LIBOR – are you ready?

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Presentation overview

- Introduction
- A look at the RFRs: how can they be referenced in loan agreements?
- Documenting a new RFR loan
- Developments in fallback language
- What to expect in the next twelve months

What does the official sector say?

In 2014, regulators initiated a global workstream to transition away from LIBOR. Working through the Financial Stability Board, these regulators include the Federal Reserve, Commodity Futures Trading Commission, Bank of England, and European Central Bank. ***The Official Sector is increasingly stressing the need to transition now.***

"The sterling RFR Working Group has set a **target of Q3 2020 to stop new lending using [sterling] LIBOR**.

- Edwin Schooling Latter, *Director of Markets and Wholesale Policy, Financial Conduct Authority*[1]"

"**Don't wait for term rates** to get your house in order…This is a problem you have the opportunity to get ahead of now.

- John C. Williams, *President and CEO, Federal Reserve Bank of New York*[2]"

"We do **expect panel bank departures from the LIBOR panels at end-2021**. That is why we keep stressing that the **base case assumption for firms' planning should be no LIBOR publication after end-2021**.

- Andrew Bailey, *CEO, Financial Conduct Authority*[3]"

"I believe that the ARRC has chosen the most viable path forward and that most will benefit from following it, but regardless of how you choose to transition, **beginning that transition now** would be consistent with **prudent risk management and the duty that you owe to your shareholders and clients**."

– Randal K. Quarles, *Vice Chair for Supervision, Federal Reserve Board of Governors*[4]"

"Some say only two things in life are **guaranteed**: death and taxes. But I say there are actually three: **death, taxes, and the end of LIBOR**.

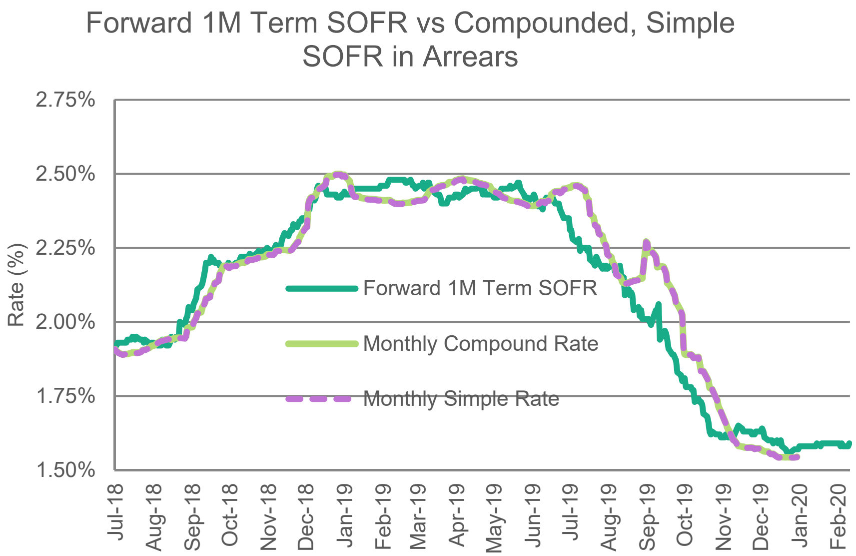
- John C. Williams, *President and CEO, Federal Reserve Bank of New York*[5]"

