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1. <u>Why and when is the London Interbank Offered Rate (LIBOR) being replaced?</u>

LIBOR provides an indication of the average rate at which a panel of banks could obtain wholesale unsecured funding. The British Bankers Association has used LIBOR since 1986 with a governance framework that involves asking traders from a panel of banks to estimate the level at which they consider they could borrow funds. There are five active LIBOR currencies (CHF, EUR, GBP, JPY, and USD) for seven maturities. The underlying market that LIBOR seeks to reflect has become increasingly less active. Therefore, given the decrease in transactions, the Financial Stability Board (FSB) has observed that submissions used to determine LIBOR are increasingly based upon expert judgment. In 2017, FCA announced that they would no longer persuade or compel member panel banks to make LIBOR quote submissions after 2021.

The ICE Benchmark Administration (IBA) announced that it will consult on its intentions to cease the publication of one-week and two-month USD LIBOR following the LIBOR publication on December 31, 2021, and to cease the publication of overnight, one-, three-, six-, and twelve-month USD LIBOR following the LIBOR publication on June 30, 2023. The IBA previously released a consultation on its intent to cease the publication of GBP, EUR, CHF, and JPY LIBOR following their publication on December 31, 2021.

The Federal Reserve Board (FRB) issued supervisory guidance encouraging banks to cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable but no later than December 31, 2021. New contracts entered into before December 31, 2021 should either utilize a reference rate other than LIBOR or have robust fallback language that includes a clearly defined alternative reference rate after LIBOR’s discontinuation.

On Mar 5, 2021, the FCA has announced the dates that panel bank submissions for all LIBOR settings will cease, after which representative LIBOR rates will no longer be available.

- Immediately after 31 December 2021, in the case of all sterling, euro, Swiss franc and Japanese yen settings, and the 1-week and 2-month US dollar settings; and

- Immediately after 30 June 2023, in the case of the remaining US dollar settings

This is an important step towards the end of LIBOR, and the Bank of England and FCA urge market participants to continue to take the necessary action to ensure they are ready. The FCA may consult in Q2 on requiring ICE Benchmark Administration ("IBA") to continue the publication on a "synthetic" basis of the 1 Month, 3 Month and 6 Month GBP and JPY LIBOR settings after Dec 31, 2021 and will continue to consider the case for "synthetic" USD LIBOR settings of 1 Month, 3 Month and 6 Month after Jun 30, 2023. Any "synthetic" LIBOR will no longer be representative for the purposes of benchmark regulation and is not for use in new contracts. It is intended for use in tough legacy contracts only.

2. **<u>What are Risk Free Rates ("RFRs") and how are they different from LIBOR?</u>**

Risk Free Rates ("RFRs") are alternative reference rates that have been developed for use instead of LIBOR. Regulators for the 5 LIBOR currency jurisdictions have published their preferred alternative reference rates as shown in the table below:

IBORs	RFRs	Secured/ Unsecured	Rate Administrator	Working Group	Description
USD LIBOR	Secured Overnight Financing Rate (SOFR)	Secured	Federal Reserve Bank of New York (FRBNY)	Alternative Reference Rate Committee (ARRC)	Cost of borrowing cash overnight collateralized by U.S. Treasury securities.
GBP LIBOR	Reformed Sterling Overnight Index Average (SONIA)	Unsecured	Bank of England	Working Group on Sterling Risk-Free Reference Rates	Overnight unsecured sterling deposit transaction.
EURIBOR, EUR LIBOR	Euro Short-Term Rate (€STR)	Unsecured	European Central Bank	The Working Group on Euro Risk-Free Rates	Overnight unsecured fixed rate deposition transactions over €1mn.
CHF LIBOR	Swiss Average Rate Overnight (SARON)	Secured	SIX Swiss Exchange	National Working Group on Swiss Franc Reference Rates (NWG)	Secured rate that reflects interest paid on interbank overnight repo.
JPY LIBOR	Tokyo Overnight Average Rate (TONA)	Unsecured	Bank of Japan	Cross-Industry Committee on Japanese Yen Interest Rates Benchmarks	Unsecured overnight call rate market.

While RFRs and LIBOR are both benchmarks, there are distinct differences between them which include:

- Reference Period: LIBOR is a forward-looking term rate whereas RFRs are backward-looking overnight rates;

- Methodology: LIBOR is derived from quotes provided by panel banks that are estimates of where they could borrow funds whereas RFRs are benchmarks generally based upon actual transactions;

- Credit Risk: LIBOR and RFR rates reflect different elements of credit risk. LIBOR is an unsecured borrowing rate and includes the implied credit risk of the panel banks and a liquidity premium related to the length of the interest period. RFRs do not include the panel bank credit risk nor a liquidity premium related to the length of the interest period as they are overnight rates. RFRs can be unsecured or secured.

