

IBOR Transition – Q&A

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1 GENERAL INFORMATION

1.1 What is happening to the current reference rates?

Certain interest rate benchmarks, also known as reference rates, such as EURIBOR and LIBOR have to a variable extent been reformed or will be discontinued and replaced with alternative risk-free rates (RFRs). This information is relevant for you if you have any financial products that reference such rates or if you use references to these rates for any other purposes.

We encourage you to start preparing and, to the extent required, seek appropriate advice on the potential consequences for you from the discontinuation of LIBOR. The reference rate most commonly used by the Bank, i.e. EURIBOR, is expected to continue and there is no current indication it will cease in the near future. We nevertheless encourage you to go through the following paragraphs.

1.2 What is a “reference rate”?

A reference rate is a benchmark interest rate used as basis to determine other interest rates and is meant to be an indication of the interest rate that banks would pay for unsecured interbank loans, i.e. how much it costs for banks to borrow from each other or obtain funds from other sources.

Interest rate benchmarks are used to determine payments under a financial contract or instrument. The determination of an interest rate benchmark is outside the control of the parties to the contract or instrument. Interest rate benchmarks are essential for the smooth functioning of financial markets and are widely used by banks and other market participants.

Various types of transactions use different reference rate benchmarks, collectively often referred to as IBORs, with the most common being LIBOR and EURIBOR. Reference rates are used in many different contracts like mortgage loans and other credit facilities, interest rate swaps, other derivatives and other financial agreements.

The most commonly used reference rate by the Bank is EURIBOR.








1.3 Why are the benchmark rates being reformed or replaced?

As benchmark rates are fundamental to so many financial contracts, they need to be robust, reliable and fit for purpose. Benchmark interest rates like LIBOR, EURIBOR and EONIA were originally based on interbank borrowing/lending transactions. Since the financial crisis in 2007/2008, the number of interbank transactions supporting the benchmark rates significantly decreased raising questions about the representativeness and sustainability of the benchmarks, together with the discovery that certain panel banks had manipulated the benchmark and misstated the rate they submitted. Due to the limited underlying activity, panel banks often submitted quotes based on expert judgement rather than on actual transactions.

Against this background, a global initiative to reform existing reference rates and to find alternative near risk-free rate benchmarks was started, and today such alternative reference rates have been established in a number of countries.

1.4 What are the “alternative” reference rates?

Several authorities and industry working groups have identified recommended alternatives to the different reference rates. It is important to note that RFRs are not free of risk, hence they are considered “near risk-free”. RFRs can rise or fall as a result of changing economic conditions and central bank policy decisions. Below is an overview of some of the alternative reference rates for different rates:

Jurisdictions	Currency	Existing Rate	Alternative Reference Rates (RFRs)	Administrator	Description
	Euro	Euro Overnight Index Average EONIA Euro Interbank Offered Rate EURIBOR EUR LIBOR	Euro Short Term Rate €STR	European Central Bank	€STR is an unsecured rate that captures overnight wholesale deposit transactions EONIA is expected to be discontinued and transitioned to ESTR on 3 January 2022. It exists under a new methodology since October 2019 to allow a smooth transition to €STR . EURIBOR was made compliant with the benchmark regulation in Q4 2019. EURIBOR is expected to continue alongside €STR beyond 2021 and there is no current indication it will cease in the near future. EUR LIBOR will cease end-2021. A transition to €STR is expected.
	British Pound Sterling	GBP LIBOR	Sterling Overnight Index Average SONIA	Bank of England	Unsecured rate that covers overnight wholesale deposit transactions
	US Dollar	USD LIBOR	Secured Overnight Financing Rate SOFR	Federal Reserve Bank New York	Secured rate that covers multiple overnight repo market segments
	Swiss Franc	CHF LIBOR	Swiss Average Rate Over Night SARON	SIX Exchange	Secured rate that reflects interest paid on interbank overnight repo rate
	Norwegian Krone	NIBOR	Norwegian Overnight Weighted Average NOWA (reformed)	The Norwegian Central Bank	A weighted average of interest rates set in agreements concluded by banks, either directly or via a broker, for unsecured loans in NOK. NIBOR is expected to continue for the foreseeable future,
	Swedish Krona	STIBOR	Swedish krona Short Term Rate SWESTR	Riksbanken	SWESTR is a transaction-based reference rate calculated on the basis of transactions executed on the money market from one banking day to the next. No decision has been made to discontinue Stibor
	Japanese Yen	JPY LIBOR	Tokyo Overnight Average Rate TONAR	Bank of Japan	Unsecured rate that captures overnight call rate market

1.5 Nature of the RFRs vs LIBOR: Back ward and forward-looking rates

While RFRs and LIBOR reference rates are all benchmarks, there are distinct differences between them.

LIBOR is a forward-looking or term rate quoted for five currencies (USD, GBP, CHF, JPY and EUR) and seven different maturities or 'tenors' (overnight/spot, one week, one month, two months, three months, six months and 12 months). Consequently, the LIBOR linked rate is known at the start of an interest period.

