IBOR Reform Frequently Asked Questions

September 2022

J.P.Morgan

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1. Disclaimer

J.P. Morgan does not provide legal, tax, financial or accounting advice and clients should consider any loan amendments and the appropriateness of the fallbacks incorporated therein together with their legal, tax, financial and accounting advisers, taking into consideration their own particular circumstances and the fallbacks that may be applicable in any related products.

Please visit the following link for JPMorgan disclosures:
https://www.jpmorgan.com/global/disclosures

2. Alternative Reference Rates

1. Why and when is the London Interbank Offered Rate (LIBOR) ceasing?

- LIBOR rates are derived from an average of submissions by panel banks. 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, Andrew Bailey, the Chief Executive of the United Kingdom's Financial Conduct Authority (FCA), which oversees LIBOR, announced that the FCA would no longer persuade or compel member panel banks to make LIBOR quote submissions after 2021 and that market participants should expect LIBOR to be subsequently discontinued, or at least to no longer be deemed representative.

- In line with announcements from the Financial Conduct Authority (FCA), publication of 24 of the 35 LIBOR settings ceased from 1 January 2022.
    - Five US dollar LIBOR settings (O/N, 1M, 3M, 6M &12M) will continue to be calculated using panel bank submissions until mid-2023, although its use for new business will be restricted from end-2021, with limited exceptions.
    - Six sterling and yen LIBOR settings will continue for the duration of 2022 on a 'synthetic' basis.
    - Synthetic JPY LIBOR will cease at the end of 2022.
    - On September 29th, 2022 – FCA announced their decision on the cessation of 1- and 6-month synthetic sterling LIBOR. Publication will continue until end-March 2023, after which these settings will permanently cease. A decision is still pending on the continued publication of 3-month synthetic sterling LIBOR. It is important to note that Synthetic LIBOR will not be used in new business.

- The Federal Reserve Board (FRB), Federal Deposit Insurance Corporation (FDIC), and Office of the Comptroller of the Currency (OCC), issued supervisory guidance encouraging banks to cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021. New contracts entered into before December 31, 2021, should have either utilized a reference rate other than LIBOR or had robust fallback language that included a clearly defined alternative reference rate after LIBOR's discontinuation. The FCA also welcomed the supervisory guidance issued by the FRB, FDIC, and OCC.

- On October 20th, 2021, the FRB, FDIC, OCC, Consumer Financial Protection Bureau, National Credit Union Administration, and State Bank and Credit Union Regulators issued a joint statement emphasizing the expectation that banks progress toward an orderly transition away from LIBOR. The statement also reinforced and clarified the regulators earlier message to cease entering into new USD LIBOR contracts after 2021.

2. What are Risk Free Rates ("RFRs") and how are they different from LIBOR?

- 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:

LIBOR Currency	Administrator	RFR	Secured/ Unsecured
USD	Federal Reserve Bank of New York (Fed)	Secured Overnight Financing Rate (SOFR)	Secured
GBP	Bank of England (BoE)	Sterling Overnight Index Average (SONIA)	Unsecured
EUR	European Central Bank (ECB)	Euro Short Term Rate (€STR)	Unsecured
CHF	SIX Swiss Exchange	Swiss Average Overnight Rate (SARON)	Secured
YEN	Bank of Japan (BoJ)	Tokyo Overnight Average Rate (TONA)	Unsecured

- 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' submissions that are meant to be estimates of where they could borrow funds whereas RFRs are benchmarks generally based upon a broader range of 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 element, nor a liquidity premium related to the length of the interest period as they are overnight rates. Some RFRs are unsecured, and others are secured.

3. What is SOFR First?

- SOFR First is a phased initiative for switching trading conventions from LIBOR to the Secured Overnight Financing Rate (SOFR) for U.S. Dollar (USD) linear interest rate swaps, cross currency swaps, non-linear derivatives and exchange traded derivatives. The SOFR First initiative first began on July 26th when interdealer trading conventions switched from LIBOR to the Secured Overnight Financing Rate (SOFR) for USD linear interest rate swaps. This initiative was recommended by the Commodity Futures Trading Commission's (CFTC) Market Risk Advisory Committee (MRAC) Interest Rate Benchmark Reform Subcommittee.

- The roadmap to the SOFR First Initiative is as follows:
  - Phase 1 – From July 26th, 2021, interdealer brokers replace trading of LIBOR linear swaps with trading of SOFR linear swaps.
  - Phase 2 – September 21st, 2021, Interdealer trading conventions for cross-currency basis swaps with legs involving USD, JPY, GBP, CHF LIBOR move to each currency's risk-free rate.
  - Phase 2: Part II – December 13th, 2021 interdealer trading conventions is to move from LIBOR to the Secured Overnight Financing Rate (SOFR) for the U.S. dollar (USD) leg of newly-executed cross-currency derivatives under the MRAC's SOFR First initiative.
  - Phase 3 – November 8th, 2021, Interdealer market switch for Swaptions, caps, floors, other non-linear products.

