

LIBOR transition focus areas in the loan market

March 2021

We have produced these Frequently Asked Question (FAQs) to support our customers during LIBOR transition in the committed business loans. For further information please talk to your usual relationship contact for loans.

The information provided is not complete or exhaustive and does not constitute legal or regulatory advice. Danske Bank is not providing any advice or recommendation and you should conduct your own analysis regarding the issues and risks involved in conjunction with your own independent professional advisors.

What is LIBOR?

The London Interbank Offered Rate (LIBOR) is an indication of the average rates at which banks could obtain wholesale, unsecured funding. It is calculated from submissions made by selected panel banks and is published in 5 currencies (GBP, EUR, USD, CHF and JPY) and it has a range of tenors (Overnight, 1W, 1M, 2M, 3M, 6M and 12M). It is published each London business day and is administered by ICE Benchmark Administration (IBA).

Why is LIBOR being phased out?

Since the start of the LIBOR transition process, the end of 2021 has been seen as a key target date for LIBOR's cessation because:

- on July 27, 2017 Andrew Bailey, then chief executive of the Financial Conduct Authority (FCA), announced that the FCA would no longer persuade or compel LIBOR panel banks to continue making LIBOR submissions after 2021; and
- on November 24, 2017 the FCA announced that it had secured the voluntary agreement of all 20 LIBOR panel banks to continue submitting contributions until the end of 2021.

The LIBOR methodology is designed to produce an average rate that is representative of the rates at which large leading internationally active banks, with access to the wholesale, unsecured funding market could fund themselves. Since the financial crisis, the decline in the underlying market means that LIBOR is now primarily sustained by the use of expert judgement. Global regulators view this as unsustainable.

What are the interim targets for reducing reliance on LIBOR?

Certain LIBOR tenors will cease after the end of 2021 and preparations should therefore be underway to reduce reliance on LIBOR well ahead of that point. Local regulators have recommended the following timelines to ensure timely transition from LIBOR to alternative rates:

From October 1, 2020

- all new and re-financed LIBOR referencing loan contracts expiring after end-2021 should include clear contractual arrangements to facilitate conversion to a suitable alternative rate before 31 December 2021.

From April 1, 2021

- no new loans referencing GBP LIBOR expiring after end-2021 should be issued.

From July 1, 2021

- no new loans referencing CHF LIBOR or JPY LIBOR expiring after end-2021 should be issued.

From December 31, 2021

- no new loans referencing USD LIBOR expiring after June 30, 2021 should be issued.

On November 30, 2020, the IBA announced that it would be consulting on its intention to continue publishing US dollar LIBOR in all the key tenors (1M, 3M, 6M and 12M) until June 30, 2023. Co-ordinated press releases followed from the FCA and the US regulators on the same day. However, the regulators intend to restrict the use of US dollar LIBOR in new transactions after the end of 2021 as indicated above. IBA's consultation on the proposed deadlines began on December 4, 2020 and ended on January 25, 2021. The outcome of this consultation is summarised in the official statement from Financial Conduct Authority (FCA) on **March 5, 2021**. We would recommend to get acquainted with FCA's announcement on future cessation and loss of representativeness of the LIBOR benchmark settings on its webpage.

In light of the above, amendment of agreements relating to existing loans referencing LIBOR and expiring after end-2021 (for USD LIBOR contracts after June 30, 2023) should be started soonest possible.

What are alternative benchmarks to LIBOR?

Following guidance from the Financial Stability Board (FSB), regulatory led public working groups were established to identify and facilitate adoption of robust alternative Risk Free Rates (RFRs) founded on substantial underlying transactions in relevant LIBOR currencies. The following RFRs have been identified as recommended alternatives to LIBORs:

Country	LIBOR	New Risk-Free Rate	Working Groups
United States	USD LIBOR	SOFR	Alternative Reference Rates Committee (ARRC)
United Kingdom	GBP LIBOR	SONIA	Sterling Working Group on Risk-Free Rates (WG RFR)
Japan	JPY LIBOR	TONA	Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks
Europe	EUR LIBOR	€STR	European Money Markets Institute (EMMI) and Euro RFR Working Group
Switzerland	CHF LIBOR	SARON	The National Working Group on Swiss Franc Reference Rates

Are other reference rates affected by these changes?

There are a number of other inter-bank offered rates (IBORs) which are under reform or will be phased out. These include:

EURIBOR (Euro Interbank Offered Rate) has been reformed to comply with the EU Benchmark Regulation and there are no current plans to discontinue this benchmark. It is anticipated at present that EURIBOR will continue but the Working Group on Euro Risk Free Rates is considering potential fallback rates to EURIBOR based on Euro Short Term Rate (€STR). In November 2020 the regulators have published two consultation papers:

- a consultation on €STR based EURIBOR fallback rates
- a consultation on EURIBOR fallback trigger events.