The RFRs such as SONIA, SOFR, €STR, and SARON are near risk free overnight rates published the following day and based on historic transactions. They are typically used by compounding the rates over a certain period of time, which makes them backward-looking rates. Consequently, the rate is not known in advance and unlike the LIBOR they exclude any credit sensitivity component or term liquidity premium.

Reference rates derived from RFRs can however be constructed in different ways, and also in a forward looking manner. Today, a forward-looking LIBOR alternative term rate exists e.g. for the GBP (SONIA) market as of January 2021, and it is widely expected there will be comparable forward-looking rates in other markets as well.

It is also possible to create a term rate for the overnight rates on a backward looking basis. The backward looking term rate can then be constructed by calculating a simple or compounded average of the daily fixings of the RFR over a given term. The rate may for example either be determined by reference to the corresponding rate for the immediately preceding interest period or a recent observation period shorter than the interest period. Such "in advance" RFR reference term rate can thus be set on or before the first day of an interest period, similar to the IBOR rate determination mechanics.

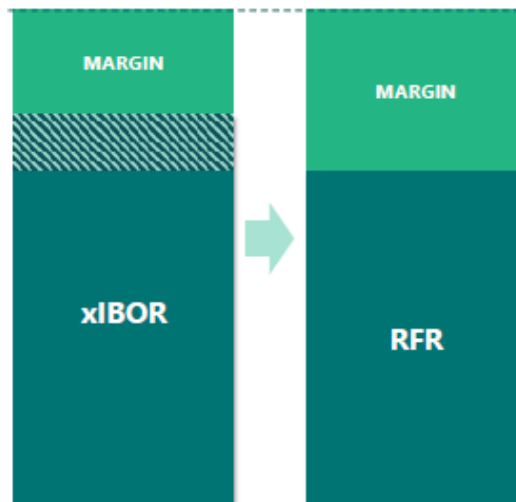
1.6 What could these reforms mean for you?

Changes in reference rates may have consequences for financial instruments and contracts in which these rates are referenced. The extent of the impact will depend on which IBOR is referenced, the term of the product or contract and the nature of the product. Where a reference rate is discontinued during the life of the instrument, the Bank will have to use a modified or alternative reference rate.

The reform and transition to new interest rate benchmarks is an ongoing process which includes some uncertainties about the transition process, timing and impact. The information provided in this Q&A cannot be, and is not, exhaustive. You should contact your professional advisors on the possible impact of the IBOR reforms on the financial products and services you use or may use in the future.

1.7 What is a Credit Adjustment Spread and why may it be needed?

The IBOR rates include a few additional elements that are missing in the RFR rates, including a perceived credit risk premium, and long and short term funding costs (IBOR usually being available for a range of maturities). Due to these missing risk elements, it is expected that in most cases the RFR levels will be lower than the IBORs and not fully correspond to the Bank's funding costs. As the transition from IBORs to RFRs is intended to be economically neutral, a so-called credit adjustment spread (CAS) may be needed to bridge the gap between these benchmarks, to minimise the economic impact and the likelihood of a value transfer during the transition of legacy products referenced to IBORs.



CAS will be determined based on statistical methodologies at the market level. Please see for example the [Bloomberg website](#) for further information on CAS fixing.

1.8 Robust Fallback Plans

The Bank has drawn up Robust Fall Back Plans in accordance with the requirements set by the Benchmark Regulation that describes how the Bank will act in case the reference rates materially changes or ceases to be available. Where feasible and appropriate, the plan shall nominate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided, indicating why such benchmarks would be a suitable alternative.

The Bank is closely monitoring developments in the market and on the regulatory side with regards to the reform of interest rate benchmarks and benchmark transition and are working to ensure that we continue to offer our customers products and services in line with market practice.

2 LIBOR TRANSITION

2.1 What is LIBOR?

LIBOR stands for London Inter-bank Offered Rate and provides an indication of the average rate at which LIBOR panel banks can borrow unsecured funds from other banks in the London interbank market or obtain wholesale unsecured funding. The rate is calculated for five different currencies (USD, GBP, EUR, CHF, JPY) and for different maturities ranging from overnight to 12 months. It is based on submissions from a panel of contributing banks and administrated by ICE BA Benchmark Administration (<https://www.theice.com/iba/libor>) in London. LIBOR is used in retail and professional markets, various financing, capital markets, derivatives transactions, lending transactions and in floating rate bonds and derivatives.

2.2 What is happening to LIBOR and what impact does the changes have on you?

In March 2021, the Financial Conduct Authority (FCA) and ICE Benchmark Administration (the administrator of LIBOR) announced that sterling, euro, Swiss franc and Japanese yen LIBOR panels, as well as panels for 1-week and 2-month US dollar LIBOR, will cease at end-2021, with the remaining US dollar LIBOR panels ceasing at end-June 2023. A switch to alternative reference rates for these rates is therefore inevitable.