- Phase 4 – End-December 2021 Certain futures contracts, other exchange traded products (giving due consideration to supervisory guidance and USD LIBOR's cessation date). Other products may include XCCY swaps for currencies not covered in Phase 2.

4. How do you 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. The overview also highlights other methodologies such as simple interest averaging in arrears, which takes the average of the daily values of the overnight rate throughout the relevant term period.

The SRFRWG published its "Recommendation on conventions for referencing compounded in arrears SONIA in the sterling loan market" in September 2020 which contains illustrative worked examples of RFR compounding conventions for the Sterling loan market. It also includes a variety of system infrastructure implementation considerations taking into account the overall needs of the sterling loan market and is intended to support the Working Group's target for lenders to be able to offer non-LIBOR alternatives to clients by the end of September.
https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor

Compounding in arrears is compatible with a wide variety of derivatives and cash products. Please contact your J.P. Morgan representative for further information.

5. How do I check the amount my company is being charged for interest is correct?

The SRFRWG has published a "Freely Available Independent RFR Calculator Summary" that includes independent RFR calculators that could be beneficial in helping market participants to calculate and validate interest amounts in agreements for certain RFRs (e.g. SOFR, SONIA, €STR, TONAR). Users need to independently validate the calculators to ensure that they are accurate.

6. How have alternative references rates performed during times of volatility?

The alternative rates are overnight rates and can move around on a daily basis, but they are generally not used in that manner. Contracts referencing the alternative rates are generally based on an average of the daily rates over a longer time period such as 1-month, 3-month, 6-month. When you review the historical volatility of these averages in comparison to 1-month, 3-month and 6-month LIBOR, the historical volatility is on a par or less than LIBOR.

7. Can I move from LIBOR onto another rate other than one of the RFRs?

J.P. Morgan can offer a range of alternative rates. You should discuss these options with your J.P. Morgan representative. You should seek independent advice in understanding what rates are appropriate for your company's specific circumstances.

J.P. Morgan may offer other market established benchmarks where there is client demand for them and where appropriate.

8. Can I move onto a replacement RFR before LIBOR ceases?

J.P. Morgan will be able to accommodate client requests for transitioning to replacement RFRs prior to the cessation of LIBOR using pre-determined "switch dates" or "early opt in" ahead of the expected cessation of LIBOR. Should you wish to move to a replacement rate before LIBOR ceases, contact your J.P. Morgan representative to discuss the options available.

9. Do bilateral swaps and CSAs need to transition to €STR/SOFR discounting, given the Big Bang Discounting and PAI switch at the Central Counterparties (CCPs) in 2020?

The Discounting and PAI change at the CCPs does not change the Discounting & PAI on your bilateral swaps. Amendments to your bilateral Credit Support Annexes (CSAs) are required to change Discounting & PAI on your bilateral swaps. Cleared trades at the CCPs are governed by terms that are independent from bilateral CSAs. J.P. Morgan is prepared to discuss changes to your bilateral CSA should you wish.

10. When existing contracts convert from IBOR to an RFR, what happens to the calculation of interest for a period that starts before and ends after an IBOR cessation date?

Using USD LIBOR on a derivative trade as an example; the USD LIBOR interest rate would be used in calculation of interest for the full period. Subsequent interest periods would no longer be calculated based on the relevant USD LIBOR tenor, and would now observe the interest calculation methodology as per the fallback language on the trade. Thus, if both parties on the trade have adhered to the ISDA IBORs 2020 Fallback Protocol, or have bilaterally adhered, subsequent interest periods post LIBOR cessation date would be calculated on a compounded SOFR in arrears methodology plus the credit spread adjustment

11. What are the restrictions for use of USD LIBOR in 2022?

The Federal Reserve Board, Federal Deposit Insurance Corporation and Office of the Comptroller of the Currency has previously issued supervisory guidance encouraging banks to cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable and in any event by December 31st, 2021. USD Dealing will be permitted in certain use cases as outlined in the SR 20-27 Interagency Statement on LIBOR Transition.

- (i) transactions executed for purposes of required participation in a central counterparty auction procedure in the case of a member default, including transactions to hedge the resulting USD LIBOR exposure;
- (ii) market making in support of client activity related to USD LIBOR transactions executed before January 1st, 2022;
- (iii) transactions that reduce or hedge the banks or any client of the bank's USD LIBOR exposure on contracts entered into before January 1, 2022; and
- (iv) novations of USD LIBOR transactions executed before January 1, 2022.