3. What is SOFR?

On June 22, 2017, the ARRC identified the Secured Overnight Financing Rate (SOFR), as its recommended alternative to USD LIBOR. SOFR is a fully-transaction based, nearly risk-free reference rate. It is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities.

SOFR covers the most volume of transactions of any rate based on the U.S. Treasury repurchase agreement (repo) market. It is based on transaction data from three segments of the Treasury repo market: (i) tri-party repo, (ii) General Collateral Finance (GCF) repo, and (iii) bilateral repo transactions cleared through the Fixed Income Clearing Corporation (FICC). As a good representation of conditions in the overnight Treasury repo market, SOFR reflects an economic cost of lending and borrowing by the wide array of market participants active in the market.

The New York Fed is the administrator of SOFR and produces the rate in cooperation with the Treasury Department's Office of Financial Research (OFR). The New York Fed publishes SOFR on its website at approximately 8:00 a.m. eastern time every day. Additionally, the New York Fed publishes 30-, 90-, and 180-day SOFR Averages and a SOFR Index to support a successful transition away from USD LIBOR.

4. How to calculate a compounded in arrears rate?

Compounding in arrears is a methodology that compounds daily values of the overnight rate, throughout the relevant term period. Compounding in arrears differs from a typical term rate by calculating interest looking backwards and therefore such a methodology is usually accompanied by a brief period in advance of payment to set the interest rate and calculate payment.

The ARRC's "A User's Guide to SOFR" provides a comprehensive overview of the compatibility of compounded in arrears with SOFR.

5. What is "fallback language"?

In this context, "fallback language" refers to the legal provisions in a contract that apply if the underlying reference rate in the product (e.g. LIBOR) is discontinued or unavailable. The FSB's Official Sector Steering Group (OSSG) has recommended that market participants both understand their contractual fallback arrangements and ensure that those arrangements are robust enough to prevent potentially serious market disruptions in a LIBOR cessation event. The ARRC supported this recommendation in its Second Report, and in July 2018, the ARRC released its guiding principles for the development of fallback language in new financial contracts for cash products. Because LIBOR is a heavily-used reference rate, its permanent cessation without viable fallback language in contracts would cause considerable disruption to financial markets and uncertainties around the large gross flows of USD LIBOR–related payments and receipts between many financial participants. It would also impair the normal functioning of a variety of markets, including business and consumer lending.

6. What will happen if 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 some instances, and these may differ on a case-by-case basis, the lack of adequate fallback language may result in the contract referencing the last published LIBOR rate on a continued basis (i.e. the reference rate will become fixed), or, in the case of US dollars, a prime based rate.

7. Why do loan documents need to be changed?

If the loan document has been identified as having fallback language that may not allow for a smooth transition of the interest rate on the loan onto a Risk Free Rate should LIBOR cease, it may be preferable or necessary to amend the language of the loan document to facilitate such a transition when LIBOR ceases.

It is encouraged that borrowers review their loan documents to identify how they would address the anticipated cessation of LIBOR. Some documents may reference the last published LIBOR rate on a continued basis (i.e. the interest rate will become fixed) while others may reference a prime based rate or the “cost of funds” of each lender in the loan facility. To promote a consistent approach to address a cessation of LIBOR, it is encouraged the use of recommended fallback language and approaches developed by the various National Working Groups (e.g. ARRC and SRFRWG) to ensure impacted documents are smoothly transitioned to an endorsed alternative reference rate.

8. What is the credit spread adjustment and why is it needed?

LIBOR and Risk Free Rates (RFRs) are calculated using separate methodologies and therefore there may be differences between the published rates of the two benchmarks. To accommodate the differences observed and minimize value transfer to the extent possible, industry working groups recommend the usage of a credit spread adjustment.

The established market approach for the credit spread adjustment will be based on the historical median with 5-year lookback period that calculates the difference between LIBOR and the alternative reference rate over five years' worth of daily data points. It is proposed that the median of those differences be added to the alternative reference rate when fallback language is activated.

