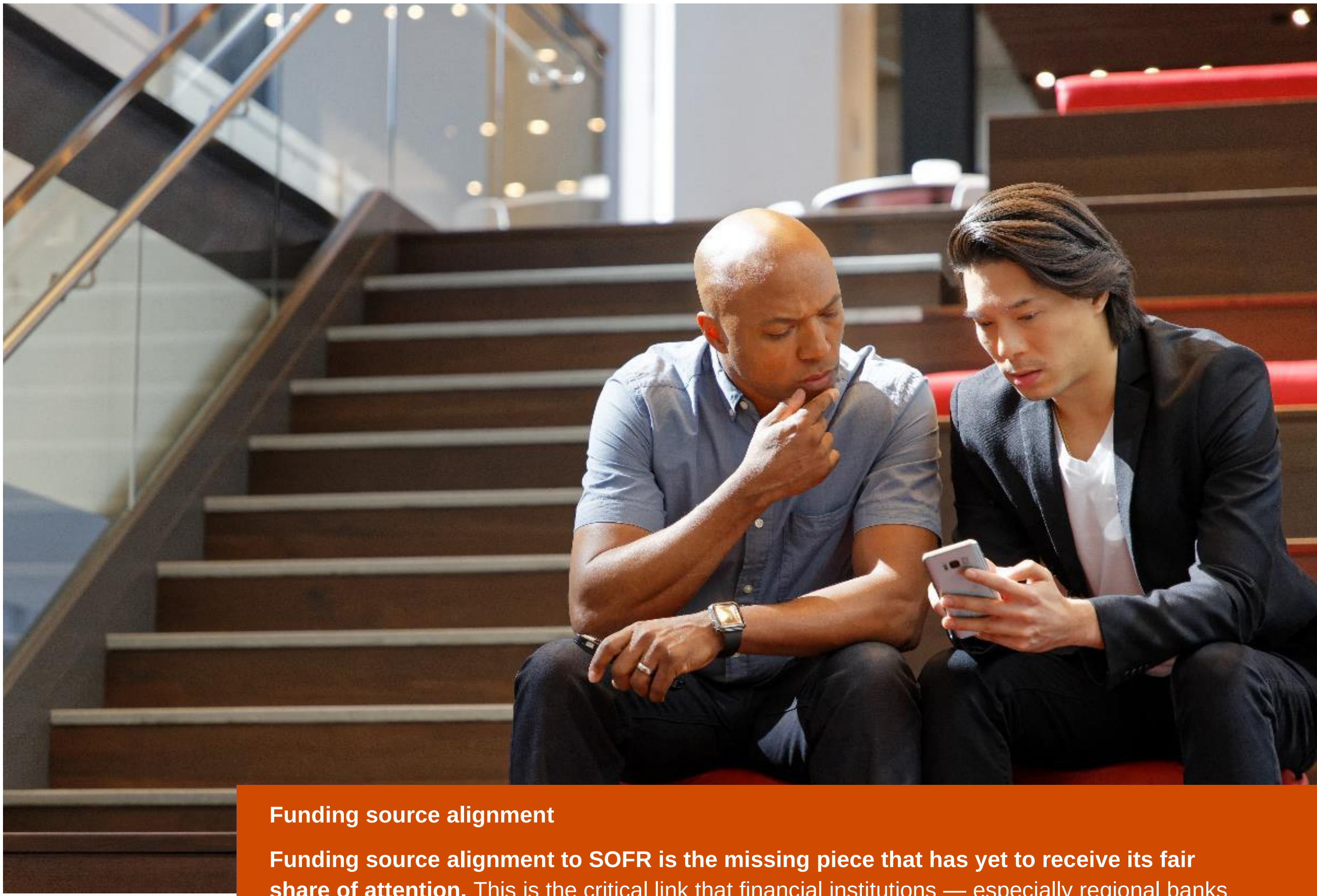
Making the economics work

Credit spread adjustment

SOFR is a risk-free rate, and even if one were to develop a forward-looking term, SOFR would not have any credit spread. The Alternative Reference Rate Committee (ARRC) and the International Swap Dealer Association (ISDA) are expected to publish credit spread adjustments for legacy USD cash and derivative contracts, respectively (ISDA will cover derivatives for other specified currencies beyond USD; ARRC's peer national working groups will cover its cash markets). The credit spread adjustment will be a static value calculated for each LIBOR currency-tenor pair and will be based on the historical average (median) of the difference between a given LIBOR rate and its corresponding compounded risk-free rate (e.g., historical median of the difference between the 1-month USD LIBOR and SOFR compounded in arrears over a 1-month period will be the basis of credit spread adjustment for 1-month USD LIBOR).