On October 20th, 2021 - Fed, OCC, FDIC, CFPB, NCUA, state bank and credit union regulators issued a joint statement on managing the LIBOR transition. The statement provides clarification regarding new LIBOR contracts: A new contract would include an agreement that:

- (i) creates additional LIBOR exposure for a supervised institution or;
- (ii) extends the term of an existing LIBOR contract.

A draw on an existing agreement that is legally enforceable (e.g., a committed credit facility) would not be viewed as a new contract. For more information on considerations when assessing appropriateness of alternative reference rates, expectations for fallback language and additional considerations, please visit the statement.

3. Forward-Looking Term Rates

12. Is there a forward-looking term rate similar to LIBOR?

In the U.K., Refinitiv Benchmark Services (UK) Limited and the IBA began publishing forward-looking SONIA term risk-free rates in January 2021. The published Term SONIA is available for one, three, six, and 12-month tenors. However, the Working Group on Sterling Risk-Free Reference Rates have outlined limited usage of the Term SONIA based on the UK authorities preference for the market to adopt a broad-based transition to the SONIA compounded in arrears. Note, though, in US law governed agreements, it is more common to see Daily Simple SONIA as a rate.

In Japan, Quick Corp (QBS) publish the Tokyo Term Risk Free Rate (TORF). TORF is based on uncollateralized overnight call rate which calculates the interest rate from derivative transaction data for a period of one or three months. More information can be found here. TIBOR is also expected to remain available in the near term.

The CME Group has been selected by the ARRC as the administrator of the Term SOFR. CME publishes the forward-looking term 1-month, 3-month, 6-month, and 12-month SOFR rates for use in cash market transactions and certain OTC transactions. These rates can be used in new cash market transactions and in OTC derivatives (e.g., structured products, swaps, security-based swaps, forwards, portfolios, warrants, options and repos and other similar derivatives instruments) for end user hedging against exposure for cash market products that references the same CME Term SOFR rate.

The ARRC's Best Practice Recommendations Related to Scope of Use of the Term Rate calls for the continued use of the SOFR overnight rates and SOFR averages in Floating Rate Notes and in the majority of the securitized products markets. It acknowledges the need to use the SOFR term rates in:

- Business loans: particularly multi-lender facilities, middle market loans, and trade finance loans—where transitioning from LIBOR to an overnight rate has been difficult and where use of a term rate could be helpful in addressing such difficulties.
- Certain securitizations: those that hold underlying business loans or other assets that reference the SOFR Term Rate and where those assets cannot easily reference other forms of SOFR deals,
- Limited derivative markets: limited to end-user facing derivatives intended to hedge cash products that reference the SOFR Term Rate. This limitation is intended to avoid use that is not in proportion to, or materially detracts from, the depth of transactions in the underlying derivatives markets that are essential to the construction of the SOFR Term Rate over time.

The ARRC formally recommended the use of CME's forward-looking SOFR rates on July 29th, 2021. The ARRC endorsement allows you to use the CME Term SOFR rates in contract fallback language. It allows you to apply these rates to transactions at LIBOR cessation where this language is used in contracts. The ARRCs recommended fallback language used in contracts references an endorsed forward-looking term rate.

On May 19th, 2022 - The ARRC announced its endorsement of the CME Group's forward-looking 12-month SOFR term rate for certain uses in line with its Best Practice Recommendations Related to Scope of Use.

It is important to note that use of the CME Term SOFR rates likely requires appropriate licensing. Please contact the CME for more information on this. For more information on the CME Term SOFR, please refer to CME's FAQs here.

The Working Group on Euro Risk Free Rates (EUR) intends to develop a term rate for €STR having announced an RFP process in July 2019. The Working Group has not released a target date for when it expects to publish a term rate. Note that EURIBOR is expected to remain available in the near term.

The National Working Group on Swiss Franc Reference Rates (CHF) is not intending to develop a term rate for SARON.

Term rates, even if available, may not be offered for all products in the market. J.P. Morgan may offer other market established benchmarks where there is client demand for them and where appropriate.

13. I prefer to use a benchmark with a credit sensitive component. Are there any alternatives to a forward-looking Term Rate currently available and are these rates endorsed by National Working Groups?

Bloomberg released the Bloomberg Short Term Bank Yield Index (BSBY) which represents a series of credit sensitive reference rates that incorporate systemic bank credit spreads and defines a forward term structure. AMERIBOR is a benchmark rate that reflects borrowing costs of small, medium, and regional banks across the US. Additionally, IHS Markit launched the Credit Inclusive Term Rate (CRITR) and USD Credit Inclusive Term Spread (CRITS) which are both a series of forward-looking dynamic term rates that measure the daily USD cost of funding in institutional markets.

