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Libor's legion of successors

Helen Bartholomew **Editor-at-large**, **Risk.net** helen.bartholomew@infopro-digital.com

Joanna Edwards Global Director, Commercial Sales joanna.edwards@infopro-digital.com

Stuart Willes Commercial Editorial Manager stuart.willes@infopro-digital.com

Alex Hurrell Senior Commercial Subeditor alex.hurrell@infopro-digital.com

Antony Chambers, **Publisher**, **Risk.net** antony.chambers@infopro-digital.com

Philip Harding, **Global Head of Commercial Content** philip.harding@infopro-digital.com

Rob Alexander, **Sales**, **Risk.net** robert.alexander@infopro-digital.com

David Pagliaro, **Group Managing Director** david.pagliaro@infopro-digital.com

Ben Wood, **Managing Director**, *Risk.net* ben.wood@infopro-digital.com

Rachael White, **Senior Production Executive** rachel.white@infopro-digital.com

Infopro Digital (UK)

133 Houndsditch London EC3A 7BX Tel: +44 (0)20 7316 9000

Infopro Digital (US)

55 Broad Street, 22nd Floor New York, NY 10004-2501 Tel: +1 646 736 1888

Infopro Digital (Asia-Pacific)

Unit 1704-05, Berkshire House Taikoo Place, 25 Westlands Road Hong Kong, SAR China Tel: +852 3411 488

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he countdown to Libor's demise is officially under way. On December 31, most settings, including sterling and yen, will cease. At the same time, widely used US dollar settings, which were granted an 18-month reprieve, will no longer be available for new business. If a recent jump in Libor usage is anything to go by, regulators face a Herculean task prising dollar markets from the discredited rate by year-end. Exposures linked to US dollar Libor totalled \$223 trillion at the end of 2020 – up from \$199 trillion four years earlier, according to estimates from the Alternative Reference Rates Committee (ARRC), the

In April, just 7.5% of US dollar swaps risk was traded on the secured overnight financing rate (SOFR), the Fed's preferred Libor successor, according to the Isda-Clarus RFR Adoption Indicator.

Federal Reserve-backed group tasked with transitioning US markets off Libor.

The mission is complicated by huge swathes of the US lending market, which is yet to be convinced by SOFR. Many would prefer something altogether more 'Libor-like' – and the market seems determined to offer them a growing menu of alternatives to choose from.

At least three new benchmarks offer the credit sensitivity and term structure inherent to Libor. Lenders have already begun to adopt two of them: Ameribor and Bloomberg's short-term bank yield index, or BSBY. IHS Markit recently made its credit bank funding benchmark live, and two more vendors are waiting in the wings.

While US regulators have been relatively quiet on the thorny issue of credit-sensitive rates (CSRs), criticism by their UK counterparts has ramped up. Speaking at a March 21 SOFR symposium, Bank of England governor Andrew Bailey warned that CSRs built on thin and incomplete markets failed to address the fundamental weaknesses of Libor.

"While these rates may offer convenience as a short-term substitution, they present a range of complex longer-term risks," said Bailey. "The ability of such rates to maintain representativeness through periods of stress remains a challenge to which we have not seen adequate answers."

The new breed of CSRs incorporate transaction volume thresholds to ensure they remain representative of the markets they aim to track – a central tenet of benchmark principles devised by global standard-setter the International Organization of Securities Commissions.

Many use multiday windows to maximise input data, though daily thresholds are as low as \$1.5 billion for some settings. It's an improvement on the \$500 million of transactions estimated to underpin three-month Libor, but a far cry from the \$1 trillion daily repo activity supporting SOFR. It's also nowhere close to the \$125 billion daily notional of futures transactions underpinning a three-month term SOFR rate, published by CME.

ARRC crowned the Chicago exchange group as the official provider of a forward-looking rate in May, but stopped short of a full endorsement, citing poor liquidity in cash and derivatives markets, which the industry group deems "essential to a robust and stable term rate".

A list of market indicators for recommending the rate are largely aimed at bolstering over-the-counter liquidity, rather than the listed futures that actually underpin the CME rate. These include electronic market-making of SOFR swaps, changing US derivatives market-quoting conventions to the risk-free rate, and the development of SOFR-linked volatility products such as swaptions, caps and floors.

Understandably, regulators are keen to avoid a repeat of Libor's past failings, where \$200 trillion of risk teetered on \$500 million worth of transactions. Endorsing term SOFR too quickly risks the derivatives-based rate being viewed as the primary vehicle for transition. Leaving it too late may risk lenders turning their backs on SOFR altogether. Pulling the trigger early may be the lesser of two evils.

Helen Bartholomew Editor-at-large, *Risk.net*







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Libor transition nears its end Five topics you need to know

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Market fragmentation

The impacts of multiple rates and conventions

A forum of industry leaders discusses key developments in benchmark reform, and the strategic, operational and technological challenges involved in Libor transition



LCH AN LSEG BUSINES

Philip Whitehurst Head of Service Development, Rates www.lch.com

With Libor cessation dates now fixed, what does this mean for transition? How are market participants responding?

Philip Whitehurst, LCH: The announcements on March 5, 2021 by the UK Financial Conduct Authority, the ICE Benchmark Administration and the International Swaps and Derivatives Association (Isda) have had a real impact. First and foremost, it has given the market certainty about two very important inputs into the transition planning: the Index Cessation Effective Date and the Spread Adjustment Fixing Date – versus the risk-free rate (RFR) – for each Libor.

This is vital information for making the transition actionable. By crystallising the timing and the spread, we lock in the relationship with RFR swaps – since a Libor swap quote now embeds a great deal of implicit RFR projection – and this has provided an upward driver on actual trading volume. LCH has now cleared more than \$5 trillion nominal of secured overnight financing rate (SOFR)-linked swaps in 2021, which is more than was cleared in the whole of 2020.

It also makes the reality of the transition much more tangible and acts as a catalyst to firms at all levels as they intensify their preparations. LCH, for example, has been able to announce definite dates of December 4 (CHF/ JPY/EUR Libor) and December 18 (GBP) for its conversion processes, and we have been able to specify increasing levels of detail around other aspects of the transition.

Max Verheijen, Cardano: The end of Libor has long been announced – as early as 2017 – and we have been preparing towards an end date for alternatives in 2021 ever since. For Cardano, the most important one was GBP Libor. We switched to (reformed) Sonia early for new contracts and let GBP Libor contracts expire. The cessation event did not really change anything in our strategy.

Marc Meyer, HSBC: We see a two-track market developing. For the four currencies ceasing at the end of 2021, we see market participants rapidly transitioning to alternatives. The move away from Libor is accelerating, especially for GBP Libor. However, the continued publication of USD Libor until June 20, 2023 seems to have resulted in a slowdown – even a reversal – in the transition away from USD Libor, with market participants reducing the priority of transition presuming they have considerably more time.

How will the extended timeline for US Libor influence adoption of SOFR and alternative rates?

Max Verheijen: The most important USD Libor rates in the derivatives markets are those with an end date – when the Isda fallbacks kick in – of June 30, 2023. Currently, there is no liquid alternative for derivatives contracts referencing US Libors, hence the continued use of derivatives referencing US Libor expiring before the 2023 date. Setting an earlier end date would have increased the adoption of SOFR and alternative rates. However, market participants indicated the need for an extended implementation time, which was adhered to. It is apparent this extension has not yet led to increased trading in SOFR or alternative reference rates.

Marc Meyer: This seems to have slowed the transition to alternatives to USD Libor quite significantly and has resulted in market participants delaying their readiness for SOFR and other options. This seems fairly consistent across markets, including in the US, despite the Alternative Reference Rates Committee's SOFR Best Practices recommending that USD Libor be removed from sale in less than two months.

Philip Whitehurst: This is an interesting question. Arguably, uncertainty has shifted from the Index Cessation Effective Date and Spread Adjustment Fixing Date to the likely timing of material changes in liquidity. Many market participants continue to express their views on USD rates via USD Libor swaps, but we know this cannot continue on an open-ended basis.

There is likely to be a tipping point in liquidity and, for a central counterparty (CCP), this is critical. On the one hand, we need to maintain eligibility in support of market participants for as long as possible, since ongoing efforts to transition risk across to RFRs can temporarily boost Libor volumes. On the other, we need to attend to our own risk and default management responsibilities.

Official sector announcements have stated that trades conducted as part of a CCP default management process are permitted, and this provides a useful safe harbour. However, we need to assess this protection in the context of other exceptions, since CCP default management processes are insufficiently frequent to enable a truly vibrant marketplace.

What further clarity is needed on regulators' solutions for transitioning tough legacy products?

Marc Meyer: HSBC is not overly concerned that further clarity is necessary. For the portfolios and/or products with Libor exposure, there are relatively few contracts that actually qualify for tough legacy and for which it will not be possible to agree a contractual amendment to a successor rate. We are comfortable the proposed solutions for the small number of problematic contracts will be satisfactory.

Philip Whitehurst: While tough legacy is an enormously important question in some quarters, cleared swaps are not tough legacy. However, there's still a big role for derivatives in the wider context. We must align outcomes in cleared swaps (and also those for uncleared derivatives) with potential outcomes elsewhere – a point that stood out in the feedback from our January Libor consultation.

Focusing briefly on sterling, if the synthetic Libor on which certain tough legacy products will be allowed to rely is, as has been suggested, a function of the forward-looking term Sonia reference rates (TSRRs), and given the reliance of these TSRRs on short-end sterling overnight index average (Sonia) swaps, this would align closely enough with both 'fallenback' Libor trades — at least, to the extent we can predict their value today — and also with the conversion output in cleared processes.

Max Verheijen: If forward-looking alternatives are to be used based on RFRs, they must be structured in a way that circumvents all the issues with Libor fixings, ruling out the possibility of rigging them. Clarity and uniformity on the governance of forward-looking alternatives is needed.

To what extent will market participants rely on fallbacks rather than a proactive transition strategy?

Philip Whitehurst: LCH is not allowing fallbacks to become operational. Allowing them to do so may be the right approach for some products, but we believe it is best avoided for cleared swaps. Our motive is to eliminate the mismatch between the labelling – which we would argue becomes a mislabelling – of Libor swaps when their economics have switched as a result of the cessation events already announced to being driven by RFRs.

