

# **Discontinuation of LIBOR: Have the Replacement Rates Passed the Covid Test?**

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## **Introduction**

The London Inter-Bank Offered Rate (LIBOR) and Covid are among the most widely used five-letter acronyms in 2020. LIBOR has been around since the 1970s, but is doomed to disappear; Covid took the world by surprise at the end of 2019 and wreaked global havoc on the financial markets during the first half of 2020.

The present article describes the dynamic of LIBOR in regard to its future replacements rates (eg, Secured Overnight Financing Rate (SOFR), Sterling Over Night Index Average (SONIA), Euro Short-Term Rate (€STR) and Swiss Average Rate Overnight (SARON)) and in particular, how these rates evolved during the Covid-19 pandemic for the period 23 January to 23 April 2020. The identification of the similarities and differences between these rates is important for determining whether the contractual parties, including a reference to LIBOR or other rates in a contract, can rely on hardship or similar measures.

Using the publicly available data regarding the evolution of the rates, the article determines whether there is any similarity between the dynamic of these rates and provides an explanation of the observed variations.

The article starts by giving a short overview of LIBOR and its need for replacement, followed by a summary of the main economic events of the first months of 2020. The authors then explain their methodology and present their data. The last section concludes with the authors' findings regarding the substitutability of the new rates, the utility of benchmark interest rates and their impact on the analysis of hardship.

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### **A short definition of LIBOR**

LIBOR is widely used as a benchmark for financial transactions, ranging from simple to complex operations, from loans to private clients (eg, mortgages) to corporate bonds.

LIBOR is calculated using estimations from a panel of up to 16 large international banks on the rate at which they would agree to lend money to each other. The rate is calculated using a trimmed mean, eliminating the highest and lowest estimations. It is published by the ICE Benchmark Administration. LIBOR is calculated for seven maturities (from overnight to 12 months) and for five currencies (US\$, GBP, EUR, CHF, JPY).

Following a rate-rigging scandal, the United Kingdom's Financial Conduct Authority launched the replacement of LIBOR by rates not based on an estimation by banks (which could be manipulated if some actors decided to conspire to influence the market), but rather on existing transactions. The panel banks will officially stop supporting LIBOR by the end of 2021, at which point replacement rates will – hopefully – be used to replace it.<sup>1</sup>

The next section introduces the definitions of the replacement rates and compares these rates with LIBOR.

### **The 2020 crisis in the financial markets**

The first six months of 2020 showed unexpected plunges in worldwide markets, driven by the spread of the global pandemic and governmental restrictions.<sup>2</sup> The unfolding of market events may be summarised as follows:

On 3 March 2020, the United States Federal Reserve cut its rate by 0.5 per cent.<sup>3</sup> Six days later, stock markets crashed worldwide:

- -11.17 per cent for the FTSE MIB (Milan, Italy);
- -8.39 per cent for the CAC40 (Paris, France);
- -7.25 per cent for FTSE (London, UK); and
- -7.94 per cent for the Dax (Frankfurt-am-Main, Germany).

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1 A partial discontinuation, where some banks continue to publish rates, is possible and could lead to problems in the application of this 'zombie' LIBOR to the contracts: see Ollivier and Geissbühler, "Dead" or "zombie" LIBOR: consequences for agreements governed by Swiss law', IBA Banking Law Committee publication, 30 March 2020.

2 At the time of writing (June/July 2020), the situation appears to be normalising in Switzerland. However, this is not the case in some other countries.

3 See [www.nytimes.com/2020/03/03/business/economy/fed-rate-cut.html](https://www.nytimes.com/2020/03/03/business/economy/fed-rate-cut.html) accessed 27 November 2020.

In the US, the values were -7.79 per cent for Dow Jones, -7.60 per cent for the S&P500 and -7.29 per cent for NASDAQ.<sup>4</sup> The Bank of England followed on 11 March 2020 with its decision to cut interest rates from 0.75 per cent to 0.25 per cent,<sup>5</sup> and then again on 19 March 2020, from 0.25 per cent to 0.1 per cent.<sup>6</sup> The next day, a second crash happened with record plummeting values: -17 per cent for the FTSE MIB; -12.28 per cent for the CAC 40; -9.99 per cent for Dow Jones; -9.51 per cent for the S&P500 and -9.43 per cent for NASDAQ.<sup>7</sup> On 15 March 2020, the US Federal Reserve reduced its rates to 0–0.25 per cent.<sup>8</sup> It also decided to buy bonds, thus introducing quantitative easing to inject cash into the economy.<sup>9</sup> During the second half of March, most countries closed their borders and severely restricted travel, in some cases within the country (eg, France).<sup>10</sup> On 20 April 2020, the West Texas Intermediate (WTI) crude (delivery in May) price fell to negative numbers for the first time in its history, given the absence of infrastructure to stock the oil and the potential costs for the holders of barrels.

