February 2022

Preparation for permanent cessation of USD LIBOR

Contents

Disclaimer

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This material is intended to address contracts referencing USD LIBOR (Overnight, 1, 3, 6, 12-Month), and based on the information as of the end of January 2022.

While the information contained in this material has been obtained from credible sources , i.e. Alternative Reference Rates Committee (ARRC), we make no guarantee of accuracy or completeness of the information contained herein.

This material is provided for informational purposes only, is not intended to be exhaustive and does not constitute, and should not be relied upon as legal, regulatory, financial, tax, accounting or other advice.

The appropriate license may be required to use and/or access interest rate benchmarks.

When dealing with contracts referencing USD LIBOR, the JBA strongly recommends consulting with a financial institution before proceeding the process.

1．Timeline for cessation of USD LIBOR

- The ARRC, regulators and industry groups have provided clear timelines and tools to facilitate an orderly USD LIBOR transition in order to avoid market disruptions.
- U.S. financial authorities have encouraged institutions to transition away from using USD LIBOR as a reference rate as soon as possible, and to ensure existing contracts have robust fallback language that includes a clearly defined alternative reference rate.

ARRC publications and announcements

2020

Apr. – recommendation of spread adjustment methodology for cash products

Jun. – updated recommended fallback language for syndicated loans
– further details regarding its recommendation of spread adjustments

Jul. – conventions for using SOFR in arrears for syndicated loans

Aug. – updated best practices for completing the transition from LIBOR
– updated recommended fallback language for bilateral loans

Nov. – conventions for using SOFR in arrears in bilateral business loans

2021

Mar. – selected Refinitiv as publisher of its spread adjustment rates for cash products
– released supplemental recommendation of hardwired fallback language for business loans

May. – Guide to SOFR Averages

Jul. – conventions for using forward looking Term SOFR and SOFR Averages
– best practice recommendations related to scope of use of the Term Rate
– formally recommended CME Term SOFR

Oct. – summary of its spread-adjusted fallback recommendations

No new use of USD LIBOR
(See page 3)

2020 | 2021 | 2022 | 2023

Regulatory authorities and industry bodies initiatives

2020

Mar. – (NY Fed) SOFR Averages and a SOFR Index
– (FASB) Accounting Standards Update 2020-04 - Reference Rate Reform

Oct. – (ISDA) IBOR Fallbacks Supplement and Protocol

2021

Jan. – (FASB) Accounting Standards Update 2021-01 - Reference Rate Reform
– (ISDA) IBOR Fallbacks Supplement and Protocol took effect

Mar.5 – (FCA) announced on future cessation and loss of representativeness of the LIBOR benchmarks (“Trigger Event”)

Apr. – (New York State) LIBOR Transition Bill signed into Law

Jul. – (CFTC MRAC) adopted SOFR First recommendation which has four phases with phase one, involving USD linear swaps

Oct. – (ISDA) 2021 ISDA Interest Rate Derivatives Definitions took effect

Dec.31 – LIBOR cessation (incl. USD 1w, 2m) / loss of representativeness

2022

Jan. – (IRS) final regulations on tax regarding transition from IBORs to other reference rates

2023

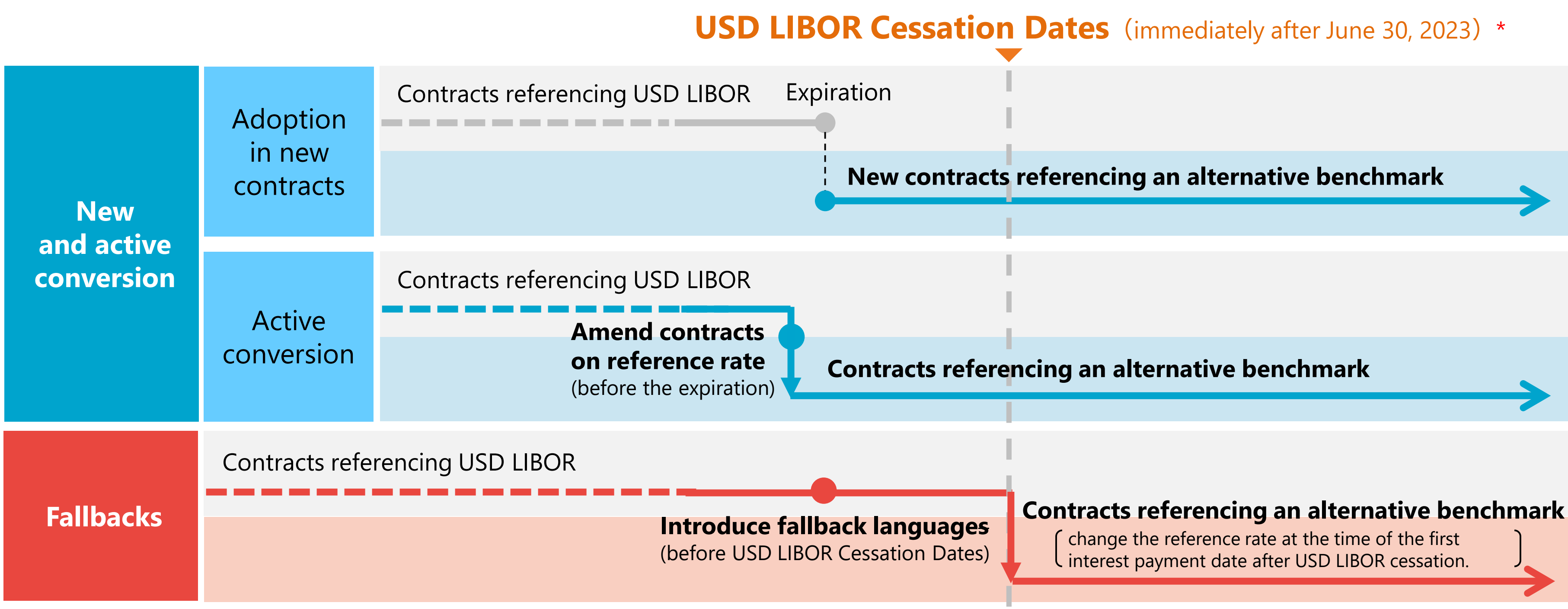
Jun.30 – USD LIBOR cessation/ loss of representativeness

2. Approaches for legacy contracts referencing USD LIBOR

- There are two approaches for legacy contracts referencing USD LIBOR.

