CALYPSO WHITE PAPER

THE DEMISE OF LIBOR: IT'S HAPPENING - DON'T UNDERESTIMATE THE IMPACT

April 2020

Continuing our 'Demise of LIBOR' series, we focus here on the initial breadth and depth of the transition impact. At Calypso we come at this (obviously) from a software point of view and from a desire to remind readers that by now, they really need to have got to grips with the true impact of this change right across their systems.

The main takeaway is that LIBOR ***will*** transition across at a point in the future and that many areas of the BAU process will be affected in one way or another.

The question is no longer ***if*** but ***when*** - and how best to prepare.

But first, let us step back and consider what has been happening in the markets in recent months - and how some important changes and updates will affect all our preparations for LIBOR transition in the coming year.

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KEY DATES FOR YOUR PLANNING

You will undoubtedly already be aware of these, but they are important as they reflect recent announcements and changes - and also because they are designed to bring much-needed liquidity into the market.

With the introduction of the new RFR indices, the expectation was that the market would switch over and trade derivatives referencing these in a timely fashion. What we have actually seen is a very low take-up of the new RFR-linked derivatives. This is partly the result of a chicken and egg scenario: why would anyone trade them if nothing being issued used them as a reference to be hedged? And why would anyone issue something if the hedging market, the aforementioned derivatives, is not liquid enough to make it a cheap viable option?

Something is needed to break this vicious cycle, and the market expects some liquidity to be injected on the hedge side to encourage further issuance and other products to reference the RFR. One of the ways this additional liquidity can occur is by the CCPs switching over to RFR discounting. If the CCPs switch over, the clearing members will suddenly find themselves with a non-zero risk position in the RFR indices. This risk position will require hedging by the members across the term structure, encouraging them to trade the new RFR-linked derivatives, hence bring the liquidity into the market that has not been seen to date.

MARCH 2020

This was the targeted deadline set out by the FCA to stop the trading of LIBOR-referenced swaps and to force banks to make SONIA the market standard [1]. It is important because it shows that the FCA is getting impatient with the markets and the lack of uptake and migration across from LIBOR to SONIA. The decision should not come as a surprise. As recently as end-2019 it seemed that exposure to LIBOR was still on the increase [2]. The worry here of course is that regulators might turn to the stick rather than the carrot and start applying capital charges based on LIBOR exposures. Nothing has been confirmed to date - but watch this space.

JULY 2020

July 27th is the new date when the main CCPs plan to switch over the curves they use for cash margin discounting from EONIA to €STR [3]. Originally planned for June, the change has been delayed due to concerns over operational risks created by COVID-19. Now with €STR going live last October, and cleared swaps being accepted since November, the aim is to switch over from EONIA to €STR for general trading. To date, however, the number of outright €STR trades remain in single figures - effectively zero, in business terms. With no liquidity, the hope is that the CCPs' switch to €STR discounting will inject the much-needed liquidity into the market post-July.

OCTOBER 2020

In terms of market impact this will most likely be the most important date, with the CCPs planning to switch over from Fed Fund discounting to SOFR discounting [4] on 16th October. As with the switch over to €STR, the main hope is that this will lead to an increase in liquidity for SOFR-based contracts, because YTD outright and basis SOFR swaps account for less than one percent of the notional contract value traded in US dollars. You may wonder how the CCPs intend to achieve this switch-over. In fact, their current plan to replace all LIBOR exposure is relatively straightforward. They are simply looking to offset any change in valuation due to discounting change between members to make sure it is net zero. For the change in exposure and risk arising, the CCPs are looking to book offsetting basis trades, again at net zero cost and risk, to transfer the risk and hedges fully to SOFR. CME gives a good example of these proposed changes in this recent article [5].