Each of these events had an impact on the markets, raising the question to what extent LIBOR and the other replacement rates have been sensitive to these changes.

## Methodology

This article focuses on the four predominant overnight rates: SOFR and Overnight Bank Funding Rate (OBFR) for US\$; SONIA for GBP; €STR for EUR; and SARON for CHF. At present, overnight replacement rates are more readily available than longer maturities, even if the latter have already been published (eg, Swiss Average Rate Three Months (SAR3M) for the three-month maturity CHF rate).

Data included rates for a three-month period from 23 January 2020 to 23 April 2020. This range allows an examination of the rates dynamics before and after the start of the Covid-19 pandemic.

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4 See [www.boursorama.com/bourse/actualites/une-semaine-en-bourse-le-recap-du-9-au-13-mars-2115c03118181e0e5aab9dfaef9aa0ae](http://www.boursorama.com/bourse/actualites/une-semaine-en-bourse-le-recap-du-9-au-13-mars-2115c03118181e0e5aab9dfaef9aa0ae) accessed 27 November 2020.

5 See [www.theguardian.com/business/2020/mar/11/coronavirus-bank-of-england-makes-emergency-interest-rate-cut](http://www.theguardian.com/business/2020/mar/11/coronavirus-bank-of-england-makes-emergency-interest-rate-cut) accessed 27 November 2020.

6 See [www.theguardian.com/business/2020/mar/19/bank-of-england-cuts-interest-rates-to-all-time-low-of-01](http://www.theguardian.com/business/2020/mar/19/bank-of-england-cuts-interest-rates-to-all-time-low-of-01) accessed 27 November 2020.

7 See [www.boursorama.com/bourse/actualites/une-semaine-en-bourse-le-recap-du-9-au-13-mars-2115c03118181e0e5aab9dfaef9aa0ae](http://www.boursorama.com/bourse/actualites/une-semaine-en-bourse-le-recap-du-9-au-13-mars-2115c03118181e0e5aab9dfaef9aa0ae) accessed 27 November 2020.

8 See [www.ft.com/content/a9a28bc0-66fb-11ea-a3c9-1fe6fedcca75](http://www.ft.com/content/a9a28bc0-66fb-11ea-a3c9-1fe6fedcca75) accessed 27 November 2020.

9 See [www.bbc.com/news/business-51901998](http://www.bbc.com/news/business-51901998) accessed 27 November 2020.

10 See [www.nytimes.com/article/coronavirus-travel-restrictions.html](http://www.nytimes.com/article/coronavirus-travel-restrictions.html) accessed 27 November 2020.

When representing the dynamics of the rates (Graphs 1 to 7), an interval of 200 basis points has been chosen to allow for an easier comparison between the various rates. LIBOR ON US\$, SOFR and OBFR are the only rates that started over one per cent, so the interval Y-axis is labelled between zero and two per cent. The other rates are shown on graphs with a Y-axis labelled from minus one per cent to one per cent.

In the case of missing data for a particular weekday (eg, during bank holidays) the value of the preceding day is used. This enables us to have complete time-series data and to make comparisons, even in the event of a holiday in London (where LIBOR is calculated) but not elsewhere, and vice versa.

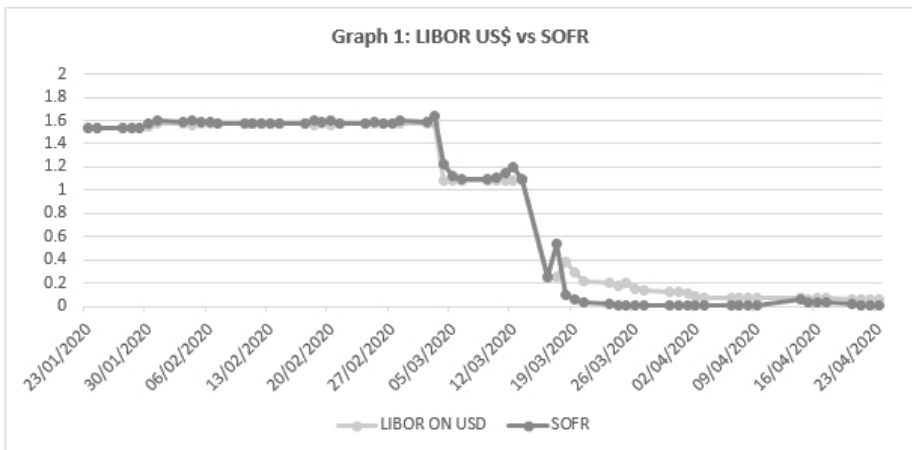
### LIBOR versus new rates comparison for US\$/GBP/EUR/CHF