Recommendations following these consultations are expected to be published in the first quarter of 2021. The purpose of the consultation is to identify suitable EURIBOR fallback provisions for each financial group. The suggested alternatives cover the market conventions which should be used to calculate the compounded term rate based on the €STR and a credit adjustment spread methodology used to avoid the potential value transfer, if a fallback is triggered.

In your new loan agreements, you may have an option to include the automatic replacement at a later date of use of EURIBOR by use of compounded €STR. However, you should note that before contemplating the entry into of such facilities, it will be important to make an assessment of operational capability to enter into and manage with immediate effect such an arrangement.

EONIA (Euro Overnight Index Average) has been reformed and since October 2, 2019 and has been quoted as €STR plus a fixed spread of 0.085%. It is scheduled to be discontinued from January 3, 2022.

Scandinavian benchmarks:

Sweden

STIBOR (Stockholm Interbank Offered Rate) is registered as a critical benchmark and is under the process to be reformed. A review of the methodology was launched in July 2020, for the purpose of ensuring that STIBOR accurately reflects the current underlying economic reality and that it fully conforms to the European Benchmark Regulation.

Swedish Financial Benchmark Facility (SFBF) is now finalizing a review of STIBOR methodology. A formal Public Consultation on the methodology was launched in March 2021. The Administrator of STIBOR will need to apply for an authorisation during 2021. In a Q&A, published on November 6, 2020, ESMA also clarified that an application must be submitted before December 31, 2021.

SWESTR (Swedish Krona Short Term rate) is a transaction based reference rate calculated by Riksbank on the basis of transactions executed on the money market from one banking day to the next in Swedish kronor. During a test period starting on January 27, 2021 and lasting for approximately six months, a preliminary value for SWESTR will be published every Swedish banking day. SWESTR shall not be used in financial contracts during the test period.

Denmark

CIBOR (Copenhagen Interbank Offered Rate) is not a critical benchmark. Finance Denmark and the Danish Financial Benchmark Facility (DFBF) is authorised to operate as administrator under Benchmark regulation (BMR).

DESTR (Denmark Short Term Rate) is scheduled to be launched in 2022 following a test period in 2021. DESTR is based on overnight transactions, which the Danish National Bank will collect from a broad group of banks as part of a new statistic for 1 day money market rates. Furthermore, the Danish National Bank will establish a working group with participation from the banking sector that will prepare a proposal for the transition from and discontinuation of the existing short-term reference rate, Tom/Next rate.

Norway

NIBOR (Norwegian Interbank Offered Rate) is a collective term for Norwegian money market rates at different maturities. NIBOR is not recognised as a critical benchmark, therefore we continue using it.

NOWA (Norwegian Overnight Weighted Average) may be used in the future as an alternative reference rate for NOK contracts. At the beginning of 2018, Norges Bank, in consultation with the financial industry established a working group for alternative reference rates (the ARR group) for contracts denominated in NOK.

Following the recommendation to use reformed NOWA as the alternative reference rate to NIBOR, two subgroups were established that have worked on how NOWA can be used as a reference rate. One group has focused on market conventions for NOWA and fallback solutions in the event of a cessation of NIBOR, and another group has looked at the development of a derivatives market with NOWA as the reference rate. In June 2020, two consultations were published setting out the standard NOWA conventions and on establishing an Overnight Index Swaps (OIS) market in NOK. The working group has already held meetings with the International Swaps and Derivatives Association (ISDA) to look at the possibility of incorporating a fallback clause for NIBOR in ISDA's standard documentation for derivatives. In addition, the working group has held meetings with Bloomberg to look at the possibility that Bloomberg can calculate and publish the fallback rate between NOWA and the relevant NIBOR tenor.

The Norwegian market is more advanced in the transition to RFRs, and we need to follow the developments in the practical application of the above mentioned consultations.

The transition reform to RFRs in the Scandinavian market is at its early stage compared to LIBOR. We need to follow regulators' work closely in the upcoming two years. Knowing that the change may be imminent at some point, we need to pay closer attention to the fallback language in the committed loan agreements.

What is the key difference between LIBORs and RFRs?

Forward looking vs. backward looking

- LIBORs are forward-looking term rates. A LIBOR based interest rate in a credit agreement is known at the start of the relevant interest period.

