Risk publications

Libor Risk

Spotlight on SOFR

The US has chosen the secured overnight financing rate (SOFR) as its Libor replacement. SOFR swaps could get a boost when clearing houses start using the new rate in discounting, but there are some caveats. For other products, the US is drawing up Libor fallbacks, creating potential clashes. *Risk* convened a panel to discuss the outlook for SOFR's development

The secured overnight financing rate, known as SOFR, was selected by a group of industry participants in June 2017 to be the preferred replacement for US dollar Libor as the benchmark for roughly $200 trillion of interest rate products.

The decision to make the switch away from Libor – an integral part of the financial system for decades – was made following revelations that the benchmark had been manipulated during the financial crisis – suspicions that were first reported by *Risk* in January 2008.

Following this, the Financial Stability Board convened a group of regulators, the Official Sector Steering Group, to recommend a solution. Their report, delivered in 2014, called for alternative reference rates to be identified – they should be nearly risk-free and derived from a robust underlying market, making them hard to manipulate.

The original intent was for there to be a multi-benchmark world, but that all changed in July 2017 when the UK Financial Conduct Authority, which regulates Libor, announced it would no longer compel banks that submit quotes for the Libor benchmark to continue doing so post-2021.

Since that moment, the race has been on for financial centres around the world to get ready for the very real threat that Libor may no longer exist in just over two years' time. In the US, the Alternative Reference Rates Committee (ARRC) – convened by the Federal Reserve Bank of New York – has been busy leading the charge to help participants in the derivatives and cash markets get ready for Libor's death, and the New York Fed started publishing SOFR in April 2018.

SOFR, unlike Libor, is an overnight rate based on transactions in the US repo market. Its overnight nature means it has to be compounded in arrears to create a term version of the rate that is backward-looking, as opposed to Libor's ever-present forward-looking term rates.

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Term versions of SOFR are in the works but are not in place yet.

Because the new benchmark is derived from repo markets, that means SOFR is a secured rate, meaning it would likely behave very differently to unsecured Libor benchmarks which incorporate bank credit risk and react differently during stress periods.

Regulators are urging the market to adopt SOFR for new business now, and hope it will have largely replaced Libor as the US-dollar reference rate for new trades and new issuance before the end of 2021.

For derivatives, the International Swaps and Derivatives Association is creating a protocol that would allow the market to use a standard fallback rate once Libor ceases to be published. Standard fallbacks for other products have been – and are being – drawn up by the ARRC.

SOFR has had a tricky time in getting adopted. For example, in notional terms year-to-date, interest rate swaps linked to the benchmark currently have 0.25% of the volume of Libor equivalents, according to Isda data.

Volatility in the underlying repo market has been blamed in the past for putting people off SOFR. It spiked to 5.25% on September 17 and had a similar one-day surge on December 31 last year. But given SOFR is a compounded, average rate, this shouldn't make a difference, said Subadra Rajappa, head of US rates strategy at Societe Generale. "The volatility should get averaged out over a certain period. It's a backward-looking rate and it's averaged over a certain period of time, so, if there is volatility from a day-to-day basis, that shouldn't really affect it," she said.

"It's been a little unnerving to the clients I've spoken with because they're not familiar with the benchmark and they're not really familiar with what drives [it]," she adds.

Jason Granet, head of firm-wide Libor transition at Goldman Sachs, agreed, and argued historical volatility in Libor is actually higher. "If you look at average SOFR over a period of time – even including the spikes that have happened, whether it be in September or on other statement dates or other things – and you compare that to the volatility in Libor historically, the volatility in Libor is still greater," he said.

Volatility in SOFR has prompted some to scrutinise activity in the underlying repo market as a possible driver. For example, one of the explanations for the sudden rip in the SOFR rate in September has focused on the amount of excess reserves in the system and the demand from banks for those reserves now.

"These are all nuanced topics that I would say, for the most part, repo traders or money-market traders were in the weeds trying to understand all the details," said Rajappa. "But broader market participants – and even swaps traders, for instance – didn't really pay attention to what

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drives repo rates on a day-to-day basis. As long as cash markets were well funded, there was just not that much of an issue."

In response to the SOFR surge, which subsequently affected the effective Federal funds rate, the Fed said it would conduct temporary overnight and term repo operations into next year – something it has not done in a decade.

