

SB-Deal[®] SOFR Bonds

LIBOR Transition Overview

As of January 15, 2021

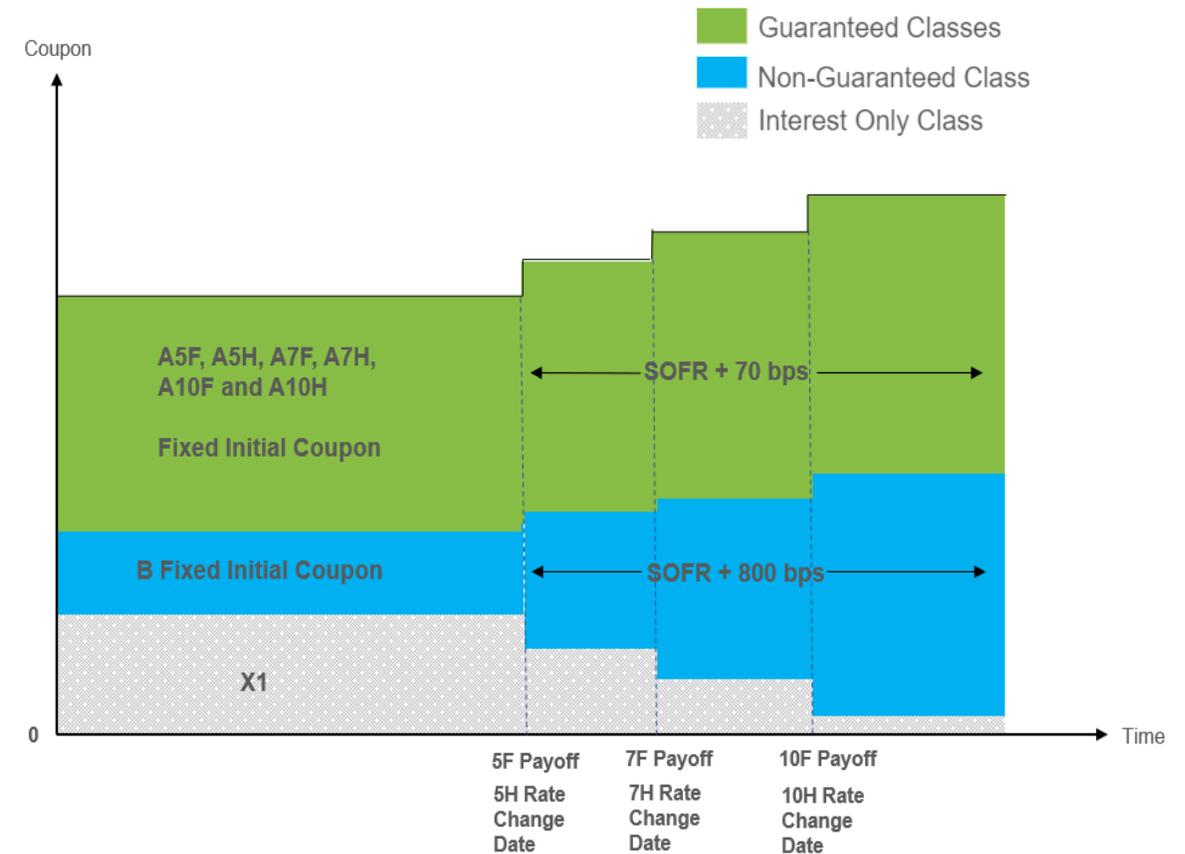
SOFR Bonds Overview

Freddie Mac Multifamily Small Balance Deals (SB-Deals®) expect to offer hybrid bond classes with a coupon indexed to the Secured Overnight Financing Rate (SOFR)

- Freddie Mac Multifamily will begin offering SOFR-indexed bonds (Classes 5H, 7H, 10H, B and X1) commencing with SB83. These SOFR-based bonds will be supported by loans indexed to either a SOFR or LIBOR index.

SB-Deal Rate and Coupon Structure¹

- The pass-through rates on the SOFR-indexed classes vary and are based, as shown in the chart below, on the 30-Day SOFR Average following an initial fixed-rate period and will be subject to capped rates based on the weighted average net mortgage pass-through rate for the related loan group or for the mortgage pool.



¹ Pass-through rates (Coupon) for the fixed-rate A classes pay a fixed coupon. Hybrid classes have a fixed coupon during the initial fixed period and then switch to SOFR + 70 bps. Class B, after a period of receiving a fixed-rate from each group, switches to SOFR + 800 bps. The pass-through rate for the X1 is based on residual cash flow after paying the A's, B and G fee.