Legacy contracts referencing USD LIBOR

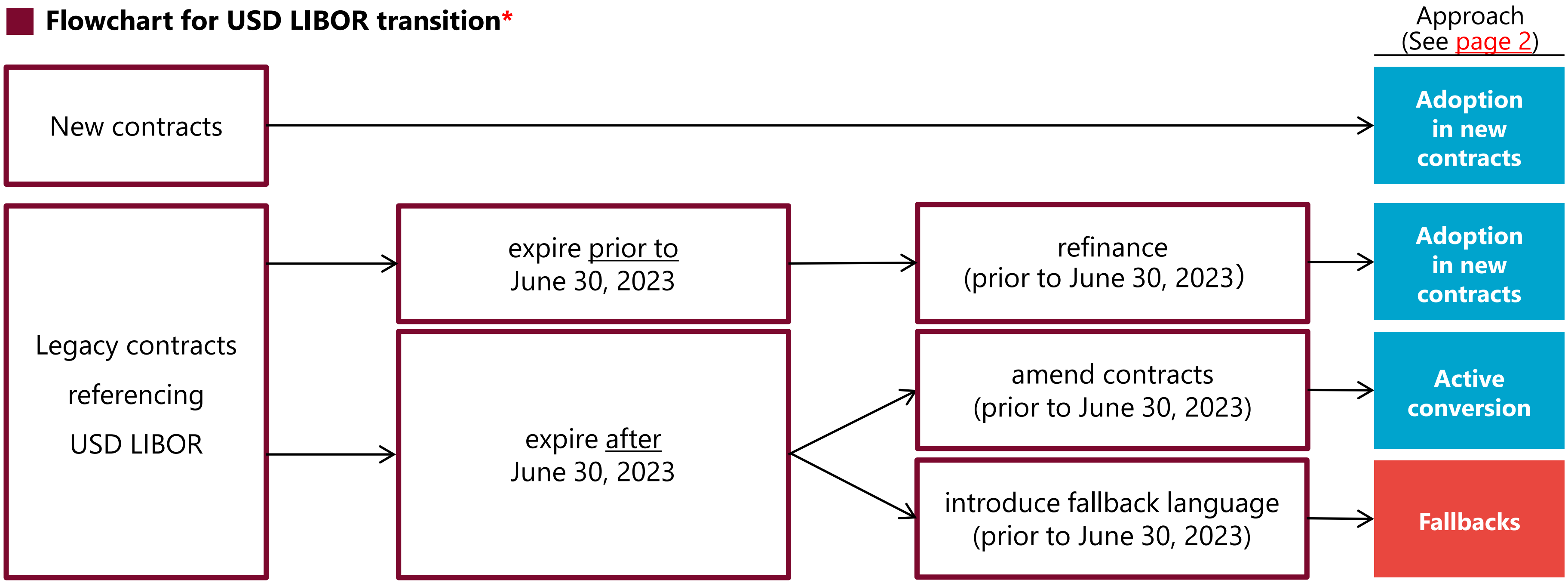
New and active conversion	Fallbacks
The methodology to replace USD LIBOR with an alternative benchmark for financial products and transactions at the time of expiration of legacy contracts and amend legacy contracts before the expiration (active conversion).	The methodology to agree on a replacement rate to be used after the permanent discontinuation of USD LIBOR between contracting parties in advance, for legacy contracts referencing USD LIBOR.



* After December 31, 2021, IBA (ICE Benchmark Administration) has ceased to publish the 1 Week and 2 Months USD LIBOR settings.

3. Flowchart for USD LIBOR transition

Flowchart for USD LIBOR transition*



No new use of USD LIBOR by U.S. financial authorities

- ✓ The Federal Reserve Board (FRB), Federal Deposit Insurance Corporation (FDIC), and Office of the Comptroller of the Currency (OCC) issued supervisory guidance encouraging institutions 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.
- ✓ The federal financial institution regulatory agencies clarified that the meaning of "new LIBOR contracts" would include an agreement that (i) creates additional LIBOR exposure for a supervised institution or (ii) extends the term of an existing LIBOR contract, and a draw on an existing agreement that is legally enforceable (e.g., a committed credit facility) would not be viewed as a new contract.
- ✓ Supervised institutions are encouraged to include fallback language in legacy contracts that provides for using a strong and clearly defined benchmark replacement when the initial reference rate is discontinued.

* After December 31, 2021, IBA (ICE Benchmark Administration) has ceased to publish the 1 Week and 2 Months USD LIBOR settings.

4. What is SOFR?

- The ARRC selected the Secured Overnight Financing Rate (SOFR) as its preferred alternative to USD LIBOR.*1
- SOFR is a fully-transaction based, nearly risk-free rate (RFR). It is a broad measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities (a market which features both exceptional depth and breadth).