- a RFR is an overnight rate for a single currency. In contrast, LIBORs are published for 5 different currencies and a number of tenors ranging from overnight to 12 months. Specific mathematical

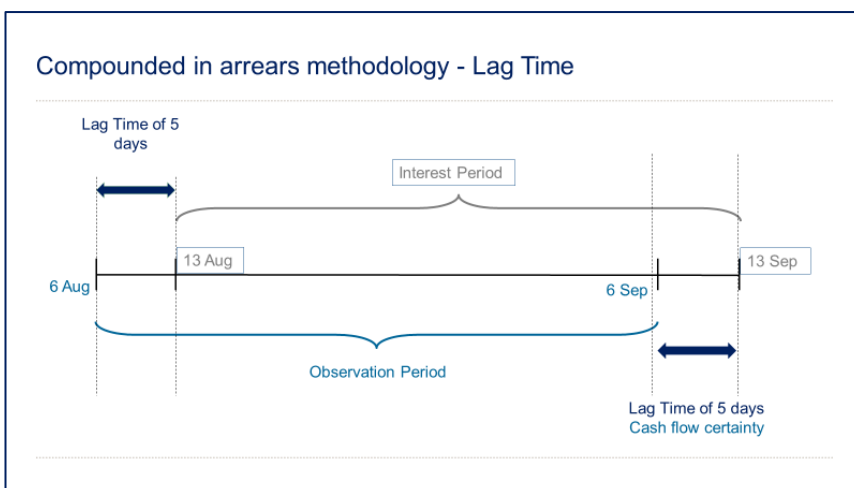
constructions (using compounded or simple averaging) can be used to create backward-looking term rates based on RFRs. The interest due at the end of the interest period would be known only on the date of settlement of the interest payment (on the last day of the interest period) or, with an agreed lookback period, a few days before. The operational application of new benchmarks derived from RFRs may require that adjustments are made to your **treasury management systems** and demand **a good understanding of conventions** applicable to new RFRs that vary across both currencies/RFRs and types of financial assets.

- Forward-looking term rates derived from RFRs could be created based on sufficiently liquid Overnight Index Swaps or futures markets. Such rates would be calculated and known at the beginning of the interest period. This would be a similar construct to LIBOR (i.e. a forward-looking expectation), but would not reflect a bank term credit premium. Regulators are generally reluctant to encourage reliance on forward looking rates, unless there is a specific need for such rates and recommend that such rates are only used for certain products, or in certain circumstances. Forward-looking term rates based on RFRs are currently developed for USD and JPY. Term SONIA was published from January 12, 2021.

How will compounding in arrears methodology be used to calculate the interest on my lending?

RFRs are overnight rates, unlike LIBOR which is a forward-looking term rate, and so RFR interest payable over a period is typically calculated by compounding a series of daily overnight rates. In order that the interest payment is known a few days before it is due, a time lag of a few days may be used. For example, with a five day time **lookback** the compounding calculation begins with the rate published five business days before the start of the interest period and finishes five business days before the payment is due. This is known as the **observation period**.

Interest is compounded on banking days only. For each calendar day which is a weekend or bank holiday, the immediate preceding banking day's rate is applied, weighted by the number of calendar days until the next banking day. A weighting of 1 would be applied for Monday to Thursday (assuming no bank holidays) and a weighting of 3 for Friday to account for Saturday and Sunday (assuming no bank holidays). Where we use the day weighting from the **interest period** this is called the **"No Observation Shift"** method, and where we use the weighting from the **observation period** this is called the **"With Observation Shift"** method. The loan agreement will specify the method used. The prevailing approach in the loan markets is currently with **"No Observation Shift"**. An interest payment notification is issued once the compounding calculation has been performed and before the interest payment is due.



The expectation is that the same methodology will be used for other RFRs, although **simple averaging** and Term SOFR (once it is published) may be used in the USA, using SOFR. The inclusion of a simple Daily SOFR in the US jurisdiction is done in order to ease the transition to new originations of SOFR referenced loans. Term SOFR does not yet exist as a reference rate, but it is an operational analogue of LIBOR, so it requires little change to conventions and systems. Daily Simple SOFR is the straightforward option and market participants know, how to use it. Simple interest convention means that the additional amount of interest owed each day is calculated by applying the daily rate of interest to the principal borrowed, and the payment due at the end of the period is the sum of those amounts. In accordance with the US regulator recommended conventions, the calculation of a simple SOFR rate includes a lookback with no observation shift to build in breathing room for invoicing and payment.