While not part of the ARRC, a forum was created from September 2020 to January 2021 by the New York Federal Reserve Board to discuss the possibility of a Credit Sensitive Rate (CSR) that would adjust based on credit stress events. However, US regulators confirmed in a letter that they would not adjudicate the selection of a reference rate for use in deals and recognized the need for markets to develop and use rates such as those that may have credit sensitive elements. The workshops focused on a Credit Sensitive supplement to SOFR. Details on the workshops can be found here.

Various global regulators have cautioned against the use of the CSR rates as replacements to LIBOR (e.g., FCA and SEC). The International Organization of Securities Commissions (IOSCO) published a Statement on Credit Sensitive Rates, reiterating the importance of focusing on the robust alternative financial benchmarks such as Risk-free Rates during LIBOR transition rather than the credit sensitive rates. IOSCO also highlighted that the alternative benchmarks need to be compliant with the IOSCO Principles on Financial Benchmarks. Other credit sensitive rates may emerge over time. J.P. Morgan will continue to monitor developments.

National Working Groups have not endorsed any benchmark alternatives to LIBOR other than the alternative reference rates (i.e. SOFR, SONIA, SARON, €STR and TONA) and their respective term rates (where planned).

14. Should I use compounded in arrears for loans now that term rates are available?

In the United Kingdom, the SRFRWG "Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives" publication considers that the usage of SONIA compounded in arrears is appropriate for approximately 90% of new loan deals by value and provides guidance where the usage of alternative approaches may be necessary. J.P. Morgan supports the use of term rates as outlined by the SRFRWG.

In the United States, the ARRC's fallback language for use in business loans, however, recommends Term SOFR as the first preferred option for borrowers and lenders, and Daily Simple SOFR as a second alternative, rather than compounded SOFR. J.P. Morgan supports the use of Term SOFR.

https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Language-June-30-2020.pdf

https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/Updated-Final-Recommended-Bilateral-Business-Loans-Fallback-Language-August-27-2020.pdf

While the recommendations by the National Working Groups are clear, the market standard in the US lending market is Term SOFR. J.P. Morgan will be receptive to client demands and preferences towards methodologies that best cater to their needs. You should consider seeking independent advice in understanding which RFR and methodology is appropriate for you.

4. Contract Fallback Language

15. What does "fallback language" mean?

Fallback language refers to document terms that are intended to provide for a smooth transition to an alternative reference rate in the event LIBOR ceases to exist. The cessation of LIBOR after the end of 2021 and June 30, 2023, for major USD LIBOR settings may impact the viability of the document should adequate fallback language not be included that facilitates the transition to a suitable alternative reference rate for interest payment calculations.

16. What will happen if my 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.

17. Have any jurisdictions released recommended fallback language for cash products and/or derivatives?

The Alternative Reference Rates Committee has published recommended fallback language for USD based contracts for the following:

- Floating Rate Notes;
- Bilateral and Syndicated Business Loans;
- Securitizations;
- Student Loans;
- Adjustable Rate Mortgages.

Fallback language has further been made available by other industry bodies, including the International Swaps and Derivatives Association (ISDA) (which include fallback language for IBOR-referencing derivatives as part of the amendments to the ISDA 2006 Definitions and a Protocol to facilitate the amendment of legacy derivatives transactions to include such fallbacks language) and the Loan Market Association (LMA) in EMEA.

18. Should I change the fallback language in my contracts to reference forward-looking term rates now that they are available prior to LIBOR cessation?

J.P. Morgan does not provide legal, tax, financial or accounting advice and clients should consider any amendments and the appropriateness of the fallbacks incorporated therein together with their legal, tax, financial and accounting advisers, taking into consideration their own particular circumstances and the fallbacks that may be applicable in any related products. However, you should become familiar with the recommended fallback language across products because they differ based on the product and may create basis risk as a result. For example, ISDA derivatives fallbacks will not include a forward-looking term rate and will fallback to a compounded in arrears overnight rate plus an applicable credit spread adjustment. ARRC recommended fallback for cash products in USD has forward-looking term rates as the first step of the fallback waterfall.

19. What is the solution to address tough legacy contracts?

United Kingdom

The UK government has passed legislation that enhances the Financial Conduct Authority's (FCA) powers under the Benchmark Regulation (BMR) providing the FCA the ability to change the methodology of critical benchmarks like LIBOR for certain "tough legacy" contracts. This changed methodology would be a synthetic form of LIBOR, to be available for tough legacy contracts only. For GBP and JPY, Synthetic LIBOR will be the term RFR plus the spread adjustment.

On November 16th, the FCA confirmed that it will allow the temporary use of synthetic Sterling and Japanese yen LIBOR rates in all legacy LIBOR contracts, other than cleared derivatives, that have not been changed at or ahead of end-2021.

Synthetic JPY LIBOR will cease at the end of 2022.