#### US\$: LIBOR ON US\$ versus SOFR

The recommended alternative to LIBOR ON US\$ is SOFR. SOFR is published by the Federal Reserve Bank of New York and is described as follows:

‘The SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data collected from the Bank of New York Mellon as well as GCF Repo transaction data and data on bilateral Treasury repo transactions cleared through FICC’s DVP service, which are obtained from DTCC Solutions LLC, an affiliate of the Depository Trust & Clearing Corporation. Each business day, the New York Fed publishes the SOFR on the New York Fed website at approximately 8:00 a.m. ET.’<sup>11</sup>

Graph 1 displays the evolution of LIBOR ON US\$ and SOFR.



<sup>11</sup> See <https://apps.newyorkfed.org/markets/autorates/SOFR> accessed 27 November 2020.

Graph 1 shows that the two sharpest declines in both LIBOR ON US\$ and SOFR reflect the decisions of the Federal Reserve to cut its rates on 3 March and 15 March (with effect on the next day). The other events left the rates almost unaffected.

One can observe a difference in the rates starting around the date of the first rate cut by the Federal Reserve and widening in particular after the second interest rate cut.

This difference could be associated with other economic measures taken at the same time by the Federal Reserve (eg, quantitative easing). After a few days, the market situation was back to normal and so was the spread between LIBOR ON US\$ and SOFR.

Much of the difference between the two rates is due to the methodology of calculating: LIBOR ON US\$ is an estimate of interbank loan rates whereas SOFR is based on existing repo transactions. Market perceptions on either interbank loans and/or the collateral (economic difficulties affecting banks, default on bonds, etc) affect the spread.

#### *US\$: LIBOR ON US\$ versus OBFR*

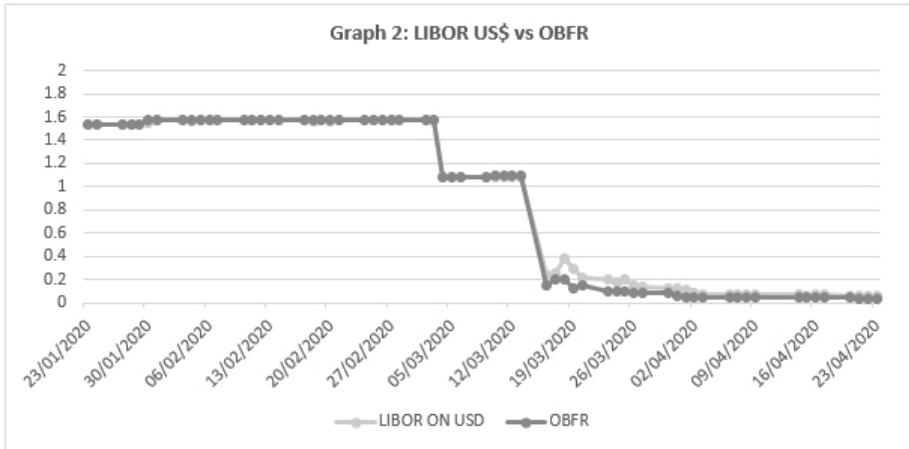
If the difference between LIBOR ON US\$ and SOFR can be largely explained by the difference between unsecured and secured lending, then a comparable unsecured overnight rate would have equally little to no difference with LIBOR. As a basis for comparison, the best option would then be to use OBFR, also published by the Federal Reserve Bank of New York. It is defined as follows:

‘The overnight bank funding rate is a measure of wholesale, *unsecured, overnight bank* funding costs. It is calculated using federal funds transactions, certain Eurodollar transactions, and certain domestic deposit transactions... The overnight bank funding rate (OBFR) is calculated as a volume-weighted median of overnight federal funds transactions, Eurodollar transactions, and the domestic deposits reported as “Selected Deposits” in the FR 2420 Report. The New York Fed publishes the OBFR for the prior business day on the New York Fed website at approximately 9:00 am’ [emphasis author’s own].<sup>12</sup>

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<sup>12</sup> See <https://apps.newyorkfed.org/markets/autorates/obfr> accessed 27 November 2020.

Graph 2 shows the evolution of LIBOR ON US\$ and OBFR over the same period.



As one can see, LIBOR ON US\$ and OBFR experienced a remarkably close evolution. In fact, in the first month of the analysis (ie, 23 January–23 February 2020), the average spread between the two was under one basis point. During the period following the second interest rate cut, the spread also remained lower than that between LIBOR ON US\$ and SOFR.

