

IBOR Reform Frequently Asked Questions

April 2021

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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.
- On March 5th, the FCA formally [announced](#) the cessation of LIBOR following the ICE Benchmark Administration (IBA)'s publication of its consultation results. One week USD, two month USD, GBP, EUR, CHF and JPY LIBOR settings will cease following its publication on December 31, 2021. Overnight, one, three, six, and 12 month USD settings will cease after its publication on June 30, 2023.
- 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 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. The FCA also welcomed the supervisory guidance issued by the FRB, FDIC, and OCC.

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;

3. 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. 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:

https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/Users_Guide_to_SOFR.pdf

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>

<https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/statement-on-behalf-of-rfrwg-recommendations-for-sonia-loan-market-conventions.pdf?la=en&hash=074583D7080993CE84B6A381B554BEFD6594C076>

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

4. 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, ESTR, TONAR). Users need to independently validate the calculators to ensure that they are accurate.

5. 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.

6. 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.

7. 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.

In November 2020 the LMA, a UK industry group, published its revised exposure draft of the multicurrency term and revolving facilities agreement incorporating rate switch provisions. Additionally, in the US, the fallback language recommended by the Alternative Reference Rates Committee (ARRC) for use in USD loans contains an “Early Opt-In” trigger, which allows the loan document to transition to a SOFR-based rate (Term SOFR being step 1 in the replacement rate waterfall) upon a certain number of publicly available USD-denominated syndicated credit agreements being originated with, or switching over to, a SOFR-based rate.

Regarding new LIBOR referencing products, the National Working Groups have indicated that:

- The UK Working Group on Sterling Risk-Free Reference Rates (SRFRWG) has published milestones¹ encouraging active conversion of legacy contracts. The milestones include, but are not limited to, the following:
 - End Q3 2020: Lenders include contractual arrangements in new and re-financed LIBOR-referencing loan products to facilitate conversion to SONIA or other alternatives
 - End Q1 2021: Cease initiation of new GBP LIBOR linked loans, bonds, securitizations and linear derivatives that expire after the end of 2021. Complete identification of all legacy GBP LIBOR contracts expiring after end 2021 that can be actively converted and accelerate active conversion where viable. Widespread sign-up to the ISDA protocol ahead of effective date except for risk management of existing positions
 - End Q2 2021: Progress active conversion of all legacy GBP LIBOR contracts expiring after end 2021 where viable and, if not viable, ensure robust fallbacks are adopted where possible. Cease initiation of new GBP LIBOR nonlinear derivatives that expire after end 2021, except for risk management of existing positions
 - End Q3 2021: Complete active conversion of all legacy GBP LIBOR contracts expiring after end 2021 where viable and, if not viable, ensure robust fallbacks are adopted where possible
 - End Q4 2021: Be fully prepared for the end of GBP LIBOR²
- By the end of Q4 2020, per the ARRC Best Practices, no new USD LIBOR floating rate notes should be issued where the maturity is after 2021. Additionally, by the end of Q2 2021, no new USD LIBOR business loans, floating-rate securitizations (except for CLOs), or derivative trades that increase LIBOR risk should be issued where maturity is after 2021. CLOs are targeted for end of Q3 2021. ³

The SRFRWG published its “Active transition of GBP LIBOR referencing loans” in September 2020 which covers the amending of GBP LIBOR referencing loans to reference SONIA or another appropriate alternative rate and proposes that “Market participants should be looking to amend their legacy GBP LIBOR referencing loans now where feasible”.⁴The FRB, FDIC, and 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

¹ [UK Working Group on Sterling Risk-Free Reference Rates - SRFRWG](#)

² <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfr-working-group-roadmap.pdf?la=en&hash=92D95DFA056D7475CE395B64AA1F6A099DA6AC5D>

³ [ARRC Best Practices for Completing Transition from LIBOR](#)

⁴ <https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/active-transition-of-gbp-libor-referencing-loans.pdf>

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.

J.P. Morgan will follow announcements made by other regional working groups as they arise.

8. The Fed is publishing a SOFR Index and the Bank of England began publishing a SONIA Index in August. Can I use these to calculate the SOFR/SONIA rate in my contracts?

The publication of a daily compounded index by the central banks is intended to support the use of alternative reference rates in a wide range of financial products by simplifying the calculation of compounded interest rates.