On September 29th, 2022 – FCA announced their decision on the cessation of 1- and 6-month synthetic sterling LIBOR. Publication will continue until end-March 2023, after which these settings will permanently cease. A decision is still pending on the continued publication of 3-month synthetic sterling LIBOR. It is important to note that Synthetic LIBOR will not be used for new business.

The FCA furthermore confirmed that the use of US dollar LIBOR will not be allowed in most new contracts written after end-2021.
These conditions will only apply to entities and contracts in scope of UK BMR.

The HM Treasury (HMT) has released the outcome of its consultation which sought feedback on whether legal safe harbour could be a helpful supplement to the provisions inserted into the Benchmark Regulations (BMR) by the Financial Services Bills. The consultation results conclude that the UK government does intend to bring forward legislation to reduce the potential risk of contract uncertainty and disputes related to certain tough legacy contracts. For more information on the proposed amendments to the BMR, please visit the FCA website.

The Critical Benchmarks (References and Administrators' Liability) Bill [HL] 2021-22 received Royal Assent on 15 December 2021.

On June 30th, 2022 - The FCA published a consultation on whether the 1 and 6 month sterling LIBOR settings can cease in an orderly fashion at end-March 2023 and when the 3-month sterling LIBOR setting can be ceased in an orderly fashion. The consultation closed on August 24th, 2022. Pending outcome

Japan

On November 19th, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks ('BoJ WG') published its final report on the results of the public consultation on the treatment of tough legacy contracts in Japan. BoJ WG considers the following circumstances appropriate for using synthetic yen LIBOR:

- Where parties are unable to agree insertion of fallbacks or active conversion by end 2021 and;
- Lender / Issuer has endeavored to amend the contract via good faith discussions or consent mechanisms

These conditions apply to existing contracts for loans and bonds that reference JPY LIBOR under the governing Japanese law.

Europe

On October 22nd, the European Commission nominated the replacement rates for CHF LIBOR and EONIA to be SARON and €STR respectively (with spreads applied). The statutory replacement will be automatic as of January 1st, 2022, and contracts can continue without the need for intervention from contract parties. However, parties can still choose to renegotiate contracts bilaterally. Where parties choose to do so, the statutory replacement does not apply.

USA

On March 15th, 2022 – President Biden signed into law the [Consolidated Appropriations Act, 2022], which includes federal legislation that provides a solution for legacy financial contracts tied to LIBOR.

- The legislation provides clarity, prevents disruption, and creates safe harbors for the transition from USD LIBOR to SOFR for tough legacy contracts at USD LIBOR cessation on 30 June 2023.
- Tough Legacy: Existing LIBOR referencing contracts that are unable, before 30 June 2023, to either convert to a non-LIBOR rate or be amended to add fallbacks.
  - Application of the legislation does not depend upon what type of contract it is (e.g., a security, loan, mortgage, swap, etc.), but rather depends upon whether and how provisions in the contract deal with the replacement of LIBOR (known as "fallback provisions").

On July 19th, 2022 - Federal Reserve Board (FRB) issued a proposal implementing the Adjustable Interest Rate (LIBOR) Act enacted by Congress earlier this year

- The proposal would replace references to LIBOR in certain contracts with the applicable Board-selected replacement rate after June 30, 2023. The contracts include those governed by domestic law that do not mature before LIBOR ends and that lack adequate fallback provisions.
- The proposal identifies separate Board-selected replacement rates for derivatives transactions, contracts where a government-sponsored enterprise is a party, and all other affected contracts. As required by the law, each proposed replacement rate is based on the Secured Overnight Financing Rate (SOFR).
- Comments are due 30 days after publication in the Federal Register

What contracts are in scope?

- The federal legislation scope covers contracts that are governed by U.S. law only. The following contracts are considered in scope of the legislation:
  - Contracts that lack any fallback provisions (that is, "silent" contracts)
  - Contracts whose fallback provisions lead to a replacement rate that is itself based on LIBOR (including "Last LIBOR" fallbacks)
  - Contracts that require polling for interbank rates
  - Optional safe harbor for contracts that permit or require the selection of a replacement rate by a nominated party

What contracts are out of scope?

- The legislation does not affect contracts whose fallback provisions:
  - Result in the use of a specified, non-LIBOR-based replacement rate (such as the Prime Rate, the Federal Funds rate or Base Rate).
  - Incorporate versions of the ARRC-recommended fallback language that result in the use of a specified replacement rate.
- Any contract that would be within the legislation's scope can be taken out of scope by mutual agreement of the parties to the contract

What are the benchmark replacement rates?

- The legislation requires Federal Reserve Board to issue regulations specifying SOFR based benchmark replacement rates no later than 180 days after the legislation becomes effective.

When will fallback provisions come into effect?