This, however, does not automatically rank OBFR as the better suited replacement for LIBOR ON US\$. Other factors have to be taken into account, such as the volume of underlying transactions, the diversity and representativity of the benchmark, and the possibility of manipulation. As will be shown, depending on the market and the currency, both secured and unsecured transactions may be used as the basis for calculation of the replacement rate.

#### *GBP: LIBOR ON GBP versus SONIA*

Following an examination of two US\$ rates, the article now turns to LIBOR ON GBP and its replacement, SONIA<sup>13</sup>.

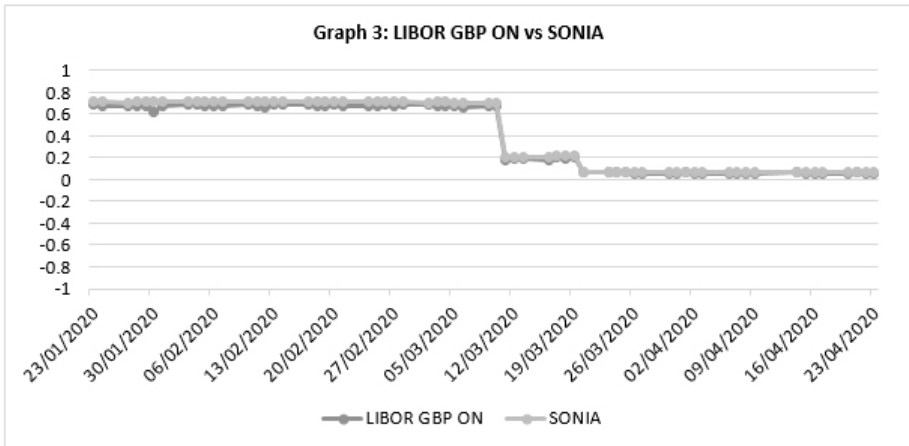
According to the Bank of England, ‘SONIA is based on actual transactions and reflects the average of the interest rates that banks pay to borrow sterling overnight from other financial institutions’.<sup>14</sup> Since April 2018, the SONIA ‘includes overnight unsecured transactions negotiated bilaterally, as well as those arranged through brokers’ and is calculated on the basis of ‘a volume-weighted trimmed mean’. The rate is published on ‘9 am on the following London business day’.<sup>15</sup>

13 ISIN GB00B56Z6W79.

14 See [www.bankofengland.co.uk/markets/sonia-benchmark](http://www.bankofengland.co.uk/markets/sonia-benchmark) accessed 27 November 2020.

15 See [www.bankofengland.co.uk/markets/sonia-benchmark/administration-of-sonia](http://www.bankofengland.co.uk/markets/sonia-benchmark/administration-of-sonia) accessed 27 November 2020.

Two factors are to be taken into account when comparing the evolution of the aforementioned US\$ replacement rates: the Bank of England also decided to cut its rate, and both LIBOR ON GBP and SONIA are based on the same parameters, that is, interbank borrowing. Thus, one can expect that the evolution of the two rates is similar to that between LIBOR ON US\$ and OBFR.



In Graph 3, it can be observed that the two rates evolved in a similar way, with an average spread over three months of around 2.3 basis points. The key factor that seems to significantly affect the evolution of the rates is the decision of the central bank (the Bank of England) to cut its rate. The stock market crashes, border closures, and so on, did not significantly affect the rate.

#### *EUR: LIBOR ON EUR versus €STR*

Our third comparison is on the difference between LIBOR ON EUR and its replacement, €STR.

€STR is calculated as follows:

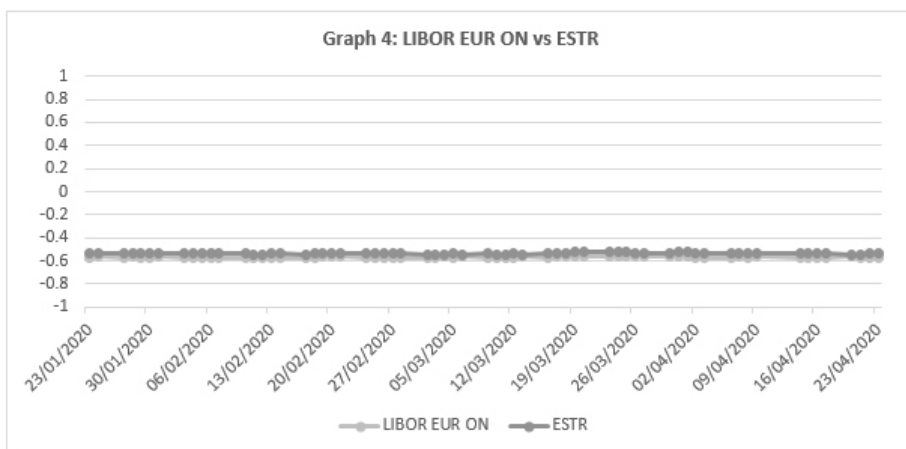
‘The euro short-term rate (€STR) is exclusively based on borrowing transactions in euro conducted with financial counterparties that banks report in accordance with Regulation (EU) No 1333/2014 (MMSR Regulation), the concepts and definitions of which underlie the €STR conceptual framework. Out of the potential MMSR instrument categories, the euro short-term rate (€STR) is calculated using overnight unsecured fixed rate deposit transactions over €1 million. Unsecured deposits are standardized and are the most frequent means of conducting arm’s length transactions on the basis of a