Danske Bank would strongly recommend to get in depth with the applicable conventions to RFRs and carefully investigate the alternative replacement benchmarks in each jurisdiction. As the loan market has no screen based rate as LIBOR for alternative replacement benchmarks, this means that most RFR based loan transactions will need to be calculated by the agents and lenders by inputting daily rates for the relevant RFR during each observation period into one or more formulas.

What is the Credit Adjustment Spread (CAS)?

LIBOR includes a credit and term liquidity element to reflect the cost and risk to banks of lending over a term period. As RFRs are overnight rates, the risk of lending which these reflect is lower and therefore a benchmark derived from a RFR is typically lower than LIBOR for the same currency. An adjustment (typically referred to as a “credit adjustment spread”) is therefore needed to account for this difference, when converting existing credit facilities from LIBOR to a RFR.

ISDA has taken the lead in identifying the preferred method of calculation for credit adjustment spreads between IBORs and RFRs. It was determined that a credit spread adjustment will be based on the historical median with a 5 year lookback period that calculates the difference between LIBOR and the alternative reference rate over five years’ worth of daily data points. The applicable credit adjustment spread was calculated and published by Bloomberg on the formal FCA’s announcement of discontinuation and non-representativeness of LIBOR’s benchmarks on March 5, 2021. The credit adjustment spread for each specific IBOR and tenor is fixed and remains static for the rest of the life time of a legacy contract.

Will CAS methodologies and timelines be the same across different products, such as lending and derivatives?

Although the derivative and loan markets have moved towards adopting the **historical 5 year median methodology** for CAS for fallbacks, they can be used on the final LIBOR cessation date or on the pre-cessation event. Factors for this methodology’s use in syndicated transactions have included the simplicity of explaining this approach consistently to all counterparties and to align multiple parties to a commonly understood methodology. However, this approach has not been used in the bond or derivatives markets for **active transition**.

The derivatives market generally uses the basis market for active transition, so use of the **forward approach** could be in line with hedging associated with the loan (assuming the same timing is used to calculate the CAS). Forward approach uses a linear interpolation between IBORs and RFRs swaps. Therefore, it is important to consider which approach to use when transitioning existing legacy loans where there is hedging in place (ISDA’s historical 5 year median methodology or forward approach).

Please be aware of multiple potential mismatches between linked products and consider your risk accordingly.

In order to have a match, that would be as close as possible, you should seek for an alignment of the following elements in both contracts (loans and swaps):

1. Compounded RFR in arrears conventions must be aligned (with or without Observation shift).
2. Interest payment conventions must be aligned (five banking days interest payment convention is used in loans, while the payment delay is a standard interest payment convention in interests contracts).
3. CAS calculation method must be aligned (in legacy deals).
4. The amendment/transition date must be the same in both contracts, if a legacy LIBOR contract needs to be amended.

Danske Bank therefore anticipates that the parties to hedging linked transactions will need to amend their terms manually, when signing a new contract or amending a legacy LIBOR loan. Please remember that in large syndicated deals any change to a contract requires the majority lenders' consent, while interest swaps contracts are bilateral. We would encourage to talk to your loans and derivatives professionals before drafting any amendment or a new contract referencing RFRs.

Should I use compounded RFR in arrears if term rates become available?

As mentioned earlier, some jurisdictions are working on developing a term rate derived from RFRs. There are currently three different Term SONIA providers, each with a different calculation methodology. Two of them started publishing Term SONIA rates (1M, 3M, 6M and 12M tenors) from January 12, 2021. Danske Bank is currently working on the implementation of Term SONIA in the internal bank systems. However, we expect **a limited use of Term SONIA** in the future. The publication of the "Term Rate Use Case Report" by the Sterling Working Group in January 2020 emphasises that SONIA compounded in arrears will and should become the norm in most derivatives, bonds, and bilateral and syndicated loan markets. Term SONIA is relevant for working capital products, Trade Finance, Export Finance and lower value loans to smaller borrowers.

The US market has taken a different approach to the term rate derived from SOFR. The ARRC's fallback language for use in business loans recommends Term SOFR as the first preferred option for borrowers and lenders, should such a rate exist at the cessation of USD LIBOR.

Danske Bank is not able to confirm whether this will result in a continued adoption of compounding in arrears methodology in the event term rates become available. The Bank will be receptive to customers' demands and preferences towards the methodologies that best match their needs. We would recommend seeking independent advice in understanding which RFR is appropriate for you.

What does "fallback language" mean?

Fallback language refers to the document terms that are intended to provide for a smooth transition to an alternative reference rate in the event LIBOR ceases to exist.

What will happen if my loan contracts do not contain fallback language when LIBOR ceases?