In the near-term (that is, between now and the time of LIBOR discontinuation), as they try to move away from LIBOR on existing products, financial institutions may be expected to have any credit spread adjustment aligned to ARRC/ISDA published value while leaving the old "product spread" above LIBOR untouched. For example, the client pricing for an institutional loan changes from "1-month LIBOR + 75 bps" to "1-month compounded (in arrears) SOFR + ARRC published credit spread adjustment for 1-month LIBOR + 75 bps".Any other outcome for credit spread adjustment may entail additional client communication challenges and may have potential conduct risk implications. **However, after LIBOR discontinuation, the "total spread" on top of SOFR will have more flexibility based on prevailing credit market conditions and competitive dynamics applicable to different client segments or product areas. It's possible that, longer term, certain markets may favor shorter-duration lending facilities or more fixed-rate facilities to manage lack of a dynamic credit spread.**

Making the economics work



Funding source alignment

Funding source alignment to SOFR is the missing piece that has yet to receive its fair share of attention. This is the critical link that financial institutions — especially regional banks with much larger exposure to short-dated funding — must review to mitigate or at least partially offset the economic concern of net interest margin compression during a credit crisis.

We've already seen several large financial institutions adopt SOFR for issuing floating rate notes. More broadly, other sources of funding (e.g., structured CDs, some corporate deposits) could also be linked to SOFR. **Aligning funding sources to SOFR will position financial institutions to be more competitive in their loan pricing to maintain (or possibly gain) market share.**

Making the economics work

Corporate/individual borrower perspective

Loans

A key economic consideration for corporate and individual borrowers is expected to be how financial institutions price the missing credit premium in SOFR. ARRC's published credit spread adjustment could easily serve as an anchor for the entire market because it will likely be the basis for conversion of legacy LIBOR loans. Anything lower may not be in the interest of financial institutions. Anything higher may be a difficult sale to borrowers and a potential conduct risk issue.

