LIBOR: Its astonishing ride and how to plan for its end

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When numbers matter

The Wall Street Journal called it the most important number in the world. Over $350 trillion worth of financial derivative contracts, mortgages, bonds and retail and commercial loans have their interest rates tied to it. But it is also tied to some of the banking industry's biggest scandals. And now, it's facing its demise. In July 2017, the UK's FCA (Financial Conduct Authority) announced that after the end of 2021, it will no longer compel banks to use LIBOR as the benchmark for short-term interest rates in the interbank market.

This departure from LIBOR is expected to bring some substantial changes to the global financial markets. However, while sending LIBOR to the annals of financial history is certainly not trivial, the transition is not something that is being rushed, nor is it unplanned and unexpected. Regulators and key capital markets players believe four years should allow for an orderly and less risky removal and replacement of LIBOR.

In this paper, I will provide an overview of LIBOR's history, what's motivating its disappearance, the implications for legacy contracts, and what is important when preparing for 2021.

LIBOR'S ORIGIN

The idea of LIBOR originated with a Greek financier named Minos Zombanakis, who in 1969 arranged an $80 million syndicated loan for the Shah of Iran. It was the first loan that would charge a floating interest rate, renewed every few months, that reflected shifting market conditions and that would be split among a group of banks. The rate would cover the banks' costs to fund the loan, and would include a small spread for profit.

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It was treading into new territory. At the time, fixed-loan rates were the standard, but this financial innovation led to the global syndicated lending market getting off the ground and taking on a life of its own. It became the quintessential benchmark rate for pricing loans and bonds, and by the 1980s, morphed into being the benchmark rate for complex products such as derivatives—and fueled a massive growth in the capital markets.

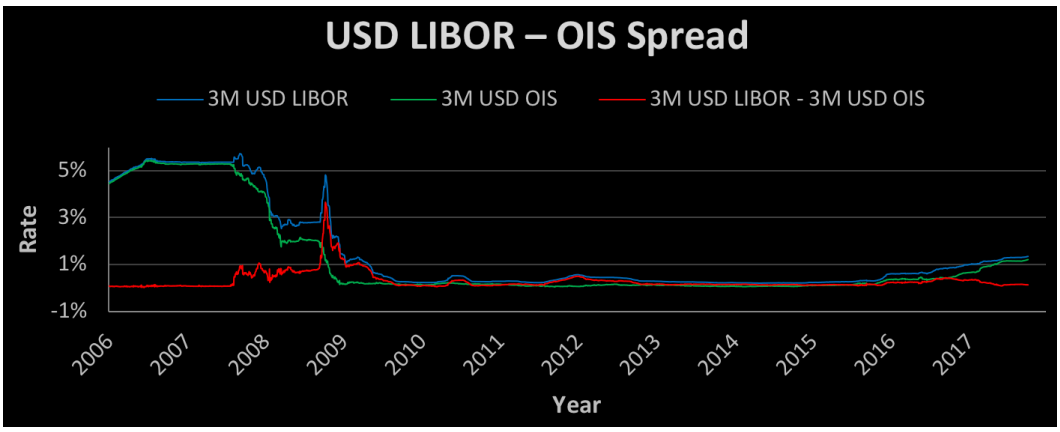
In 1986, the BBA (British Bankers' Association) started publishing LIBOR as the international standard benchmark interest rate, reflecting the average interest rate at which a panel of lenders—a group of large global banks—would be willing to borrow from each other in 10 currencies across 15 maturities (150 rates in total). The rate is published each morning and it is commonly used for setting interest rates on everything from mortgages and credit cards to student and car loans.

CREDIT CRUNCH RAISES EYEBROWS

One of the key features of the global financial crisis was the credit crunch, which hit the financial markets in virulent form. For borrowing of many kinds, terms became tougher and interest rates grew higher, reflecting steep risk premiums. Of particular note was the elevated risk premiums on interbank loans—loans that banks make to each other. During 2008, The LIBOR rate at which banks lent to each other hit its highest levels ever. As seen in Figure 1, the spread between the three-month USD LIBOR and the OIS (Overnight Indexed Swaps) rate hit all-time highs in the 2007-2009 time period. This means LIBOR had blown

out to levels significantly above base rates. At that time, the perceived default and liquidity risks of banks rose significantly, which is what drove up LIBOR. Banks were cash-strapped and were disinclined to lend money either to each other or to consumers.