	SOFR	USD LIBOR
Administrator	New York Fed	IBA（ICE Benchmark Administration）
Tenors	Overnight*2	Multiple terms（Overnight, 1, 3, 6, 12-Month)*3
Risk Components	Nearly risk-free	Bank credit risk and term liquidity risk premium*4 embedded
Basis of Calculation	Fully transaction based on Various U.S. Treasury Repo	Contributed by the panel banks which may be based on actual transactions or estimates(expert judgement)
Daily transaction volume	Roughly 1 trillion USD	About 500 million USD (3-month whole sale funding transactions)
Perspective	Historical and backward-looking	Predictive and forward-looking

*1 The SOFR is published by the New York Fed for each U.S. government securities market business day (as any day except Saturday, Sunday or a day on which the SIFMA recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities), which may differ the USD currency settlement day.
*2 A simple or a compound average of SOFR could be used for cash products. (See page 5 to 6)
*3 After December 31, 2021, IBA (ICE Benchmark Administration) has ceased to publish the 1 Week and 2 Months USD LIBOR settings.
*4 The term liquidity risk premium includes the cost by tying up funds for a longer period of time.

(1) Different types of SOFR

Overview of SOFR by type

	Tenors	Administrator	ARRC Recommendation	Potential Usage
I. Overnight SOFR	Overnight	New York Fed	All products	—
II. Averages of SOFR				
i. Daily simple SOFR (in arrears)	Calculation needed	—	All products	Loan
ii. Compounded SOFR (in arrears)	Calculation needed (SOFR Averages have the advantage of having known published rates for the relevant tenors and rates being determined up front.)	—		Loan, FRN, Derivatives
iii. Compounded SOFR (in advance)				Loan, Intercompany Loans , Adjustable-Rate Mortgages, Student Loans
iv. SOFR Averages	30 ,90 ,180-calendar day	New York Fed		(See iii)
III. CME Term SOFR Rates*	1,3,6,12-Month	CME Group Benchmark Administration	Limited Scope of Usage (See page 8)	

* Currently, the ARRC formally recommended the Term SOFR Reference Rates (1, 3, 6-Month) published by CME Group. A license may be required to use and/or access CME Term SOFR Rates.

5. Transition from USD LIBOR
(2) Averages of SOFR

- While LIBOR is a forward-Looking and pre-determined rate, SOFR is an overnight rate. Compound or simple averages of overnight SOFR could be used for financial term products.
- SOFR averages can be calculated either in advance or in arrears. Because interest accrues over the interest period, parties using Daily simple SOFR in Arrears or Compounded SOFR in Arrears will not know the final interest amount due until the end of the interest period.
- The ARRC recommends that market participants use overnight and averages of SOFR.

	Daily simple SOFR (in arrears)	Compounded SOFR (in arrears)	Compounded SOFR (in advance)
Calculation	Simple average of daily SOFR during an interest period	Compounded	
Timing	In arrears		In advance
Challenges	Very little notice before payment is due		Do not reflect the actual path of interest rates during the applicable interest period
Potential Usage	Loans	Loans, FRN, Derivatives	Loans, Intercompany Loans, Adjustable-Rate Mortgages, Student Loans

SOFR Averages and SOFR Index

The New York Fed publishes the SOFR Averages and SOFR Index to encourage use of compounded SOFR.

SOFR Averages	✓ The SOFR Averages are compounded averages of the SOFR over rolling 30, 90, 180-calendar day periods. The applicable SOFR Averages would be selected in advance of the interest period, and interest would be calculated on a simple basis.
SOFR Index	✓ The SOFR Index measures the cumulative impact of compounding the SOFR on a unit of investment over time, with the initial value set to 1.00000000 on April 2, 2018, the first value date of the SOFR. ✓ The SOFR Index value reflects the effect of compounding the SOFR each business day and allows the calculation of compounded SOFR averages over custom time periods.

5. Transition from USD LIBOR
(3) Forward-looking term SOFR

- While the Financial Stability Board (FSB) and U.S. authorities have encouraged banks to transition away from USD LIBOR to SOFR or averages of SOFR, some market participants in loan markets hoped to establish term SOFR, a forward-looking set of rates just like LIBOR.
- In July 2021, the ARRC officially recommended for usage the forward-looking SOFR term rate published by the CME Group and released the best practices related to the scope of use of the SOFR term rate to avoid usage that is not in proportion to the depth and transactions in the underlying derivatives market or usage that materially detracts from volumes in the underlying SOFR-linked derivatives.

