

Phaseout of LIBOR: Navigating the Final Stages, Implementing Alternative Reference Rates, and Fallback Language

TUESDAY, OCTOBER 12, 2021

1pm Eastern | 12pm Central | 11am Mountain | 10am Pacific

Today's faculty features:

Neal R. Pandozzi, Senior Counsel, **Adler Pollock & Sheehan, P.C.**,
Boston, MA & Providence, RI

Amy McDaniel Williams, Partner, **Hunton Andrews Kurth LLP**, Richmond, VA

The audio portion of the conference may be accessed via the telephone or by using your computer's speakers. Please refer to the instructions emailed to registrants for additional information. If you have any questions, please contact **Customer Service at 1-800-926-7926 ext. 1.**

PHASEOUT OF LIBOR:

NAVIGATING THE FINAL STAGES, IMPLEMENTING
ALTERNATIVE REFERENCE RATES AND FALLBACK
LANGUAGE

Amy

LIBOR



Neal

The London Interbank Offered Rate (“LIBOR”) is a benchmark interest rate index used in setting the interest rate for many variable-rate loans and other financial obligations.

Questions around LIBOR’s validity as a credible benchmark rate arose following examples of manipulation of LIBOR’s rate-setting process.

In 2013, the Financial Stability Board (the “FSB”), an international body that monitors and makes recommendations about the global financial system, convened global regulators, central banks and market participants to review major interest rate benchmarks and plans for reform.

In the U.S., the Financial Stability Oversight Council (the “FSOC”), which is responsible for monitoring any risks to the U.S. financial sector, recommended the identification of alternative interest rate benchmarks to LIBOR and the development of a transition plan.

In 2014, the Board of Governors of the Federal Reserve System (the “Federal Reserve”) convened the Alternative Reference Rates Committee (the “ARRC”), a group of private-market participants tasked with ensuring a successful transition from U.S. dollar (USD) LIBOR to a more robust reference rate.

The ARRC has recommended the Secured Overnight Financing Rate (“SOFR”), published by the Federal Reserve Bank of New York (the “FRBNY”), as the successor to LIBOR.

THE SUN SETS

- “The deniers and the laggards are engaging in magical thinking.... There is no path forward for LIBOR after the end of this year.”

--Fed Vice Chair Randal Quarles, offering a “eulogy for LIBOR,” at the June 11, 2021 meeting of the U.S. Financial Stability Oversight Council.



Amy

On thing is for sure—the end is near

Note: photo is copyrighted by Amy Williams

AGENDA

- Timeline for the phaseout
- Spread adjustment announcements
- SOFR vs. credit-sensitive rates
- Recommended ARRC fallback provisions
- Legislation for tough legacy contracts

Amy

Recommend removing the bracketed items as we cover these elsewhere, but open to suggestions



Neal

The phase-out of LIBOR is scheduled to occur in stages, with the first stage scheduled to begin at the end of this year.

Specifically, on November 30, 2020, the International Exchange (ICE) Benchmark Administration (the “IBA”), the administrator of LIBOR, announced its intention to cease publishing:

- One-week and two-month LIBOR on December 31, 2021 and
- The remaining LIBOR tenors (overnight, one-month, three-month, six-month and 12-month) on June 30, 2023.

MARCH 5TH ANNOUNCEMENTS

- The UK Financial Conduct Authority (“FCA”) announced that USD LIBOR will end or no longer be representative after the dates below.
- The ICE Benchmark Administration (“IBA”) released a feedback statement, saying it would not have the data necessary to calculate USD LIBOR after the dates below.

Neal

On March 5, 2021, the IBA issued an announcement confirming that it would cease publishing the applicable LIBOR tenors after the dates set forth above.

On the same date, the UK’s Financial Conduct Authority (the “FCA”) issued a separate announcement confirming that LIBOR would either end or no longer be representative after the dates set forth above.

Since that time, the Commodities Futures Trading Commission has recommended to brokers that facilitate derivatives trading among large banks that they should stop using LIBOR as a reference rate by July 26, 2021.

Additionally, the Federal Reserve, the Office of the Controller of the Currency (the “OCC”) and the Federal Deposit Insurance Corporation (the “FDIC”) jointly recommended that banks cease entering into new contracts using LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021.

FINAL FINAL DATES

USD LIBOR Settings	End/Last Representative Date
1-week 2-month	December 31, 2021
Overnight 1-month, 3-month, 6-month and 12-month	June 30, 2023

Neal

BENCHMARK TRANSITION EVENT

- March 5th was a “Benchmark Transition Event.”
- This does not trigger an immediate transition, which will occur on the “Benchmark Replacement Date,” which will be the earlier of:
 - The date in the chart, or
 - For business loans with an “early opt-in election,” the date specified in that option if it is exercised.

Neal

The March 5th announcements from the IBA and FCA constitute a “Benchmark Transition Event” under the ARRC’s recommended fallback language for transitioning away from LIBOR.

The occurrence of a Benchmark Transition Event does not trigger an immediate transition from LIBOR to an alternate benchmark rate, such as a SOFR-based rate. Rather, the Benchmark Transition Event sets the deadline by which such transition must take place. Depending on what type of fallback language is used in the applicable credit agreement, the Benchmark Transition Event either:

- Allows the relevant parties to begin the process of negotiating amendments to reflect the transition from LIBOR to an alternate benchmark rate, or
- Puts the relevant parties on notice of the date by which a hardwired transition from LIBOR to an alternate benchmark rate will take place.

In 2019, the ARRC published two approaches for fallback language:

- A form of amendment language (the “Amendment Approach”) that would allow the lender in a bilateral loan (but subject to objection by the borrower) or the borrower and administrative agent in a syndicated loan (but subject to objection by the required lenders) to amend the applicable credit agreement at a later date to replace LIBOR with an alternate benchmark rate (which may be a SOFR-based rate) upon the occurrence of a trigger event.