- The LIBOR Replacement date is the first London banking day following 30 June 2023. The benchmark replacement rates will be used for each reset date occurring under the contract on and after the LIBOR Replacement Date.

20. What was the treatment for outstanding contracts referencing EONIA or CHF LIBOR?

On October 22nd, 2021 – European Commission designated replacement rates for EONIA and CHF LIBOR **https://ec.europa.eu/commission/presscorner/detail/en/mex_21_5429**

- As of 1 January 2022, all references to CHF LIBOR and EONIA in contracts and financial instruments will automatically be replaced with references to new risk-free rates. For CHF LIBOR, the nominated replacement rate is the new Swiss Franc risk-free rate SARON. EONIA references will be replaced by references to the euro risk-free rate €STR. In both cases, an adjustment spread is applied so that undue value transfer is limited.
- The statutory replacement will be automatic as of 1 January 2022 and contracts can continue without the need for intervention from contract parties. However, parties can still choose to renegotiate contracts bilaterally. Where parties choose to do so, the statutory replacement does not apply.
- For the currency specific announcements: CHF LIBOR see here and for EONIA see here.

21. When did the ISDA Protocol launch and take effect?

The ISDA 2020 IBOR Fallbacks Protocol released on October 23rd, 2020 and became effective on January 25th, 2021 and is expected to launch the ISDA 2021 Fallbacks Protocol for USD LIBOR ICE Swap Rates before the end of 2Q2022.

22. What is the transition process for outstanding USD LIBOR cleared swaps?

Both LCH and CME have confirmed their approach for converting USD LIBOR cleared swaps and have published their approach for conversion.

- LCH's approach for converting USD LIBOR cleared swaps:
  - Tranche 1: USD LIBOR / FEDFUNDS Basis Swaps, USD VNS and USD ZCS, conversion would apply to SwapClear Contracts outstanding at COB on Friday 21st April 2023 and be conducted over that weekend.
  - Tranche 2: all other USD LIBOR, conversion would apply to SwapClear contracts outstanding at COB on Friday 19th May 2023 and be conducted over that weekend.
  - Information on LCH's approach can be found here.
- CME's key dates for converting USD LIBOR cleared swaps are:
  - Basis swap splitting exercise: Friday, March 24, 2023
  - Primary conversion date: Friday, April 21, 2023
  - Secondary Conversion date: Monday, July 3, 2023
  - Information on CME's methodology can be found here.

23. What is the difference between pre-cessation and permanent cessation?

Permanent and pre-cessation triggers vary by means of how the cessation of LIBOR is announced.

- Permanent cessation triggers are activated when a public statement or publication made by an official party announces that LIBOR has or will cease permanently or indefinitely.
- Pre-cessation triggers are activated upon the announcement made by the UK FCA on which LIBOR is deemed 'non-representative'.

Both permanent and pre-cessation triggers may activate notifications and/or fallback language, depending on how the fallback language is drafted in the document.

24. What does “trigger” or “switch mechanism” mean in relation to moving to a new RFR?

Fallback language refers to contractual provisions that identify the replacement rates (including any spread adjustment) that would apply if a particular trigger event occurs. For LIBOR, fallback language could be ‘triggered’ upon its cessation by a declaration of its non-representativeness, or by the occurrence of an “Early Opt-In” trigger depending on how the fallback language is drafted. This type of provision is generally found in US law governed loan agreements.

A “switch mechanism” refers to clear contractual arrangements which are incorporated in LIBOR-referencing products to actively facilitate conversion away from LIBOR by a fixed date ahead of end-2021, which would fall into the category of “pre-agreed conversion terms” as referenced in the recommendations by the SRFRWG’s April 2020 statement. This type of provision is usually found in UK law governed agreements.

25. Will any other terms in the loan document change as a result of LIBOR transition?

Other than fallback provisions, loan documents may also contain other operational, technical or administrative provisions that may be impacted by the transition from LIBOR to an alternative RFR.

5. Credit Spread Adjustment

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

LIBOR and RFRs are calculated using separate methodologies and therefore there may be differences between the published rates of the two benchmarks. In order 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 is 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.

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

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

The spread adjustment calculation as recommended by ISDA, the SRFRWG for cash products and the ARRC for cash products is based on a historical median with 5-year lookback approach and was calculated from March 5, which is the date the FCA formally announced the cessation of certain LIBOR settings. This statement locked in the credit adjustment spread which has been posted by Bloomberg and available here. These spread adjustments will be applied to derivative products if they reference the ISDA master agreements that reference the revised 2006 ISDA definitions. These spreads will be fixed for the duration of the product they are applied to.

The ARRC has stated its recommended spread adjustments for fallback language in non-consumer cash products will be the same as the spread adjustments applicable to fallbacks in ISDA's documentation for USD LIBOR.