The results for consultations raised on this topic by ISDA, Sterling RFR WG, and the ARRC can be found below:

ISDA:

https://www.isda.org/2019/11/15/isda-publishes-results-of-consultation-on-final-parameters-for-benchmark-fallback-adjustments/

Sterling RFR WG:

https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/summary-of-responses-on-consultation-credit-adjustment.pdf

ARRC:

https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC_Recommendation_Spread_Adjustments_Cash_Products_Press_Release.pdf

9. When will the credit spread adjustment be calculated and become active?

The spread adjustment calculation as recommended by ISDA, the Sterling Risk Free Rate Working Group for cash products and the ARRC for cash products will be based on a historical median with 5-year lookback approach and will be calculated on the date of a public statement by the regulator or administrator of LIBOR that triggers either the permanent or pre-cessation triggers (whichever occurs first) even if the statement is forward-looking.

Following FCA's LIBOR announcement on cessation dates, ISDA has made the statement that FCA's announcement constitutes a cessation event under the IBOR Fallbacks Supplement and the ISDA 2020 IBOR Fallbacks Protocol ("the Protocol") for all 35 LIBOR settings. As a result, the fallback spread adjustment published by Bloomberg is fixed as of the date Mar 5, 2021 for all euro, sterling, Swiss franc, US dollar and yen LIBOR settings. The fallbacks will automatically occur for outstanding derivatives contracts subject to adherence of the Protocol on the following dates.

- After Dec 31, 2021: For outstanding derivatives referenced to all euro, sterling, Swiss franc, yen LIBOR, US dollar 2-week LIBOR and US dollar 2-month LIBOR settings.
- After Jun 30, 2023: For outstanding derivatives referenced to all the remaining tenors of US dollar LIBOR settings.

10. What are the transition timelines for non-LIBOR benchmark loans?

For multi-currency loan documents that reference a LIBOR rate and one or more non-LIBOR benchmark rates where the relevant regulatory bodies and/or central banks of these currencies have indicated that the non-LIBOR benchmark will cease, NDB will work with its borrowers to try to ensure a smooth transition in line with published cessation timelines.

For loan documents that have non-LIBOR benchmark rates, borrowers should refer to the relevant regulatory body and central bank websites to stay up to date with ongoing developments and timelines surrounding planned cessation. As and when the non-LIBOR benchmark rate cessation timelines are published, NDB will engage with borrowers whose underlying loan documentation needs amending to discuss and agree moving onto a new benchmark rate.

11. (Updated) What has New Development Bank done with respect to the LIBOR transition? How does NDB handle LIBOR transition with its borrowers?

NDB has established the LIBOR Transition Steering Committee and LIBOR Transition Working Group and LIBOR Transition Steering Committee to conduct the preparation and implementation of LIBOR transition in different working streams, such as lending, funding, legal, information technology, client outreaching and accounting etc. NDB is closely monitoring market development and proactively engaging with our borrowers for a smooth and successful transition from LIBOR. The Bank is also collaborating with other Multilateral Development Banks and major financial market players to track industry developments and adopts best practices.

The transition of NDB loan portfolio with its borrowers follows a phased approach.

The first stage is to implement legal provisions regarding fallback of LIBOR in loan documents. In March 2021, NDB has announced its 2021 version General Conditions (Loans to Sovereigns or Loans with Sovereign Guarantees) to include standardized LIBOR fallback language. Any new loans referring to the 2021 version General Conditions will automatically implement with fallback language.

For NDB's legacy loans which refers to previous versions of the General Conditions, the Bank has implemented a LIBOR omnibus amendment via signing side agreement of LIBOR fallback provisions with borrowers to align the LIBOR rate replace mechanism to that provided in the 2021 version General Conditions. As on end of 2021, majority of NDB's sovereign borrowers have signed the side agreements. This ensures a smooth and effective transition from LIBOR to new reference rates for existing loans.

NDB is currently working on the further update of General Conditions to include the details of the new reference rates. The updated GC is expected to be completed and effective in Q1 2022.

Following the initiative of standard LIBOR fallback language implementation, NDB has continued conducting client communication on the LIBOR transition including timeline of LIBOR transition, new SOFR pricing, options of early conversion from LIBOR to SOFR, SOFR billing convention, etc.

NDB has launched its SOFR loan products and terminated LIBOR products on January 1, 2022. The New SOFR lending rates are applicable for all loans from January 1, 2022. Please get in touch with your contact at NDB for further details. NDB will also offer its existing borrowers an option of early conversion of their legacy loans from LIBOR to SOFR in 2022. (Refer to questions 15, 16 and 17)

12.(New) What new reference rates will replace LIBOR in NDB's loan products?