Amendments should be based on recommendations of relevant government authorities or prevailing market conditions.

A form of hardwired language (the “Hardwired Approach”) that would allow the lender in a bilateral loan (but subject to objection by the borrower) or the administrative agent in a syndicated loan (but subject to objection by the required lenders) to automatically replace LIBOR with an alternate benchmark rate upon the occurrence of a trigger event. The replacement rate is determined based on a predetermined waterfall of alternative rate options (more on this later).

The transition from LIBOR to the alternate benchmark rate will occur on the earlier of:

The Benchmark Replacement Date, which is either December 31, 2021 (for 1-week and 2-month LIBOR) or June 30, 2023 (for Overnight, 1-month, 3-month, 6-month and 12-month LIBOR), and

For loans with an “early opt-in election,” the date specified in that option, if exercised by the parties.

EARLY OPT-IN ELECTION

- For bilateral and syndicated loans, optional transition to Benchmark Replacement before a Benchmark Replacement Date has occurred
 - For syndicated loans, the option is elected by the borrower and administrative agent
 - For bilateral loans, the option is elected by the lender, but the borrower may object
- Objective criteria is used to trigger the early opt-in

Neal

The Amendment Approach and the Hardwired Approach also incorporate an “Early Opt-in Election,” permitting the transition to an alternate benchmark rate before the Benchmark Replacement Date.

Objective criteria is used to trigger the Early Opt-in Election:

First, a determination that at least five (or other agreed-upon number) currently outstanding U.S. dollar-denominated syndicated or bilateral credit facilities at such time contain (as a result of amendment or as originally executed) as a benchmark interest rate, in lieu of LIBOR,

A new benchmark interest rate to replace LIBOR (Amendment Approach); or
A SOFR-based rate (including SOFR, a term SOFR or any other rate based upon SOFR) as a benchmark rate (Hardwired Approach); and

Second, the election to declare that an Early Opt-in Election has occurred (with written notice).

For syndicated loans, the determination is made by the administrative agent (under the Hardwired Approach), or the administrative agent or the required lenders (under the Amendment Approach), but the election is made jointly by the administrative agent and the borrower. Under the Amendment Approach, the required lenders must consent to the election. Under the Hardwired Approach, the required lenders may object to the election. For bilateral loans, the determination and election are made by the lender, but the

borrower may object to the election.

CAN WE WAIT TILL 2023?

- **New Loans:**
 - U.S. banking & other financial industry regulators “strongly encourage” institutions to cease using USD LIBOR in new contracts by December 31, 2021.
 - Continued LIBOR originations after that date may pose **safety and soundness** concerns.

Amy

New Loans

As noted above, the Federal Reserve, the OCC and the FDIC have jointly recommended that banks cease entering into new contracts using LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021.

Continued LIBOR originations after that date may pose safety and soundness concerns.

Although the ARRC has recommended SOFR as the successor to LIBOR, they are not analogous indexes. Unless you are using Term SOFR (which does not exist yet) or a compounded SOFR average in advance (more on these variations of SOFR later), you cannot simply replace LIBOR with SOFR in your pricing models and loan documents. Even if you are using a SOFR average in advance, for example, a 90-day SOFR average to replace 3-month LIBOR, simply importing a corresponding SOFR quantity for LIBOR would be insufficient, and a number of adjustments (i.e., a spread adjustment and other conforming changes) will be necessary.

CAN WE WAIT TILL 2023?

- Legacy Loans from the last couple years
 - Review your language
 - Did you adopt an amendment approach
 - Did you adopt a hardwired approach
 - Many lenders updating to a simplified hardwired (more later on this)

Neal

Existing or “Legacy” Loans

Borrowers and lenders should immediately begin the process of identifying their outstanding LIBOR-based legacy loans with maturity dates that extend beyond 2021, including the particular LIBOR tenor (overnight, one-week, one-month, two-month, three-month, six-month or 12-month) that is used.

Such obligations may include, but are not limited to, bank loans and lines of credit, derivatives, leases, installment sales agreements, municipal bonds, promissory notes, reimbursement agreements governing letters of credit, standby bond purchase agreements governing the purchase of bonds upon an optional or mandatory tender, other credit facilities and certain investments.

Once the outstanding LIBOR-based legacy loans have been identified, borrowers and lenders should review the underlying credit agreements to determine whether they already include effective fallback language.

Beginning in 2019, the ARRC recommended the Amendment Approach and the Hardwired Approach for incorporating effective fallback language into loan transactions (incorporated as part of the original credit agreement or an amendment to an existing agreement). The ARRC has since recommended that the Amendment Approach be discontinued in favor of the Hardwired Approach.

CAN WE WAIT TILL 2023?

- Legacy Loans with “pre-ARRC” replacement language
 - Designed for temporary disruption
 - May create a fixed rate fallback
 - May fallback to “prime” or “base,” which are not equivalent
- Address with Amendments if possible
- Legislative Solutions if Amendment is Tough (more later)

Neal

Older Legacy Loans with Pre-ARRC Replacement Language

Credit agreements entered into prior to 2017 may contain fallback language designed for only a temporary, rather than permanent, discontinuance of LIBOR as a reference rate. It is therefore unlikely that such language would effectively address the LIBOR transition:

Designed only for temporary disruptions;

May create a fixed rate fallback; or

May fall back to “prime” or “base,” which are not equivalent to LIBOR.

First, check to see if your credit agreements incorporate one of the two approaches recommended by the ARRC, a variation of the approaches, or perhaps a different approach. If your credit agreement already includes effective fallback language (either in the original agreement or through an amendment), then:

Borrowers and lenders should work with their counsel and financial advisors to consider any fundamental differences between LIBOR and the alternate benchmark rate that would replace LIBOR. Such differences might include:

Potential changes in interest rate levels, profitability or costs;

Responses to changing market conditions;

State lending law constraints; and

Possible impact on financial ratios, reporting and other covenants, or accounting practices.