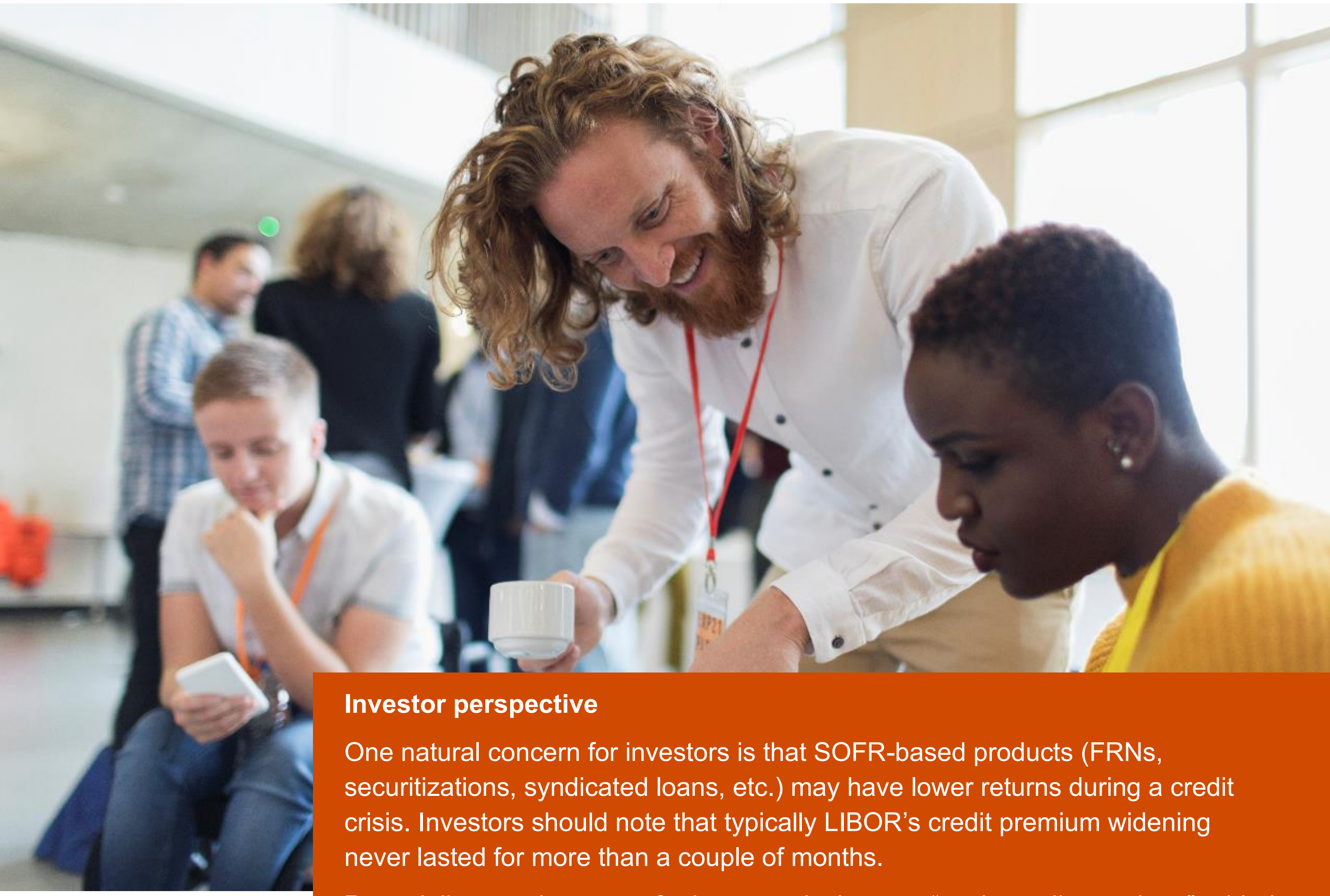
However, the credit spread adjustment published by ARRC is a static value post LIBOR cessation. Over time, "total spread" above compounded SOFR may be more cyclical based on credit market conditions. Some financial institutions may even insist on "pricing floors in a variable rate loan" or "increased fees for unused lines of credit." For corporate and individual borrowers, this would likely lead to more price shopping across credit providers as different institutions may adopt very different approaches in a post-LIBOR world (with SOFR as the only major floating rate index for USD).

Floating rate note (FRN) funding of non-financial corporates

Like the recommendation that financial institutions align their wholesale funding to SOFR, it also seems prudent that non-financial corporate entities adopt their FRNs to SOFR compounded in arrears. This should ensure easy ability to hedge interest rate risk (if necessary) and reduce increased funding stress during a credit crisis.

As with loans, a concern would be that financial markets typically demand much higher spreads over SOFR (especially during a credit crisis) and the perception is therefore that the total funding cost is higher than what it would have been under LIBOR. We believe that this risk is relatively low, as financial markets are generally very efficient in pricing each individual institution's credit irrespective of the interest rate carrier (such as LIBOR or SOFR or something else) being used.

Making the economics work



Investor perspective

One natural concern for investors is that SOFR-based products (FRNs, securitizations, syndicated loans, etc.) may have lower returns during a credit crisis. Investors should note that typically LIBOR's credit premium widening never lasted for more than a couple of months.

Potentially more important for investors is that any "static credit premium," added on top of SOFR debt at the time of LIBOR discontinuation, is eroded over time as financial institutions get more efficient in aligning their liabilities to SOFR and engage in pricing competition.