We need to perform the conversion to restore the right level of transparency to our risk and default management processes. In doing so, we are, to some extent, a standard-bearer for proactive conversion, and we hope this creates a template for how this proactive transition can be achieved.

Max Verheijen: In the derivatives markets, the experience has been that participants are proactively transitioning away from Libor. This was most eminent in the GBP market, where the use of Sonia swaps increased. Only in the case of illiquid legacy contracts that cannot be replaced at a fair market price would we expect participants to rely on the fallbacks.

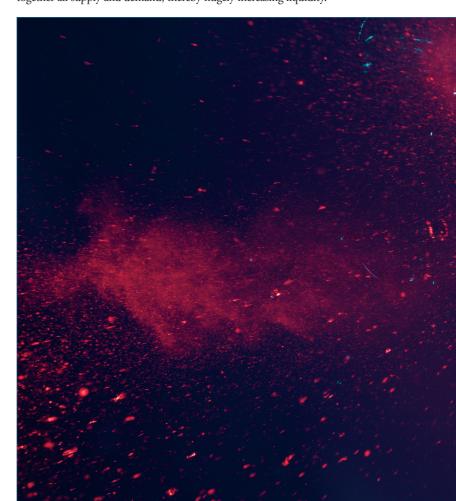


Marc Meyer Wholesale Libor Transition Programme Managing Director, Global Commercial Banking HSBC www.hsbc.co.uk

Marc Meyer: The majority of our customers are aiming to actively transition, especially in the loan market. Some customers will choose a transition effective date set to the Libor cessation date; however, in general, we see customers actively transitioning ahead of Libor's cessation. This seems to be the same for linear derivatives – in effect, interest rate swaps, especially those hedging loan contracts for corporate customers. Clearly those professional counterparts that have signed up to Isda's fallback protocol intend to rely on the provisions of the protocol. The one exception seems to be non-linear derivatives, where relying on fallbacks is likely to result in the cheapest transition option because this avoids any transaction costs.

Will the existence of multiple rates and compounding conventions lead to market fragmentation?

Max Verheijen: A fair question to ask is: "What tenor determines a rate to be truly floating?" Is a 12-month rate a floating rate because it resets every 12 months? One could argue the only floating rate is an overnight rate. All other rates are fixed for a certain period. If that was the market convention, then all liquidity around floating rate instruments would concentrate around the overnight rate. All derivatives and loan contracts that exchange a floating rate would reference the overnight rate, which would bring together all supply and demand, thereby hugely increasing liquidity.





Max Verheijen Director, Financial Markets Cardano www.cardano.org

As long as there are multiple rates and conventions, there is bound to be some bifurcation and fragmentation in the market, which would serve no real purpose if everyone agrees on a single narrow definition of a floating rate – in effect, the overnight rate.

Marc Meyer: Yes, we are very concerned about fragmentation, especially for USD. Clearly, for Sonia, one set of conventions was recommended and the entire market has adopted common conventions – although, even in this case, small but important terms such as market disruption continue to cause friction in the syndicated market – which is a positive outcome. The multiple potential SOFR settings, including recent discussion and some borrower preference for SOFR in advance and the continued desire for term SOFR, mean market participants are reluctant to be first movers, which has created a sense of inertia, and almost paralysis. Add the various credit-sensitive benchmarks to the mix (such as Ameribor or the Bloomberg short-term bank yield index) and this increases the challenge.

We are less concerned about these credit-sensitive benchmarks, but they are adding to the noise. All the while, participants continue to insist on using Libor. This creates significant issues for multicurrency contracts – which are quite prevalent. Clearly it has delayed and will delay [further] the transition of derivatives to SOFR, plus the potential for that market to fragment, reducing liquidity and increasing costs.

Philip Whitehurst: We do not think this will lead to market fragmentation. There is no debate and no question from anyone we speak to that the recommended RFRs will perform the central role for the derivatives markets as a pricing spine, for use in discounting and as the reference point for basis to other indexes.

But term RFRs have been slow to emerge, in some cases with good reason. And this has allowed the sustained interest from certain pockets of the industry in benchmarks that plug the gaps associated with RFRs – the absence of credit sensitivity and the fact that they don't look sufficiently forward – to find a foothold. That certain jurisdictions have always entertained, if not targeted, a multi-rate end-state is the best evidence for the idea that this is a sustainable future market structure.

Regarding different conventions, the most important thing is to develop consistent terminology. If we all use 'lookback' or 'observation period shift' with a common meaning, then the industry can focus its efforts on propagating the capability through different products and processing technologies. This will take some work, of course, but it will enable a functional marketplace that avoids fragmentation.

>> The panellists' responses to our questionnaire are in a personal capacity, and the views expressed herein do not necessarily reflect or represent the views of their employing institutions





Sonia and the euro short-term rate will be mandated for clearing, while the Tokyo overnight average rate must wait until liquidity settles. By Helen Bartholomew

apanese yen swaps will be exempt from mandatory clearing in the UK from December 6 under new proposals from the Bank of England designed to cement the shift away from Libor rates.

The plans, which were released for consultation on May 20, would see most Libor swaps removed from the UK's clearing obligation for over-the-counter derivatives on a staggered schedule ahead of the benchmark's year-end cessation. The BoE expects to issue new clearing mandates for swaps referencing the replacement risk-free rates (RFRs) for most major Libor currencies, with the exception of the yen.

Sterling Libor-linked fixed-to-float swaps, forward rate agreements and basis swaps will no longer be mandated for clearing from December 20. Trades referencing Sonia – sterling Libor's successor – with maturities from seven days to 50 years will become subject to the UK clearing obligation on the same date. Under current rules, Sonia swaps are mandated only for clearing out to three years.

Yen Libor swaps will also be removed from the UK clearing obligation on December 6. However, the BoE has not designated a replacement RFR for clearing, leaving yen swaps outside of the UK mandate. The central bank cited a lack of certainty over where yen swaps liquidity will shift following Libor's cessation. There are concerns that the Bank of Japan's decision to maintain a reformed version of the Tokyo interbank offered rate (Tibor) — an overnight credit-sensitive benchmark — could hinder adoption of the new Tokyo overnight average rate (Tonar), the official successor to yen Libor.

"As the transition in yen markets is not expected to take place from one benchmark to another single benchmark at this stage, we cannot yet judge which contract(s) the liquidity and trade volumes will switch to from JPY Libor," the BoE said in its consultation.

Currently, the split is roughly even. Japan Securities Clearing Corporation (JSCC) cleared ¥17 trillion (\$160 billion) notional of Tonar swaps in the first four months of this year, compared with ¥13 trillion of swaps linked to Tibor. Traders say the omission of an alternative yen benchmark from the UK clearing obligation – at least for the time being – will not change market behaviour. The planned changes would apply only to the UK's post-Brexit version of the European Market Infrastructure Regulation (Emir). Firms subject to these rules clear most of their trades through LCH.

"I don't think much changes. You can still clear Tonar at LCH, it's just not mandatory," says a rates trader at a European bank.

LCH only clears Libor and Tonar instruments in yen, according to the CCP's product list.²

There are other incentives for firms to clear non-mandated instruments – most notably, the non-cleared margin rules, which currently apply to dealers and will be extended to an estimated 250 buy-side firms in September.

Clearing of yen swaps is fairly evenly split between JSCC and LCH. The Tokyo-based central counterparty cleared ¥245 trillion of yen swaps in the first quarter of 2021, compared with ¥215 trillion at LCH, according to data compiled by Clarus Financial.

Waiting on Esma

The BoE's proposals would also see Eonia removed from the overnight index swap (OIS) class of mandated instruments on October 18 and replaced with the euro short-term rate, or €STR. Eonia will be discontinued at the end of this year.

The new UK clearing mandate for €STR swaps would replicate current requirements for Eonia, which cover maturities from seven days to three years.



The European Securities and Markets Authority is yet to consult on similar changes for the European Union's version of the derivatives clearing obligation under Emir, but revisions are currently under consideration.

"In order to accompany the transition away from Eonia/Libor and on to new risk-free rates, Esma has been conducting an assessment of the clearing obligation. We aim to provide more information on that in the near future," says a spokesperson for the European regulator.

According to one industry lawyer, it will be more difficult to modify the EU's rules, which include an array of conditions for adding or removing instruments from the clearing rules. Many of these conditions were stripped out when Emir was transposed into UK law.

The EU version requires new instruments to be added via a 'bottom-up' or 'top-down' approach. The former triggers consideration of an obligation within six months of a new instrument or CCP being authorised for clearing. The top-down approach allows regulators to mandate instruments that are not yet cleared by CCPs.

"The offshoring process made it more open, so that the Bank of England can make technical standards as and when it sees fit, in conjunction with the FCA [Financial Conduct Authority] as appropriate, that's the main difference," says the lawyer.

The UK rules also dispensed with so-called frontloading, meaning bilateral instruments traded before the changes take effect would not need to be moved into clearing houses.

"We cannot yet judge which contract(s) the liquidity and trade volumes will switch to from JPY Libor"

Swiss franc swaps are not currently mandated for clearing under Emir, meaning they are excluded from the consultation. US rules devised by the Commodity Futures Trading Commission require Swiss Libor swaps to be cleared out to 30 years, though there is no mandate for the OIS-referencing successor rate, Saron.

US dollar Libor has been given a stay of execution until June 2023 and has been excluded from the latest proposals. As yet, there is no requirement to clear swaps referencing US regulators' preferred successor - the secured overnight financing rate, or SOFR - even at shorter tenors.

The proposed changes to the UK clearing mandate would take effect well before the eventual cessation of Libor rates. Sterling, yen, Swiss franc and euro Libor settings will cease publication after December 31.

"It makes sense for this mandate to come into force before the official Libor cessation date as it avoids any risk of the clearing mandate being impacted by any potential gap," says a trader at a European asset manager.

The BoE's proposals align with plans made by CCPs to convert legacy exposures to successor rates and exclude new Libor trades from clearing.