competitive procedure, thereby limiting idiosyncratic factors potentially influencing the volatility of the rate.

The euro short-term rate (€STR) is calculated for each TARGET2 day as a volume-weighted trimmed mean rounded to the third decimal.<sup>16</sup>

€STR replaced the Euro Overnight Index Average (EONIA), which has been published since the introduction of the EUR but was affected by the same conceptual flaws as the LIBOR. EONIA is still published, but is now tied to the €STR.<sup>17</sup> The article therefore concentrates on the €STR.

The Central European Bank, unlike the Federal Reserve and the Bank of England, did not cut its rate (which was already far into negative territory).



The value of €STR, as shown in Graph 4, remains constant over the period (varying between -0.543 per cent and -0.522 per cent), as was the LIBOR ON EUR (varying between -0.559 per cent and -0.576 per cent); and was unaffected by the crashes of the European markets.

Like SONIA, €STR is based on overnight unsecured transactions, which also serves as the basis for the LIBOR ON EUR. This explains the very small spread between the two rates (around three basis points on average over the three months).

16 European Central Bank, 'The euro short-term rate (€STR) methodology and policies', June 2018, para 3.2.

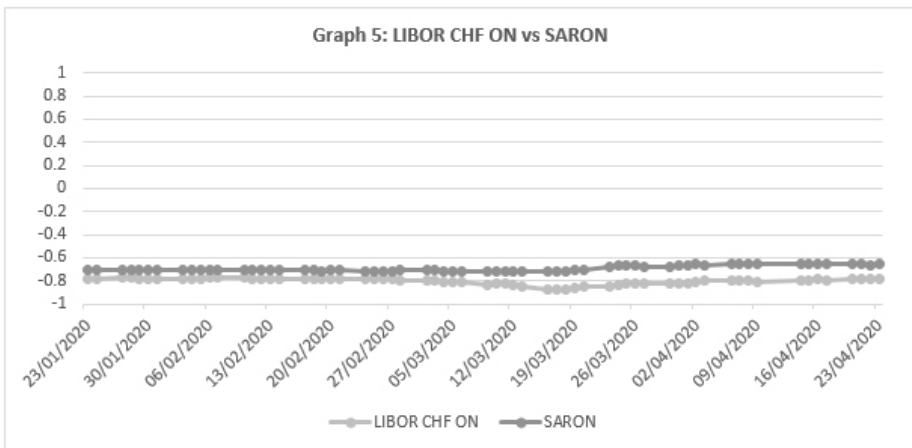
17 See [www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190314~28790a71ef.en.html](http://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190314~28790a71ef.en.html) accessed 27 November 2020.



*CHF: LIBOR ON CHF versus SARON*

As Swiss lawyers, the authors do not want to overlook the fate of the LIBOR ON CHF and its replacement, the SARON:

‘The Average Rate is a rolling, volume-weighted average based on transactions concluded and reference prices posted on a given trading day. The reference price is calculated on the basis of tradable quotes in the order book of the SIX Repo Ltd electronic trading platform, provided they lie within the parameters of the quote filter. The parameters of the quote filter limit the risk of manipulation to an absolute minimum. The Average Rate is calculated continuously in real time and published every ten minutes. In addition, a fixing is conducted three times a day at 12 noon, 16:00 and at the close of the trading day (18:00 at the earliest). SARON – with fixing at the close of the trading day – is used in the derivatives market.’<sup>18</sup>



The dynamics of the LIBOR ON CHF and SARON are presented in Graph 5. Like the European Central Bank, the Swiss National Bank did not modify its rates during the crisis. Both LIBOR CHF ON and SARON therefore did not see any significant variation in that period, despite the Swiss Market Index (SMI) crash, the closing of the borders and the relief plan decided by the Swiss Government.