SOFR Bond Interest Payment Example

For Distribution Dates occurring on or after the hybrid class Rate Change Date:

- The pass-through rates on the SOFR-indexed classes vary and are based, as shown in the chart below, on the 30-Day SOFR Average following an initial fixed-rate period and will be subject to capped rates based on the weighted average net mortgage pass-through rate for the related loan group or for the mortgage pool.



- Interest income received by the Trust from (i) underlying SOFR-based hybrid loans and (ii) LIBOR-based hybrid loans that have converted to an Alternative Index, which may be SOFR, following the First Change Date (assumed to be 3.00% for illustrative purposes)
- Interest due to SOFR (Classes 5H, 7H, 10H, B or X1) bondholders calculated using SOFR (assumed to be 3.00% for illustrative purposes). Bonds are subject to capped rates per offering documents.

SB-Deal hybrid SOFR-indexed bond offerings follow the conventions for the existing LIBOR bond structure

Determination Date

Similar to LIBOR, the SOFR Determination Date is the business day prior to each bond interest accrual period

SOFR Index

Interest due to SOFR bonds will be calculated based upon the published 30-day SOFR Average

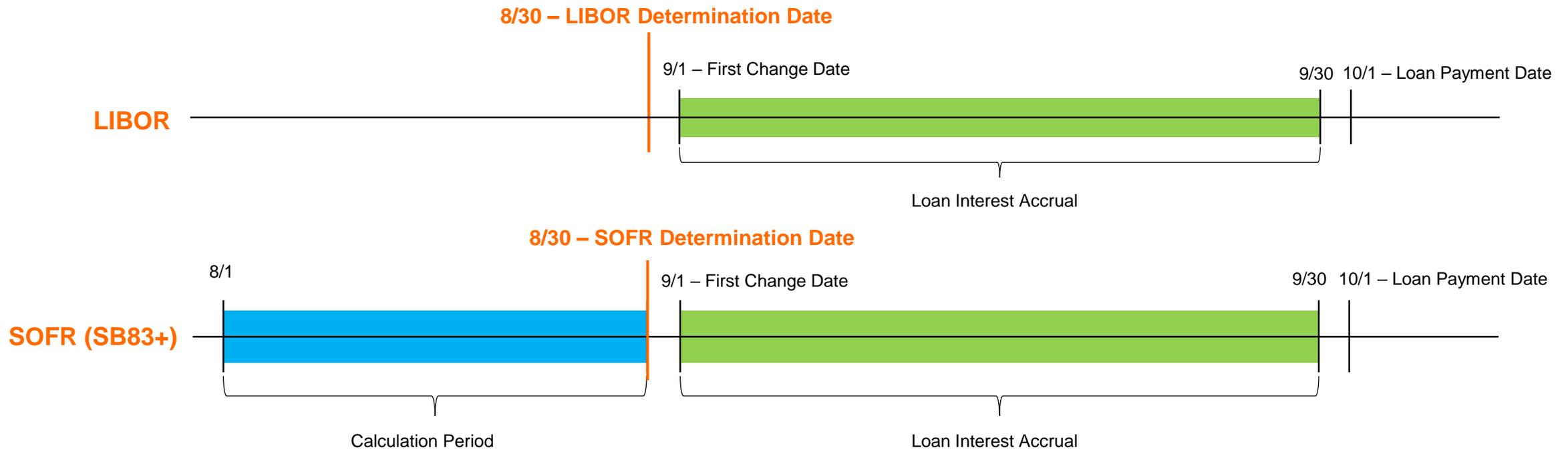
- The applicable 30-day SOFR Average is published on or about 2:30 p.m. (New York City time) on the New York Federal Reserve Bank's website*

Applicable Floor

Applicable index for SOFR-based bonds cannot be less than zero

SOFR Determination

The SOFR Determination Date for SOFR-indexed hybrid loans occurs on the last business day prior to each rate change date. After the First Change Date occurs, subsequent rate change dates are the first day of every sixth month.



Bond Performance Resources at your Fingertips

Securities data and offering circulars can be accessed in our [Multifamily Securities Investor Access](#) tool

Multifamily Securities Investor Access
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Multifamily Securities Investor Access (MSIA) is an online tool that provides investors and analysts with information related to Freddie Mac Multifamily K-Deals, ML-Deals, Q-Deals, SB-Deals, and PC mortgage-backed securities and their underlying collateral. It also provides information about SCR Notes. The available data includes the standard Investor Reporting Package provided monthly by the master servicer and trustee for a given security issuance. For a single deal or a portfolio, this tool provides a combination of standard and custom reporting capabilities.