If it is determined that the alternate benchmark rate could introduce unanticipated risks to, or reduce the anticipated economic return of, the financial obligation, the borrower or lender may wish to approach the other party to explore a possible renegotiation of the terms.

If your credit agreement lacks fallback language, or the fallback language is inadequate or otherwise exposes the borrower or lender to the unintended or disadvantageous risks described above, then:

The parties should consider the steps necessary to amend the agreements within the timeframe anticipated for the LIBOR transition.

Such amendments may extend beyond simply swapping out LIBOR for an alternate benchmark rate. For example, the amendments could include:

Appropriate adjustments to the spread above the reference rate to account for anticipated differences between the alternate benchmark rate and LIBOR and/or

A one time, lump-sum payment in lieu of a spread adjustment.

If amendments are impracticable, legislative solutions at the state and federal level may be needed (more on this later)



Amy

SOFR SPREAD CALCULATION

- Making SOFR comparable to LIBOR (which reflects credit risk) requires adding a “spread.”
- ARRC and ISDA decided to use the median difference between LIBOR and SOFR over the prior 5 years.
- The longer time period for the median difference is used to reduce *long-term* value transfer and was subject to extensive public consultation

Amy

ARRC and ISDA will publish the spreads when:

LIBOR is no longer published, or

when LIBOR’s regulator issues a public statement that LIBOR is no longer representative (if that happens before cessation of LIBOR).

SOFR SPREADS ARE FIXED

USD	Overnight	SUS000N Index	0.00644
USD	1 Week	SUS0001W Index	0.03839
USD	1 Month	SUS0001M Index	0.11448
USD	2 Months	SUS0002M Index	0.18456
USD	3 Months	SUS0003M Index	0.26161
USD	6 Months	SUS0006M Index	0.42826
USD	12 Months	SUS0012M Index	0.71513

Amy

DOES THE SPREAD ADJUSTMENT “WORK”?

- The spread adjustment set in March 2021 will be applied at the end of June 2023 – more than two years later.
- Because interest rates were so low in March 2021, SOFR and LIBOR rates were compressed
- As a result, “SOFR + spread adjustment” is higher than spot LIBOR
- This is likely to normalize as rates rise, but the difference may discourage borrowers from agreeing to hardwired fallbacks

Amy

**SOFR SPREAD CALCULATION:
CONSUMER ASSETS**

- 1-year transition period to avoid such rate jumps for consumer assets
 - Spread starts at the current difference between LIBOR and SOFR
 - So old and new rates would initially be identical
 - Spread would gradually move to the long-term difference over a year

Amy

Since LIBOR rates have historically reverted to long-run value within one year, 1-year transition would essentially mimic behavior of LIBOR.



Neal

The ARRC-recommended alternate benchmark rate for each LIBOR tenor will be some form of SOFR plus a spread adjustment for such tenor (and possibly other conforming changes). SOFR is based on the cost of transactions in the overnight repo market, where large banks and hedge funds borrow or lend to one another using U.S. Treasuries as collateral. In other words, SOFR is “backward-looking,” based on historical rates for actual transactions.

SOFR is considered a “risk free” rate because it is based on collateralized (secured) borrowing costs.

Drawbacks to SOFR:

Does not reflect the cost of unsecured borrowing (known as a credit sensitive rate), which more closely approximates the funding costs of lenders.

Does not expedite the creation of a term structure enabling the calculation of forward-looking rates. Currently, there are no forward-looking Term SOFR rates and no timetable for when such rates might be available.



Neal

Contrasting Alternative Risk-Free Rates by Currency

Like the ARRC, national working groups in other currency jurisdictions have chosen either an unsecured or secured overnight rate as their alternate benchmark rate, depending on the characteristics of their national markets:

U.S. Dollar	SOFR	Overnight secured repo rate
Sterling	SONIA	Overnight unsecured rate
Japanese Yen	TONA	Overnight unsecured rate
Euro	ESTER	Overnight unsecured rate
Swiss Franc	SARON	Overnight secured repo rate

Alternatives to SOFR

Bloomberg Short Term Bank Yield Index (BSBY)

Based on commercial paper, certificate of deposit, U.S. dollar bank deposit and short-term bank bond transactions.

Includes both a term structure and systemic credit-sensitive spread

Compliant with the IOSCO Principles for Financial Benchmarks

No built-in floor or spread adjustment

Available in overnight, one-, three-, six- and 12-month tenors

Earlier this year, (i) Bank of America issued a \$1 billion six-month floating rate bank

note referencing the one-month tenor of BSBY and (ii) Bank of America and JPMorgan traded the first complex derivative using BSBY, exchanging \$250 million worth of an interest-rate swap.

Ameribor

Calculated as a weighted average of the daily transactions in the overnight unsecured loan market on the American Financial Exchange, where banks lend to each other through mutual lines of credit.

Uses short-term funding data collected by the Depository Trust and Clearing Corporation, which processes trades for Wall Street.

Calculated based on unsecured transactions (i.e., a “credit-sensitive” benchmark rate)

Popular with small- and medium-sized lenders because it is sensitive to funding cost increases

Compliant with the IOSCO Principles for Financial Benchmarks

No built-in floor; Ameribor futures can reflect zero or negative rates

Available in one-, three- and term rate tenors.

ICE Bank Yield Index

Provided by the ICE Benchmark Association

Forward-looking credit-sensitive interest index based on executed transaction data representing short-term, unsecured bank investment yields

IBA is still seeking external assurance regarding compliance with IOSCO Principles for Financial Benchmarks

ICE does not appear to set a floor for the Bank Yield Index

Available in one-, three-, six- and 12-month tenors

IHS Markit

Prepares the USD Credit Inclusive Term Rate (“CRITR”) and the USD Credit Inclusive Term Spread (“CRITS”)

CRITR and CRITS are forward-looking term rates that measure the daily USD cost of funding in institutional markets.