Pre-financial crisis, the Fed would participate in the repo market on a daily basis and it was considered very normal as a way of conducting monetary policy. But since quantitative easing, there has been a massive jump in the amount of reserves in the system, which has shifted the way the Fed conducts monetary policy, explains Granet. Combined with the introduction of SOFR, this has even brought the possibility that the benchmark could one day replace Fed funds as the Fed's target rate.

"If you look back at some of the old minutes from Fed meetings, there are discussions on whether the Fed funds market is still the appropriate market to manage policy. So, obviously this is going to be a developing story, but I think it's important to separate monetary policy from the SOFR market, but the Fed definitely has a lens," he said.

Regardless of the central bank impact, getting SOFR up and running as a benchmark underpinning financial contracts is a clear priority for regulators and industry participants.

One of the major concerns is building liquidity. In derivatives, most of that is concentrated in shorter-dated tenors. According to Isda data, 75% of SOFR swaps have a maturity of one year or less with a smattering of volume across the rest of the curve.

"It is still mostly short-dated. We do see some volume further out in the curve – two-year, five year, even the odd 10-year and 30-year trades," said David Horner, head of risk for rates services at LCH.

For the cash market there has been more immediate success. More than $250 billion has been issued in floating rate notes to date and volume has been growing most months.

"We are seeing it concentrated, really, in the government-sponsored entities, so Freddie Mac, Fannie Mae are no longer doing Libor, [and] really only doing SOFR. The home-loan banks are doing both but increasingly issuing SOFR," said Gary Horbacz, principal, fixed income structured products at PGIM Fixed Income.

Some issuers still remain on the sidelines. Corporates, for example, are less involved, and

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Horbacz puts that down to a preference for a term rate rather than an overnight equivalent.

Structured products have been much slower going. "Part of the reason is the complexity of structured products, where it's not just a corporate borrower," said Horbacz. "You've got an owner of a mall that takes out a loan from a lender and so it's really the lender that makes the loan, and then the lender pulls the loans and puts them into a structure then issues those liabilities."

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System updates

Part of the delay in getting the cash market up and running could be related to updating internal systems so that they can do the trades, said Granet. "A lot of people are going to be ready, but there is work to be done. Once you have the loan market and the underlying systems ready, you'll see a lot of different growth," he said.

For derivatives, much hope has been pinned on the so-called 'Big Bang' set to happen in October next year, when the rate used to discount the present value of US dollar swaps and the rate used to determine interest payments on cash collateral for US dollar swaps – so-called price alignment interest – will change from Fed funds to SOFR.

"That might get asset liability managers… more involved in the market. Once they see a robust curve going out to 30 years in SOFR, I think that could be a good starting point [for them] getting involved more actively and using SOFR-based swaps," said Rajappa.

LCH's Horner said the planned discounting switch is "probably the biggest and most important project we have going on in the clearing house right now".

LCH is planning on making the switch on October 17, and aims to provide compensation for the change in present value of the dollar swap portfolios. To do that, the clearing house plans to provide what Horner describes as "compensating swaps" to account for the change in discounting, a cash option for client accounts, as well as an auction process for those institutions that are not able to enter into swaps to hedge discounting risks or simply do not have the trading mandate.

"We want the liquidity to be there as best it can be, so we can get good attendance at the auction and the re-hedging will work. That's where we've drawn the balance of sufficient readiness in the industry to really take on what is a pretty big change," says Horner.

Some industry participants worry about how easy it will be to implement an auction mechanism, but Horner says that is one of the reasons the industry has given itself a good amount of lead time before the switch takes place.

How to convert swaptions contracts is also proving somewhat problematic. For swaptions that physically deliver into swaps that clear at the clearing house before the conversion process has taken place, LCH will use Fed funds for discounting and PAI before going through the conversion and compensation process.

For those swaptions that expire post-conversion process, the underlying swaps will go straight into SOFR discounting.

"That is of interest to people who have, I would say, deep in-the-money swaption contracts right now, so the resulting swap would have a large present value and, therefore, a high discounting risk. That kind of compensation on the trade – or lack of – I think is a concern," said Horner. "We are dedicated to trying to be as helpful as we can be in this space, and make sure that we are not, through our plans, being unnecessarily disruptive of other parts of the market, but fundamentally in the clearing house we have no direct jurisdiction over the operation of these bilateral contracts," he added. ■

For more on this topic, view the webinar www.risk.net/regulation/7044366/shining-the-spotlight-on-sofr