Beyond the transition of existing LIBOR products (a significant challenge), as SOFR-based debt is priced in the marketplace, investors must be vigilant and not assume identical risks/returns. SOFR is a fundamentally different rate, effectively tied much more closely to the monetary policy rate (on average). To achieve similar returns/risk in a post-LIBOR world, investment portfolios may require adjustments along the spectrum of credit quality, debt versus equity mix,

Alternatives to SOFR?

Some market participants would prefer LIBOR's replacement to be just like LIBOR (a forward-looking term rate with credit sensitivity). That might be a perfect solution, but it probably doesn't exist. Besides manipulation concerns, the core structural flaw with LIBOR is the fact that it is mostly judgment-based and the underlying transaction volume supporting each LIBOR currency-tenor value is very thin today (and nonexistent in some cases). Any credible replacement for LIBOR would require a deep underlying pool of transactional activity and at least some evidence that it doesn't materially diminish during a financial crisis. ARRC selected SOFR precisely for these reasons: unparalleled depth (more than $1 trillion daily market volume with thousands of transactions) and a demonstrated record of that market functioning during a financial crisis.

While the forward-looking term rate with credit sensitivity may not exist, it's certainly possible to have a credit-sensitive overnight rate. ARRC itself considered the overnight bank financing rate (OBFR) as the next best alternative during the 2016-17 consultation period. OBFR is a fully transaction-based rate based upon a large and robust market (more than $150 billion daily transaction volume across federal funds transactions, eurodollar transactions, and certain domestic deposit transactions). OBFR has been published in the current form since March 2016 and the Federal Reserve Bank of New York has published historical data for OBFR based on broker submissions. OBFR has always moved very closely with the effective federal funds rate (EFFR), although there have been periods such as during the 2008 financial crisis when the OBFR traded higher than the EFFR. Certain market participants have highlighted AMERIBOR — an overnight rate based on unsecured loans transacted on the American Financial Exchange — as another alternative to SOFR. The daily transaction volume supporting AMERIBOR has been increasing and it was reported to be $3.4 billion on average during March 2020.

Alternatives to SOFR?

Still, it's important to note that using OBFR (or AMERIBOR) wouldn't solve the LIBOR credit spread issue entirely. Credit spreads of a 1-, 3-, 6-month USD LIBOR are significantly wider (versus embedded credit spread within an overnight rate such as OBFR or AMERIBOR). Like SOFR, construction of a term rate based on an overnight rate would be challenging. OBFR, for example, would also have to be compounded (or averaged) to establish a term-rate approach in much the same way as SOFR. And the compounded version of OBFR would still have a residual credit spread from corresponding LIBOR tenor (e.g., 1-month compounded OBFR lower than 1-month USD LIBOR in ordinary market environment), thus requiring a historical "credit spread adjustment" for conversion of existing LIBOR contracts.

As regulators and ARRC work with market participants (especially regional financial institutions) in exploring a credit sensitive rate (or a credit spread supplement to SOFR), they won't have an easy choice. Approving another rate such as OBFR for lending markets as a second alternative for USD LIBOR has the potential to create market confusion or stunt SOFR liquidity development — and it might not be possible to restrict an International Organization of Securities Commissions (IOSCO) compliant alternative just to lending markets. On the other hand, reconfirming SOFR as the preferred alternative for USD LIBOR replacement may still not avoid organic market development of another credit sensitive rate at a later point.

Conclusion

We recommend market participants take the following actions:

- Prepare strategies for product pricing, funding, and risk management (including conduct risk) with SOFR as the likely choice for USD LIBOR replacement. Don't bank on a second credit-sensitive rate.
- Plan for the unlikely but real possibility of a credit-sensitive rate being available in addition to SOFR, and keep an eye on market developments.
- Establish capabilities for compounding (or averaging) in order to implement a term-rate approach. Don't wait for a forward-looking term rate to emerge.
- In any scenario, plan on credit spread adjustment from USD LIBOR even if a credit-sensitive rate is selected.
- Engage all key stakeholders early in the process (e.g., LIBOR team, business owners, technology, risk) to tackle these issues. This isn't just the responsibility of the LIBOR team; business and support functions must be fully involved.

Contacts

We welcome the opportunity to further explore these strategies with individual financial institutions. Please reach out to our contacts below.

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