Figure 1



Then, beginning in 2009, the UK's Financial Services Authority (FSA) began investigating complaints that banks were understating their borrowing costs through manipulating LIBOR by lowering their submitted rates. They were trying to influence the perception of their financial health and credit quality. A lower submission would deflect concerns they had problems borrowing cash from the markets.

In addition, banks were alleged to have manipulated the rate (by driving it either up or down) to realize gains on LIBOR-based contracts, particularly for their derivatives portfolios. What's important to note is that whereas financial strength can be signaled by underreporting one's own submission, gains in LIBOR-based contracts often involved concerted action by multiple institutions to influence the final fixing.

In 2012, the FSA and other regulators found that a number of panel banks were submitting false rates to move LIBOR in their favor—primarily to benefit their derivatives trading positions. Multiple settlements were reached, ultimately totaling $9 billion in fines by 2015. Some individual traders were prosecuted and jailed.

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LIBOR REFORM

The UK government recognized that retaining LIBOR unchanged in its then current state was not a viable option, given the scale of identified weaknesses and the loss of credibility that it had suffered. As a result, in February 2014 the government switched responsibility for administering LIBOR from the BBA to the ICE Benchmark Administration (IBA). BBA LIBOR now became known as ICE LIBOR.

This represented the beginning of LIBOR reform. The biggest change the IBA made was to make the change from 150 interest rates across 15 maturities and 10 currencies to only 5 currencies and 7 maturities (in total 35 rates). The rationale behind this is the IBA wanted to cut off the less frequently traded currencies and the maturity tails.

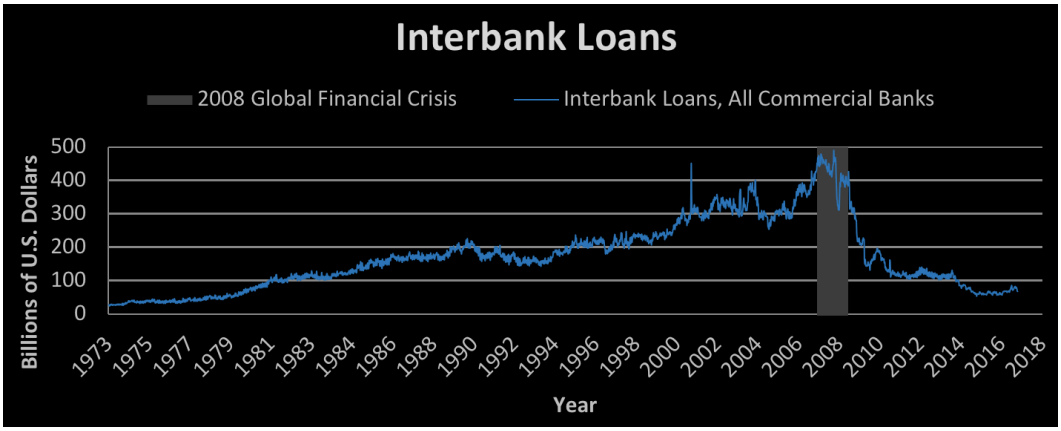
The publishing of the ICE LIBOR rate would also be calculated using a trimmed arithmetic mean. Once the rate submissions were received, they were ranked in descending order and then the highest and lowest 25% of submissions would be excluded. This trimming of the top and bottom quartiles allowed for the exclusion of outliers from the final calculation. However, in an attempt to anchor LIBOR to the greatest extent possible on transactions, the IBA also implemented a waterfall methodology for LIBOR submissions, which meant basing LIBOR on actual transactions rather than expert judgement, where available.

In addition, panel bank submissions would be kept confidential for a period of at least three months to reduce the incentive for banks to artificially lower their stated borrowing costs with the intention of implying a misleadingly positive financial condition to the markets.