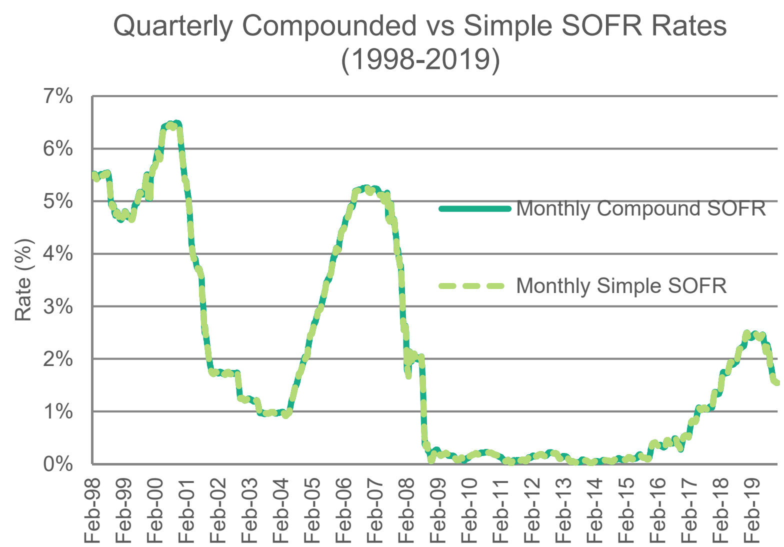
[1] Source: https://www.fca.org.uk/news/speeches/next-steps-transition-libor
[2] Source: https://www.newyorkfed.org/newsevents/speeches/2019/wil190715
[3] Source: https://www.fca.org.uk/news/speeches/libor-preparing-end
[4] Source: https://www.federalreserve.gov/newsevents/speech/quarles20190603a.htm
[5] Source: https://www.newyorkfed.org/newsevents/speeches/2019/wil190923

A look at SOFR variants

- **Daily RFR** – the daily rate published by the rate administrator (in most cases, on the next business day).
- **Term RFR** – a forward-looking term RFR, analogous to LIBOR, that would be quoted for 1, 3 and 6-month periods. This rate does not currently exist. A forward-looking term RFR could be developed based on sufficient RFR OIS / futures trading.
- **Compounded RFR in Advance** – a rate that is compounded *before* the interest period begins. For example, for a 30-day period beginning on May 1st, daily RFRs would be compounded April 1st-30th to determine the applicable rate.
- **Compounded RFR in Arrears** – a rate that is compounded *during* the interest period. For example, for a 30-day period beginning on May 1st, daily RFRs would be compounded from May 1st-30th.
- **Simple RFR in Arrears** – a rate that is accrued during the interest period. For example, for a 30-day period beginning on May 1st, daily RFRs would be pulled May 1st-30th.

SOFR: forward-looking v daily simple v compounded





Source: FRBNY, LSTA

- Forward Looking Term SOFR is the expectation of where the market expects Compounded SOFR to be – so they are similar
- Likewise, Simple SOFR in Arrears and Compounded SOFR in Arrears are very similar (*through multiple interest rate environments*)
- Thus, there may not be not a strong *economic* argument to use Forward Looking Term SOFR, Simple SOFR or Compounded SOFR

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EMEA: forward-looking v daily simple v compounded

- FCA LIBOR Conduct Risk Q&A: "*The view of the RFR Working Group is that SONIA, compounded in arrears, will and should become the industry standard in most parts of the bilateral and syndicated loan markets*"

- SONIA conventions paper and statement:
  - The compounded rate of interest more accurately reflects the time value of money than a simple average
  - Respondents expressed a preference for use of a compounded rate given alignment with the established market practice for sterling FRNs and derivatives (preferable for hedging purposes)
  - Compounding and simple averaging will not generate the same result
  - End user demand for compounded in arrears