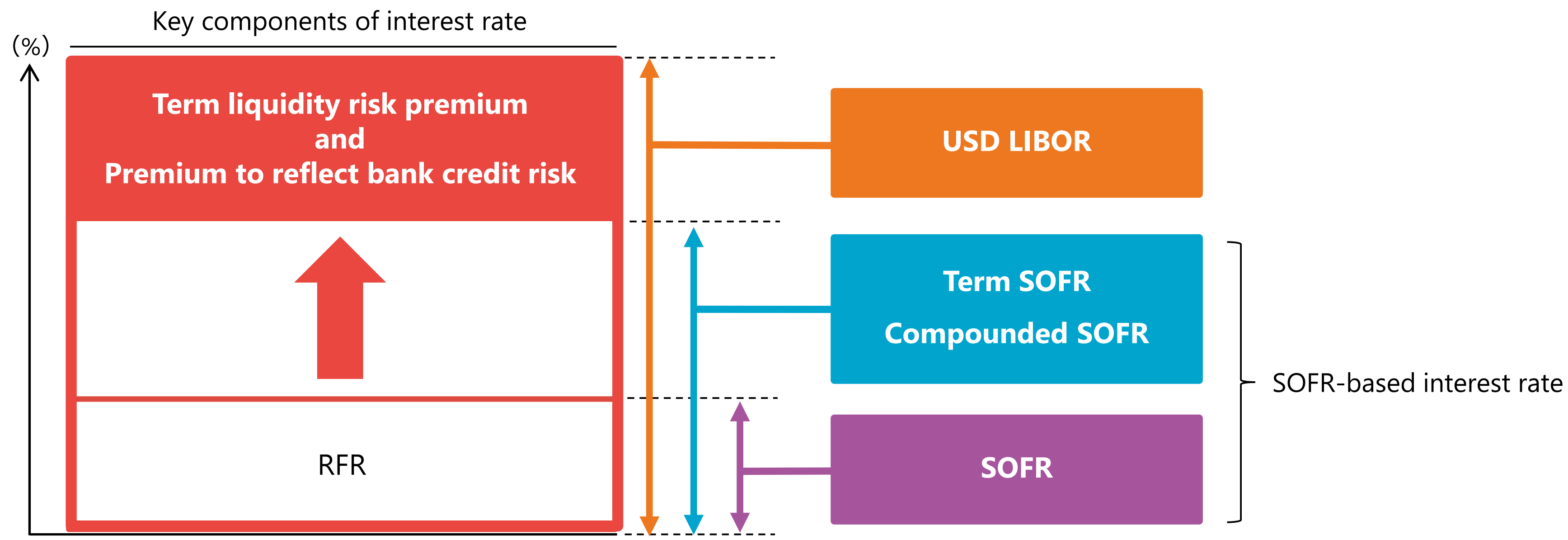
	Term SOFR (The CME Term SOFR Rates*1)	USD LIBOR
Administrator	CME Group Benchmark Administration	IBA（ICE Benchmark Administration）
Underlying market	SOFR Future contracts and OIS market (meeting a relative volume threshold)	Whole sale funding transactions
Tenors	Multiple terms （1,3,6,12-Month）	Multiple terms （Overnight, 1, 3, 6, 12-Month） *2
Risk Components	Nearly risk-free	Bank credit risk and term liquidity risk premium embedded
Perspective	Predictive and forward-looking	
Availability	Limited scope of Usage (See page 8)	Cease entering into new contracts after end of 2021 with limited exceptions

*1 A license may be required to use and/or access CME Term SOFR Rates.
*2 After December 31, 2021, IBA(ICE Benchmark Administration) has ceased to publish the 1 Week and 2 Months USD LIBOR settings.

ARRC best practice recommendations related to scope of use of the SOFR term rate

	Use cases
New Contracts	✓ The ARRC supports the use of the SOFR term rate in addition to other forms of SOFR for business loan activity —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. ✓ While the ARRC does not support the use of the SOFR term rate for the vast majority of derivatives markets, the ARRC recommends that any use of SOFR term rate derivatives be limited to end-user facing derivatives intended to hedge cash products that reference the SOFR term rate.
Legacy Contracts	✓ Under the recommended contract language for floating rate notes, bilateral and syndicated business loans, and securitizations, the first step of the fallback waterfall is a forward-looking SOFR-based term rate. ✓ Accordingly, legacy contracts that have adopted the ARRC's fallback language without modification to the rate waterfall will fall back to the SOFR term rate once the contractual LIBOR replacement date occurs.

Key differences between USD LIBOR and SOFR-based interest rate



6. Business Loan Fallback Considerations
(1) ARRC's recommended fallback language

- The ARRC is supporting the transition to SOFR by publishing recommended fallback language for voluntary use in USD LIBOR-linked contracts – the fallback language specifies:
  - the trigger events for a transition to benchmark replacements;
  - the replacement rates themselves; and
  - the spread adjustments to align the replacement rate with the benchmark being replaced.
- The ARRC's spread recommendations are fixed at the point in time upon the occurrence of a trigger event –; that is, the announcement by the FCA on March 5, 2021.

	Business Loans				For details
	Syndicated Loans		Bilateral Loans		
Replacement rates	■ Waterfall（priority）		■ Waterfall（priority）		Page 10
	1st priority	**Term SOFR**	1st priority	**Term SOFR**	
	2nd priority	**Daily Simple SOFR (in arrears)**	2nd priority	**Daily Simple SOFR (in arrears)**	
	3rd priority	Borrower and Administrative Agent Selected Rate	3rd priority	Lender Selected Rate	
Spread adjustment methodology	■ **The ARRC's recommended spread adjustments** for commercial (non-consumer) cash products **would match the spread adjustment values for fallbacks in ISDA's documentation.** ✓ The ISDA's spread adjustment values are calculated as the difference between USD LIBOR and compounded SOFR in arrears using the "historical median over a five-year lookback period". ✓ The spread adjustments were fixed as of March 5, 2021. ✓ Refinitiv publishes ARRC's recommended spread adjustments and spread adjusted rates.				Page 11,12
Trigger events (March 5, 2021)	■ **Permanent Cessation Triggers** ■ **Pre-cessation Trigger** - Benchmark is "No Longer Representative"				Page 13
Recommended fallback language	■ The ARRC published the following: ✓ Fallback Language (June 30, 2020) ✓ Supplemental Recommendations of Hardwired Fallback Language (March 25, 2021)		■ The ARRC published the following: ✓ Fallback Language (August 27, 2020) ✓ Supplemental Recommendations of Hardwired Fallback Language (March 25, 2021)		—

- The ARRC's recommended fallback language for both syndicated loans and bilateral loans that provides for the fallback waterfall, in which Term SOFR is the first priority.
- The ARRC's recommendations have always been voluntary and market participants may choose other rates, but any benchmarks must be robust.