LCH SwapClear will convert all sterling Libor exposures outstanding at the clearing house after the close of business on December 17. No new sterling Libor instruments will be accepted for clearing as of December 20. Eonia instruments outstanding at LCH and Eurex will switch to €STR after the close of business on October 15.

Similar conversions for Swiss franc, euro Libor and yen Libor instruments will take place after December 3.

The BoE said its proposals will allow the UK to maintain commitments made by the Group of 20 countries to centrally clear standardised over-the-counter derivatives as markets transition away from the instruments originally mandated for clearing.

"Given the aims of interest rate benchmark reform, the changes proposed in this consultation should ensure that the OTC derivatives activity covered by the clearing obligation remains broadly the same once the benchmark transition has been completed," the central bank said in its consultation.

The consultation closes on July 14.

¹ BoE (May 2021), Derivatives clearing obligation – modifications bill (may 2027), Detrvative Scienting Omigation – iniodine to reflect interest rate benchmark reform: Amendments to BTS 2015/2205, https://bit.ly/3yF96Id

² LCH (2021), What we clear, https://bit.ly/2RSV6d1

TriOptima



Options to mitigate the challenges of index cessation fallbacks and conversion

This has so far been a defining year for index cessation, Isda's fallbacks protocol and central counterparty conversions. TriOptima insists that now is the time for firms to get their interest rate swap portfolios in order before year-end

We came to learn a great deal about benchmark reform over the first few months of 2021. In what was always going to be a defining year, there is now greater clarity over index cessation, the derivatives fallbacks, as well as the conversion mechanisms being proposed by central counterparties (CCPs) for the impacted trades they clear.

All in all, we can consider the impact of index cessation across the landscape for over-the-counter (OTC) derivatives as presented in figure 1.

Known index cessation timeline

Since March 5, 2021, the spread between the legacy ICE Libor fixing and the compounded in-arrears alternative risk-free rate (RFR) has been determined under the process defined by the International Swaps and Derivatives Association (Isda) 2020 Ibor fallbacks protocol. This spread represents the rate that will be added to a compounded-in-arrears

calculation of the alternative RFR in order to act as the fallback rate for an ICE Libor fixing that is either deemed no longer representative or is not published on a given fixing observation date.

With the fallback spread adjustments now being fixed and published, it removes one source of uncertainty around the cessation. The triggering of the fallbacks has provided market participants with greater legal certainty in relation to outstanding ICE Libor transactions. The industry's focus can now shift to implementing the fallbacks protocol for legacy transactions executed on the ICE Libor benchmarks, as well as the associated supplemental fallback language for new swap transactions on the benchmarks.

Fallback implementation challenges

It is now apparent the complexities of maintaining a portfolio of trades on legacy benchmarks and

building processes around the fallbacks present numerous challenges to market participants:

- Measuring the impact of the fallbacks. Perhaps one of the first actions for a firm is to estimate the impact of the fallbacks and the spread adjustment on their portfolio. Some may consider any post-cessation legacy benchmark exposure to be alternative benchmark exposure due to the fallback language. This will likely depend on acceptance of the doctrine that the market has already priced cessation into observable legacy benchmark swap rates, and is something firms will need to determine for themselves.
- Judging the all-in cost of supporting the fallback process until maturity. This includes the implementation cost of systems upgrades, revised operational processes, internal training and the opportunity cost of not proactively converting from legacy benchmarks or potentially utilising key resources towards other revenue-generating projects. In a year when firms are not only dealing with benchmark reform, but also the next phase of uncleared margin rules and adoption of new capital rules in the standardised approach for counterparty credit risk, supporting each of these changes will inevitably come at a cost.
- Understanding the firm's ability to hedge and manage post-trade events in the legacy benchmark portfolio. It is too early to know how the market's appetite for new trades in legacy benchmarks will be impacted, even if such trades are purely to offset existing risks. A typical dealer swap portfolio contains transactions with nonstandard market conventions and illiquid trades with embedded optionality, as well as trades that are direct hedges to cash transactions that have been maintained over years. Common among all these product types is the need to maintain active cashflow reconciliation once the fallbacks are

1 OTC derivatives landscape

Cleared OTC interest rate derivatives

• Subject to mandatory conversion by the CCP

Non-cleared OTC interest rate derivatives

- Largely subject to the Isda fallbacks, given protocol adherence or contractual implementation of fallback language
- Potential for interest rate swaptions to be exercised upon entry into clearing mandated swaps. In which case, such resulting swaps would need to be clearing-eligible upon swaption expiry

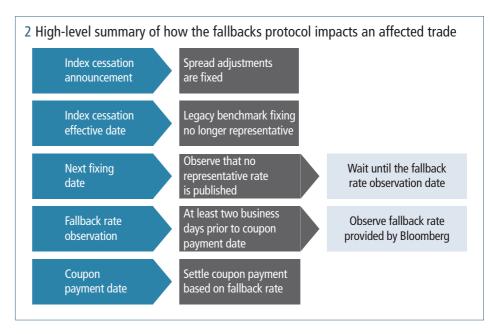
implemented. In a forward-looking benchmark world, the next coupon payment is known well in advance of its scheduled payment. Falling back to a compounded in-arrears rate, on the other hand, leaves a very short amount of time to identify booking discrepancies that could lead to payment disputes. TriOptima's triResolve service for portfolio reconciliation of OTC derivatives transactions is uniquely positioned to assist market participants, given the limited amount of time available to both detect and resolve potential payment disputes.

This is where a firm must consider all of its options. Already mentioned is how the fallbacks protocol and the associated supplement have provided legal certainty over the continued performance on contracts featuring legacy benchmarks. Firms are now able to consider how they can achieve an outcome that is economically equivalent to the fallbacks, but without having to maintain potentially cumbersome fallback processes. Fallback language can be viewed as a necessary safety net, but it shouldn't provide motivation to run legacy benchmark exposure through to a trade's maturity. This may place a burden on booking and risk systems, as well as potentially the cost of hedging activities.

Reducing legacy benchmark transactions

By using triReduce's benchmark conversion mechanism, firms can proactively and iteratively reduce their legacy benchmark exposures and convert them to their chosen alternative benchmarks. Market participants can establish control over the conversion:

- Risk-based tolerances can be used to control impacts using the same measures that a firm manages every day. In turn, firms benefit from enhanced control over the pace of their compression and conversion from legacy benchmarks.
- Participants submit their own mid-market valuations for all trades in their portfolio, enabling cost-effective compression and conversion.
- Whether a portfolio-based or transactionlevel approach is adopted, the resulting risk replacement swaps can take many forms:
 - In the case of OTC interest rate swaps, the risk replacement trades can be truly marketstandard trades or have the fallback spread adjustment applied to the floating leg. Eligible trades could also be cleared, which they will be if mandated.
 - For cross-currency swaps, it is possible to convert just one leg at a time or convert both legs in a single step. LCH SwapAgent trades are eligible for compression and conversions, and SwapAgent is also a venue option to which the resulting risk replacement trades can be sent.



Collectively, these should provide tremendous assistance, affording participants the ability to take back some control over benchmark reform. It also means that there is a method of conversion for all OTC swap market participants.

Opportunities beyond cleared portfolios

Much of any remaining non-cleared portfolio consists of trades that are simply not eligible for clearing. These are interest rate derivatives with optionality, swaps that are too illiquid for a CCP to consider as eligible, or cross-currency swaps, which — for the most part — are not clearing-eligible. Adding to that a portion of swaps that are clearing-eligible would in theory generate additional cost and/or risk imbalances that make the act undesirable. For such trades, it is likely that tailored solutions will be necessary for bilateral counterparts or groups of counterparties to be able to agree on a method for exposure reduction or conversion.

There are portfolio-based and trade-level conversion options available for non-cleared trades. At a portfolio level, the objective would be to compress as much legacy benchmark exposure as possible, while simultaneously converting interest rate exposure to alternative benchmarks to achieve greater degrees of legacy benchmark exposure reduction, such as the process for cleared trades. The key difference here is that the choice of replacement trade can be influenced by the participants in the exercise. For instance, it may be preferable to introduce additional cleared riskcompensating swaps to minimise the residual cash that might be generated. Likewise, participants may consider introducing a spread onto the floating leg benchmark to account for differences between the legacy and the chosen replacement benchmarks.

Adding a spread also underlies how a trade-level conversion might be performed because firms that are likely to prefer this method are also likely to favour cashflow preservation. Performing the conversion at a trade level calls for amending as few parameters of a transaction as possible, relating mostly to the legacy benchmark floating leg(s). Firms will be looking at how the cashflow profile might be impacted by the conversion through the introduction of payment lags, as well as the preservation of representative legacy benchmark fixings.

It would seem we are heading towards an unprecedented end to the year as the market readies itself for index cessation and the associated CCP conversion and Isda fallback implementation. Compression and conversion are themes that will likely surround these milestones and, make no mistake, now is the time for firms to act and take control of their OTC interest rate swap portfolios.

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CDS market prepares to join Libor transition

ICE Benchmark Administration and LCH will switch to new rates for margin interest, with the International Swaps and Derivatives Association to follow in an update to its standard model. By Helen Bartholomew

he credit derivatives market will lend its weight to Libor transition efforts from next month, as three clearing houses adopt new risk-free rates in a key part of the clearing chain for \$2.3 trillion of credit default swaps. The co-ordinated move is part of a grander plan to embed RFRs – the regulatorendorsed replacements for Libor – throughout the financial markets.

On June 11, the clearing houses – ICE Clear Credit, ICE Clear Europe and LCH's CDSClear – will ditch the effective federal funds rate and Eonia in favour of two Libor successors, the secured overnight financing rate (SOFR) and euro short-term rate (€STR). The rates will be used to calculate so-called price alignment interest (PAI) for US dollar and euro-denominated contracts – the rate payable on margin backing those trades.

Similar to October's 'big bang', which saw CME and LCH start using SOFR for discounting and PAI on \$230 trillion of interest rate swaps, the credit derivatives switch will not alter contract terms, but it will impact the valuation of cleared portfolios. The clearing houses have agreed to square up winners and losers by making one-off adjustments to members' accounts.

"The industry has had many discussions about how to do this," says Don Sternard, chief operating officer at ICE Clear Credit. "We think it's a fairly minor impact, but it will have an impact."