According to IHS Markit, CRITR and CRITS are the first credit-sensitive rates based on extensive constituent bases - tracking most USD institutional certificate of deposit, commercial paper and short-term corporate bond transactions using a publicly disclosed, rules-based methodology and compliance framework.

Designed to give banking institutions a broad measure of USD funding costs on a senior unsecured basis

Compliant with the UK Benchmark Regulation and the IOSCO Principles for Financial Benchmarks

No set floor (i.e. a minimum limit) for either CRITR or CRITS

Available in one-day and one-, three-, six- and 12-month tenors

LSTA Rider

The Loan Syndications & Trading Association (the “LSTA”) has developed a slot-in rider that can be incorporated into the ARRC’s Hardwired Approach for fallback language. The rider would allow loans to transition, by their terms, to a credit sensitive rate as the preferred rate ahead of, in lieu of, or behind adjusted Term SOFR once the dominant LIBOR tenors cease after June 30, 2023.

The rider offers two formulations: (i) the selection of a specific credit-sensitive rate and (ii) a preferred hierarchy of credit sensitive rate alternatives.

Fits into the larger LIBOR fallback framework published by the ARRC

The rider accommodates multiple alternate benchmark rates:

Ameribor;

Bank Yield Index (provided by ICE Benchmark Association);

BSBY and

IHS Markit Credit Rate (provided by IHS Markit).

The rider is drafted to be flexible. If one replacement rate, such as SOFR, might not be ideal, the sample language provides lending institutions with the option of using a single credit-sensitive rate or multiple credit-sensitive rates.

LIBOR V. SOFR

LIBOR	SOFR
“Forward-looking,” i.e., based on “expert judgments” from reporting institutions regarding rates at which they could borrow.	“Backward-looking,” i.e., based on rates for actual transactions.
LIBOR reflects credit risk.	SOFR is a “risk-free” rate.
Different LIBOR rates are published for different terms, ranging from overnight to a year.	SOFR is an overnight rate. Perhaps a term SOFR will develop.

Neal

CREDIT-SENSITIVE RATES AS A LIBOR ALTERNATIVE

- Some lenders (especially regional banks) seek a reference rate that reflects their true cost of unsecured borrowing
- Federal Reserve, FDIC and OCC put on “Credit Sensitivity Group” workshops to explore options
- Regulators have said “[a] bank may use any reference rate for its loans that the bank determines to be appropriate for its funding model and customer needs.”

Amy

CREDIT SENSITIVE RATES REFLECT BANK CREDIT RISK WITHIN THE RATE

Credit Sensitive Rates:

- Likely will rise in times of market stress, while SOFR is expected to follow policy rates and move lower
- Include an embedded, non-negotiable credit premium
- Have a high historic correlation with LIBOR
 - Not identical
 - For example, BSBY has historically been ~4bps lower than LIBOR

Amy
Source: LSTA

LSTA CREDIT-SENSITIVE RIDER

- AMERIBOR, provided by American Financial Exchange LLC,
- "Bank Yield Index" provided by ICE Benchmark Administration,
- BSBY, the Bloomberg Short-Term Bank Yield Index provided by Bloomberg Index Services Limited, and
- IHS Markit Credit Rate provided by IHS Markit.

Amy

In response to the demand for CSRs, LSTA created a rider that can be used within the ARRC recommended fallback language—you just substitute this waterfall for the SOFR one. This is the recommended waterfall, but lenders can vary this.

BSBY, Ameribor, ICE Short Bank Yield Index, etc. Many “credit sensitive rates” are vying for the top replacement spot. Ameribor just announced a couple term rates, and BSBY (pronounced “Biz-Bee”) has been much in the news of late. Unfortunately for BSBY, Chairman Gensler recently shared with Congress his negative views about BSBY and other rates that look a lot like LIBOR. That has a bunch of regional banks up in arms because they are desperately looking for a credit sensitive alternative to SOFR. The only clear answer on alternatives at the moment is that, post-LIBOR, we will live in a multi-rate world.

LSTA PREDICTION

“We are likely to be in a
“multirate” environment for years,
and perhaps permanently.”

Amy

WHERE DO I FIND SOFR?



- FRBNY website
- What is there?
 - Daily SOFR rates
 - 30-, 90-, 180-day compounded averages
 - Compounded SOFR index
- **No forward-looking term rates yet**

Neal

SOFR is published on a daily basis by the FRBNY

The SOFR rates are available on the FRBNY's website: www.newyorkfed.org

IDEAL SOFR REPLACEMENT RATE

- Ideally the fallback rate for a LIBOR-based instrument might be:
 - Term SOFR of the same tenor as the LIBOR it replaces
 - For instance, three-month SOFR replaces three-month LIBOR
 - Currently, there are **NO** forward-looking term SOFR rates, but FRBNY publishes 30-, 90- and 180-day historical SOFR rates compounded each business day and a compounded SOFR index
 - Plus a spread adjustment
 - A rate of LIBOR + 2.0% would equate to SOFR + 2.0% + x%
 - x% is the “spread adjustment”

Neal

Ideally, the fallback rate for a LIBOR-based instrument might be:

Term SOFR of the same tenor as the LIBOR it replaces:

For instance, 90-day SOFR replaces 3-month LIBOR

Problem - unlike LIBOR, currently there are **NO** forward-looking SOFR-based rates (a.k.a. Term SOFR).

Possible solution - in addition to producing SOFR, the FRBNY also publishes 30-, 90- and 180-day historical averages of SOFR and a SOFR Index (allowing users to calculate a compound SOFR over any start and ending date) on a daily basis.