These indexes are primarily used in the FRN market as opposed to the loan market for the following reasons:

1. **Observation shift:** The observation shift mechanism weights the RFR rate according to the days in the observation period (rather than the interest period), where observation period is defined as the period over which a compounded RFR applicable to a loan is calculated. The observation period begins a specified number of days before the first day of that interest period and ends that same number of days before the last day of that interest period. The "specified number of days" is the lookback period. Both indexes follow an observation shift methodology and therefore the simplicity of the index may not apply to payment certainties which exclude an observation shift.
2. **Flooring:** Neither index accommodates the ability to floor rates.
3. **Principal changes:** While the simplicity of the index is supported by the ability to calculate the compounded interest over a period of time, it may not easily accommodate the different rates that should be applied in the event that there are changes to the principal amount or sales of a loan during an interest period.

9. Will bilateral swaps and CSAs need to transition to €STR/SOFR discounting post the Big Bang Discounting and PAI switch at the Central Counterparties (CCPs)?

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 are 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.

3. Forward-Looking Term Rates

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

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.⁵

The Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks in Japan are developing term rates based on their respective RFR and are targeting H2 2021 for the expected availability of such term rates.⁶

The Alternative Reference Rates Committee (ARRC) in the U.S. planned to develop forward-looking term rates based on SOFR in the first half of 2021. However, the ARRC has stated that it cannot recommend a forward looking SOFR term rate in this timeframe. This decision is based on the ARRC's assessment of insufficient liquidity in the SOFR derivatives market and the need to develop recommendations for an appropriately limited scope of use for the term rates. The ARRC encourages market participants to transition from LIBOR using the tools available now.⁷

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.

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

The availability of the term rates could potentially impact the credit spread adjustment calculation if these are chosen to be incorporated in the fallback methodology for cash products.

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.

12. 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. Additionally, the ICE Benchmark Administration (IBA) has created the ICE Bank Yield Index (IBYI), a forward-looking credit sensitive rate developed as a potential replacement for LIBOR. AMERIBOR is a benchmark rate that reflects borrowing costs of small, medium, and regional banks across the US. Other credit sensitive rates may emerge over time. JPMorgan 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).

⁵ <https://www.theice.com/iba/risk-free-rates>

<https://www.refinitiv.com/en/financial-data/financial-benchmarks/term-sonia-reference-rates>

⁶ https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/

⁷ <https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/arrc-press-release-term-rate-for-publication>

While not part of the ARRC, a forum was created from September 2020 to January 2021 by the NY FRB to discuss the possibility of a Credit Sensitive Rate that would adjust based on credit stress events. However, US regulators confirmed in a [letter](#) that it 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](#).

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

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.

<https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/use-cases-of-benchmark-rates-compounded-in-arrears-term-rate-and-further-alternatives.pdf>

The ARRC’s fallback language for use in business loans, however, recommends Term SOFR as the first preferred option for borrowers and lenders, should such rate exist at the time of LIBOR cessation, and Daily Simple SOFR as a second alternative, rather than compounded 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, J.P. Morgan is not able to confirm whether this will result in a continued adoption of a compounding in arrears methodology in the event term rates become available. 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 is appropriate for you.

4. Contract Fallback Language

14. 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.

15. 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.

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

The Alternative Reference Rates Committee has published recommended fallback language 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 will include fallback language for IBOR-referencing derivatives as part of the amendments to the ISDA 2006 Definitions and will publish a Protocol to facilitate the amendment of legacy derivatives transactions to include such fallbacks language) and the Loan Market Association (LMA) in EMEA.

17. Have any jurisdictions released recommended fallback language specific to loans?

In the US, the ARRC has published recommended language for, amongst other products, bilateral and syndicated loans, for USD.

For example, for Syndicated Loans in USD, the ARRC has recommended using ‘hardwired’ fallback language where the replacement rate will follow the below waterfall structure:

1. Term SOFR + Adjustment.
2. Daily Simple SOFR + Adjustment (or Daily Compounded SOFR or SOFR Average at parties’ option).
3. Borrower and Administrative Agent Selected Rate + Adjustment.

The SRFRWG has recommended the use of compounding in arrears for SONIA loans. The SRFRWG recommends that after the end of Q3 2020 ‘lenders, working with their borrowers, 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’. In November 2020, the LMA published its revised exposure draft of the multicurrency term and revolving facilities agreement incorporating rate switch provisions. This was followed in January 2021 with the publication of the LMA multicurrency term

and revolving facilities agreement incorporating backward looking compounded rates and forward looking term rates with rate switch provisions. From 1st April 2021, new lending in GBP will reference compounded SONIA (or other appropriate alternative reference rate). The LMA 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, in good faith, 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 (for example, with respect to the use of Term SOFR) at such time.

Other National Working Groups have thus far not offered recommended fallback language, though this may happen in the future.

18. Should I change the fallback language in my contracts to reference forward-looking term rates if these become 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 an overnight rate plus an applicable credit spread adjustment. ARRC recommended fallback for cash products in USD has forward-looking term rates (if available) as the first step of the fallback waterfall.