The replacement rates*1 waterfall for syndicated loans and bilateral loans:

	Syndicated Loans	Bilateral Loans
1st priority	Term SOFR *2	Term SOFR *2
2nd priority	Daily Simple SOFR (in arrears)	Daily Simple SOFR (in arrears)
3rd priority	Borrower and Administrative Agent Selected Rate	Lender Selected Rate

- While the ARRC recommends that market participants use SOFR and averages of SOFR for all products given their robustness, the first step of the fallback waterfall is "Term SOFR" in order to support the smooth transition of legacy contracts away from USD LIBOR, taking into account market participants' preferences.
- Although compound interest more accurately reflects the time value of money and will have less hedging basis relative to SOFR OIS, implementing simple interest is more straightforward and the basis between simple and compounded SOFR, if any, is typically a few basis points or less.

*1 The "Replacement rates" is the "alternatives" selected for fallback.
*2 The ARRC recommends the use of 1, 3, 6-Month term SOFR rates produced by the CME Group as a fallback for legacy LIBOR instruments and certain new contracts.

Derivatives under ISDA documentation

Adjusted RFR
Compounded SOFR (in arrears)

The ISDA IBOR fallbacks generally follow a standard approach of a specified RFR compounded in arrears and a spread adjustment. The fallbacks are incorporated into all new derivatives contracts that reference ISDA's standard interest rate derivatives definitions from January 25, 2021 unless the parties specifically agree to exclude them. By adhering to the protocol, legacy derivatives entered into prior to January 25, 2021 with other adherents includes the fallback.

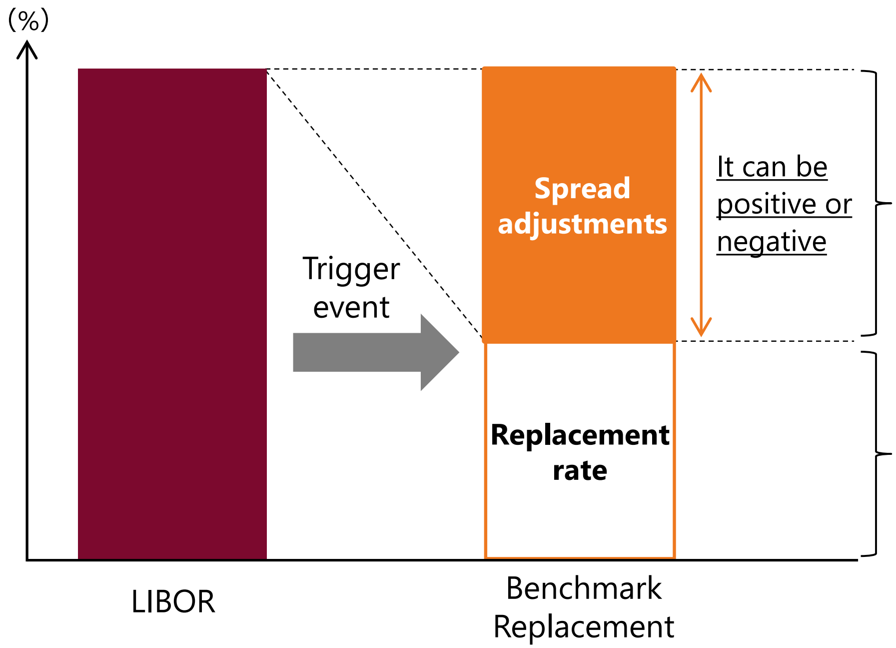
- It is noted that when contracting parties use a rate other than "Compounded SOFR (in arrears)", there may be a cost arising from the fair value adjustment of derivatives.

6. Business Loan Fallback Considerations
(3) Spread adjustment

Syndicated Loans
and
Bilateral Loans

- LIBOR and the replacement rate have different economics, resulting in an interest rate spread. The “value transfer” may occur between contracting parties as a result of this spread.
- The spread adjustment between LIBOR and the replacement rate should be made in order to minimize the value transfer.

Fallbacks for LIBOR



The ARRC recommends a spread adjustments
(For details, see page 12)

The ARRC recommends the “Replacement rates” waterfall
(For details, see page 10)

- It is essential for contracting parties to agree on a replacement rate and corresponding spread adjustment to achieve equivalence with LIBOR to the greatest extent possible. However, it should be noted that no combination can entirely eliminate value transfer.
- Since the ISDA spread adjustments which would match the ARRC’s recommended spread adjustments for commercial (non-consumer) cash products were fixed as of March 5, 2021, the trends and levels of the benchmark replacements may differ from what was assumed by the contracting parties at the beginning of the contract referring LIBOR.

- The ARRC has stated that its recommended spread adjustments across all of the different SOFR derived replacement rates for commercial cash products would be the same as the spread adjustments applicable to fallbacks in ISDA's documentation for USD LIBOR.
- The ISDA spread adjustments were fixed on March 5, 2021*1, calculated using the historical five-year median spread adjustment methodology.
- The ARRC has selected Refinitiv to publish its recommended spread adjustments and spread-adjusted rates for cash products*2.

Characteristics of the spread adjustment methodologies

Spread adjustment methodology	Details
Historical five-year median spread adjustment methodology	✓ The ISDA spread adjustments could be based on the difference between USD LIBOR and compounded SOFR in arrears for those that are calculated using a median over a five-year lookback period prior to the fallback activation date. ✓ National working groups in several LIBOR jurisdictions have endorsed the use of the ISDA spread adjustments in fallbacks for cash products. ✓ The Official Sector Steering Group of FSB supports the potential benefits to use the ISDA spread adjustments for cash products that are to fall back or move from an IBOR to overnight RFRs or to RFR-based term rates.
Spot-spread approach	✓ The spread adjustment could be based on the spot-spread between USD LIBOR and the SOFR derived rate on the day preceding or a few business days before the fallback trigger event.
Forward approach	✓ The spread adjustment could be calculated based on observed market prices for the forward spread between USD LIBOR and the SOFR derived rate in the relevant tenor.