Plus a spread adjustment:

To minimize the differences between LIBOR and SOFR, the ARRC has incorporated a spread adjustment into its fallback language. For example, a rate of LIBOR + 2.0% would equate to SOFR + 2.0% + X%, with X% being the “spread adjustment.”

The ARRC’s recommended spread adjustment methodology is based on a historical median of the difference between LIBOR and SOFR over a five-year lookback period, set by the occurrence of a Benchmark Transition Event. For non-consumer cash products, the ARRC has recommended following the spread adjustments published by ISDA. The occurrence of the Benchmark

Transition Event on March 5, 2021 fixed the lookback period for this calculation, allowing for the publication of spread adjustments. The list of spread adjustments can be found here:

[https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation Announcement 20210305.pdf](https://assets.bbhub.io/professional/sites/10/IBOR-Fallbacks-LIBOR-Cessation%20Announcement%2010305.pdf)

Consequently, market participants can now refer to definitive numerical spread adjustments in their fallback language, as opposed to general concepts such as “Benchmark Replacement Adjustment” as set forth in earlier iterations of the ARRC fallback language.

The ARRC’s recommended spread adjustments in consumer products will incorporate a 1-year transition period.

The ARRC is considering the formulation of a Term SOFR rate, but it is not currently in a position to recommend such a rate.

To have a Term SOFR rate, you must have robust SOFR markets and SOFR futures, which do not exist at this stage.

The CME Group (“CME”), which operates an exchange for the interest rate derivative transactions that would provide the pricing inputs for the development of Term SOFR, announced the launch of forward-looking SOFR term rates for 1-, 3- and 6-month tenors. Drawback - CME has previously stated that it will not license Term SOFR for derivatives until 2023, which for many, calls into question the utility of a rate for cash products now that cannot be match-hedged until a later date.

It is unclear whether or when the ARRC may endorse CME’s Term SOFR rates, or any future Term SOFR rates published by other providers. The ARRC wants to see a sufficient volume of underlying transactions first.

On June 8, 2021, the ARRC announced that the final market indicator for Term SOFR becoming robust and stable enough to be formally recommended is expected to be satisfied following the adoption of a recommended change to USD linear swap trading conventions from USD LIBOR to SOFR on July 26, 2021.

The ARRC does not view Term SOFR as necessary for all products and continues to encourage market participants to proceed with the transition from LIBOR to SOFR.

SOFR averages for a given publication date are an average of the daily overnight SOFR rate over certain periods of time (i.e., commencing exactly 30-, 90- and 180 calendar days **before** the publication date and extending through SOFR published that day), calculated on a compounded basis.

Unlike the various LIBOR tenors, which are forward-looking rates, the SOFR averages are based on historical rates.

Nevertheless, the SOFR averages are useful for those market participants that are looking for:

- A rate that applies for a 30-, 90- and/or 180-day term product;
- A rate that is known in advance and can be applied to the relevant product up front;
- and
- A rate produced by the official sector and publicly available and transparent to all

market participants.

The SOFR averages offer the convenience of having a published rate of the relevant tenor known and established upfront. Although the averages reflect the overnight SOFR rates for the prior period, they can be transparently applied in advance of the upcoming payment period.

Market participants can use simple or compounded SOFR averages, which can be calculated either in advance or in arrears, depending on whether the averages are applied at the start or end of an interest period.

SOFR averages are intended to accurately reflect movements in interest rates over a given period of time and smooth out any idiosyncratic, day-to-day fluctuations in market rates.

SIMPLE OR COMPOUNDED?

- **Simple Interest**

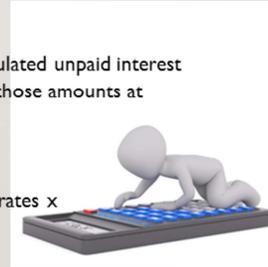
- Interest owed = daily rate x principal for each day of accrual period and the sum of those amounts at period end

- **Compounded Interest**

- Interest owed = daily rate x principal & accumulated unpaid interest for each day of accrual period and the sum of those amounts at period end

- **Compounded Average**

- Interest owed = compounded average of daily rates x principal as of specified date



Amy

COMPOUNDED IN ADVANCE OR IN ARREARS?

- In advance
 - Rates compounded are from a prior period, not current period
 - Borrower/security holder knows payment amount in advance of current period
- In arrears
 - Rates compounded are from current period
 - Borrower/security holder knows payment amount at the end of current period



Amy

IN ADVANCE OR IN ARREARS?

- “In advance”: sets rate for given period by averaging SOFR over the prior period
 - Example: rate for October 2021 is average SOFR for September 2021.
 - Rate is known at start of the period
 - Borrowers want to know rates up front
- “In arrears”: sets rate for given period by averaging SOFR over that same period
 - Example: rate for October 2021 is average SOFR for October 2021.
 - Rate is known only toward the end of the period.
 - Derivatives will use compounding in arrears, so instruments that use this methodology will be a more “perfect hedge.”

Amy

Users of the SOFR averages must determine the period of time over which the daily SOFRs will be observed and averaged.

An “in advance” structure would reference an average of SOFR observed before the current interest rate begins:

Operationally easy to implement.

Offers the convenience of having a published rate of the relevant tenor known and established up front, notwithstanding that the averages reflect the overnight SOFR rates from the prior interest period.

An “in arrears” structure would reference an average of SOFR over the current interest period:

Reflects what actually happens to interest rates over the given period.

The eventual rate becomes increasingly certain as the end of each period approaches and most of the SOFR observations are known.

Provides very little notice before payment is due.

A number of conventions have been designed to allow for a longer notice of payment within the “in arrears” framework, including payment delays, lookbacks and lockouts.