6. Market Liquidity and Portfolio Remediation

28. Is liquidity in SOFR at tradeable levels for me to transition away from USD LIBOR?

Through the second half of 2021 and into 2022, SOFR liquidity improved as a result of the CFTC MRAC "SOFR First" initiatives mentioned in Question 3 above. Please contact your J.P. Morgan representative to discuss options that may be available to you.

29. Can the Firm support us to reduce our existing LIBOR exposure maturing after 30 June, 2023?

J.P. Morgan can provide or recommend various solutions to transition your IBOR portfolios. As preferred methods will differ between clients, please contact your J.P. Morgan representative to discuss options that may be available to you.

30. I have a loan hedged with a derivative: (a) Will the LIBOR transition affect my hedge accounting treatment? (b) Will my derivatives hedges still function as intended upon the cessation of LIBOR?

J.P. Morgan does not provide legal, tax, financial or accounting advice and clients should consider any loan amendments and the appropriateness of the fallbacks incorporated therein together with their legal, tax, financial and accounting advisers, taking into consideration their own particular circumstances and the fallbacks that may be applicable in any related products.

- The Financial Accounting Standards Board (FASB) issued guidance around optional expedients and exceptions for applying generally accepted accounting principles to contract modifications and hedging relationships, subject to meeting certain criteria, that reference LIBOR or another reference rate expected to be discontinued.

  The International Accounting Standards Board (IASB) issued guidance in August 2020. https://www.ifrs.org/news-and-events/2020/08/iasb-completes-response-to-ibor-reform/

  J.P. Morgan encourages you to seek independent advice in understanding how LIBOR reform could affect the accounting treatment of any derivatives and cash products.

- The cessation of LIBOR may have an impact on the hedging structure of your portfolios and could result in a mismatch between the rate referenced in one instrument such as a bond or loan and that referenced in another instrument such as a derivative, including where the derivative is intended to operate as a hedge. J.P. Morgan notes that there are distinct differences observed between the ARRC's recommended fallback language for syndicated and bilateral loans, the variations on compounded in arrears methodology documented in loans to date in the London market and ISDA's Protocol fallback language as per below:

  Waterfall structure:

ARRC's recommended fallback language for syndicated and bilateral loans in USD	ISDA Protocol fallback language for derivatives
1. Term SOFR + Adjustment 2. Daily Simple SOFR + Adjustment 3. Borrower and Administrative Agent Selected Rate + Adjustment	1. RFR compounded in arrears + Adjustment

  The methodology between calculating term SOFR and SOFR compounded in arrears differs which subsequently may cause a difference in the rate calculated for loans and derivatives products.

J.P. Morgan encourages you to seek independent advice on the possible implications of LIBOR transition on your hedging structures.

31. Why does my loan document need changing and what options exist if I don’t want to change my loan documents?

If your loan document has been identified as having fallback language that may not allow for a smooth transition of the interest rate on your 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 in the event LIBOR ceases.

J.P. Morgan encourages 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. In order to promote a consistent approach to address a cessation of LIBOR, J.P. Morgan encourages 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.

32. I have loans with non-LIBOR benchmark rates. What are the transition timelines for these?

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, J.P. Morgan will work with its clients to try to ensure a smooth transition in line with published cessation timelines.

For loan documents that have non-LIBOR benchmark rates, clients 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, J.P. Morgan will engage with clients whose underlying loan documentation needs amending to discuss and agree moving onto a new benchmark rate.

33. How will Global Trade products be impacted by LIBOR Reform?

Global Trade offers a number of lending products that are impacted by LIBOR reform. For certain products (including, for example, supply chain finance), forward looking term rates are now available to the market. Existing impacted legal agreements have been reviewed and J.P. Morgan reached out to affected clients to engage in remediation exercises where appropriate. We will be assessing additional currency transitions going forward as regulatory bodies designate timelines and alternate reference rates.

34. How will Export Agency Finance (EAF) be impacted by LIBOR Reform?

Export Agency Finance (EAF) and other structured finance lending products are being addressed on a deal-specific basis following local market methodologies and may incorporate forward-looking term rates or overnight interest rate accrual conventions such as “Simple in Arrears” or “Compounded in Arrears” in 2021.

7. USD CMS Structured Products

35. Is it correct that ICE has not yet discontinued the publication of the USD LIBOR Swap rates but have created new USD SOFR based ICE Swap rates in addition?

Yes – ICE is continuing to publish the USD LIBOR Swap rates in addition to also publishing the USD SOFR based Swap rates.