The adoption of new PAI benchmarks will be followed by updates to the industry's standard margin model for credit derivatives, which currently uses Libor inputs to value cleared and bilateral instruments.

The moves are part of a wider attempt to bolster liquidity in regulators' preferred Libor successors. Although Eonia will be discontinued at the end of this year, regulators have no plans to shut down fed funds as a benchmark – just to steer users away from it. A transition plan published by the Alternative Reference Rates

Committee, the Federal Reserve-backed group tasked with weaning US markets off Libor, set a deadline for central counterparties to stop using fed funds in the second quarter of this year.

"Regulators are trying to push markets off Libor and one of the steps in that direction is to move the PAI on OTC products towards the newer rates. We've been talking as part of the industry about extending this to CDSs for some time, but people wanted to focus on the interest rate swap part of the business first," says Sternard.

Model adjustments

In contrast with the interest rate swap changeover, which also altered the discount rate used to calculate the net present value of contracts, the CDS switch is focused solely on PAI and PAA. The former represents the interest on variation margin for cleared-to-market transactions, while PAA – price alignment amount – is the cumulative net present value for settled-to-market (STM) transactions. STM treats variation margin as settlement rather than collateral and is the norm for US clearing houses.

While cleared contracts must be valued at the clearing house for margin and risk management purposes, for CDSs this is done using a standard model devised by the International Swaps and Derivatives Association (Isda). The Isda standard model converts the spread-based quotes that are common in CDS trading into all-in prices, making it easier to calculate margin and to ensure fungibility for credit derivatives contracts.

The model – administered by IHS Markit – currently includes Ibor benchmarks as inputs, which will also be replaced with RFRs. The first of these changes is scheduled for July 12, when the sterling overnight index average, or Sonia, will be incorporated into the model. This was pushed back from a previously agreed May 24, as members had not yet completed the required operational upgrades.

"The main thing that needs to be done to the standard model for the Ibor transition is to change the inputs to RFRs. It takes a bit of operational work and changes to people's systems, but the initial feedback from testing is that, overall, the economic impact is very low," says Jonathan Martin, director for market infrastructure and technology at Isda.

Given the limited number of sterling CDS contracts outstanding, the Sonia inclusion is seen as a dry run for the more material arrival of SOFR and €STR in the model.



A date for the dollar and euro switches will only be set after Isda and its members agree necessary alternations to index swaptions documentation, which currently references the standard model and Libor curves, meaning it also needs to be updated.

"The group felt it was really important to work out what changes need to be made in the index swaptions documentation before setting a date for the other currencies," says Martin.

While sterling Libor will be discontinued at the end of this year, along with three other currency settings, US dollar Libor has been given a reprieve until June 30, 2023. Euribor, which is used to value eurodenominated credit instruments, currently has no cessation timetable.

"With US dollar Libor sticking around for another year-and-a-half, there's not the time pressure for the end of the year, but people want to get it done as soon as possible," says Martin.

While derivatives users pushed for the three CDS clearing houses to make their PAI and PAA switches together, Martin says there was no requirement for the Isda model changes to

take place at the same time, given their relative independence and the limited impact of the model changes on contract valuation.

ICE has eliminated any reliance on the model for the majority of its cleared credit contracts, by requiring members to convert spread quotes themselves and submit end-of-day values on a cash price basis for all single name and most index instruments.

"It provides a more robust approach for our end-of-day price discovery process," says Stan Ivanov, president of ICE Clear Credit. "We have that advantage that we are model independent on our single-name price discovery process, and we're working with the industry and taking steps for our end-of-day price discovery process to be entirely in the price space, so we can eliminate any model dependence."

ICE Clear Europe still allows iTraxx index trades to be submitted on a spread basis but hopes to align this with other instruments later this year.

LCH accepts both spread-based and upfront prices, with IHS Markit performing the conversion.



The PAI transition for cleared CDSs will be based on snapshots of SOFR and €STR interest rate curves on June 11, a Friday. For both ICE clearing houses, these will be taken from the exchange group's data arm, ICE Data Services. The new rates will apply for PAI or PAA from June 14.

ICE will neutralise any valuation change via a one-off cash adjustment to member accounts, with winners compensating losers. LCH SA will achieve the adjustment via two small offsetting CDS index transactions, one of which will have an initial payment amount equal to the compensation requirement.

Although expected to be small, the magnitude of any compensation will depend on the spread level and duration of instruments in a portfolio as well as the currency defining the underlying discount curve. Balanced dealer portfolios are likely to see very minor valuation changes, while more directional client portfolios could attract larger adjustments.

"Different clients have different strategies and risk profiles at the clearing house. Those that are more directional should expect higher adjustments, especially for euro-denominated instruments. In general, for the high spreads, or crossover names, the compensation is going to be of varying magnitudes higher, but it really depends on what the market will do as spread levels and spread curve shapes change," says ICE's Ivanov.

ICE is guaranteeing identical pricing on the same instruments across its European and US clearing houses. End-of-day prices taken from ICE Clear Credit will apply to all US dollar contracts, while ICE Clear Europe prices will stand for all euro contracts.

"If you sold protection on a given instrument at ICE Clear Europe and bought it at ICE Clear Credit, you're guaranteed that the compensation amounts will be fully offsetting. If you have a position at another clearing house, then the adjustments may not fully offset simply because the instrument may have different end-of-day levels at different clearing houses," says Ivanov.

ICE has already completed three simulations, enabling users to see adjustment amounts based on pre-transition portfolios. Two more are slated prior to the event, on May 12 and June 4. LCH's CDSClear completed one dry run in user acceptance testing and produces daily expected compensation reports for members and clients. LCH will also apply the changes to variable-rate repo agreements on its RepoClear platform.





Libor transition nears its end Five topics you need to know

As the deadline to Libor cessation approaches, Liang Wu, executive director of financial engineering and head of cross-asset product management at Numerix, presents a series of market themes that warrant closer inspection

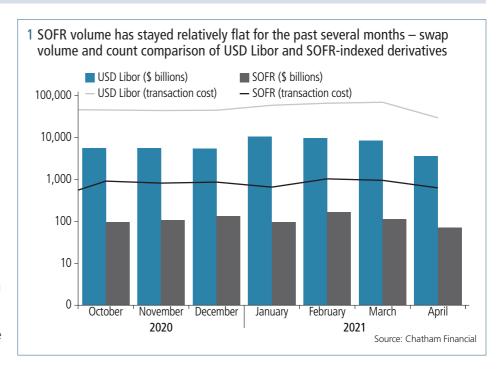
There is less than a year left before the expected cessation of Libor, with the exception of the most liquid USD Libor tenors, which will be published until June 2023. The interbank offered rates (Ibors) of other major currencies, however, appear to be on schedule for their discontinuation at year-end.

Globally, much transition progress has already been made. Trading volumes in the major risk-free rates (RFRs) are gaining momentum, and the markets anticipate seeing an even greater liquidity shift from Libor to RFRs this year. One significant development is that the International Swaps and Derivatives Association (Isda) 2020 Ibor fallbacks supplement and protocol for new and legacy derivatives contracts is now effective, and regulators and industry committees have stepped up communications to market participants regarding the need to transition away from Libor as soon as possible.

As progress in the Libor transition continues, there are several crucial issues market participants face in 2021. This article highlights the five top market themes that deserve examination, and my opinions as a financial engineer who has been deeply immersed in the decommission of Libor since the UK Financial Conduct Authority (FCA) announced in July 2017 that it will no longer compel banks to use Libor after the end of 2021.

1. 2021 is not really the end of Libor

On November 30, 2020, ICE announced its plan to extend the proposed end date for most US Libor tenors from December 31, 2021 to June 30, 2023. This proposal was then confirmed by the FCA on March 5, 2021. This reflects an approximately 18-month reprieve from the death of US Libor.



I view this as a welcome extension. It allows market participants with legacy contracts that have longer maturity dates more time to properly prepare for the termination of US Libor and to complete the Libor transition. Thus, it is helpful that institutions are not being forced to be 100% transitioned by the end of 2021. The majority of the longer-dated derivatives contracts will mature by the middle of 2023 anyway, so the extension is a good move that will benefit the market.

However, it must be acknowledged that secured overnight financing rate (SOFR) trade volumes have been flat since regulators granted USD Libor the 18-month extension, with traders blaming poor liquidity and the industry's reliance on new fallback

language, according to a recent *Risk.net* article¹ (see figure 1).

What is important is that regulators are emphasising that, despite this buffer period, market participants should not be under the illusion that the 18-month extension allows them to execute new trades of Libor-based derivatives until June 2023. It has to be very strongly messaged to market participants that the end-2021 deadline still holds for new products. Now might be the time to re-examine whether your firm has all of the curve analytics and models in place to handle the Libor transition and beyond.

¹ R Mackenzie-Smith, Risk.net (February 2021), SOFR adoption stalls after US Libor delay, www.risk.net/7798721

2. Looking forward to a forward-looking **SOFR** term rate

The market has long anticipated a forward-looking SOFR term rate. However, according to the Alternative Reference Rate Committee's (ARRC's) latest progress report, a term SOFR rate is unlikely to be published in 2021. Does this change things for market participants?

SOFR does not currently allow for predictive, forwardlooking rate calculations – three, six or 12 months out – which is a deviation from Libor. While a SOFR compounded in advance rate offers an alternative, I believe a term SOFR rate could be quite useful to the market. It is also worth noting that, while the first forward-looking term rates based on the sterling overnight index average (Sonia) have been available since January 2021, ARRC acknowledged that the flat liquidity of shortdated SOFR derivatives contracts has made it difficult to publish a term rate, and the market shouldn't anticipate one by mid-year or even by the end of 2021.

The Libor transition doesn't necessarily need to wait for a forward-looking term SOFR rate. You can argue that trading in the current derivatives market on SOFR has been picking up and is growing gradually so, from that perspective, the derivatives market, as it is now, is not counting on a term rate. Nonetheless, I wouldn't want to lessen the potential usefulness of a term rate, especially a forward-looking one, because it could be very important for certain contracts to be linked only with a forward-looking term rate in practice, instead of some other form of the overnight rate. It would be extremely helpful because a forward-looking term rate would be very much like the current Libor and could ease the transition for products similar to Libor-based products. For example, availability of a forward-looking term structure for SOFR may be necessary to transition some cash products from USD Libor to SOFR to ensure certainty of cashflows in the beginning of each payment period.