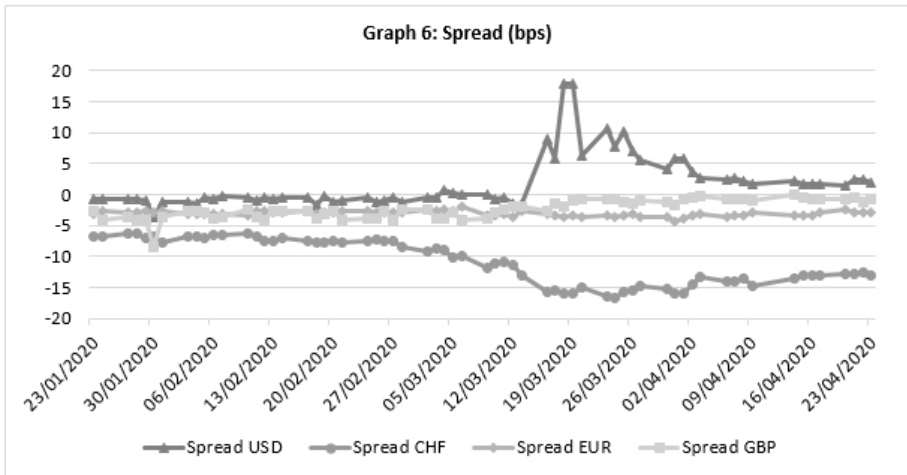
One can observe a higher (and more variable) spread between LIBOR ON CHF and SARON, largely due to a difference in the methodology: LIBOR ON is based on unsecured interbank transactions, whereas SARON is based on repurchase agreement (repo) transactions. The nature of the difference is the same as that between LIBOR ON US\$ and SOFR, but the specificities of the Swiss and US markets and the decisions of the Swiss National Bank and the Federal Reserve cause different results.

<sup>18</sup> See [www.snb.ch/en/ifor/finmkt/id/finmkt\\_repos\\_saron#t3](http://www.snb.ch/en/ifor/finmkt/id/finmkt_repos_saron#t3) accessed 27 November 2020.

The LIBOR CHF rate is lower than the SARON, despite the latter being secured. The authors observe that a combination of factors contributes to this spread. These factors are the Swiss banking system, the relative novelty of the SARON and the low rate of Swiss federal bonds securing repo transactions (-0.578 on average over the considered period) – meaning that the security is losing value overnight – which may explain it.

#### *Spreads between LIBOR rates and replacement rates*

Despite the LIBOR rates and their replacements behaving similarly, one can observe variations in the spreads (ie, LIBOR rate minus replacement rate) between the rates in different currencies.

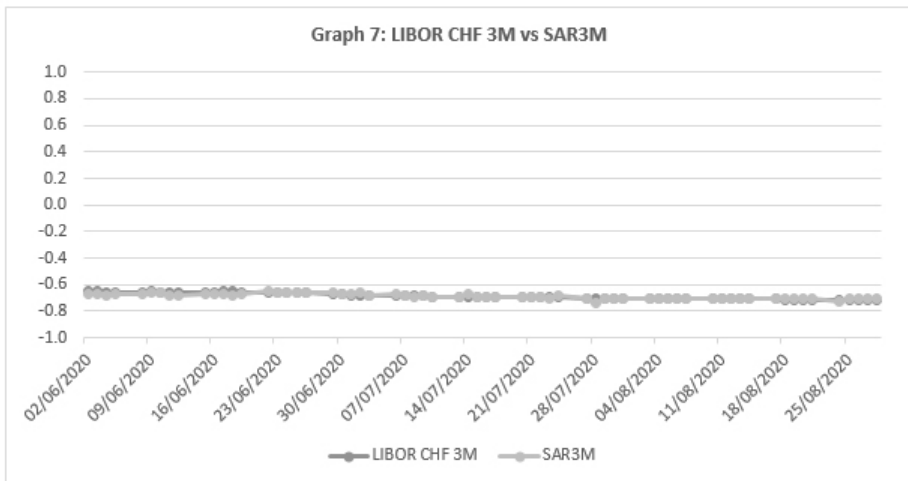


We observe in Graph 6 that the spread for the EUR and GBP rates remained constant, and the US\$ spread increased on 15 March 2020 (date of the second Federal Reserve rate cut), before slowly returning to the norm. The CHF spread also increased, albeit more slowly, during the first half of March. The directions of those variations are opposite: the LIBOR US\$ was higher than the SOFR and progressively diminished, whereas the LIBOR CHF was constantly lower than SARON, but the two rates moved in opposite directions. This is important evidence that can serve to estimate the margin in the replacement of LIBOR in the various currencies. The parties could adjust the contractual terms to the respective replacement rates by taking into account the margin.