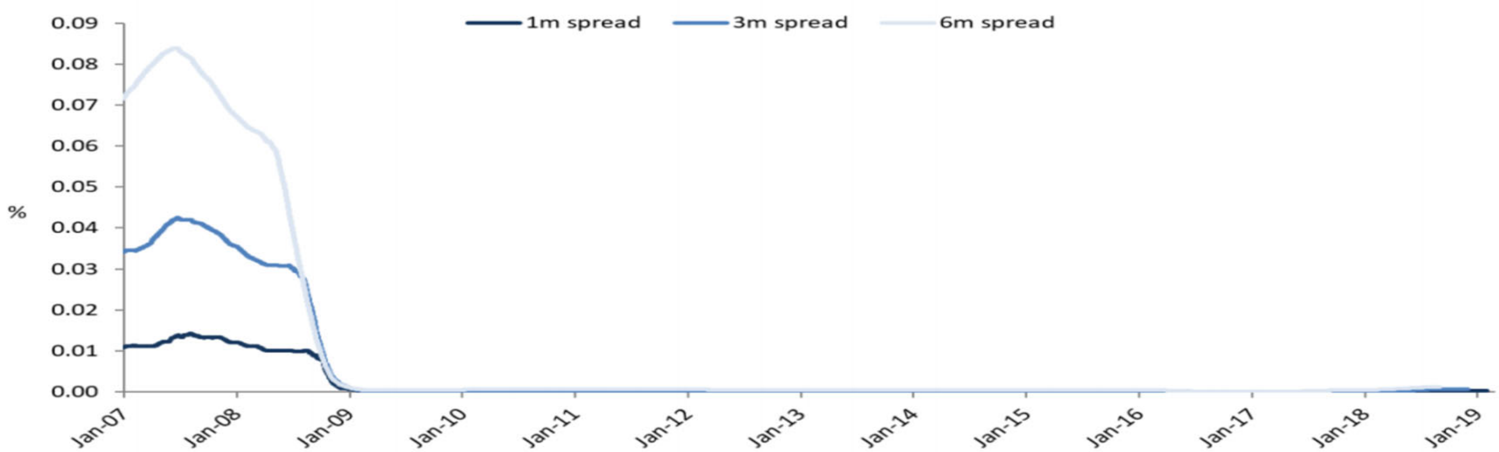
- Proposed Bank of England Index will be (and published FRBNY Index is) based on compounding

- Euro and Swiss WG's: Focus on compounding
  - Euro WG considering issues around civil law restrictions on compounding

EMEA: forward-looking v daily simple v compounded

– Whilst the spread between the two has been very narrow since 2009, it has been wider during higher and more volatile interest rate environments historically. This effect is more pronounced at longer terms – the 6m simple average vs compounded spread reached a peak above 8bps in 2007 at the height of the last interest rate rising cycle:

Figure 3: Spreads between compounded and simple average SONIA



Source: Bank of England website, Bank of England calculations, and Bloomberg data.

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A look at “in arrears” conventions

- To **implement an RFR “in arrears” certain conventions will be needed**, e.g. treatment of weekends and holidays, timing conventions (e.g. 1 month vs. 30 days), rounding, etc.
- One of the most important conventions is that which will **allow parties to know the amount of interest due before the payment date**.
  - **[Two]-business day lookback or lag**: The period over which the RFR is observed is *“backward-shifted”* [two] business days.
  - **[Two]-business day lookback/lag with observation shift**: The period over which the RFR is observed is *“backward-shifted”* [two] business days and this backshift applies to both the ***rate*** and the ***weighting*** of that rate in the compounding formula.
  - **[Two]-business day lockout or suspension**: One of the RFR rates is “suspended” meaning that it is repeated for [two] business days at the end of each interest period.
  - **[Two]-business day payment delay**: Payment is due [two] business days after each interest period concludes.
- **RFR Index**: An index would allow parties to **calculate the compounded RFR over custom time periods**. You would only need to know the RFR index for the start date and the end date and input those values into a simple formula. Length of lag/lookback can therefore be variable.
  - Federal Reserve Bank of New York began publishing a SOFR Index on March 2, 2020.
  - Bank of England announced their intention to publish a daily SONIA index by end July
  - Other jurisdictions may follow…

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The LSTA's SOFR concept credit agreements