Amy
Wait and See

AMENDMENT APPROACH: “WAIT AND SEE”

- This approach was very popular in 2019.
- The borrower and agent select the Benchmark Replacement and the Benchmark Replacement Adjustment after giving due consideration to
 - (i) any rate and adjustment selected by the ARRC or another Relevant Governmental Body or
 - (ii) any "evolving or then-prevailing market convention" for syndicated loans.

Amy

AMENDMENT APPROACH: “WAIT AND SEE”

- The rates elected by the borrower and agent become effective
 - upon negative consent of the Required Lenders upon a Benchmark Transition Event, and
 - upon affirmative consent of the Required Lenders upon an Early Opt-In Election.

Amy

AMENDMENT APPROACH NO LONGER RECOMMENDED

- In 2020, the ARRC eliminated the amendment approach from its recommended language
- According to the LSTA, the market was reluctant to use the hardwired approach because after Term SOFR came SOFR Compounded in Arrears. This rate is difficult to use for loans because of the frequency of prepayment and how they trade. *LSTA News, Huzzah! Hardwireds are Here, September 22, 2020*
- The ARRC thereafter replaced Compounded SOFR with Daily Simple SOFR as the fallback if Term SOFR is unavailable
- Given the simpler calculations of Daily Simple SOFR, we now see more hardwired implementation

Amy



Neal

The Federal Reserve, OCC and FDIC have advised that new contracts entered into prior to December 31, 2021 should either use a reference rate other than LIBOR or include effective fallback language with a clearly-defined alternate benchmark rate effective upon the discontinuation of LIBOR.

Under the ARRC's Amendment Approach, the Benchmark Transition Event triggers permissive language allowing the parties to amend the applicable credit agreement at a later date to reflect the transition from LIBOR to an alternate benchmark rate, based on recommendations of relevant government authorities or prevailing market conditions.

Under the ARRC's Hardwired Approach, the Benchmark Transition Event does not trigger an immediate transition away from LIBOR to the relevant hardwired waterfall rate. Rather, the Benchmark Transition Event sets the date upon which such trigger will take place (either December 31, 2021 or June 30, 2023, depending on the applicable LIBOR tenor, subject to the use of the Early Opt-in Election).

The ARRC has recommended that the Amendment Approach be discontinued in favor of the Hardwired Approach, noting that the Hardwired Approach is operationally easier to implement at the time of a transition and offers certainty as to the successor rate (i.e., a version of SOFR).

Although the Hardwired Approach has become increasingly common, a number of market participants continue to use the Amendment Approach, citing:

Desire to retain flexibility;

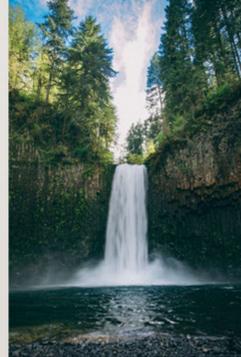
Potential issues with the Hardwired Approach, such as:

Lack of a flip-forward to Term SOFR (more on this later) and

Market conventions for the administration of SOFR loans have yet to be developed.

THE WATERFALLS

- In all cases, recommended **Benchmark Replacement** is some form of SOFR plus adjustment
- Fallback language has a list of recommended alternatives
- If the 1st choice is unavailable, use the 2nd choice, then 3rd



Neal

The ARRC's Hardwired Approach includes a list or "waterfall" of recommended alternate benchmark rates for LIBOR.

In all cases, however, the ARRC's recommended alternate benchmark rate is some form of SOFR plus a spread adjustment.

If the first choice is unavailable, you proceed to the second choice.

BENCHMARK REPLACEMENT: STEP ONE

- 1st recommendation is always Term SOFR
 - Term-SOFR is a forward-looking term rate based on SOFR, currently under development by the Federal Reserve Bank of New York
 - It is unclear when Term SOFR will be available for any or all tenors

Neal

The first recommendation in the waterfall is always Term SOFR, which does not exist as of today, plus the applicable spread adjustment.

BENCHMARK REPLACEMENT: STEP TWO

- 2nd recommendation is Daily Simple SOFR or Compounded SOFR, depending on product type
 - Bilateral & syndicated loans: Daily Simple SOFR (although Compounded SOFR is also an available alternative)
 - Securitizations: Compounded SOFR

Neal

The second recommendation in the waterfall is Daily Simple SOFR or Compounded SOFR (depending on product type), which do exist today, plus the applicable spread adjustment.

FULL VIEW OF WATERFALL

- ARRC has recommended waterfalls for fallbacks for various business products, essentially:
 - Term SOFR – does not exist today
 - Simple or Compounded SOFR
 - Selected Rate (if no ARRC- or ISDA-recommended rates)
 - For Bilateral Business Loans, selected by Lender
 - For Syndicated Loans, selected by Borrower and Administrative Agent
 - For Floating Rate Notes and Securitizations, selected by “Governmental Body”
- For Consumer ARMs, ARRC recommended rate or (if none) rate selected by Lender

Neal

The actual benchmark replacement rate will depend on what is available as of the applicable Benchmark Replacement Date (or the effective date of an Early Opt-in Election):

First alternative is always Term SOFR.

Term SOFR is a forward-looking term rate based on SOFR, currently under development by the FRBNY.

It is unclear when Term SOFR will be available for any of the tenors.

Second alternative is Daily Simple SOFR or Compounded SOFR.

If the second alternative were to become unavailable, then an alternate benchmark rate plus a spread adjustment would be selected by the lender (bilateral loans) or the borrower and the administrative agent (syndicated loans), giving due consideration to:

Any selection or recommendation by the Relevant Governmental Body (i.e., the Federal Reserve or the FRBNY) or

Any evolving or then-prevailing market convention.

Currently, the Hardwired Approach does not include a mechanism to subsequently “flip forward” to Term SOFR if it subsequently becomes available (some market participants have independently added this mechanism).