*1 Bloomberg is publishing ISDA's spread adjustments. https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation_Announcement_20210305.pdf

*2 https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/20210317-press-release-Spread-Adjustment-Vendor-Refinitiv.pdf

6. Business Loan Fallback Considerations
(4) Trigger events, fixing of spread adjustments

- A trigger event is an occurrence that precipitates the conversion from LIBOR to a new reference rate.
- The ARRC recommends that "Permanent Cessation Triggers" and "Pre-cessation Trigger" be included in the fallback provisions.
- On March 5, 2021, the FCA made an announcement on future cessation and loss of representativeness of the LIBOR benchmarks in relation to LIBOR contractual triggers, and spread adjustments were fixed for all euro, sterling, Swiss franc, Japanese yen and U.S. dollar LIBOR settings.

■ ARRC's recommended trigger events and fixing of spread adjustments

	Details on trigger events in the fallback provisions
Permanent Cessation Triggers	✓ A public statement or publication of information by or on behalf of the administrator of LIBOR (that is, the IBA：ICE Benchmark Administration) announcing that it has ceased or will cease to provide LIBOR permanently or indefinitely. ✓ A public statement or publication of information by the regulatory supervisor for the administrator of LIBOR (that is, FCA) which states that the administrator of LIBOR has ceased or will cease to provide LIBOR permanently or indefinitely.
Pre-cessation Trigger	✓ A public statement by the regulatory supervisor for the administrator of LIBOR (that is, FCA) stating that LIBOR is no longer representative.

On March 5, 2021, the FCA made an announcement on:

future cessation of the LIBOR benchmarks

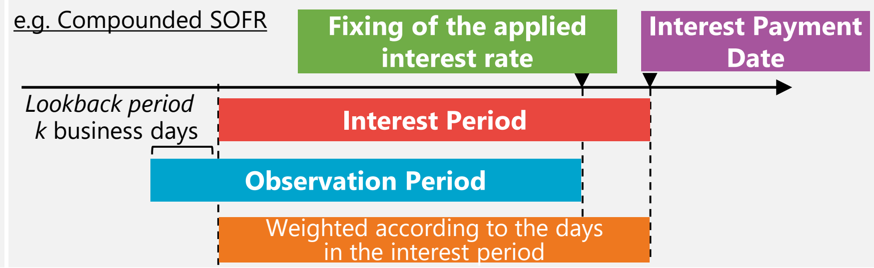
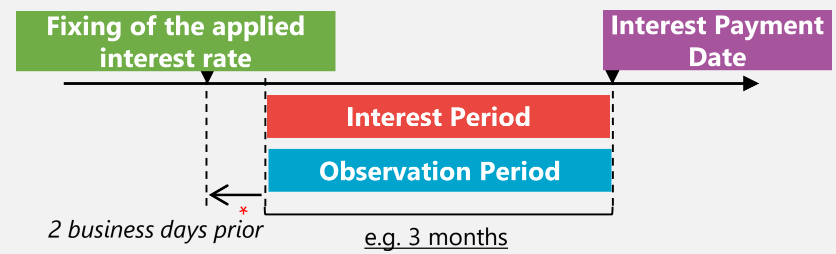
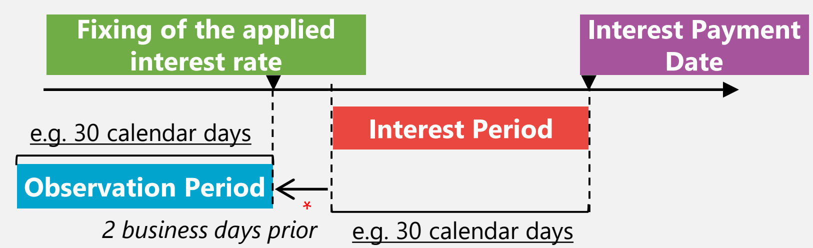
and

loss of representativeness of the LIBOR benchmarks.

- **Spread adjustments of all LIBOR Tenors across all LIBOR currencies (including USD LIBOR which will cease immediately after 30 June, 2023) were fixed at the point of the FCA announcement on March 5, 2021.**

- Refinitiv has been selected as the publisher for the recommended spread adjustments and spread-adjusted rates for cash products which refer to SOFR-derived rate or term SOFR rate as the replacement rate of USD LIBOR.
- It is noted that spread adjustments will not be recalculated.