- The LSTA has circulated to members a **draft "concept credit agreement" for a term loan** referencing **compounded SOFR in arrears**. A **simple SOFR in arrears** version is now **in committee**.
- Notable elements in the draft:
  - "Compound SOFR" plus Applicable Margin **(no spread adjustment)**
  - Includes a **SOFR floor** – on the daily SOFR rate
- Compounding conventions:
  - **Sets forth a compounding methodology/formula** akin to the ARRC and ISDA formulas
  - Uses a **lookback with observation shift**
  - Includes in a footnote the **potential use of a SOFR index** (which New York Fed started publishing on March 2, 2020)
- In the event of a prepayment, **accrued interest must be paid together with the principal prepayment**
- Break Funding: Until more is known about lenders' cost of funds, a **bracketed compensation for losses provision is included**
- Fallbacks: A **modified version** of the ARRC's **amendment approach**
- *Proposal*: Per member feedback, includes a future transition to a **Term SOFR if one exists and available for use in loans**.

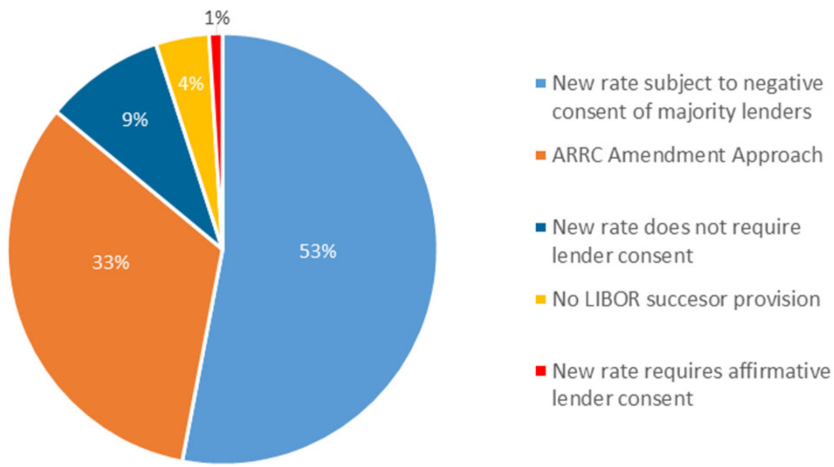
The LMA's RFR Exposure Drafts

- In September 2019, the LMA published two exposure draft facility agreements: **(i) SONIA based sterling term and revolving facilities agreement; and (ii) SOFR based dollar term and revolving facilities**
- Draft multicurrency facility agreement currently out for comments from LMA LIBOR Working Party
- Notable elements in the draft:
  - "Compound RFR" plus Margin [plus Adjustment Spread]
- Compounding conventions:
  - **Does not set out a compounding formula** given ongoing discussions re conventions
  - Uses a **lookback with observation shift**
  - Based on use of a screen rate – to be updated to reflect **potential use of an index**
- **Break costs**: Option included for consideration (may be appropriate based on bank funding)
- **Fallbacks**: central bank rate and option for ultimate fallback to cost of funds
- ***Member note in February 2020:*** Outlined areas where clarity is needed in order for the LMA to publish the Exposure Drafts as recommended forms

- In October 2019, the LMA published an exposure draft Reference Rate Selection Agreement for use in legacy transactions moving to RFRs

Fallback language: what is US market practice now?

Survey of LIBOR Fallback Provision in 132 New Origination and Amended Institutional Loans (October 1, 2019 – December 31, 2019)



Source: Covenant Review, a Fitch Solutions Service

- *The good news* – LIBOR replacement language was included in every transaction where possible.*
- The ARRC's "amendment approach" recommended language was observed in 33% of the surveyed deals…
- 15 of those deals included a separate prong that allows agents and borrowers to implement a SOFR-based rate without lender consent.
- 86% of all surveyed deals include negative consent for Required Lenders.
- No hardwired fallback language has made its way into the market - yet.