- From Nov 8th, 2021, U.S. dollar SOFR ICE Swap Rate is being published by the IBA and settings are available for the same tenors and published at the same time as the current U.S. dollar LIBOR ‘1100’ ICE Swap Rate benchmark.
- Following a consultation, ISDA has published a template amendment agreement designed to assist market participants with the implementation of the fallbacks for USD LIBOR ICE Swap Rate (as originally suggested in the paper published by the ARRC). Essentially, the template amendment agreement incorporates into legacy OTC transactions the solution adopted under Supplement 88. Accordingly, the new fallback provisions are triggered upon the ICE Swap Rate benchmarks becoming unavailable once LIBOR in the relevant currency and tenor had permanently ceased or become unrepresentative.
- The new fallback rate is effectively the relevant USD SOFR ICE Swap Rate as adjusted to account for the inherent differences between it and the corresponding USD LIBOR ICE Swap Rate.
- IBA is expected to run a consultation with respect to the date for the cessation of the USD LIBOR ICE Swap Rates later this year.

36. What are the fallbacks to USD LIBOR ICE Swap rates under the ISDA provision (Supplement 88)?

- **Temporary Non-publication** – The rate will be determined as if the parties had specified “USD-CMS-Reference Banks” as the applicable Floating Rate Option (i.e. it will effectively be a dealer poll), provided that if “USD-CMS-Reference Banks” fails to produce a rate for the applicable Reset Date, then the rate for that Reset Date will be determined by the Calculation Agent.

- **Permanent cessation** - The new fallbacks will be triggered by actual cessation of the applicable USD LIBOR rate. Post cessation/discontinuation of USD LIBOR, trades will fall back on the Published USD ISR Fallback Rate (if any) and failing that the fallback rate will be calculated by the Calculation Agent in line with the fallback rate methodology (as set out in Supplement 88, see attached and below)

“Calculated USD ISR Fallback Rate” means the rate calculated as follows, and the resulting percentage will be rounded, if necessary, in accordance with the method set forth in Section 8.1(a):

$$y^L = \frac{365.25}{360}\left[2 \times \left(\sqrt{1+y^{OIS}} - 1\right) + \left(s^{3M} \times \frac{1}{2} \times \left(\sqrt[4]{1+y^{OIS}} + 1\right)\right)\right]$$

where:

“y^L” is the Calculated USD ISR Fallback Rate with a maturity of the Designated Maturity;

“y^{OIS}” is the USD SOFR ICE Swap Rate in respect of the Reset Date with a maturity of the Designated Maturity; and

“s^{3M}” is 0.26161%;

37. Can the fallbacks to USD LIBOR ICE Swap rates under the ISDA provision (Supplement 88) be used for Structured Notes?

- The template amendment (Supplement 88) provisions of the ISDA fallbacks have been originally intended for legacy OTC transactions. At the same time, the fallbacks set out in the Supplement are capable of being adapted for Structured Notes.
- Fallback for permanent cessation of legacy trades under the NA Domestic program is to calculation agent selecting an industry accepted successor rate or, the most comparable substitute rate for U.S. swaps if such a rate does not exist.
- For structured products issued under the JUMBO and NA programs, fallbacks will be determined by the terms of the notes which will be considered post completion of the due diligence review.

38. Will the Federal LIBOR legislation cover contracts that reference USD LIBOR ISR in the same way that it covers contracts referencing USD LIBOR?

- USD CMS/USD LIBOR ISR contracts are not covered by federal LIBOR legislation and counterparties may need to take proactive steps to address the end of the USD LIBOR ISR.

39. What is the fallback formula suggested by ARRC and is this similar to the one published in ISDA's Supplement 88?

- Yes – The ISDA published fallback rate is as originally suggested in the paper published by the ARRC. At a high level, this fallback formula consists in using the SOFR ISR, adding the ISDA fallback spread adjustment for 3m USD LIBOR (26.161bps) and applying technical adjustments to account for differences in payment frequency and day count conventions between USD LIBOR and SOFR swaps.

$$Fallback\ USD\ LIBOR\ ISR = \frac{365.25}{360} * \left[2 * \left(\sqrt{1 + SOFR\ ISR} - 1\right) + ISDA\ Spread\ (3m\ LIBOR) * \frac{1}{2} * \left(\sqrt[4]{1 + SOFR\ ISR} + 1\right)\right]$$

Where
- SOFR ISR is the USD SOFR ICE Swap Rate for the same tenor as the USD LIBOR ISR being considered
- ISDA Spread (3m LIBOR) is the ISDA fallback spread adjustment for 3m USD LIBOR (26.161bps)

40. Will ISDA launch a protocol for USD CMS referencing swaps? If yes, will this benefit the Structured notes market?

ISDA launched a protocol on June 15, 2022, providing a scalable, multilateral mechanism to include fallback in legacy derivative transactions (as long as both parties to the relevant transaction(s) adhere to the protocol). This protocol will not cover Structured products and is only for derivative transactions.