Frequently Asked Questions:
Preparing for SOFR in 2022

In 2017, the Alternative Reference Rates Committee (ARRC) designated the Secured Overnight Financing Rate ("SOFR") as the alternative index for U.S. dollar LIBOR.

1. **What is SOFR?**
   SOFR is a nearly risk-free reference rate that is completely based on actual transactions. It is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. SOFR covers the most volume of transactions of any rate based on the U.S. Treasury repurchase agreement (repo) market. It is based on transaction data from three segments of the Treasury repo market: (i) tri-party repo, (ii) General Collateral Finance (GCF) repo, and (iii) bilateral repo transactions cleared through the Fixed Income Clearing Corporation (FICC). As a good representation of conditions in the overnight Treasury repo market (over $700 billion transacted daily), SOFR reflects the economic cost of lending and borrowing by the wide array of market participants active in the market.

2. **What are the characteristics that make SOFR safer and less vulnerable to manipulation than LIBOR?**
   - Is based on an active underlying market with a diverse set of borrowers and lenders;
   - Is based entirely on transactions (not estimates);
   - Is produced in compliance with international best practices;
   - Covers multiple market segments, ensuring robust transaction volumes in a wide range of market conditions.

   For more details on how SOFR works, background on the Repo Market and its participants, and key transaction volume numbers, the **ARRC: SOFR Starter Kit Part II** is a good resource.

3. **Are there Term SOFRs?**
   No. SOFR is currently only a daily/overnight rate with published retrospective averages for 30, 90 and 180 day periods. The ARRC recommends not waiting for term rates to be available in order to use SOFR for new loans.

4. **How are the SOFR averages calculated?**
   In March of 2020, in cooperation with the Treasury Department's Office of Financial Research (OFR), began publishing 30-day, 90-day, and 180-day SOFR Averages

On any day that is not a business day, simple interest applies, at a rate of interest equal to the SOFR value for the preceding business day.

It averages daily compounding on business days, as determined by the SOFR publication calendar. Specifically, the SOFR averages are calculated as:

$$SOFR\ Average = \left[\prod_{i=1}^{d_b}\left(1 + \frac{SOFR_i \times n_i}{360}\right) - 1\right] \times \frac{360}{d_c}$$

Where:

$SOFR_i$ = SOFR applicable on business day i

n_i = number of calendar days for which $SOFR_i$ applies (often 1 day, or 3 days for typical weekend)

d_c = the number of calendar days in the calculation period (that is, 30-, 90-, or 180- calendar days)

d_b = the number of business days in the calculation period

i denotes a series of ordinal numbers representing each business day in the calculation period

According to the ARRC, "*Lenders will face a technical choice between using a simple or compounded average of SOFR as they seek to use SOFR in cash products. A compounded average will more accurately reflect the time value of money, which becomes a more important consideration as interest rates rise, and it can allow for more accurate hedging, which can result in better market functioning*.".

5. **Who publishes SOFR?**
The New York Fed is the administrator of SOFR and produces the rate in cooperation with the Treasury Department's Office of Financial Research (OFR). The New York Fed publishes SOFR on a daily basis on its website at approximately 8:00 a.m. eastern time. Additionally, the New York Fed publishes 30-, 90-, and 180-day SOFR Averages and a SOFR Index to support a successful transition away from USD LIBOR. Information sourced from the ARRC.

6. **How are accrual periods for SOFR determined?**
Users need to determine the period over which the daily SOFRs are averaged. Averaging in advance would reference a SOFR average observed before the current interest period begins, while averaging in arrears would reference a SOFR average over the current interest period.

According to ARRC, SOFR in advance is operationally easier to implement, but SOFR in arrears will reflect movements in rates contemporaneously. An average of SOFR in arrears will reflect what actually happens to interest rates over the period. However, it provides very little notice before payment is due.

There have been a number of conventions designed to allow for a longer notice of payment within the in arrears framework. These include payment delays, lookbacks, and lockouts.

Hedged assets-liabilities should match the conventions in their related derivatives.

7. **Where can I access SOFR rates and further information?**

New non-LIBOR contracts indexed to SOFR: the compounded 30-day, 90-day, and 180- day averages are available here: https://www.pcbb.com/apps/rates

Additional information and FAQs: See the ARRC FAQ (version: April 27, 2021)