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

In the UK, the Sterling RFR WG established a Tough Legacy Task Force with the intention to devise a solution for products which can't be remediated prior to LIBOR cessation. The Tough Legacy Task Force published a recommendation in May 2020, proposing that:

1. “The UK Government considers legislation to address tough legacy exposures in contracts governed by English law that reference at least sterling LIBOR, and ideally other LIBOR currencies, that are still in operation when LIBOR is expected to cease on or after the end of 2021”; and “Other solutions to the tough legacy problem should be pursued in parallel. For example, the Taskforce has considered the scenario of LIBOR being stabilized via a so called ‘synthetic methodology’ for a wind down period following panel bank departure.
 - Synthetic LIBOR will be the term RFR plus the spread adjustment.
 - Using its proposed powers under BMR, the FCA will consult on requiring the IBA to continue to publish one month, three month, and six month GBP and JPY LIBOR for a period after Dec-2021 on a changed methodology known as synthetic LIBOR. The FCA will consider the case for establishing synthetic one month, three month, and six month USD LIBOR for a period after June 2023.
 - The FCA published a [statement](#) setting out its potential approach to the use of the proposed new powers under this Bill to ensure an orderly wind down of LIBOR.

20. What is the proposed solution to address tough legacy contracts in the US?

In the US, the ARRC presented [text](#) for potential New York State [legislation](#) in 2020 which, if enacted into law, was designed to minimize the legal uncertainty and adverse economic impacts associated with the Libor transition for tough legacy contracts. In March 24, 2021, the NYS legislature passed legislation consistent with the ARRC’s legislative proposal. If signed into law by the NYS Governor, the legislation, by operation of law, would insert ARRC-recommended fallback language in Libor-referencing contracts that are governed by NY law and either a) have no fallback provisions addressing a cessation of Libor or b) fall back to the last LIBOR fixing / dealer poll. Additionally, the legislation provides a liability and litigation safe harbor to parties

that have contractual discretion to choose a replacement for Libor if they select the fallback recommended by the ARRC for that particular type of product. The legislation has no effect on contracts, securities or instruments that fall back to a rate that is not Libor (e.g., Prime, FFE) or on contracts where the parties to the contract have agreed that the legislation will not apply.

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

The ISDA 2020 [IBOR Fallbacks Protocol](#) released on October 23, 2020 and became effective on January 25, 2021.

22. 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 loan document.

23. 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.

24. 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

25. 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

26. 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.

27. Will there be any basis risk if the credit spread adjustment is not identical between cash products and derivatives?

Industry working groups have been strongly advocating consistency across derivatives and cash products. Results on the use of credit spread adjustments through consultations conducted by ISDA, the SRFRWG, and the ARRC indicated that there is a preference for consistency in the spread calculations between these products.

Basis risk can arise if there is a discrepancy in the calculation methodology behind the credit spread adjustment between derivatives and cash products.

6. Market Liquidity and Portfolio Remediation

28. Is liquidity for RFRs at tradeable levels for me to transition away from LIBOR?

National Working Groups have been strongly advocating the use of alternative reference rates where possible in order to improve the liquidity of these benchmarks.

In order to transition over LIBOR portfolios, liquidity in the market needs to be at adequate levels to trade in or out of positions. This level of liquidity across RFRs currently varies by tenor and currency. However, liquidity is generally expected to increase over time. We would recommend any clients looking to transition away from LIBOR to contact their J.P. Morgan representatives to discuss solutions available to you.

29. Can the Firm support us to reduce our existing LIBOR exposure maturing after 2021?

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.

1. 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.
https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1176174318625&acceptedDisclaimer=true

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.

2. 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	2. 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 will be impacted by LIBOR reform. For certain products (including, for example, supply chain finance), the current expectation is that forward looking term rates will be available in the market for use in 2021. In January, [Refinitiv Benchmark Services \(UK\) Limited](#) and the [ICE Benchmark Administration \(IBA\)](#) began publishing forward-looking SONIA term rates. Global Trade plans to use approved forward-looking GBP SONIA term rates. The ARRC in the U.S. planned to develop forward-looking term rates based on SOFR in the first half of 2021. However, the ARRC has stated that it cannot recommend a forward looking SOFR term rate in this timeframe. This decision is based on the

ARRC's assessment of insufficient liquidity in the SOFR derivatives market and the need to develop recommendations for an appropriately limited scope of use for the term rates. Global Trade business is currently analyzing alternative reference rates to replace USD LIBOR. Existing impacted legal agreements are under review and J.P. Morgan will reach out to affected clients to engage in a remediation exercise where appropriate. Export Finance (ECAs) and other structured finance lending products will be 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.