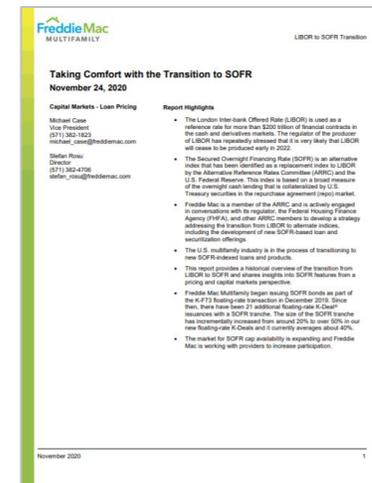
[MSIA Reference Manual](#) PDF

[MSIA Quick Start Tips](#) PDF

LIBOR to SOFR Transition Report

As the multifamily industry shifts to the new index, transparency is important for our Optigo® network of lenders, borrowers and investors. In October 2020, we released a new report to help address the when, why and how of our transition from LIBOR, plus we share insights into new SOFR features from a pricing and capital markets perspective.

[Read the report.](#)



Freddie Mac
MULTIFAMILY

LIBOR to SOFR Transition

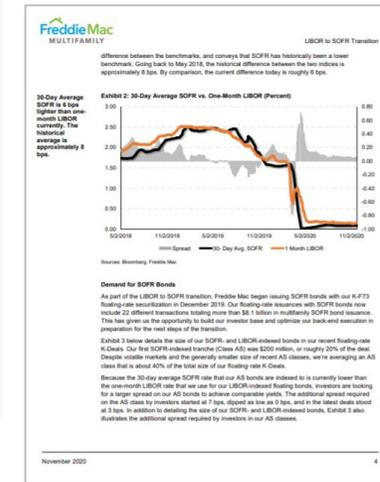
Taking Comfort with the Transition to SOFR
November 24, 2020

Capital Markets - Loan Pricing

Report Highlights

- The London Interbank Offered Rate (LIBOR) is used as a reference rate for more than \$200 billion of financial contracts in the cash and securities markets. The regulator of the producer of LIBOR has repeatedly stressed that it is very likely that LIBOR will cease to be produced early in 2022.
- The Secured Overnight Financing Rate (SOFR) is an alternative index that has been identified as a replacement index to LIBOR by the Alternative Reference Rate Committee (ARRC) and the U.S. Federal Reserve. This index is based on a broad measure of the overnight cash lending that is collateralized by U.S. Treasury securities in the repurchase agreement (repo) market.
- Freddie Mac is a member of the ARRC and is actively engaged in conversations with its regulator, the Federal Housing Finance Agency (FHFA), and other ARRC members to develop a strategy addressing the transition from LIBOR to alternate indices, including the development of new SOFR-based loan and securitization offerings.
- The U.S. multifamily industry is in the process of transitioning to new SOFR-indexed loans and products.
- This report provides a historical overview of the transition from LIBOR to SOFR and shares insights into SOFR features from a pricing and capital markets perspective.
- Freddie Mac Multifamily began issuing SOFR bonds as part of the K-F73 floating-rate transaction in December 2019. Since then, there have been 21 additional floating-rate K-Deal issuances with a SOFR tranche. The size of the SOFR tranche has increased from around 25% to over 25% in our new floating-rate K-Deals and is currently averages about 45%.
- The market for SOFR is expanding rapidly and Freddie Mac is working with providers to increase participation.

November 2020



*The respective master servicers maintain a watchlist for each securitization. Loans are added to and removed from the watchlist in accordance with criteria established by CREFC.