3. Ibor fallbacks – Having curve analytics and models at the ready

On January 25, 2021, Isda announced that new fallbacks for derivatives linked to key Ibors were now in effect. On March 5, 2021, Isda also confirmed that the spread adjustments to be used in its Libor fallbacks will be fixed as of that date, which provides clarity on the future terms of derivative contracts that will incorporate these fallbacks. These announcements ease a good amount of transition risk for the market. However, they may also present a technology hurdle to market participants that have yet to address the modelling challenges and technicalities of fallbacks.

The core issue now is that the spreads are permanently fixed for the Ibors; market participants will need to take those as inputs to comply with the Isda Ibor fallback methodology in their derivatives valuations. This is attracting a lot of attention because this means market participants will have to pursue technology upgrades or even consider transitioning their internal systems to ensure their fallback mechanisms can be triggered now that the fixed spread adjustments are effective.

This presents another issue, which is when institutions plan to execute system or analytics upgrades. With spread rates fixed, institutions need to quickly handle their current legacy contracts to make sure fallback mechanisms can kick in before the end of 2021. This provides a sense of urgency to have transition upgrades in place. Taking the first steps now to ensure you have the correct curve framework will ensure a much smoother and more seamless transition to handle not only vanilla products, but non-linear derivatives as they come into play.



Liang Wu

4. Keeping an eye on cross-currency markets volume in 2021

The cross-currency markets have yet to embrace SOFR; at the end of 2020, only small volumes were traded. Could 2021 be the year when there is a big boost in trading in the cross-currency markets as SOFR becomes more established as a standard RFR?

Trading volumes for cross-currency markets are trending upward, and I believe we will see the further development of the cross-currency markets between different alternative reference rates, such as SOFR versus Sonia, SOFR versus euro short-term rate (€STR), and SOFR versus the Tokyo overnight average rate (Tonar). Currently, cross-currency trading using SOFR is a fairly empty market, but I foresee this market growing in 2021. However, just as we cannot predict the growth rate in the SOFR market alone, we cannot predict the rate at which the cross-currency markets on SOFR will grow.

Typically, there are two major types of trades – one between developed market currencies, where basis swaps are generally traded, and the other between emerging markets and developed markets, which normally trade crosscurrency swaps.

I would like to note that the cross-currency swap markets have yet to embrace RFRs. However, despite the slow movement, I am optimistic the cross-currency markets will move to using RFRs for cross-currency swaps and that it will become a market standard by 2022.

5. Exploring a market need for a credit-sensitive alternative to SOFR

There is demand in the US, particularly from regional banks, for a credit-sensitive rate that is an alternative to SOFR. A big question among market experts is whether the derivatives market needs a credit-sensitive rate.

If we are talking about the derivatives market alone, the prevailing view is that a credit-sensitive rate is not necessary. One overnight rate (SOFR) that is close to the RFR is good enough because, in situations where either a new contract is directly linked to SOFR or an existing contract is managed according to the Isda Ibor fallback – basically a compounded SOFR rate plus a static spread – you can always hedge the volatility of the SOFR rate dynamic without introducing the credit component. So, if we're just talking about hedging the SOFR risk out of a portfolio using SOFR derivatives as they are now, that is sufficient, and you don't need the credit premium aspect.

In terms of the cash market, if it is operating under the assumption that future issuance will be based on a SOFR rate plus a static spread, then you don't need a credit-linked SOFR rate. However, if there is a need to mimic a Libor-like product in the future issuance of cash products, that is a problem because SOFR doesn't have a credit component, but Libor does. So, from that perspective, if you want to identically mimic your current business by just switching to a different rate, that might be a complication.

This presents two issues. One is to create a variation of the SOFR rate so it has dynamic credit information within it, and the other is to create a completely alternative rate that has a credit component but is not a SOFR rate. In terms of the latter, it already exists.

Ameribor is a credit-sensitive alternative rate to SOFR. While the big banks and the clearing houses all switched to SOFR, some smaller, regional banks still value having a credit-linked rate for conducting their type of business. So, I can see Ameribor having its own market that is independent from SOFR. I also believe the existence of an Ameribor market may not present any drawback to the SOFR market, at least for now.

CME wins term **SOFR** race

A working group backed by the US Federal Reserve puts the secured overnight financing rate back on track, but low volumes keep the endorsement on hold. By Helen Bartholomew

he Federal Reserve-backed group tasked with weaning US markets off Libor has moved to put plans for a forward-looking version of its chosen replacement rate back on track, with the selection of CME Group as its preferred provider of a benchmark deemed vital for legacy rate transition.

In a statement earlier today (May 21), the Alternative Reference Rates Committee (ARRC) announced its choice of CME as the administrator for term SOFR, the secured overnight financing rate, ahead of rival providers ICE Benchmark Administration (IBA) and Refinitiv.

CME's selection falls short of a full endorsement, however: the ARRC warned that the rate's success is reliant on key market indicators that it previously outlined on May 6. These comprise continued growth in SOFR-linked derivatives volumes; visible progress in deepening SOFR derivatives liquidity; and growth in cash products, including loans linked to SOFR.

"The identification of CME Group as the strongest proposal to administer SOFR term rates leaves one final step in this work: the ARRC's recommendation of a forward-looking SOFR term rate," said ARRC chair Tom Wipf in the statement. "Given that continued progress in developing SOFR derivatives market liquidity is readily achievable, a recommended term rate is now in clear sight."

Formal identification of the preferred methodology comes after the ARRC delayed a mid-2021 timetable for recommending term SOFR, causing consternation in markets where visibility of interest payments is required, for example trade finance and syndicated lending.

"Now that market participants know exactly what term SOFR will look like once recommended, interested loan market participants can continue with their transition plans to term SOFR," said Tess Virmani, associate general counsel for the Loan Syndications and Trading Association in a statement issued following the ARRC's announcement.

With regulators aiming to stamp out issuance of new US dollar Libor contracts after the end of this year, and waning term SOFR expectations, firms had begun to consider a growing array of alternative rates which incorporate a term structure and credit sensitivity.

On May 14, US workwear company Duluth Holdings became the first company to link a syndicated loan to Bloomberg's short-term bank yield index (BSBY) – a credit-sensitive benchmark that went live in March. The \$150 million five-year revolver was arranged by Bank of America. BofA also issued a \$1 billion six-month floating rate note referencing the index in April. The bank recently entered into a \$250 million BSBY/SOFR basis swap with JP Morgan.

Ameribor, a measure of overnight lending between 170 regional banks conducted over the American Financial Exchange, began publishing a 90-day term version on May 19. This follows the launch of a 30-day iteration, which has already been adopted by Zions Bank for commercial lending.

Awaiting endorsement

CME already publishes one-, three- and six-month SOFR settings, which have been deemed compliant with international benchmark standards, including the European Union's benchmarks regulation. The rates have been available for use in cash contracts since April, though licences do not permit its use in derivatives before June 2023, when US dollar Libor will be discontinued.

Without full endorsement, CME's term SOFR would remain out of reach as a fallback for many cash market instruments. Regulatory-approved fallbacks, which re-hitch Libor-referencing bonds, loans and securitisations to a replacement when Libor dies, list term SOFR at the top of a waterfall of options. These contracts would default to a compounded-in-arrears version of SOFR if an approved term rate is not available.

An ARRC recommended term rate is also referenced directly in New York State legislation, aimed at providing safe harbour for legacy contracts that are automatically shunted off Libor.

CME's win over its rivals tilts the term SOFR methodology towards futures inputs – at least in the short term. The Chicago-based exchange group traded \$232 billion in average daily notional of SOFR futures contracts during the first quarter, and builds its rate around these contracts. The three-month setting, for example, is underpinned by \$125 billion in daily notional.

Sean Tully, global head of financial and OTC products at CME Group, says CME term SOFR is built on a "deep and liquid underlying CME SOFR futures market".

"We believe the ARRC's decision to select CME Group as the administrator of term SOFR reference rates will provide the market with the certainty it needs to further grow SOFR issuance and swap market activity."

It's understood some clients have already begun licensing the new benchmark.

Rivals Refinitiv and IBA both publish benchmark-compliant term Sonia rates for sterling markets, and hoped to mirror the overnight-indexed swap methodology in their term SOFR plans. This swap-based methodology is deemed preferable by some, as it avoids the modelling assumptions required to stretch fixed expiry futures into specific term settings.

Yet SOFR swaps liquidity has been slow to build. In April, just 7.5% of US dollar swaps risk was traded on the RFR. CME intends to add overnight indexed swap quotes and swaps transaction data to its methodology at a laterdate.

According to an ARRC statement, CME's selection was based on technical criteria, firm criteria, public policy criteria and calculation methodology criteria. The ARRC has conclusively identified CME Group's proposal as having most effectively met those criteria.

A spokesperson for IBA declined to comment. A Refinitiv spokesperson did not respond to a request for comment by press time.

Prudential and Goldman Sachs cast doubt on Libor-like replacements

Panellists at the International Swaps and Derivatives Association's virtual AGM were split on the case for credit-sensitive rates in a post-Libor world. By Robert Mackenzie Smith

he development of credit-sensitive rates, which look and feel like Libor, is creating unease among some market participants, with one trading head at a large US insurer describing the development as "troubling".

"The argument about [credit-sensitive rates] being co-ordinated with Libor – that is a bit troubling to me ... just with the concerns that Libor wasn't representative," said Chris McAlister, global head of derivatives trading at Prudential.

"The general message we have heard from regulators is that, implicitly, there's not enough volume out there in credit-sensitive rates for [them] to be representative."

Chirag Dave, Goldman Sachs' head of sterling interest rate swaps trading, questioned whether borrowers would want to use a benchmark that spiked during a time of market stress or one that would go down and ease borrowing costs.

"In a time of crisis, I think it's worth seriously considering whether you actually want that exposure as a borrower to higher rates when credit spreads blow out," he said.