** Five amended transactions were originally executed prior to June 2017 and involved amendments that did not require unanimous lender consent.*

Fallback language: practice in EMEA

- Use of LMA revised replacement of screen rate language, akin to amendment approach except positive consent required

- Amendment plus approach v hardwired fallbacks

- Switch mechanisms, akin to Shell deal

- LMA LIBOR Working Party considering approaches to fallbacks and how to document hardwired fallbacks / switch mechanisms

- NB: Results of consultations on spread adjustments awaited

Amendment fallbacks may introduce execution and market risk

- *Optionality*
  - **Amendment Approach** – **Maintains optionality for borrower** to select and lenders to reject replacement rate
  - **Hardwired Approach** – **Optionality is reduced because rate waterfall is selected** at loan origination
- *Executability*
  - **Amendment Approach** – Executing **thousands of amendments in short time period will be difficult**
  - **Hardwired Approach** – Fallback language that does not need lender consent will be easier to execute in short time period; all **parties would have already agreed to the terms**
- *Economics & Market Impact*
  - **Amendment Approach** – **Not clear what post-transition economics will be** because stronger borrowers may push for aggressive terms while weaker borrowers may be at mercy of lenders. Because economics are unclear, amendment approach loans/CLOs may trade down in secondary due to uncertainty
  - **Hardwired Approach** – Because the replacement rate terms (RFR+spread adjustment) are determined upfront, economics at transition can be modeled; this **provides more certainty in pricing and secondary market**

What could hardwired language look like?

- Amendment approach may not be operationally feasible on a large scale.
- Respondents to the ARRC's fallback consultation identified that fact, plus the security of having predetermined terms, as reasons why a **hardwired approach is ultimately the right one for loans as well**.
- **Floating rate notes and collateralized loan obligations in the US have adopted hardwired fallback language.**

ARRC Fallback Recommendation - Upon a trigger event, a successor rate is determined in accordance with the specified rate and spread adjustment waterfalls:

Step 1: Term SOFR + Adjustment
"Term SOFR" is a forward-looking term SOFR endorsed by the Relevant Governmental Body

Step 2: Compounded SOFR + Adjustment
"Compounded SOFR" is a compounded average of daily SOFR rates during an interest period
*Simple SOFR could replace this step (as noted in the ARRC release)

Step 3: Streamlined Amendment Approach + Adjustment
Borrower and Administrative Agent select an alternate rate of interest giving due consideration to a recommendation by the ARRC or evolving or then-prevailing market convention for USD-denominated syndicated loans

Step 1: Relevant Governmental Body Selected Adjustment
The ARRC has stipulated that it will recommend a spread adjustment for use in fallbacks for cash products

Step 2: ISDA Fallback Adjustment
ISDA is finalizing a spread adjustment based on the historical difference between LIBOR and compounded SOFR in arrears. The final market consultation has just closed. Targeted to be published by Bloomberg on an indicative basis during 1H20.

Streamlined Amendment Adjustment
Similar to the "Amendment Approach", *i.e.*, selected by the Borrower and Administrative Agent giving due consideration to an ARRC recommendation or evolving or then-prevailing market convention for USD-denominated syndicated loans

Transition timeline: What needs to happen when…?

- 1Q20 – ARRC launched SOFR Index and official Compound Averages
- 1Q20 – BoE launched consultation on SONIA index and compounded averages
- **1H20 – Agreement on conventions and operationalization clarity from loan vendors and TMS providers (to be supported by pilot transactions)**
- **1H20– ISDA targeted launch date of LIBOR Fallback Indicative Spread Adjustments**
- 1H20 – LSTA to finalize SOFR "Concept Credit Agreements"
- 3Q20 – BoE to publish SONIA Index
- **3Q20 – Targeted date for ceasing issuance of cash products referencing sterling LIBOR**
- 3Q20 – SONIA forward-looking term rate expected to be available
- 2H20 – Hardwired fallbacks emerge in SOFR loans?
- 2H20 – LSTA to publish form of amendment to transition a loan from LIBOR to SOFR
- **1Q21 – Targeted date for significant reduction of legacy sterling LIBOR referencing contracts**

KEY MESSAGE: 2020 is a critical year for loan market transition. Take action now!

Questions?

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