

## Questions on SOFR

### **Q: What is SOFR?**

SOFR stands for Secured Overnight Financing Rate. SOFR is a broad measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities in the repurchase agreement (repo) market. SOFR is a compounded overnight rate, whereas LIBOR is a term rate.

### **Q: How is SOFR determined?**

SOFR is published by the Federal Reserve Bank of New York and is a volume-weighted median overnight repo rate comprised of three different repo sectors: (i) tri-party repurchase agreements (repo), (ii) general collateral finance repo, and (iii) bilateral treasury repo transactions cleared through Fixed Income Clearing Corporation.

### **Q: What is the timeline of the transition from LIBOR?**

The below chart is the Alternative Reference Rate Committee's (ARRC's) Recommended Best Practices. These dates were released in May 2020 and are intended to clarify the timelines and interim milestones that the ARRC believes are appropriate for transitioning away from USD LIBOR. In addition to assist with the transition, in 2019, the central counterparty clearing houses (CCPs) LCH and CME Group announced that, effective at the close of business on October 16, 2020, the discounting and price alignment interest for USD-denominated interest rate swaps will transition from Effective Federal Funds Rate (EFFR) to SOFR. The ARRC is continuing to develop materials and recommendations for the transition.

### **The ARRC's Recommended Best Practices**

Product	Hardwired fallbacks incorporated by	Tech/Ops Vendor Readiness	Target for Cessation of New use of USD LIBOR	Anticipated fallback rates to be chosen by
FRNs	6/30/2020	6/30/2020	12/31/2020	6 months prior to reset after LIBOR's end
Business Loans	9/30/2020	9/30/2020	6/30/2021	6 months prior to reset after LIBOR's end
Consumer Loans	Mortgages: 06/30/2020; Student Loans: 09/30/2020	Mortgages: 09/30/2020	Mortgages: 09/30/2020*	In accordance with relevant consumer regulations
Securitizations	6/30/2020	12/31/2020	CLOs: 09/30/2021, Others: 06/30/2021	6 months prior to reset after LIBOR's end
Derivatives	Not later than 4 months after the amendments to ISDA 2006 Definitions are published	Dealers to take steps to provide liquid SOFR derivatives markets to clients	6/30/2021	

*\*The September 30, 2020 date for consumer loans refers to new applications for closed-end residential mortgages using USD LIBOR and maturing after 2021.*

**Q: What are the key differences between LIBOR and SOFR?**

<b>LIBOR</b>	<b>SOFR</b>
<ul style="list-style-type: none"><li>• Unsecured rate.</li><li>• Interbank funding market participants (panel banks).</li><li>• Consensus-based; depends on expert judgements.</li><li>• May be prone to the risk of manipulation.</li><li>• Forward-looking rate with a term structure.</li><li>• Built-in credit component based on credit conditions amongst panel banks.</li><li>• \$500 million underlying transactions.</li><li>• Not durable during stressed market conditions.</li></ul>	<ul style="list-style-type: none"><li>• Secured rate.</li><li>• Broad array of market participants (multiple industries).</li><li>• Fully transaction-based.</li><li>• Not subject to same risks of manipulation.</li><li>• Backward-looking overnight rate.</li><li>• Historical credit adjustment relative to LIBOR needs to be added.</li><li>• \$850 billion underlying daily transactions.</li><li>• Historically durable during stressed market conditions.</li></ul>

**Q: Will SOFR be equivalent to LIBOR?**

Industry groups and market participants are working to develop a spread adjustment, which would attempt to make LIBOR and SOFR more comparable. The adjustment is necessary to account for the bank credit risk premium in various IBORs, which is absent in the ARRAs as they are generally risk-free or nearly risk-free rates. This would be a one-time adjustment; it is meant to apply primarily to legacy LIBOR-based loans that would need to transition to SOFR-based loans around the time of LIBOR discontinuance. There is also considerable work to be done to develop a term structure for SOFR.

For derivatives, the ARRC announced that its recommended spread adjustment methodology will be based on a historical median over a five-year lookback period, calculating the difference between USD LIBOR and SOFR. This aligns with ISDA’s recommended methodology for derivatives and would make the ARRC’s recommended spread-adjusted version of SOFR comparable to USD LIBOR.

For cash products, the ARRC has determined that it will implement its spread methodology recommendations as follows:

- For cash products other than consumer products, the ARRC’s recommended spread adjustment will match the value of ISDA’s spread adjustments to USD LIBOR. Given the special considerations due to consumer products and that the ARRC will include a 1-year transition period as part of its recommended spread adjustments for consumer products, the ARRC will further consider the most appropriate approach to the issue of methodology versus value for these specific products.
- For all cash products, in the event that a pre-cessation event is operative, the ARRC’s recommended 5-year historical median spread adjustments will be determined at the same time as the ISDA’s spread adjustments, which will be at the time of any announcement that LIBOR will or has ceased or will or has become no longer representative.

### **Q. What if the market is reluctant to adopt SOFR (Regulatory or Legislative Solutions)?**

The transition away from LIBOR has been guided by regulators, but if markets are reluctant to accept SOFR, regulators could use a variety of tools to help facilitate its adoption. The IOSCO (International Organization of Securities Commissions) stated that any amendments to legacy trades, due to benchmark reform, would be excluded from the new non-centrally-cleared margin requirements.

Regulators have also begun requesting firms to submit their transition plans and updates. Following the letter that the UK's FCA and UK Prudential Regulation Authority (PRA) wrote to the CEOs of major banks requesting details of the steps taken to manage the transition away IBORs, additional Regulators have written to firms to provide their updates on the transition from LIBOR.

### **Q. How does the NY Fed's involvement in the Treasury repo markets affect SOFR?**

SOFR is a measure of the overnight cost of financing U.S. Treasury securities in the repurchase agreement (repo) market. It includes market data from bilateral trading (trimmed to exclude certain transactions using high-demand "on special" collateral) and the tri-party repo market. The dynamics driving pricing, volatility and risk in the U.S. Treasury repo market are therefore closely aligned with those driving SOFR levels unlike LIBOR. The Fed's Federal Open Market Committee is responsible for periodically setting targets for several key interest rates, enforced through open market operations. Changes to the Fed's reverse repo rate directly impact Treasury repo rates and therefore SOFR. Additionally, other mechanisms employed by the Fed such as Quantitative Easing actions (the unwinding of the Fed's balance sheet) can have an impact on SOFR as it transfers collateral back into capital markets increasing repo rates and thereby SOFR. Finally to alleviate the impact of unique liquidity events the Fed has the ability to add liquidity to the repo market through the use of a standing repo facility to alleviate pronounced volatility in the SOFR rate.

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