As LIBOR is phased out for cash products as well as derivatives across all its underlying currencies, NDB has decided to replace the LIBOR by the following new reference rates in all its loan products in line with the regulatory recommendations and market standards.

For USD loans, NDB has decided to apply SOFR as the new reference rate.

13.(New) Why is EURIBOR not be replaced along with other IBORs?

EURIBOR has been reformed and is expected to remain as a financing benchmark. After the reform, EURIBOR is now considered a more transparent, robust, and representative index with low risk of manipulation. European Money Markets Institution will continue publishing EURIBOR. Whether or not EURIBOR will be terminated and replaced by Euro Short-Term Rate or other reference rate is unknown as of now. As a result, NDB will continue to use EURIBOR as the reference rate in its Euro loan products.

14. (New) Does NDB continue to offer LIBOR? Is NDB offering SOFR loans? If yes, when will NDB publish SOFR lending rates?

NDB launched its SOFR loan products (SOFR based variable spread loan and SOFR based fixed spread loan) on January 1, 2022. Simultaneously, NDB stopped offering LIBOR based loan products on January 1, 2022.

Please get in touch with your contact in NDB for more information on NDB's SOFR based lending rates.

15.(New) What about old/legacy loans? When and how will NDB switch these existing USD LIBOR based loans to new benchmarks?

From July 1, 2023 USD LIBOR will be fully terminated. Legacy loans in USD LIBOR will be converted to the new reference of SOFR effective from the first interest reset date on or after July 1, 2023.

16.(New) What about loans in currencies other than US dollars?

All EURO loans are still with EURIBOR as EURIBOR is not being phased out. Since January 1, 2022, loans denominated in LIBOR in GBP, JPY or CHF will be replaced by their respective risk-free rates SONIA, TONA and SARON. Those legacy loans will be converted to the new reference rate effective from the first interest reset date of the respective loans in 2022.

17.(New) Do NDB's borrowers have to wait until the termination of the publishing of USD LIBOR to convert their loans from LIBOR to SOFR?

No. NDB offers a Voluntary Conversion Option ("VCO") to its borrowers with legacy loans priced in LIBOR. The VCO is completely voluntary and provides borrowers a one-time opportunity to convert all USD LIBOR-linked loans signed before January 1, 2022 to loans linked to SOFR.

This allows the borrower to convert the loan to the new benchmark SOFR without having to wait until the full discontinuation of USD LIBOR.

18. (New) Will there be any changes to borrowers' current billing cycle after the transition to the new reference rates?

NDB's current billing practice is to invoice borrowers about 45 calendar days in advance of the billing due date. The same practice will be maintained. The new SOFR reference rates are backward-looking, as opposed to LIBOR's forward-looking term structure. Therefore, to enable the Bank to continue billing clients about 45 calendar days prior to the due date, the actual observed SOFR rates on the 45th day prior to the due date will be used to compute the amount to be billed for the last 45 days of the billing cycle. The interest calculation related to the last 45 days represents a preliminary calculation. Once actual SOFR rates for the last 45 days are observed in the market, this preliminary calculation will be subsequently adjusted in the following billing cycle to reflect the actual historical SOFR reference rates.

19. (New) Will a borrower be able to estimate the total interest amount and lending rate?

For loans using SOFR or SARON as a reference rate, the reference rate is a backward-looking daily interest rate and the total lending rate can be calculated by sourcing the daily compounded rates or index published by the respective rate administrators for the respective periods. NDB has developed an interest calculator to help borrowers to calculate the total lending rate and the interest amount. Because of the backward-looking nature of those reference rates, the interest amount cannot be calculated for future periods.

It is different in the case of EURO loans as the EURIBOR is a forward-looking term rate and is known in advance. Hence the borrower can calculate the total lending rate and interest amount for the interest period at the beginning of respective interest period itself.

20.(New) What if a borrower does not wish to change to the alternative reference rates?

In the event a borrower decides not to use the NDB's proposed fallback rate, it will lead to situation where it will be impossible to calculate the interest rate on the loan once the relevant LIBOR rate is phased out. This will be the case of loans benchmarked to 6m USD Libor after 30th June 2023. This will in turn lead to a risk on the continuity of the impacted loans.

21. (New) Where can a borrower obtain more information regarding the LIBOR transition in NDB?

A borrower can reach out to their contact in NDB or send questions to LIBOR-Transition@ndb.int.