



Fannie Mae

Freddie Mac



LIBOR Transition Playbook

Multifamily Floating-Rate Loans and Securities and Multifamily Credit Risk Transfer (CRT)

December 2023



Fannie Mae



Legal information and disclaimer

Information in the London Interbank Offered Rate (“LIBOR”) Transition Playbook is preliminary and subject to revision and updates from time to time. This document is an indicative summary of our preliminary analysis regarding the potential upcoming LIBOR transition. This document and the analysis may be amended, superseded or replaced by subsequent summaries or actions. The analyses, preliminary views and opinions expressed herein are based on certain assumptions that also are subject to change. Readers should rely on the information contained in the loan documentation, securities offering documents, operative documents, etc. in order to evaluate the rights and obligations for each such loan or security. As a reminder, Fannie Mae and Freddie Mac (the “GSEs”) are in separate conservatorships and their conservator (“FHFA”) has the authority to direct either or both GSEs to take whatever actions it deems appropriate in respect of any LIBOR transition and product or contract.

Neither GSE guarantees the accuracy or completeness of information that is contained in this document, or that the information is appropriate or useful in any particular context, including the context of any investment decision, and it should not be relied upon as such. No representations or warranties are made as to the reasonableness of the assumptions made within or the accuracy or completeness of any information contained herein. All opinions and estimates are given as of the date hereof and are subject to change and neither GSE assumes any obligation to update this document to reflect any such changes. The information herein is not intended to predict actual results and no assurances are given with respect thereto. No representation is made that any strategy, performance, or result illustrated herein can or will be achieved or duplicated. The effect of factors other than those assumed, including factors not mentioned, considered or foreseen, by themselves or in conjunction with other factors, could produce dramatically different performance or results. Nothing herein will be deemed to constitute investment, legal, tax, financial, accounting or other advice. No part of this document may be duplicated, reproduced, distributed or displayed in public in any manner or by any means without the written permission of Fannie Mae and Freddie Mac.

This playbook does not constitute an offer to sell or the solicitation of an offer to buy securities of either GSE. Nothing in this playbook constitutes advice on the merits of buying or selling a particular investment. Any investment decision as to any purchase of securities referred to herein must be made solely on the basis of information contained in the respective GSE’s applicable offering documents, and no reliance may be placed on the completeness or accuracy of the information contained in this playbook. You should not deal in securities unless you understand their nature and the extent of your exposure to risk. You should be satisfied that they are suitable for you in light of your circumstances and financial position. If you are in any doubt, you should consult an appropriately qualified financial advisor.

Please be aware that the federal Adjustable Interest Rate (LIBOR) Act (the “LIBOR Act”) became law on March 15, 2022. As required by the Act, the Board of Governors of the Federal Reserve System (“Board”) published regulations identifying Board-selected benchmark replacement rates based on the Secured Overnight Financing Rate (“SOFR”) on December 16, 2022. The regulations published by the Board have a significant impact on steps that the GSEs will take in connection with the transition from LIBOR-indexed products to SOFR-indexed products.

The following disclaimer has been provided by London Stock Exchange Group plc (LSEG) and the GSEs take no responsibility for its contents: *FTSE USD IBOR Cash Fallbacks are provided by London Stock*



Fannie Mae™



Exchange Group plc (“LSEG”) and its affiliates. LSEG and its affiliates shall not be liable for any errors or delays in providing or making available the data contained within this service or for any actions taken in reliance on the same. FTSE USD IBOR Cash Fallbacks cannot be used for any commercial purpose (including redistribution) without a license. Please contact LSEG D&A (formerly Refinitiv) if a license is required. FTSE USD IBOR Cash Fallbacks are subject to LSEG’s terms of use and disclaimer available at <https://www.lseg.com/en/ftse-russell/benchmarks/usd-ibor-cash-fallbacks>.