Changes in reference rates may have consequences for financial instruments and contracts in which these rates are referenced. Where a reference rate is discontinued during the life of the instrument, we will have to use a modified or alternative reference rate for determining obligations under these instruments, contracts or agreements. The reform and/or discontinuation of reference rates presents various risks which may have a material financial, economic or other impact on your financial products referencing these impacted rates.

Where available and appropriate, the Bank will replace the existing LIBOR rate with a published forward looking interest term rate (e.g. SONIA Term Rate). Where no such term rate is available, the Bank may either use an overnight rate or calculate an "in advance" RFR reference term rate, as applicable and appropriate. The Bank may in due course contact you if any changes and/or amendments are appropriate or necessary to your contracts.

3 EURIBOR REFORM

3.1 What is EURIBOR

EURIBOR is a commonly used reference rate in financial contracts made in Euro (EUR). EURIBOR stands for Euro Interbank Offered Rate (EURIBOR) and is an unsecured market benchmark rate calculated for several maturities (1W/1M/3M/6M/12M). It is administered by the European Money Markets Institute (EMMI) and represents the rate at which wholesale funds in euro could be obtained by credit institutions in the European Union and EFTA countries in the unsecured money markets.

3.2 What is happening to EURIBOR and what impact does the changes have on you?

Benchmarks used in the EU need to comply with EU Benchmarks Regulation (BMR). The BMR introduces a regime for benchmark administrators, contributors and users of benchmarks in order that the accuracy and integrity of benchmarks is ensured.

The current EURIBOR benchmark was made compliant with the BMR in 2019, when its calculation methodology was updated. As a result, the expectation is that the reformed EURIBOR will continue to exist in the foreseeable future and there are no immediate risk of a major disruption for contracts relying on EURIBOR.

4 EONIA

4.1 What is happening to EONIA and what impact does the changes have on you?

EONIA is an overnight or 1-day interbank interest rate for Euros (EUR). EONIA is a commonly used reference rate in financial contracts made in Euro (EUR). EONIA stands for Euro Overnight Index Average. As of 2 October 2019, EONIA is calculated as €STR plus a fixed spread of 8.5 basis points and as such a tracker of the new €STR

benchmark. EONIA will cease to be published after 3 January 2022 and will thereafter be replaced by €STR. €STR, Euro Short Term Rate, is based on actual individual transactions in Euro's that banks report to the European Central Bank (ECB), and is published by the ECB on a daily basis.

5 NIBOR

5.1 What is happening to NIBOR and what impact does the changes have on you?

NIBOR is a commonly used reference rate in financial contracts made in Norwegian kroner (NOK). NIBOR stands for the Norwegian Interbank Offered Rate. The BMR is also relevant for the EEA and was implemented in Norwegian legislation through the Norwegian law on Financial Reference Values (Referanseverdiloven), with effect from 20 December 2019. Thus, the BMR requirements for benchmark administrators, contributors and users of benchmarks now apply in Norway.

To comply with the requirements of the BMR, NIBOR was made subject to a revised calculation methodology and governing framework that has applied since 1 January 2020.

NIBOR, with its updated calculation methodology, may continue to be used as a benchmark and unlike LIBOR, there is no expectation that NIBOR will be discontinued from year end 2021. The expectation is that NIBOR will continue to exist for the foreseeable future, and there is no immediate risk of a major disruption for contracts relying on NIBOR.

The Norwegian working group on alternative reference rates and its sub-groups have selected a reformed NOWA as the alternative reference rate in NOK and are currently working on how such a rate can be implemented.

6 STIBOR

6.1 What is happening to STIBOR and what impact does the changes have on you?

STIBOR is a commonly used reference rate in financial contracts made in Swedish Kronor (SEK). STIBOR stands for Stockholm Interbank Offered Rate and is an average of the interest rates at which a number of banks active on the Swedish money market are willing to lend to one another without collateral at different maturities. A working group for alternative reference rates was established by the Swedish Bankers' Association in 2018 and has been working to develop a new alternative reference rate in SEK. Work has also been done to reform STIBOR in order to have it approved by the Swedish Financial Supervisory Authority based on the requirements under the EU Benchmarks Regulation (BMR). No decision has been made to discontinue STIBOR, nor is there for the time being any desire or requirement in Sweden for STIBOR to end. The expectation is therefore that a BMR compliant STIBOR will continue to exist in the foreseeable future.

7 FURTHER INFORMATION

If you would like more general information on the interest rate reform and IBOR transition, several authorities and working groups have published information, which can be found on their websites:

[CSSF – Benchmarks](#)

[Financial Conduct Authority \(FCA\) - Libor Transition](#)

[Bank of England](#)

[Federal Reserve Bank of New York \(FRBNY\)](#)

[U.S. Alternative Reference Rates Committee \(ARRC\)](#),

[European Central Bank \(ECB\)](#)