McAlister and Dave were speaking on a panel at the International Swaps and Derivatives Association's (Isda's) AGM on May 10.

Others on the panel were more supportive of credit-sensitive alternatives to the secured overnight financing rate, or SOFR – regulators' preferred successor for US dollar Libor.

Sonali Theisen, head of fixed income market structure and electronic trading at Bank of America, said her bank believes in "providing the market choice" when it comes to benchmark transition.

She added that BofA is "open for business" writing contracts linked to the Bloomberg short-term bank yield index (BSBY) – one of a growing list of credit-sensitive alternatives vying for a place in the post-Libor world.

BofA issued the first floating rate note tied to BSBY in April, and last week entered into the first swap contract with JP Morgan, Bloomberg reported.¹

"Our firm believes in providing the market choice for areas that continue to struggle to adopt existing alternatives in a timely fashion, particularly in the loan market," said Theisen. "The market has struggled with how to price loans off of a risk-free, backward-looking rate in a way that balances for both normal market conditions and times of stress."

New benchmarks being developed by Bloomberg, ICE, IHS Markit, American Financial Exchange and SOFR Academy are at various stages of development as the clock ticks down on US dollar Libor.

The outgoing benchmark has been granted a stay of execution until mid-2023, though the Federal Reserve will be monitoring banks closely to make sure no new transactions are written to US dollar Libor after the end of this year.

This means the race is on to get alternatives up and running in time for participants make the switch. The Fed has backed the Alternative Reference Rates Committee's (ARRC's) selection of SOFR, a repo-based benchmark that lacks a term structure and credit sensitivity.

SOFR is being referenced in futures and OTC derivatives, as well as some cash products, but has had a stuttering start as the de facto replacement for US dollar Libor. This has prompted the market to seek alternatives that incorporate both a term structure and credit sensitivity, and can be used independently from SOFR or layered on top.

The Fed has kept its views on these creditsensitive rates quiet, but has consistently pushed SOFR as the most robust alternative to Libor.

Others have been more vocal in questioning the viability of credit-sensitive alternatives.

Speaking on a *Risk.net* webinar in April, Tom Wipf, chair of the ARRC, said he was "puzzled" by the appeal of these rates, given their likeness to US dollar Libor.

Yet market participants are becoming increasingly convinced the US market will feature multiple alternative interest rates to Libor.

"It's our belief that products like BSBY and Ameribor in the US will coexist alongside SOFR," said Jack Hattem, deputy chief investment officer (CIO) of the BlackRock Obsidian Fund, a global fixed-income multi-strategy hedge fund. He was also speaking on the Isda panel.

These credit-sensitive rates may also be a boon for SOFR, said Theisen and Hattem. The deputy CIO said the majority of liquidity will likely centre on Fed-backed SOFR, and the development of basis swap markets could further support the risk-free rate. BofA's Theisen said the list of alternatives would help "accelerate" transition to SOFR.

"We do think it will accelerate the transition to SOFR for much of the derivatives market, and overall improve the pace of transition away from Libor," she said. Isda has added BSBY and Ameribor to its interest rate swap definitions but, for now, derivatives benchmarked to creditsensitive rates remain non-cleared.

Phil Whitehurst, head of service development for LCH's rates derivatives business, said the clearing house does not have any concrete plans at this stage to centrally clear any new swaps referencing the rates, but this could change.

"We could get additional indices in dollars, specifically, and we are open to the idea. We will have certain model constraints to work around and dataset constraints. And to the extent our users want us to develop a clearing eligibility to those things, we will definitely be there to support."

¹ Business Wire (April 2021), BoA announces floating rate notes issuance referencing BSBY, https://bwnews.pr/3bY5as0

Accurate RFR hedges face liquidity trade-off

Panellists at the International Swaps and Derivatives Association's virtual AGM suggest that aligning swaps with assorted cash market conventions would require users to weigh liquidity cost. By Helen Bartholomew



irms planning to use non-standard swaps to accurately hedge cash instruments linked to overnight risk-free rates (RFRs) may need to account for the cost of low liquidity, market participants have warned.

While derivatives markets have embraced compounding in arrears for creating Libor terms in successor RFRs, cash markets have adopted a baffling array of conventions, threatening borrowers and lenders with hedging mismatches as they move away from Libor.

Chirag Dave, head of sterling interest rate swaps trading at Goldman Sachs, says bespoke swap hedges created with cash market standards provide more accurate hedging but may come at a price. "The most liquid instrument is going to be the standard RFR compounded in arrears, so any divergence from that is likely to come with some cost in terms of liquidity. It's worth bearing in mind when considering which option to go with," said Dave.

Jack Hattem, managing director for global fixed income at BlackRock, also warned of a trade-off when seeking to eradicate cashflow mismatches with bespoke swaps.

"There will be cases where we will want to do that [bespoke hedging] and it might be decided that it's worth it – not only to convert that [from Libor], but to understand if there's any incremental additional cost, or what the trade-off is with respect to liquidity."

Dave and Hattem were speaking on a panel at the International Swaps and Derivatives Association's (Isda's) virtual AGM on May 10.

While swaps that veer from market norms are likely to trade at a basis to standard versions, Sonali Theisen, head of fixed income, currencies and commodity e-trading and market structure at Bank of America, said the basis "may be minor in many cases and market conditions".

Compounding in arrears has been adopted for most floating rate notes and some loan markets linked to RFRs. In contrast with standards for overnight index swaps (OIS), which delay coupon payments until after the interest period, cash instruments incorporate mechanisms to allow visibility of payments.

Three competing methodologies – lag, observation shift and lockout, as well as multiple payment windows, typically of two to five days – have created dozens of iterations and an operational headache for end-users.

Isda is now preparing a set of modular interest rate options to be inserted into its swap definitions, which will allow traders to select preferred swap characteristics and accurately align hedges with cash exposures.

Chris McAlister, global head of derivatives trading at Prudential Financial, said availability of bespoke swaps will help alleviate concerns around hedge accounting.

"There are going to be some small nuances, especially with the [OIS] payment delay situation, where trying to line up payment dates can sometimes interfere with calculation periods. The very underlying nature of a derivative being so flexible is going to be what really solves most of these problems," he said on the same Isda panel.

BlackRock's Hattem also welcomed the diversity. "The great benefit of derivatives is that they afford us this amount of flexibility. Depending on what you're trying to accomplish, you can have these nuances and different conventions."

While bespoke swaps can cater to all flavours, there may be other considerations. Phil Whitehurst, head of service development at LCH, warns that the clearing house does not support all formats.

"We're capable of supporting some of these configurations right now. Isda's term lookback, we can cope with that one. We can't cope for the moment with observation period shift," he said

In the UK market, where regulators called for no new sterling Libor contracts to be traded after March 31, Goldman's Dave has seen little demand for bespoke Sonia swaps, with 99% of enquiries following OIS standards.

"Where I do see a divergence is from corporates with cash products which have different conventions. To the extent they wish to cashflow match their derivatives hedges versus those, you may see some interest in introducing some of the features."

Diverging standards

Differences in the way RFRs are compounded are subtle but significant. Lag and observation shift both begin and end the observation period a number of days before the interest period, yet the two diverge on how they account for weekends and holidays. A lockout ends the observation early and repeats a final fixing for a number of days before the end of the interest period.

Most loan markets, including the UK, have embraced the lag method, which weights fixings according to the interest period. In a two-day lag, for example, a Wednesday setting would correspond to a Friday in the interest period and carry a three-day weighting.

Observation shift ensures whatever happens in the observation period is reflected in the interest period. For example, a Friday rate would carry a three-day weighting to cover the weekend regardless of which day that rate emerges in the interest period.

After initially adopting the lag structure, Sonia bond markets tilted to a shift methodology in February, when the European Bank for Reconstruction and Development used the structure for a £750 million (\$967 million) floating rate note. This came in anticipation of the Bank of England's official compounded Sonia index, which can only be used with observation shift.

With little sign of convergence, ICE Benchmark Administration launched 10 new Sonia indexes in April, reflecting different methodologies and lookback periods.

Larger discrepancies may emerge where firms move away from compounded in arrears altogether. Some US lending markets have adopted simple averaging of the secured overnight financing rate, or SOFR. US mortgage markets have started to embrace in-advance versions, where the calculation for the forward term is derived from the previous term.

Goldman's Dave says these developments are unlikely to be replicated in the sterling market.

"It varies from market to market. In the US there are some averaging products in derivatives, whereas in the UK, in 13 years of trading I've never traded an averaging Sonia swap, and I don't think that's likely to change."

Amid the jumble of alternatives, LCH's Whitehurst called on Isda to provide greater clarity on defining the different mechanisms under common terminology. For example, lookback can be used interchangeably with lag, particularly in the US market, while in other markets the term is a catch-all for a wider variety of approaches.

"It's really important that we all find a way of describing in a nutshell exactly what it is, whether it's a lookback or a lockout or observation period shift, so we all know what we're talking about," he said.

BlackRock's Hattem echoed the call for education around standards: "It's very clear that there are distinct nuances between all of these different products, whether it's averages, [or] compounded in arrears versus in-advance. We are at that critical juncture where these details need to be well understood because they will have valuation impacts within portfolios."

Corporates remain on swaps fallback sidelines

Analysis undertaken by *Risk.net* finds that just 14 out of 100 large non-financial firms have signed up to the International Swaps and Derivatives Association's fallback protocol. By Rebekah Tunstead

on-financial corporates have been slow to sign up to a Libor fallback protocol devised by the International Swaps and Derivatives Association (Isda), with just 14 out of 100 of the largest listed companies adopting the standard language to future-proof swaps contracts, according to research by *Risk.net*.

The analysis was conducted across the top 25 non-financial constituents by market capitalisation in four major stock market indexes. The data show six of the largest 25 corporates in both the S&P 500 and FTSE 100 have adopted the new language, including Apple, Microsoft, Coca Cola, BP and Shell. Only one top-25 non-financial firm in each of the Euro Stoxx 50 and Nikkei 225 has so far signed up to the protocol – Spain's Iberdrola and Japan's Hitachi.

Sarah Boyce, associate director for policy and technical at the Association of Corporate Treasurers, says reticence among non-financial companies to adopt the Libor transition safety net reflects the hedging nature of corporate derivatives exposures and concern about potential misalignment with cash instruments.