Market participants should review their contracts to identify whether adequate and robust fallback language has been implemented to address the cessation of LIBOR. In general, most existing fallback language was written to address a situation where the benchmark was temporarily unavailable (Market Disruption), rather than its permanent cessation. Consequently, contracts may revert to rates which are not appropriate for their remaining duration such as Cost of Funds, which could lead to contractual difficulties.

For legacy derivative contracts, the ISDA 2020 IBOR Fallbacks Protocol ("the ISDA Protocol") will be used to incorporate new fallback language. For derivatives, which do not use ISDA master agreements and definitions, counterparties may need to bilaterally negotiate new fallback language for their contracts.

In the loan market, amendments of existing LIBOR contracts may become more complicated if there are multiple parties involved in a transaction. Therefore, Danske Bank encourages to have a clear overview on LIBOR's exposure in your loan contracts by the end of Q1 2021 in order to have enough time for legal remediation process.

Have any jurisdictions released recommended fallback language specific to loans?

In the US, the ARRC has published recommended language for bilateral and syndicated loans in June 30, 2020. For syndicated Loans and bilateral loans in USD, the ARRC has recommended using "**hardwired**" **fallback language**, where the replacement rate will follow the waterfall structure from the end of Q3 2020:

- Term SOFR + CAS; *if not available, then*
- Daily Simple SOFR + CAS (or Daily Compounded SOFR); *if not available, then*
- Borrower and Administrative Agent Selected Rate + CAS.

The UK WG on RFRs has chosen a different approach and recommended the use of **compounding in arrears for RFR loans**. After the end of Q3 2020 lenders should include clear contractual arrangements in all new and re-financed LIBOR-referencing loan products to facilitate conversion ahead of end-2021, through pre-agreed conversion terms or an agreed process for renegotiation.

The Loan Market Association (LMA) in the UK has published a supplement to its Revised Replacement of Screen Rate language which provides for the parties to the loan document, to set a date sufficiently ahead of the end of 2021, to agree on the use of a replacement benchmark (with such negotiations to be concluded by a specified date ahead of the end of 2021). This supplement is designated to constitute "an agreed process for renegotiation" and may be useful where parties to a new loan document are not able to pre-agree conversion terms at such time.

In January 2021, the LMA has published another set of exposure drafts for Multicurrency Compounded Rate facilities agreement, (lookback with or without Observation Shift) that allows to use RFRs from the signing day, but also includes optional rate switch provisions for remaining IBOR rates.

The borrowers, that are comfortable in negotiating the pre-agreed conversion terms or using compounded RFRs from Day 1, should focus on the recommended templates from March 30, 2021.

The amendment of the terms of legacy LIBOR loans might be a long and cumbersome process. It depends on the currency, specific jurisdiction requirements and the initial form of the loan agreement template used for drafting your contract. Therefore, Danske Bank urges you to consult your own legal advisor before you address the lenders on the transition issues.

Who will instigate the amendment of legacy LIBOR loan agreement?

We anticipate that lenders will generally instigate this process, on both bilateral and syndicated transactions.

On syndicated transaction, a lender wishing to start an amendment process should put a proposal to the Agent and ask to circulate it among the syndicate for the discussion before any proposal would be submitted to the borrower. However, the borrowers may also initiate the amendment process without waiting for the syndicate's proposal.

What can you do to make sure that you are ready?

Follow the latest market developments:

- Visit the websites of the Bank of England for Working Group on Sterling Risk-Free Reference Rate, the FCA, the US Alternative Reference Rates Committee and ISDA. They have good sources of information.
- Talk to your relationship banks, legal and financial advisors.
- Familiarise yourself with SONIA, SOFR and any other RFR rates relevant to you, conventions applicable and how the accrued interest is calculated.

Identify LIBOR exposures:

- Develop a clear overview of all transactions affected by LIBOR.
- Identify which counterparties are involved – banks, group entities, investors.

Understand how transition could affect your products and contracts:

- Review your existing loan contracts to understand where LIBOR is referenced and whether there are any fallback provisions in place, once LIBOR is no longer available.
- Consider whether fallbacks across linked products are consistent where they are intended to match.
- Understand how your systems, processes, operations, valuations, tax, accounting may be affected.

Develop a transition plan:

- Consider which contracts might need to be amended or confirm the steps to be taken, if LIBOR is no longer available
- New loan agreements: can you use an alternative reference benchmark from the start or include a conversion mechanism?
- Determine resource requirements to handle LIBOR transition.

Please seek independent financial and legal advice, if you have any questions about any of the issues raised in this communication.