[1] https://www.fca.org.uk/news/statements/fca-and-bank-england-encourage-switch-libor-sonia-sterling-interest-rate-swaps-spring-2020
[2] https://www.risk.net/our-take/7081626/uk-swaps-carrot-for-stick-in-libor-switch
[3] https://www.risk.net/derivatives/7033856/lch-sets-date-for-euro-swap-discounting-change
[4] https://iflrinsight.com/articles/395/exclusive-cme-adjusts-discounting-transition-date-to-keep-sofr-big-bang-alive
[5] https://www.cmegroup.com/education/articles-and-reports/sofr-price-alignment-and-discounting-proposal.html

CONSULTATION PAPERS UPDATE: FALLBACK LANGUAGE, 'ZOMBIE LIBOR' AND REPLACEMENT RATES

Beyond the above dates, ISDA and the various working groups and committees have continued their rounds of consultation papers on various topics. Here is a quick summary of some of these topics.

FALLBACK LANGUAGE

We are now at a stage where we have a consensus across many currencies and the language to be used as a fallback for their various LIBOR contracts. The latest paper, predominantly in relation to EURIBOR, was published in February and offered the following consensus across EUR, USD, GBP, CHF, JPY, CAD and HKD [6] :

A compounded setting in arrears rate with a backward shift and the five-year historical median approach to the spread adjustment for the relevant LIBOR.

This is important because market participants now have clarity around what the final contracts will look like going forward and a standard language they can potentially use to renegotiate and/or edit contracts on a bilateral basis in relation to other trades and products.

As a side note, in July 2019 ISDA selected Bloomberg to publish the fallback rates [7]. With methodologies finalized, we can now expect Bloomberg to start publishing an initial rate, with a formal rate expected by the end of the year.

PRE-CESSATION TRIGGER AND AVOIDING 'ZOMBIE LIBOR'

In October 2019 ISDA published a consultation paper acknowledging the need for a pre-cessation trigger to LIBOR; a well-defined point in time when the LIBOR being published is no longer considered representative of the market rate, obliging ISDA contracts to trigger their respective fallback language.

Why would you need this?

Because from 2021 onwards, when there is no legal obligation for LIBOR to be provided by member banks, there is a risk that a subset will continue to submit. In this case the LIBOR number calculated from these submissions will be at best a guess – and at worst, completely made up. This is commonly referred to as 'zombie LIBOR'. A way of avoiding this possible scenario is to trigger the end of LIBOR (hence the fallback language) based on a well-defined event occurring before LIBOR can no longer be published officially.

The outcome of the initial consultation was not conclusive as a large chunk of those contributing implied that although not ideal, they would probably still look to use the 'zombie LIBOR' as a reference if it continued to be published [8]. Since then however, there has been a marked change in market consensus around the topic, in the wake of clarifying statements from the UK Financial Conduct Authority (FCA), ICE Benchmark Administration (IBA) and LCH.

This has led to the launch of yet another consultation on the topic [9], with results originally due in April or May, although in the light of recent global events this deadline has now been pushed out by a further couple of months.

[6] https://www.isda.org/a/MioTE/Statement-Regarding-Results-of-December-2019-Supplemental-Consultation.pdf
[7] https://www.isda.org/2019/07/31/bloomberg-selected-as-fallback-adjustment-vendor/
[8] https://service.betterregulation.com/document/408177
[9] https://www.isda.org/2020/02/25/isda-launches-new-consultation-on-pre-cessation-fallbacks/

PRODUCT UPDATES

We should also summarize here changes to products which are trading and highlight areas of note.

In previous papers we talked about how FRNs referencing LIBOR beyond 2021 would transition to an RFR. We looked at the example of Associated British Ports, a UK Port Operator, which managed to convert from GBP LIBOR to compound SONIA, plus a spread. At the time we thought this would essentially lead to a cancellation of the bond and a reissuance. What we have seen however, is more akin to an economic change to the existing bond. This means in practice the ISIN and historical cashflows stay the same and only the coupon and future cashflows change. This is something to be aware of when looking at how to capture this information in your systems for these FRNs going forward.