"The vast majority of corporates have derivatives in place to hedge a loan or some other underlying. So Libor transition throws up a number of challenges, not least of which is the need to transition the hedge and the underlying simultaneously to make sure that you retain the hedge effectiveness," she says.

Isda's swaps fallback protocol, which took effect on January 25, bakes fallback language into existing derivatives contracts en masse, allowing Libor-linked derivatives to automatically re-hitch to alternative risk-free reference rates (RFRs) on the legacy benchmark's demise.

For sterling, euro, Swiss franc and yen settings, this will take place on December 31 this year. US dollar settings have been given a stay of execution until June 30, 2023.

Despite the short timeline, Libor transition has not been a top priority for many corporates, which have spent the past 12 months dealing with the economic and human impact of the Covid-19 pandemic and associated global lockdowns.

"The benchmark changes are a bit of a sideshow for most corporates," says a senior financial manager at a large European corporate, which has not adopted Isda's fallback language.

Regulators have been keen to promote the protocol, endorsing the contractual certainty it provides in the midst of a complex – and potentially messy – transition from Libor.

In addition to potential misalignment with cash products, corporates cite operational and cost reasons for eschewing the industry standard. Many are reluctant to sign without

appropriate – and costly – legal advice and a thorough evaluation of how adherence would impact portfolios and hedge accounting treatment.

With almost 14,000 firms now signed up to the protocol, including the vast majority of global banks, the demise of most Libor settings at the end of the year will trigger collective transition for trillions of dollars' worth of derivatives contracts. It's a stampede some are keen to avoid.

"I think there's going to be some bottleneck," says the European corporate's senior financial manager, referring to January 1, 2022. "If a big load of transactions gets switched over on the same day, operationally it will probably be a big issue and that's also something we wanted to avoid."



Insurance policy

Firms that don't sign up to the standard language must negotiate fallbacks bilaterally with their dealer counterparties or actively transition to alternative RFRs via unwinds and replacement trades.

The European corporate manager says his firm opted for bilateral negotiation to transition a small portfolio of affected transactions. "In our case, we don't have that much and we didn't want to wait until the protocol would kick in for the changeover."

The corporate is currently transitioning its last couple of outstanding Libor-linked transactions – cross-currency trades with two floating legs. It's a complicated process, he says, but it's one the firm is happy to negotiate itself rather than relying on the protocol.

Phil Lloyd, head of market structure and regulatory customer engagement at NatWest Markets, warns that the protocol remains an important safety net, even if it is not the preferred option for transitioning trades held by corporates.

"The protocol is a seatbelt. It's like an insurance policy, but that doesn't mean you necessarily want to use it," he says.

Many firms may struggle to be ready for transition by the end of this year, potentially leaving them stranded in defunct contracts if they have no back-up plan, he adds. "Is that less-perfect protocol fallback language still

better than not having any fallback language if you can't transition in time? The point would be: yes. So, I think you may see sign-up to the protocol increase with corporates later or in the middle of this year, depending on how much of the books are actively transitioned."

Ivan Jossang, managing director at Morgan Stanley's fixed income division, says many corporates may prefer to stick with active transition.

"Some market participants who haven't yet signed up to the protocol may never sign up and could choose to do an unwind and replacement instead," he says.

One large corporate to adopt the protocol purely as an insurance policy is Anglo-Dutch oil and gas giant Shell. The firm signed up shortly after the new language became effective, but only after careful consideration of any impact on hedge accounting and the role fallbacks would play in the corporation's overall transition plan.

Some corporates worry that pre-emptively signing the protocol as a back-up measure could be economically damaging by reducing their bargaining power in bilateral negotiations.

Isda's fallback language will shunt contracts to compounded-in-arrears versions of RFRs on Libor's demise. An additional adjustment spread is added to reflect the credit component intrinsic to Libor and minimise value transfer. This is calculated as a five-year median between the two rates and was crystallised on March 5,

when the UK's Financial Conduct Authority signed Libor's death warrant.

However, the actual spread between Libor and the relative RFR upon Libor's termination may be very different to the fixed spread adjustment, resulting in winners and losers. Some corporates fear they may struggle to negotiate a fair transition price where the prevailing market rate has tilted in their favour compared with the fallback spread.

"Once you sign up to the protocol, all the banks know you don't have any bargaining power because you have put yourself under the protocol," says the senior financial manager at the large European corporate. "If the customer asks: 'Can we do it before [the protocol is triggered] bilaterally?' they can always say: 'No, we don't want that, and you did sign the protocol."

Regulator scrutiny

While some corporates may still be weighing their next steps, those that are active in derivatives markets and have yet to sign the protocol may come under closer scrutiny by regulators, says Ann Battle, head of benchmark reform at Isda.

"Many corporates may not interact with their dealers on a regular basis, like a traditional financial services firm, or have few swaps in place with relatively few counterparties," she says. "We would still encourage them to sign up to the protocol and we are aware that regulators are in contact with the few active players in the derivatives markets that haven't signed up yet."

Firms have been tasked by the sterling RFR working group to identify all outstanding sterling Libor contracts that will expire after Libor's end-date of 2021 and that can be actively transitioned to new RFRs. They were asked to complete this work by the first quarter of this year, with the aim of moving all existing Libor contracts that can be converted by the third quarter.

For those that leave the transition too late, there are concerns they could face liquidity challenges in trading Libor and steeper prices as the market moves to alternative RFRs.

"The longer you wait to do the conversion, the more challenging it will be to trade Libor as it will become less and less standard. While we're not there yet, in potentially three to five months' time, we could get there. So, for any market participant leaving it until October, November, December, that may be really quite late," says Morgan Stanley's Jossang.





Incoming powers permit the Financial Conduct Authority to ban use of benchmarks with known cessation dates – but only for UK-supervised firms. By Helen Bartholomew

irms that continue to use US dollar Libor in new contracts after the end of this year could be placing themselves in legal jeopardy, a top UK regulator has warned.

While other Libor currencies will be killed off at the end of this year, US dollar Libor has been given a stay of execution until June 30, 2023. Despite that extension, authorities including the Federal Reserve have called on firms to stop trading new contracts on the doomed benchmark from the end of 2021, suggesting they could use supervisory powers on banks that do not listen.

Edwin Schooling Latter, director of wholesale markets policy at the Financial Conduct Authority, says new powers included in the Financial Services Bill, which should be effective in the summer, could add legal clout to the official sector's attempts to deter US dollar Libor usage. 1

"We at the FCA and the PRA [Prudential Regulation Authority] have already signalled our support for this approach from a supervisory perspective. Our benchmark regulation powers could provide further legal backing for that," he said.

Schooling Latter was speaking at a webinar hosted by the International Swaps and Derivatives Association on April 13.

In November, the Federal Reserve wrote to supervised entities warning against new Libor usage after 2021 and threatened greater scrutiny of firms that continued to trade contracts linked to the benchmark. Federal Reserve vice-chair Randal Quarles reiterated those warnings last month.

"After 2021, we believe that continued use of Libor in new contracts would create safety and soundness risks, and we will examine bank practices accordingly," Quarles said during a March 22 event hosted by the Alternative Reference Rates Committee (ARRC) – the Fed-backed group tasked with weaning US markets off Libor.

The powers being granted to the FCA would permit Libor's regulator to designate a flimsy benchmark as non-representative, meaning it cannot be used in new contracts. The regulator can also compel publication of a benchmark under a new methodology for up to 10 years. These powers will be used to create synthetic versions of sterling and yen Libor, providing an off-ramp for so-called tough legacy contracts that cannot be rehitched to alternative risk-free rates (RFRs) after Libor's demise.

The forthcoming legislation also gives the FCA the ability to prohibit new use of critical benchmarks the regulator knows will cease. "It's

relevant in particular to US dollar Libor given the clear guidance from US authorities that new use has to stop by the end of this year," said Schooling Latter.

While the approach could lend legal support for a ban on new dollar Libor usage, it's no catch-all. The powers would only apply to UK financial firms that fall under the direct supervision of the FCA and PRA, but this includes the UK-based subsidiaries of foreign banks such as Credit Suisse, Goldman Sachs and JP Morgan – many of which are large swaps dealers.

Speaking at the Isda event, ARRC chair Tom Wipf said he expects large portions of the market to adopt regulators' preferred Libor successor, the secured overnight financing rate, or SOFR, well before year-end.

"Hopefully sooner – much sooner – than December, we will see a market that is direct to SOFR. We certainly don't want to be addressing this with a couple of weeks to go, which is why ARRC best practices recommend going direct to SOFR by June, and not waiting till December. That certainly provides a little bit of a buffer in terms of getting systems ready, but it should be SOFR other than for very, very, very thin carve-outs on risk-reducing trades," Wipf said.



In March, SOFR accounted for just 4.7% of US interest rate derivatives by traded risk, or DV01, down from the previous month according to the Isda-Clarus RFR adoption indicator.²

The FCA plans to consult on the use of its prohibition power later this year. "You can expect from us a two-stage consultation process for the potential use of this power over the coming months," said Schooling Latter.

This two-stage process will see an initial policy framework consultation followed by a consultation on a specific policy decision – so, how the prohibition could be used, and then whether to apply it.

Synthetic powers

A similar two-step approach is being used to fashion a tough legacy fix for sterling and yen markets. The FCA completed its framework consultation on benchmark methodology changes on March 5 and plans to consult on a policy decision before the end of this quarter.

Based on consultation feedback, the FCA would require Libor's administrator, ICE Benchmark Administration, to continue publishing "on a non-representative synthetic basis" one-, three- and six-month sterling settings "for a period after 2021". The same settings would be published for a synthetic yen Libor for just one year after discontinuation. Again, the intent is for these synthetic benchmarks to provide a way to exit Libor only for a very limited set of cases.

Schooling Latter said a fair replacement value for Libor would see this rate built from two components. A term version of successor overnight rates aims to replicate the forward-looking nature of Libor, while

a fixed spread adjustment based on fallbacks devised by Isda aims to capture the credit premium associated with the unsecured lending benchmark.