BILATERAL V SYNDICATED RECOMMENDATIONS

- Decision-making:
 - Bilateral choices made by Lender
 - Syndicated choices made by Administrative Agent (sometimes with consent of Lenders)
- Early Opt-In Election:
 - Determination by Lender or Administrative Agent that a specified number of new or amended syndicated or bilateral loan facilities exist that reference a SOFR-based rate
 - For bilateral: Election by the Lender to trigger Early Opt-In (with borrower objection right)
 - For syndicated: Joint election by the Administrative Agent and the Borrower to trigger Early Opt-In

Neal

Alternate Benchmark Rate:

Bilateral loans – decisions made by the lender (but the borrower may object)

Syndicated loans – decisions made by the borrower and/or the administrative agent (but the required lenders may object)

Early Opt-in Election:

Determination by the lender (bilateral loans) or the administrative agent or the required lenders (syndicated loans) that new or amended syndicated or bilateral loan facilities exist that reference an alternate benchmark rate.

Bilateral loans – the lender elects to exercise the early opt-in (but the borrower may object)

Syndicated loans – the administrative agent and the borrower jointly elect to exercise the early opt-in (but the required lenders must consent/may object)



Amy

<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/arrc-supplemental-hardwired-recommendation>

UPDATES HARDWIRED LANGUAGE

- Not intended to deviate from prior language substantively; just simplified
- Because of March 5th announcements, concise verbiage says transition is earlier of (a) date certain or (b) early opt-in
- Defined terms cleaned up
- For a stated tenor (payment period), the spread adjustment can be stated (in numbers)

Amy



Amy

KEY CONCERN: LEGACY CONTRACTS

- Easy (in theory) for Bilateral Contracts to be amended by now to include hardwired fallback language



- What about securities and securitizations?
 - Often cannot obtain investor “consent”
 - Fannie Mae and Freddie Mac have announced their transition
 - Other Trustees are risk-averse

Amy

COMMON LANGUAGE IN TOUGH LEGACY CONTRACTS

Generalized FRN interest rate fallback waterfall	Impact of a permanent cessation of LIBOR
<ol style="list-style-type: none">1. The interest rate is LIBOR + a spread (e.g. 3-month LIBOR + 2%).2. If LIBOR is not available, the administrator is directed to poll U.S. or U.K. (or both) banks for what LIBOR is.3. If that poll is not successful, the rate shall be the last known LIBOR value.	<ul style="list-style-type: none">• LIBOR will not be available - go to step 2• It is not expected that banks will respond to requests for LIBOR quotes when LIBOR is no longer published. Go to step 3.• This is the likely outcome. This means that floating rate bonds will permanently become fixed-rate instruments.

Amy

TAX RISKS

- The LIBOR phase-out poses unique tax risks to borrowers that are 501 (c)(3) corporations.
- Under certain circumstances, 501 (c)(3) corporations may borrow the proceeds of tax-exempt municipal bonds issued by a quasi-public corporation.
- If the bonds bear interest at a LIBOR-based rate, then the LIBOR phase-out and resulting amendments to the applicable credit agreements may subject the borrower to reissuance risk and the possible termination of a qualified hedge.
- On October 9, 2019, the Internal Revenue Service (“IRS”) published proposed regulations (which may be relied upon prior to the release of the final regulations) that would allow 501 (c)(3) corporations to amend their outstanding tax-exempt financial obligations in order to replace LIBOR with an alternate reference rate without triggering such tax issues; provided, that the amendments satisfy certain conditions.

- Proposed Treasury Regulation Section 1.1001-6 generally provides that if the terms of a debt instrument or non-debt contract are altered or modified to replace, or provide or alter a fallback to, an IBOR-referencing rate with a “qualified rate,” such alteration or modification (and any “associated” alternations or modifications, such as the addition of an obligation for a party to make a one-time payment to offset the change in value of a debt instrument resulting from the replacement of the IBOR-referencing rate) will not result in recognition of income, gain, deduction or loss to any party thereto

under Section 1001 of the Internal Revenue Code.

- A “qualified rate” generally includes, but is not limited to, a rate based on SOFR, provided the fair market value of the debt instrument or non-debt contract after the alteration or modification is substantially equivalent to its fair market value prior thereto.
- In determining “fair market value” for this purpose, the parties may use any reasonable, consistently applied method, taking into account the value of any one-time payment as described above.
- Pending release of the final regulations, the IRS also issued Revenue Procedure 2020-44 (“Rev. Proc. 2020-44”) on October 9, 2020.
- Under Rev. Proc. 2020-44, the IRS has endorsed certain amendments to financial obligations that incorporate fallback language recommended by the ARRC and ISDA.

DISCLOSURE RISKS

- Borrowers that are 501(c)(3) corporations should confirm their disclosure obligations with respect to the LIBOR transition.
- Pursuant to the Securities and Exchange Commission's Rule 15c2-12, an underwriter may not sell municipal bonds without determining that the issuer or the "obligated person" (i.e., the 501(c)(3) corporation that borrows the proceeds of the bonds) has entered into a written continuing disclosure agreement to disclose certain matters to the bondholders on an ongoing basis.
- Pursuant to continuing disclosure agreements entered into after February 27, 2019, such borrowers are required to file a notice with the MSRB's EMMA system of:
 - The incurrence of material financial obligations or
 - Material amendments to outstanding financial obligations, if such amendments are determined to affect existing bondholders.

- As a preliminary matter, such borrowers should review their continuing disclosure policies and procedures, particularly the standard for assessing materiality of a financial obligation or related amendment.
- Then, the borrower should work with its counsel and financial advisor to confirm the specific process for:
 - Evaluating LIBOR-related amendments to its financing agreements against this standard and
 - Ensuring the filing of any required notices within the necessary timeframe.
- For outstanding financial obligations that already contain effective fallback language, such that no amendment to the underlying agreements is necessary, borrowers may consider whether a voluntary disclosure regarding the change in the benchmark rate is appropriate.
- As a general matter, the SEC encourages borrowers to provide bondholders with forward-looking information regarding the impact of the LIBOR phase-out on their outstanding municipal securities, derivatives positions, hedging strategies,

investments and other contracts, as well as their overall financial and operating conditions.