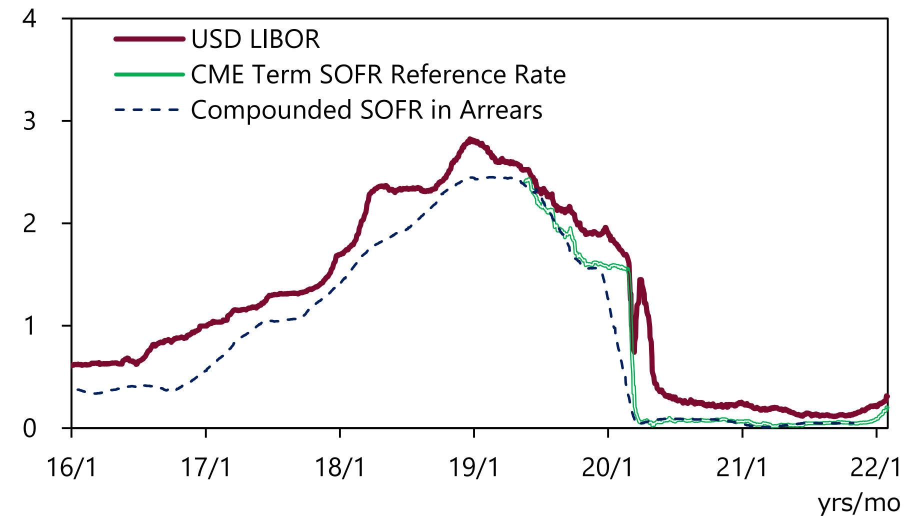
■ ARRC recommendation on conventions for Business Loans

	Tenors／Term	ARRC Recommendation	Images
SOFR "In arrears"			
Daily simple SOFR **Compounded SOFR**	—	**"Lookback without observation shift"** ✓ If the lookback is for *k* days, then the observation period is *k* business days prior to the interest period.	
SOFR "In advance"			
The CME Term SOFR Rates	1，3，6， 12-Month	**Convention similar to LIBOR** ✓ The recommended convention is to use the rate published two U.S. Government Securities Business Days prior(*) to the first day of the interest period and held for the entirety of the interest period.	
SOFR Averages (applied in advance)	30,90,180-calendar day		

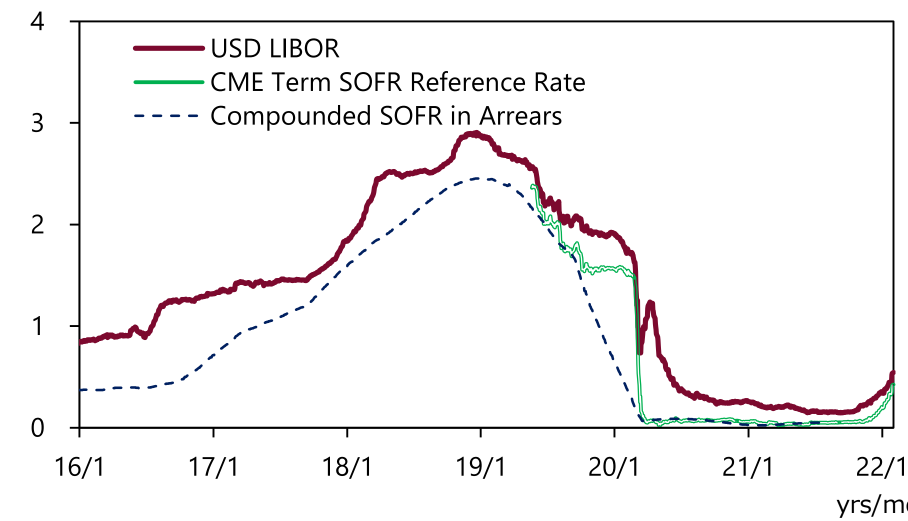
■ ARRC's publication on conventions for Business Loans

- SOFR "In Arrears" Conventions for Syndicated Business Loans (July 2020)
- SOFR "In Arrears" Conventions for Use in Bilateral Business Loans (November 2020)
- Forward Looking Term SOFR and SOFR Averages (Applied in Advance) Conventions for Syndicated and Bilateral Business Loans (July 2021)

USD interest rates (3 months)

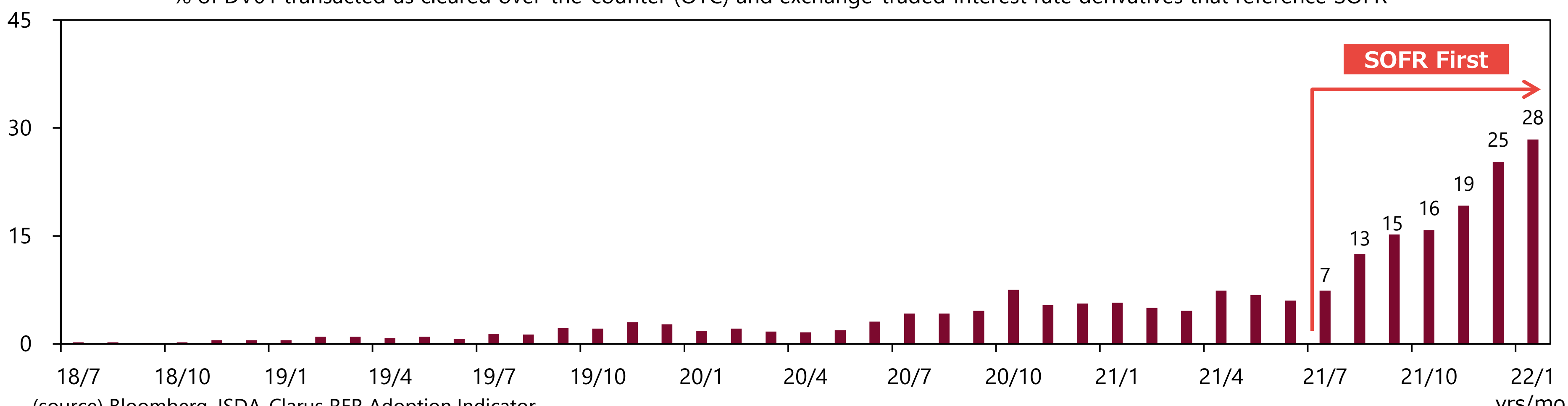


USD interest rates (6 months)



RFR Adoption Indicator (USD)

% of DV01 transacted as cleared over-the-counter (OTC) and exchange-traded interest rate derivatives that reference SOFR



(source) Bloomberg, ISDA-Clarus RFR Adoption Indicator

(note) RFR Adoption Indicator as of the end of January 2022. SOFR First that is a phased initiative for switching interdealer trading conventions from LIBOR to SOFR occurred on July 26, 2021 for linear swaps, September 21, 2021 for cross-currency swaps (and additional cross-currency swaps on December 13, 2021), and November 8, 2021 for non-linear derivatives.