Stay Up to Date on the LIBOR Transition

Additional Resources

Multifamily LIBOR Transition Overview web page

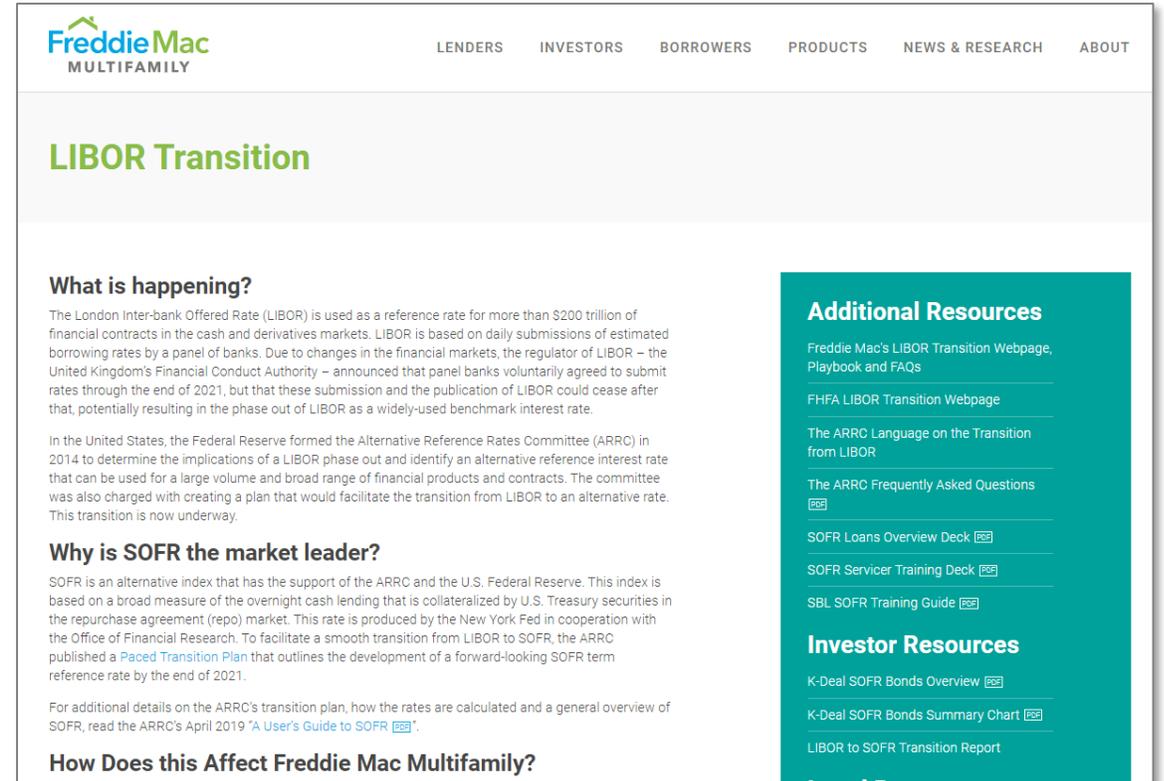
<https://mf.freddie.mac.com/libor/>

LIBOR Transition Playbook

http://www.freddie.mac.com/about/pdf/LIBOR_transition_playbook.pdf

FAQs

http://www.freddie.mac.com/about/pdf/LIBOR_transition_faqs.pdf



The screenshot shows the Freddie Mac Multifamily website page for the LIBOR Transition. The page features a navigation menu with links for LENDERS, INVESTORS, BORROWERS, PRODUCTS, NEWS & RESEARCH, and ABOUT. The main heading is "LIBOR Transition". Below this, there are three sections: "What is happening?", "Why is SOFR the market leader?", and "How Does this Affect Freddie Mac Multifamily?". To the right of these sections is a teal sidebar titled "Additional Resources" which lists various documents and guides available for download.

FreddieMac MULTIFAMILY LENDERS INVESTORS BORROWERS PRODUCTS NEWS & RESEARCH ABOUT

LIBOR Transition

What is happening?

The London Inter-bank Offered Rate (LIBOR) is used as a reference rate for more than \$200 trillion of financial contracts in the cash and derivatives markets. LIBOR is based on daily submissions of estimated borrowing rates by a panel of banks. Due to changes in the financial markets, the regulator of LIBOR – the United Kingdom's Financial Conduct Authority – announced that panel banks voluntarily agreed to submit rates through the end of 2021, but that these submission and the publication of LIBOR could cease after that, potentially resulting in the phase out of LIBOR as a widely-used benchmark interest rate.

In the United States, the Federal Reserve formed the Alternative Reference Rates Committee (ARRC) in 2014 to determine the implications of a LIBOR phase out and identify an alternative reference interest rate that can be used for a large volume and broad range of financial products and contracts. The committee was also charged with creating a plan that would facilitate the transition from LIBOR to an alternative rate. This transition is now underway.

Why is SOFR the market leader?

SOFR is an alternative index that has the support of the ARRC and the U.S. Federal Reserve. This index is based on a broad measure of the overnight cash lending that is collateralized by U.S. Treasury securities in the repurchase agreement (repo) market. This rate is produced by the New York Fed in cooperation with the Office of Financial Research. To facilitate a smooth transition from LIBOR to SOFR, the ARRC published a [Paced Transition Plan](#) that outlines the development of a forward-looking SOFR term reference rate by the end of 2021.

For additional details on the ARRC's transition plan, how the rates are calculated and a general overview of SOFR, read the ARRC's April 2019 ["A User's Guide to SOFR"](#).

How Does this Affect Freddie Mac Multifamily?

Additional Resources

- Freddie Mac's LIBOR Transition Webpage, Playbook and FAQs
- FHFA LIBOR Transition Webpage
- The ARRC Language on the Transition from LIBOR
- The ARRC Frequently Asked Questions
- SOFR Loans Overview Deck
- SOFR Servicer Training Deck
- SBL SOFR Training Guide
- Investor Resources
- K-Deal SOFR Bonds Overview
- K-Deal SOFR Bonds Summary Chart
- LIBOR to SOFR Transition Report

For additional information, please contact mf_cm_investorrelations@freddiemac.com or visit our website at mf.freddiemac.com

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