3. Multifamily ARMs (Fannie Mae), Floating-Rate Loans (Freddie Mac), and Securities

3.1 Introduction

On December 22, 2022, the GSEs announced their selection of 30-day compounded Average SOFR (“30-day Average SOFR”) plus a fixed tenor spread adjustment as the benchmark replacement for their LIBOR-indexed MF ARMs, Floating-Rate Loans and securities following the cessation of LIBOR. This decision aligns with the Board-selected benchmark replacements for cash transactions that are FHFA-regulated-entity contracts and is applicable to MF ARMs/Floating-Rate Loans and MBS/PCs/K-Deals for which the GSEs are responsible for selecting the benchmark replacement. The following section will help you understand:

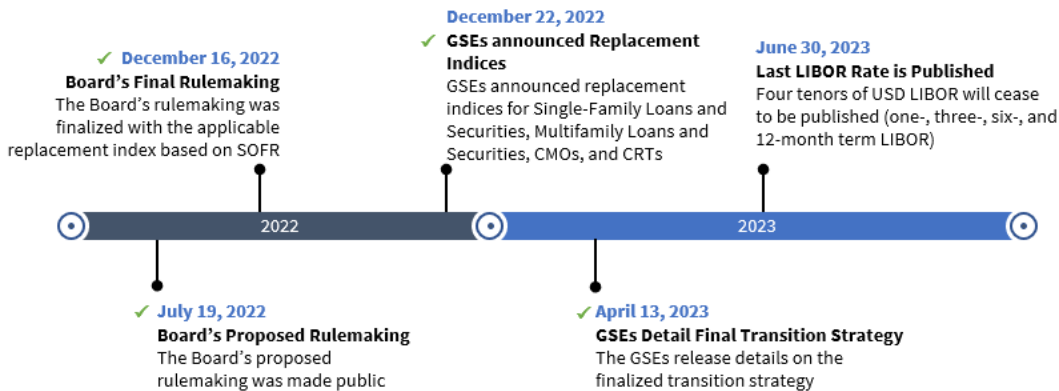
- Key milestone dates for transitioning LIBOR-indexed MF ARMs, Floating-Rate Loans, and securities
- Guidance on when LIBOR-indexed MF ARMs and Floating-Rate Loans will convert to SOFR-indexed MF ARMs and Floating-Rate Loans
- Guidance on benchmark replacements and associated spread adjustments
- High-level considerations for transitioning legacy LIBOR-indexed ARMs and Floating-Rate Loans
- Guidance on servicing legacy LIBOR-indexed MF ARMs and Floating-Rate Loans
- Guidance on legacy securities

More information on the legacy transition can be found on Fannie Mae’s [LIBOR Transition website](#) and Freddie Mac’s [Reference Rates Transition website](#).

3.2 Transition milestones

The GSEs defined key dates related to the transition of legacy LIBOR-indexed MF ARMs, Floating-Rate Loans and securities. Milestones will continue to be updated as necessary. Figure 3-1 identifies these key transition milestones. Unlike Single-Family, Multifamily cessation does not include a 12-month transitional period.

Figure 3-1: Multifamily LIBOR transition milestone





3.3 Replacement rate determination and spread methodology

❖ Benchmark replacement determination

The LIBOR Act required the Board to publish regulations identifying a Board-selected benchmark replacement based on SOFR. On December 16, 2022, the Board published its final rulemaking confirming the LIBOR benchmark replacements. MF ARMs/Floating-Rate Loans and MBS/PCs/K-Deals will fall back to 30-day Average SOFR with a fixed tenor spread adjustment as defined in the LIBOR Act.

❖ SOFR replacement index and spread adjustment methodology

Under the LIBOR Act, a pre-determined fixed tenor spread adjustment will be added to NY Fed-published 30-day Average SOFR following the cessation of LIBOR to determine replacement rates. The following fixed tenor spread adjustments were affirmed by the Board’s final rulemaking and will not change:

- 1-month LIBOR replacement – 0.11448%
- 3-month spread adjustment – 0.26161%
- 6-month LIBOR replacement – 0.42826%
- 12-month LIBOR replacement – 0.71513%

These tenor spread adjustments align with the ISDA fallback spread adjustments that were set on March 5, 2021.

Figure 3-2 depicts the LIBOR benchmark replacements and spread adjustment methodology for MF ARMs/Floating-Rate Loans and MBS/PCs/K-Deals.