We have also seen the first signs of a liquid market in RFR cross-currency swaps. From the term sheets we have seen these are essentially as we would expect, with the respective floating legs mimicking the economic conventions of the respective RFR index single currency swaps. The only slight change we have seen, and of which you might need to be aware, is a potential mismatch in final interest payment and notional exchange payment dates. On market standard cross-currency swaps today these two final payments are usually paid on the same day, but due to the in-arrears compounded nature of the interest payment under the new RFR we are seeing a couple of days mismatch.

THE TRUE IMPACT OF LIBOR TRANSITION ON BANKING SYSTEMS

Following a quick round-up of recent happenings, we reach the main point of this paper: a warning not to underestimate the impact of LIBOR transition on your systems.

The further down the road we go towards transition, the greater our understanding of implications for our banking systems - and not just front office systems, but solutions from front through back office.

Simple examples show that LIBOR reform is far from being 'just a curve change' to a new RFR.

In this section we consider the potential impact on the different systems and the changes needed in the light of what we now know about the LIBOR transition.

> "Simple examples show that LIBOR reform is far from being 'just a curve change' to a new RFR."

A SELECTION OF THE POTENTIAL IMPACTS ARE SHOWN IN THE DIAGRAM BELOW, WHICH DEPICTS A TYPICAL FRONT TO BACK, CROSS-ASSET SYSTEM.

- New products and market conventions to support e.g FRNs and futures
- New curve structures
- Static data input changes
- Product data model changes e.g. support for in-arrears compounding and rounding methodologies
- New pricing models

- New risk analysis to combine RFR and LIBOR based trades
- Management of post-LIBOR historical data for comprehensive market and counterparty risk management
- XVA model updates to be able to calibrate and simulate based on new RFRs

- CCP replication for updated margin calculations, VaR and liquidity charges
- Seamless support for RFR based products (ETD or OTC), when rolled out by CCPs
- New intraday settlement process for FCM facing CCPs and clients based on agreement

- FTP processes updated in line with RFRs
- Hedge recommendations logic changed in line with RFRs
- New behavioural assumptions to simulate RFR based activity

- ISDA SIMM updates and UMR changes to bring in line with RFR changes
- Support for discounting P&L exchange when switching from OIS to RFR discounting
- New interest-bearing standard for collateral agreements
- New security Finance cash leg valuation compatible with RFR

- New fee configuration and calculation logics
- New interest-bearing configuration and calculation logics
- Update of cost of late settlement configuration
- Novation process LIBOR to RFR (and other RFRs) and trade audit
- Calculation logic updates for hedge accounting and hedge effectiveness
- Contract updates to include fallbacks
- New contract templates for new products

LIBOR TRANSITION: FIVE KEY QUESTIONS

In addition to assessing the impact on front to back systems, there are five very specific challenges to be aware of and to prepare for during the transition period:

CCPs will change their discounting index from OIS to RFR in July and October (current view)
Have you anticipated how to manage the transition?

In the transition period, you will need to manage a mixed portfolio of LIBOR and RFR-based products
Have you considered how to manage this mix of market data?

The discounting change will also impact your risk structure and hedging strategy
Have you prepared tools to manage the new RFR-based risk metrics?

New historical data will be required for market and counterparty risk
Have you anticipated how traders and risk managers will manage and monitor impacts?

This is Step 1: more RFR-based products and term structures are anticipated
Are you anticipating the next milestones?

If you don't have these preparations well in-hand – you may need to initiate the conversation with your solution suppliers as to how they can help to resolve them. This conversation needs to be at a detailed level.

CONCLUSION

The market is starting to wake up to the scale of the changes needed for the LIBOR transition and as such new areas of impact are being discussed on a regular basis. As we stated in the introduction, it is not going away. LIBOR will transition across at some point in the future and many areas of the BAU process will be affected.

Despite the world having been rocked by the COVID-19 pandemic, driving immense volatility in the market and remaining very much front of mind for us all, until we hear differently we should all operate on the assumption that the 2021 LIBOR transition deadline will persist and prepare accordingly.

In any event, there is an increasingly liquid market for RFR-referencing instruments so any banks lagging behind risk jeopardising their competitive position.

Our final message, therefore, is let's continue to plan as best we can – and keep safe in the meantime.

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