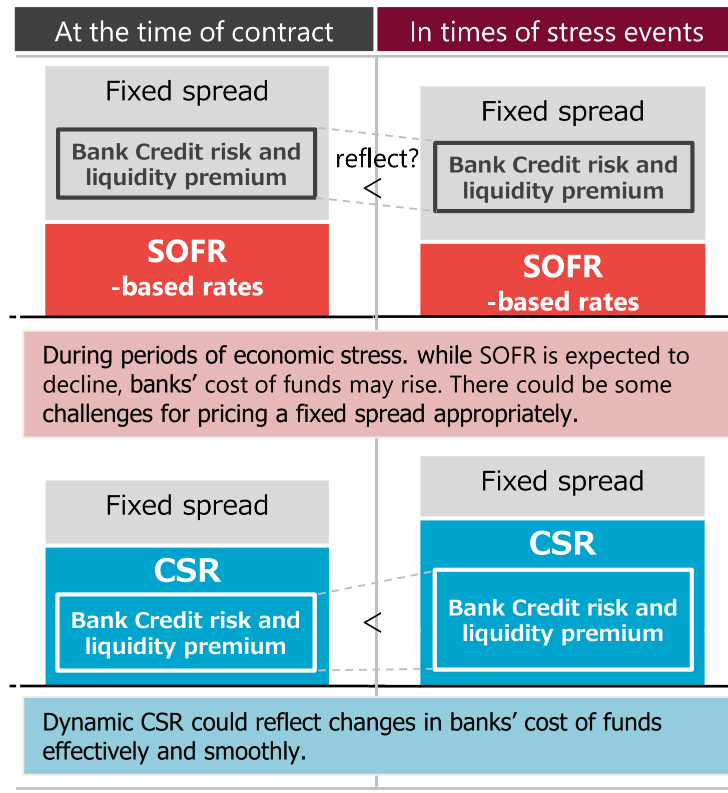
(Appendix 2) Credit Sensitive Rates

- In the U.S., benchmarks with credit sensitive components have been developed as a potential replacement for LIBOR in the loan market. However, it is worth noting that IOSCO has expressed concern about the use of credit sensitive rates (CSRs) and FSB has supported for the IOSCO statement.

Background on issues around CSRs

- ✓ RFRs such as SOFR do not include any bank credit risk or liquidity premium. (See page 11)
- ✓ Some market participants in the loan market have expressed concerns that in the absence of a dynamic credit spread, accurately pricing a fixed premium to add to SOFR requires estimates of frequency and severity of economic stress events. They also have noted uncertainty related to these estimates could lead to a price premium.
- ✓ Recently, a number of credit-sensitive benchmarks, like Bloomberg Short-Term Bank Yield Index (BSBY), have been in development by certain market administrators to address these challenges.
- ✓ Nevertheless, IOSCO and regulatory authorities in the U.S. and U.K are concerned that some of LIBOR's shortcomings may be replicated through widespread use of credit sensitive rates that lack sufficient underlying transaction volumes, instead of SOFR.
- ✓ IOSCO emphasizes that users of benchmarks also consider the robustness and reliability of the benchmarks.

Images: Pricing in times of economic stress events



Comparison of CSRs

	AMERIBOR®	BSBY	ICE Bank Yield Index (proposed)
Administrator	American Financial Exchange (AFX)	Bloomberg Index Services Limited (BISL)	ICE Benchmark Administration (IBA)
Underlying transactions	Transaction-based rate derived from overnight unsecured loans between small and medium U.S. financial institutions	Transaction data for primary market CD, CP and bank deposits and secondary market transactions for bank bonds etc.	Transaction-based rate reflecting primary market bank funding transactions and secondary market transactions for bank bonds
Tenors	Overnight, 30,90-day averages	Overnight, 1,3,6,12-Month	1,3,6-Month

(Appendix 3) Links to related sites

Category	URL
WG on USD LIBOR	■ Alternative Reference Rates Committee (ARRC)
U.S. authorities	■ Federal Reserve Board (FRB) ■ Federal Reserve Bank of New York (NY Fed) ■ Commodity Futures Trading Commission (CFTC) ■ Financial Accounting Standards Board (FASB) ASU No.2020-04—Reference Rate Reform ASU No.2021-01—Reference Rate Reform
Foreign authorities and International bodies	■ Financial Stability Board (FSB) ■ International Organization of Securities Commissions (IOSCO) ■ Financial Conduct Authority (FCA : LIBOR regulator) ■ International Swaps and Derivatives Association (ISDA) Benchmark Reform and Transition from LIBOR InfoHub
Administrator	■ ICE Benchmark Administration (IBA) ■ CME Group Benchmark Administration (CME)
Interest rate benchmark and spread adjustment	■ Secured Overnight Financing Rate Data (NY Fed) ■ SOFR Averages and Index Data (NY Fed) ■ CME Term SOFR Reference Rates Benchmark Methodology (CME) CME Term SOFR Reference Rates-Frequently Asked Questions ■ Refinitiv USD IBOR Cash Fallbacks (Refinitiv) ■ Bloomberg Announcement on the Spread Adjustment Fixing (Bloomberg)