LACK OF MARKET ACTIVITY KILLS LIBOR

After the global financial crisis, the activity of interbank unsecured loans had fallen significantly and in 2017 was considered to no longer be sufficiently active (see Figure 2). So, since there is now little actual borrowing activity in this market, submissions to LIBOR are based more on judgment than on actual borrowing transactions as reform intended. This makes LIBOR a largely hypothetical rate and also put into question its sustainability as a benchmark. In other words, LIBOR is becoming obsolete.

Figure 2



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This is what spurred the FCA to announce it would no longer require the panel banks to submit quotes for LIBOR rates after the end of 2021. If the IBA and the panel banks wish to continue contributing to LIBOR after 2021, they are free to do so; however, the FCA will no longer compel participation. In other words, there is no guarantee that LIBOR will exist after the end of 2021.

ALTERNATIVE REFERENCE RATES

Although there is currently an effort underway to identify one or more successors to LIBOR, there is not yet any consensus on a global replacement rate. Actually, it appears that the likelihood will be different reference rates for different markets—in fact, market participants

and regulators had already been considering possible alternatives to LIBOR prior to the FCA's announcement.

By currency, the following rates have been proposed as alternatives to LIBOR:

- **USD** – SOFR (the Secured Overnight Financing Rate is a new, broad Treasury repo rate)
- **EUR** – To be determined
- **GBP** – Reformed SONIA (the Sterling Over Night Index Average is the interest rate benchmark that reflects bank and building societies' overnight funding rates in the sterling unsecured market)
- **JPY** – TONOR (the Tokyo Over-Night Average Rate is the uncollateralized overnight call rate, which is calculated and published by the Bank of Japan as the JPY risk-free rate)
- **CHF** – SARON (the Swiss Average Rate Overnight is based on data from the Swiss franc repo market)

IMPACT ON EXISTING CONTRACTS

The replacement of LIBOR has direct consequences for derivatives contracts that reference LIBOR, particularly those that do not mature until after 2021. Some, but probably not all, of these legacy instruments may provide fallbacks for LIBOR, or mechanisms for determining a fallback to use if LIBOR is no longer available. It is therefore advisable for market participants to conduct reviews of their contracts to determine which ones reference LIBOR and which ones provide for fallback provisions (and whether those provisions are sufficiently suitable or practical). If a LIBOR substitute is not expressly incorporated in a contract, try to get the contract amended. Following the anticipated end of published LIBOR after 2021, legacy instruments lacking fallbacks may be subject to considerable uncertainty.

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Regarding new contracts, it is likely they will continue to be based on LIBOR, but should be flexible so they can be adapted to a replacement rate when LIBOR is no longer available. As the markets evolves, we should see new contracts referencing alternative rates instead of LIBOR.

The ISDA (International Swaps and Derivatives Association) has formed working groups to determine fallback rates that would be sufficiently robust in the case of a permanent discontinuation of LIBOR. A preliminary conclusion is that reference rates that are closer to risk-free are better suited. ISDA is also developing a proposed protocol mechanism to facilitate multilateral amendments to derivatives legacy agreements referencing LIBOR.

PREPARING FOR MARKET CHANGE

For market participants, the end of LIBOR signals a change with practical significance—and will likely give the capital markets a headache. Although four years down the road, you are encouraged to begin monitoring developments in this subject, such as paying attention to news and industry information about how LIBOR replacement work is proceeding.

There a few key takeaways to consider:

- For derivatives transactions being entered into between now and 2021, parties should carefully consider the choice of reference rate. Given the uncertainty that remains, it is likely that most contracts will continue to reference LIBOR in the short term. However, it is important to incorporate provisions that will allow for a smooth transition from LIBOR to another reference rate in the future.
- For existing agreements maturing after 2021, you should examine the documentation to identify any provisions that are included in the event that LIBOR is unavailable.

By getting out in front of these issues, market participants can avoid potentially costly and risky scenarios regarding their derivative portfolios.

For more information regarding the phase out of LIBOR, it's implications and preparing for 2021, please view this Numerix webinar.

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