### Generalisation using the comparison LIBOR CHF 3M versus SAR3M

It is useful to expand the analysis beyond the overnight rates. A proposed alternative to longer maturity LIBOR rates is the use of ‘compound rates’, based on the aggregated daily rates over the desired period.<sup>19</sup> It is finalised at the end of the observation period, and is therefore not calculated in advance. Such aggregated rates *will* reflect the variations between the LIBOR and the replacement rate (eg, between LIBOR CHF ON and SARON), and the authors’ remarks regarding the overnight rates apply *mutatis mutandis*.

Alternatively, some rates are fixed in advance and directly available for the desired maturity. By way of example, the three-month rates for both LIBOR CHF and a proposed replacement rate (SAR3M) were compared. As SAR3M is currently being deployed, rates were not consistently available during the first months of 2020.<sup>20</sup> To ensure a proper comparison, the focus was on a three-month period starting on 2 June 2020 (1 June 2020 being Whit Monday, a bank holiday in Switzerland).



The comparison shows a near-superposition of the two rates, with an average spread of 0.8 bps. It appears that the longer maturity tends to erase the differences between the rates, and that the general underlying factors (eg, the Swiss National Bank rate) are more important than the differences in the calculation of the rates.

19 See [www.six-group.com/exchanges/indices/data\\_centre/swiss\\_reference\\_rates/compound\\_rates\\_en.html](http://www.six-group.com/exchanges/indices/data_centre/swiss_reference_rates/compound_rates_en.html) accessed 27 November 2020.

20 See [www.six-group.com/exchanges/indices/data\\_centre/swiss\\_reference\\_rates/other\\_terms\\_en.html](http://www.six-group.com/exchanges/indices/data_centre/swiss_reference_rates/other_terms_en.html) accessed 27 November 2020.

## Contractual impact

### *Replacement of LIBOR*

As the data showed, the four new rates react in the same way as the respective LIBOR ON. They remain largely insensitive to changes in economic situation, stock market or prices of commodities. Only central bank decisions about their rate seem to have a significant impact on the new replacement rate.

Our first conclusion is that LIBOR ON can suitably be replaced with the corresponding new rate, either by agreement of the parties or by a judge (following the applicable law, see the authors' previous contribution for the analysis under Swiss law<sup>21</sup>) once LIBOR is discontinued. Some adaptation may be required to account for the difference in the calculation methodology, especially if the new rate is based on secured rather than unsecured transactions, but the most important test has been passed: even under crisis conditions, the replacement rates react in a similar way as the LIBOR.

However, this cannot be interpreted as a possibility of swapping the LIBOR rate in one currency for another (eg, replacing LIBOR ON US\$ with LIBOR ON GBP), or a new rate with another (eg, replacing SARON with €STR). Each rate is based on a particular currency, and hence is affected by factors related only to the referred currency – typically the decision of the central bank. Changing the currency would alter the contractual equilibrium. It goes without saying that replacing a LIBOR rate with a new rate in another currency would also be inappropriate.

As explained in the introduction, the rates used in this contribution are only *overnight* rates. One could not replace an overnight rate with a rate with another maturity and vice versa (eg, replacing LIBOR three-month CHF with SARON), but should rather use the replacing rate at the same maturity (in the same example, SAR3M).

### *Correct use of LIBOR and the replacement rates*

The use of LIBOR as a benchmark is widespread, and the list of all its possible uses is almost infinite. The common purpose is to use a floating rate reflecting the fluctuations in the interest rates market. A fixed rate could adversely affect the lender (if the general rates go up, the loan will yield an insufficient interest) or the borrower (if the general rates go down, the payments will become disproportionate). A floating rate is more neutral, if based on the general conditions of the market, even if a party could still be advantaged or disadvantaged by a change.

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21 See n 1 above: Ollivier and Geissbühler.

As long as the parties are mindful of the overall functioning of LIBOR and other rates (in particular, if they are willing to link an aspect of their relationship to the interest rates market), using LIBOR or its replacement is appropriate. Calculating interest on a loan as the chosen benchmark + x basis points (the mark-up reflecting the other aspects of the relationship: risk of default, quality of the collateral, etc) is a simple example. Derivatives on the same basis (eg, a forward rate agreement) are also appropriate.

In complex derivatives, the nature of the LIBOR rates and their replacements adds a welcome layer of foreseeability and safety as the rates remain unaffected by short-term economic variations.

Another use of the LIBOR rates or their replacement would be to calculate the default rates. For example, Article 7(2) of Directive 2011/7/EU, on combating late payment in commercial transactions, is based on the refinancing operations of the European Central Bank (or national equivalent, if the country is not a part of the euro system).