DISCLOSURE RISKS CONT.

- The borrower would be required to file the notice within ten business days of the effective date of the financial obligation or amendment.
- Amending the credit agreements underlying the borrower's financial obligations to add or change interest rate fallback language could trigger this filing requirement.

NY LEGISLATIVE FIX

- Greatest risk: Legacy contracts without fallback
- NY Legislation:
 - prohibits parties from refusing to perform or declaring a breach of contract when LIBOR disappears
 - establishes that SOFR with 5-year median spread is a “commercially reasonable” substitute for LIBOR
 - provides a safe harbor from litigation for the use of SOFR with 5-year median spread

Amy

NY STATUTORY RELIEF

- Applies ARRC-recommended SOFR rate + adjustment to LIBOR contracts governed by NY law across all asset classes as follows:
 - Contracts silent on LIBOR fallback – mandatory replacement
 - Contracts with LIBOR-based fallbacks (i.e., polling banks for LIBOR rates or using last known LIBOR) – mandatory replacement
 - Discretionary contracts – permissive replacement
 - Gives calculation/administrative agent a safe harbor for choosing statutory replacement



Amy

U.S. CONSTITUTIONAL CHALLENGES

- “[n]o state shall ... pass any ... Law impairing the Obligation of Contracts”
- If a contract is impaired by a law, courts consider if impairment is
 - “reasonable” and
 - in pursuit of “a significant and legitimate public purpose”?
 - Courts generally defer to legislatures if no obvious and more moderate alternative measure is available
 - We believe the proposed legislation is likely to survive.

Amy

Contracts clause U.S. Const. art. I, §10, cl. 1.

Courts consider two things. First is (1) Does the law substantially impair a contractual relationship?

NY STATE CONSTITUTION CHALLENGES

- New York Constitution vests “legislative power” in the Senate and Assembly.
 - Delegation by the legislature requires “reasonable safeguards and standards.”
- NY legislation delegates selection of fallback rates to a “Relevant Recommending Body”: ARRC, the Federal Reserve Board or FRBNY
 - New Deal-era cases suggest federal agencies and private bodies cannot be given the power to make or enforce laws.
 - However, the Relevant Recommending Bodies merely set standards under the proposed legislation, not the same as making or enforcing law.

Amy
N.Y. Const. art. III, §1,

TRUST INDENTURE ACT CHALLENGE

- Trust Indenture Act, section 316, provides that:
 - “[T]he right of any holder of any indenture security to receive payment of the ... interest on such indenture security, ... or to institute suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of such holder ...”
 - Replacement of LIBOR likely “impair[s]” or “affect[s]” some holders’ right to interest.

Amy

E.g., Bluebird Partners, LP v. First Fid. Bank, N.A., 297 A.D.2d 223 (1st Dep’t 2002).

PROPOSED FEDERAL LEGISLATION

- Based upon language in NY statute
- Can address all contracts governed by any state or federal law
- Can preempt the Trust Indenture Act provision
- Can ensure no adverse tax consequences

Amy

WHAT SHOULD YOU DO?



- Talk to your clients
- For new contracts, the ARRC waterfall can be included
- Does the client want to use a credit sensitive rate?
- For legacy contracts, clients should determine the scope of the problem and seek solutions sooner rather than later

Amy

RECOMMENDED ARRC READING-- UPDATE

- Updated supplemental recommended loan fallback language:

<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/arrc-supplemental-hardwired-recommendation>

- Best practices chart:

<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC-factsheet.pdf>

- Best practices summary:

<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC-Best-Practices.pdf>

- Practical implementation checklist:

<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/ARRC-SOFR-Checklist-20190919.pdf>

- For more on the ARRC:

<https://www.newyorkfed.org/arrc>



Amy

FINDING & USING SOFR

- Daily Rates:

<https://apps.newyorkfed.org/markets/autorates/SOFR>

- SOFR Averages and Index:

<https://apps.newyorkfed.org/markets/autorates/sofr-avg-ind>

- SOFR Starter Kit:

https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2020/ARRC_Factsheet_1.pdf

- Statement on Use of the SOFR Index for Floating Rate Notes:

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

- SOFR Floating Rate Notes Conventions Matrix:

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

Amy

CLIENT ALERTS AND BLOGS

- <https://www.huntonak.com/en/insights/finally-libors-end-is-certain-are-you-ready.html>
- <https://www.huntonak.com/en/insights/new-york-enacts-libor-fix.html>
- <https://www.huntonak.com/images/content/6/7/v2/67021/leading-libor-transition.pdf>
- <https://www.huntonak.com/en/insights/looking-beyond-libor-observations-on-interest-provisions-in-risk-free-rate-based-facility-agreements.html>
- <https://www.huntonak.com/images/content/6/9/v2/69211/transition-from-libor-uk-tax-impacts-industry-reaction.pdf>
- <https://www.huntonak.com/en/insights/will-congress-save-us-from-going-over-the-libor-cliff.html>
- <https://www.huntonak.com/images/content/6/7/v2/67118/arrc-announces-best-practices-for-libor-transition.pdf>

Amy

Maybe provide these as materials instead of providing links?

ANY QUESTIONS?



Neal

CONTACT INFORMATION



Amy McDaniel Williams
Partner, Hunton Andrews Kurth LLP
awilliams@huntonak.com
(804) 788-7388



Neal Pandozzi
Senior Counsel, Adler Pollock &
Sheehan P.C.
npandozzi@apslaw.com
(401) 274-7200

Amy