A separate consultation, also scheduled to launch this quarter, aims to determine use cases for a permanently non-representative synthetic benchmark.

"We will finalise that policy in the light of feedback, and then consult, again, on a specific decision for synthetic sterling and synthetic yen Libor," said Schooling Latter.

He notes that the regulator does not envisage permitting use "where it is straightforward to convert contracts to RFRs."

In particular, the FCA will test market views on whether any use of synthetic Libor will be permitted in non-cleared derivatives contracts governed by Isda agreements "where market participants also have a low cost and practical mechanism to convert to RFRs by adhering to the protocol".

More than 13,700 counterparties have signed

"We have already signalled our support for this approach from a supervisory perspective. Our benchmark regulation powers could provide further legal backing for that"

Edwin Schooling Latter, FCA

up to Isda's fallback protocol for bilaterally negotiated derivatives – a contract that will hitch existing Libor trades to replacement RFRs at the point the old benchmark dies. The protocol became effective on January 25.

The FCA is also mulling the need for a synthetic version of US dollar Libor, subject to available inputs.

"We will continue to consider the possibility of requiring publication of a synthetic rate for US dollar Libor to help with the legacy tail, but no one should be relying on that," said Schooling Latter.

Legislative proposals currently being debated in the US may lessen the need for a synthetic fix. A recently enacted New York State law – as well as federal proposals currently under discussion – aim to reduce litigation risk in contracts that are rehitched to SOFR on Libor's demise.

UK Parliament (2021), Financial services bill, https://bit.ly/3caqjQ5
 Isda (March 2021), Isda-Clarus RFR adoption indicator, https://bit.ly/3p6b3sK

Botched fallbacks leave CLOs facing early Libor switch

Nearly two-thirds of commercial real estate securitisations issued since 2019 have already triggered fallback clauses. By Robert Mackenzie Smith

ozens of commercial real estate (CRE) securitisations will transition away from US dollar Libor in the coming weeks, more than two years ahead of schedule, after botched legal language was inserted into the deals. At current rates, the early changeover will hit equity investors, who take the first loss in securitised products.

The problem is thought to affect nearly two-thirds of CRE collateralised loan obligations (CLOs) issued since 2019. A total of 54 CRE CLOs worth a combined \$37 billion have hit the market in that period.

The fallback clauses in these deals were triggered on March 8, when the Alternative Reference Rates Committee (ARRC) declared a "benchmark transition event" had occurred after the UK's Financial Conduct Authority (FCA) and ICE Benchmark Administration (IBA) made separate announcements on March 5 confirming the end-dates for all Libor benchmarks.^{1,2}

"The language for a benchmark transition event has evolved over time and some of the earlier deals trigger on the announcement as opposed to the effective date," says Adam Schneider, a partner in Oliver Wyman's digital and banking practices in the Americas.

Sources close to the market tell *Risk.net* they have seen around 35 CRE CLOs – most of them issued in the second half of 2019 – with legal language tying the fallback conversion to a benchmark transition event. This means the debt tranches of these CLOs will transition to Libor's successor – the secured overnight financing rate, or SOFR – long before the benchmark's eventual demise triggers fallback clauses in most other instruments, including the CRE loans underpinning the CLOs.

"I would argue that those securitisation lawyers and the sponsors should be reworking the paperwork to stop that from happening," says Schneider. "That is clearly not the intent to transition nine months before four currencies, and almost two and a half years before the dollar." "You've introduced a level of basis risk, where you have Libor-based cashflows flowing into the trust, and it has to be used to service [notes referencing] SOFR, plus a fixed spread"

Rob Mangrelli, Chatham Financial



The March 5 statements from the FCA and IBA confirmed that while most Libor benchmarks will end on December 31, 2021, five US dollar versions will continue for another 18 months for use in existing contracts.

Recommended fallback language for Libor securitisations published in May 2019 by the ARRC – the industry group tasked with steering the market away from US dollar Libor – states that the clauses do not need to trigger "until the date that Libor ceases to be published". However, some CRE lawyers tweaked the recommended language before inserting it into CLO deals.

One example is TRTX 2019-FL3, a \$1.23 billion CRE CLO issued on October 10, 2019 by TPG Real Estate Finance Trust, a subsidiary of private equity group TPG. The



"[Borrowers] may not want to move to the higher rate, even if it's only a few basis points, just to make a CRE CLO that they're not a party to work more efficiently"

Lawyer heading a Libor transition team

documentation for the deal states the switch to SOFR will take place 60 calendar days after notice of a benchmark transition event is given.

An industry source says the fallback language is legally watertight: "What I'm hearing is that this transition will happen and there's no way of circumventing that."

TPG declined to comment.

Starwood Property and Colony Credit Real Estate also issued CRE CLOs with similar fallback language in the second half of 2019. Both deals were worth more than \$1 billion. Neither company responded to requests for comment.

Risk.net understands the problem is confined to CRE CLOs and that fallbacks that trigger before a permanent cessation have not found their way into other securitised products, such as consumer and commercial asset-backed securities.

Cashflow mismatch

CRE CLOs are backed by transitional commercial property loans indexed to one-month Libor. They are typically issued by non-bank lenders, such as private equity groups, which pool the loans in a trust and sell debt securities backed by the cashflows. In most cases, the issuer retains the equity and the junior debt.

The early fallback triggers could pose a significant problem for these structures. If clauses kick-in as expected, the CLO debt tranches will switch from one-month Libor to a one-month compounded-in-arrears version of SOFR, plus a fixed adjustment spread. Meanwhile, the CRE loans underpinning the CLO will remain fixed to Libor until mid-2023.

"In that scenario, you've introduced a level of basis risk, where you have Libor-based cashflows flowing into the trust, and it has to be used to service [notes referencing] SOFR, plus a fixed spread," says Rob Mangrelli, a director in Chatham Financial's real estate hedging and capital markets team. The mismatch currently favours debt holders. As of April 20, the one-month US dollar Libor rate was 10.8 basis points, while 30-day average SOFR plus the fallback spread amounted to 12.4bp. The 1.6bp difference between the cashflow received from the loans and the interest owed to CLO noteholders would come out of the pockets of equity holders.

At current levels, borrowers may be reluctant to switch the underlying loans to a SOFR benchmark ahead of schedule to marry up the CLO cashflows.

"You can't just amend the underlying loans with a snap of the fingers," says a lawyer heading up his firm's Libor transition team. "The borrowers will have some say. They may not want to move to the higher rate, even if it's only a few basis points, just to make a CRE CLO that they're not a party to work more efficiently."

But the shoe would be on the other foot if one-month US dollar Libor rises above SOFR plus the fallback spread between now and June 2023. In that scenario, equity holders would pocket the extra income from the underlying loans, while noteholders would miss out on the additional interest they would have received under a Libor benchmark.

CRE CLO issuance stalled in 2020 after the Covid-19 pandemic brought the commercial real estate market to a standstill. Most of the deals printed since then contain permanent cessation fallbacks. However, some recent deals have stuck with fallbacks that trigger upon a benchmark termination event.

"There were bills done this year that had this early transition language in them. And to me, that's inexcusable," the lawyer says. "If I was an issuer, and I didn't want an early transition, and my deals ended up with this early transition language, I would be furious with my lawyers."

¹ ARRC (March 2021), ARRC confirms a "benchmark transition event" has occurred under ARRC fallback language, www.nyfed.org/3wO3eKM

² FCA (May 2021), Announcements on the end of Libor, www.bit.ly/3fFMC22

³ ARRC (May 2019), ARRC recommendations regarding more robust fallback language for new issuances of Libor securitisations www. nyfed.org/3icutuk

Isda plans second benchmark protocol by 'end of this year'

A sequel fallback protocol will be needed to facilitate a transition away from local interest rate benchmarks in countries such as India and the Philippines. By Blake Evans-Pritchard

he International Swaps and Derivatives Association (Isda) plans to publish a new fallback protocol before the end of the year to help markets such as India and the Philippines transition away from their local interest rate benchmarks reliant on the outgoing US dollar Libor rate.

"We are considering publishing a second protocol to cover those Asia-Pacific benchmarks that we haven't covered before [and] we are hoping to finish the work by the end of this year," said Jing Gu, head of Isda's Asia legal team, speaking at *Risk.net*'s Libor Live virtual event on April 27.

The Mumbai interbank forward offer rate (Mifor) and the Philippine interbank reference rate (Phiref) are two examples of benchmarks partly derived from US dollar Libor, in that they reflect the cost of borrowing in US dollars and swapping it back into the respective currencies. Once publication of US dollar Libor ends after June 2023 it will no longer be possible to calculate the benchmarks.

Isda launched a protocol on January 25 that inserts so-called fallback language allowing market participants to transition their legacy swaps trades to selected fallback rates en masse. The fallback clauses themselves apply a spread adjustment to an alternative risk-free rate (RFR), which helps legacy contracts move to new RFRs with minimal value transfer if and when the relevant benchmarks cease. The protocol covers just six Libor currencies, plus local interest rate benchmarks from the eurozone, Japan, Hong Kong, Singapore, Thailand, Australia and Canada. No protocol is currently available for contracts linked to benchmarks in other Asia-Pacific countries such as India and the Philippines.

It was previously unclear whether the trade body would launch a second fallback protocol for other benchmarks, but Isda's Gu said Isda documentation solutions are needed in order "to facilitate the inclusion of a contractual fallback into [Mifor and Phiref] legacy trades". It may also include other regional benchmarks that are reliant on US dollar Libor. Isda has been in discussion with the relevant central banks and national RFR working groups in the Asia-Pacific region about a second fallback protocol to cover their Ibors.

Before such a protocol can be arranged, however, industry groups in India and the Philippines must first select alternative RFRs to replace the outgoing Mifor and Phiref rates.

An industry group led by the Bankers Association of the Philippines is evaluating two options for replacing Phiref. An overnight RFR is not currently one of them but it hasn't ruled out considering one in future.

The Reserve of Bank of India has also tasked the Banks' Association of India with convening a working group to explore alternative benchmarks for Mifor. A secured and an unsecured RFR are being explored, as well as a benchmark based on Treasury bills, and two benchmarks derived from the US's secured overnight financing rate and foreign exchange markets.





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