This approach is adequate, as market interest rates and default rates have the same underlying factors. Default rates have a punitive and/or chilling effect, encouraging timely performance by the debtor, but they also serve to compensate the creditor: as the creditors are deprived of the expected funds, they cannot place it on the markets and generate a profit, and may be at risk of needing to borrow the missing amount to face their own obligations. Both the placement and the refinancing are tied to the central bank rate: a reasonable person would choose a secure placement, such as deposits in a bank or safe state bonds, which are tied to the central bank rate. The refinancing follows the same logic: the creditor borrows money from its bank at the central bank rate with a mark-up reflecting the risk taken and the remuneration of the lender.

Having a stable basis for the default rate is a sound idea. Default rates skyrocketing during an economic crisis would only compound the financial difficulties of the debtors, and crashing default rates would remove or reduce the incentive to perform, aggravating the situation of the creditor.

As a last example, it is quite common in Switzerland to have mortgage rates linked to LIBOR (usually with a longer maturity than overnight, eg, three months), and have the rate periodically re-evaluated. The stability of LIBOR and its replacements is once again a guarantee that an economic crisis will not automatically trigger a variation of the rates, with a possible mortgage credit crisis. On the contrary, cuts to the central bank rates will reduce the financial burden on the owners (it cannot, however, exclude any risk when the rates are rising, such as during a subprime mortgage crisis).

Some other situations cannot be avoided using one of the rates presented in this article. For example, the bank granting a Lombard credit against

stocks and using a rate of the chosen benchmark + x basis points would still be entitled to issue a margin call if the value of the collateral falls below a certain threshold, even if the rates correctly reflect the interest rates market.

### *Hardship*

Crises like the one currently playing out have an impact on contractual obligations and may cause delays in or even non-performance of contractual obligations. In these situations, the debtor could claim that such an unforeseen event is a case of hardship or force majeure (according to the contract and/or the legal system, under the applicable law. Switzerland recognises both contractual clauses and a general theory of hardship called *clausula rebus sic stantibus* – literally, an implicit agreement that the circumstances will remain the same between the conclusion and the performance of the contract. The threshold is, however, fairly high<sup>22</sup>).

The parties should not automatically link the variations of the reference rates and the performance itself. To use a typical example, the current pandemic could cause difficulties in international sale of goods. The possible reasons are multiple: a lockdown could affect the availability of raw materials, production and/or delivery for various reasons: closed factories, employees falling ill, closed borders, and so on.

If a delay in delivery is sanctioned by a penalty defined by reference to one of the rates studied (eg, a payment of a penalty based on the price \* [LIBOR CHF + x basis point] per annum, for the duration of the delay), the fluctuation of the rates is not directly linked to performance. A Swiss seller could have faced a lockdown of its factory following a series of positive cases among its employees even if the CHF reference rate stayed near constant – it could still invoke hardship. Conversely, an American seller could have pursued its activity but faced delays because its factory is undersized for the number of orders it accepted. The pandemic and the rates cut had no impact on the delay, and hardship is not applicable.

### **Conclusion**

The current crisis provided a test for the rates that are supposed to take over from LIBOR on its discontinuation in 2021. Data shows that in the considered period, LIBOR and the replacement rates behaved in a similar manner, demonstrating that they constitute suitable replacements and

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22 Geissbühler, *Droit des obligations*, vol 1 – Partie générale (Schulthess 2020), N 1088 ff.

would not cause an imbalance of the contract if they were used by the parties.

As explained in the methodology section, the authors focused on the more readily available data on overnight rates. Since the period under review ended, it can be seen that rates for other maturities (eg, SAR3M, for CHF with a three-month maturity) are more frequently available, even if the volumes traded are still about 40 times less important (CHF 300m for SAR3M vs CHF 11,800m for SARON, on average on the first 15 days of July). As the non-overnight replacement rates become more and more used, it will be possible to compare their evolution with their LIBOR counterparts, using the same method as the one used in the present contribution. Further calculations will help to assess whether the replacement rates are suitable alternatives for all currencies and maturities considered.

However, the conclusion does not mean that the use of one of the replacement rates should be viewed as an unimportant issue. In drafting or modifying contracts, one should be careful not to use an inappropriate rate, by choosing the wrong currency (eg, using SOFR to replace LIBOR ON CHF), tying the rate to an inappropriate underlying variable or trying to avoid a risk that is outside the interest rate market.

Finally, the presence or absence of a variation of the rate is not in itself a demonstration of hardship. Parties and lawyers should always consider the reasons for delayed or non-performance, rather than the applicable rate.