Figure 3-2: Benchmark replacement guidance for MF LIBOR ARMs/Floating-Rate Loans and MBS/PCs/K-Deals

Board Final Rule Category	Current LIBOR Index	Spread-adjusted SOFR Replacement Index	All-In Replacement Rate Calculation
FHFA-Regulated-Entity Contract	1M LIBOR	30-Day Average SOFR + 1-Month Spread Adjustment	30-Day Average SOFR + 0.11448 (percent)
	6M LIBOR	30-Day Average SOFR + 6-Month Spread Adjustment	30-Day Average SOFR + 0.42826 (percent)
	1Y LIBOR	30-Day Average SOFR + 12-Month Spread Adjustment	30-Day Average SOFR + 0.71513 (percent)

It should be noted that 30-day Average SOFR will be the only SOFR average used as part of the GSE contract replacements for the 1-, 3-, 6- and 12-month tenors of LIBOR. The GSEs will not use the 90- and 180-day averages published by the NY Fed for these purposes.

It should also be noted that the fixed tenor spread adjustment applied to 30-day Average SOFR will match the tenor of the original LIBOR index. There will not be additional adjustment factors accounting for changes in tenor between the original LIBOR rate and the replacement index. For example, when a security originally indexed to 6-month LIBOR transitions to SOFR, it will convert from 6-month LIBOR to 30-day Average SOFR plus the fixed tenor spread adjustment for 6-month LIBOR (0.42826%), with no further adjustments incorporated. Similarly, a security originally indexed to 12-month LIBOR will transition to 30-day Average SOFR plus the fixed tenor spread adjustment for 12-month LIBOR (0.71513%).

For updates on regulatory and industry efforts to advance the legacy transition, refer to [the Board's final rulemaking](#) and [ARRC's website](#).

❖ SOFR Interest Rate Calculations and Timelines

As mentioned above, the SOFR-based rate replacing LIBOR on legacy Multifamily LIBOR-based loans and securities consists of 30-day Average SOFR plus the applicable fixed tenor spread adjustment. The LIBOR replacement rates for loans and securities can be calculated by pulling the 30-Day Average SOFR rate as of the loan or security's Determination Date from the [NY Fed's website](#) and adding the applicable fixed tenor spread adjustment. The 30-Day Average SOFR rate that appears as of 3:00 p.m. ET should be used for calculations. Please refer to the loan documents for the applicable loan for the margin and any instructions regarding rounding.

The SOFR Determination Date for Multifamily loans and securities is determined by the applicable reset date and lookback period. Refer to your loan or securities documents for more information. The conventions are generally unchanged from the current LIBOR and SOFR interest accrual practices, as shown in the illustrations below.

Figure 3-3: Fannie Mae SARM post-LIBOR Transition loan and bond interest accrual timeline

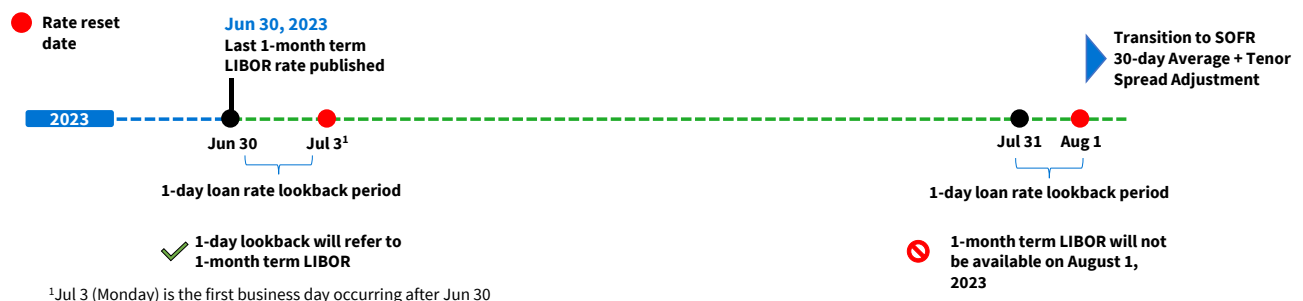




Figure 3-4: Fannie Mae ARM 7-6™ post-LIBOR Transition loan and bond interest accrual timeline

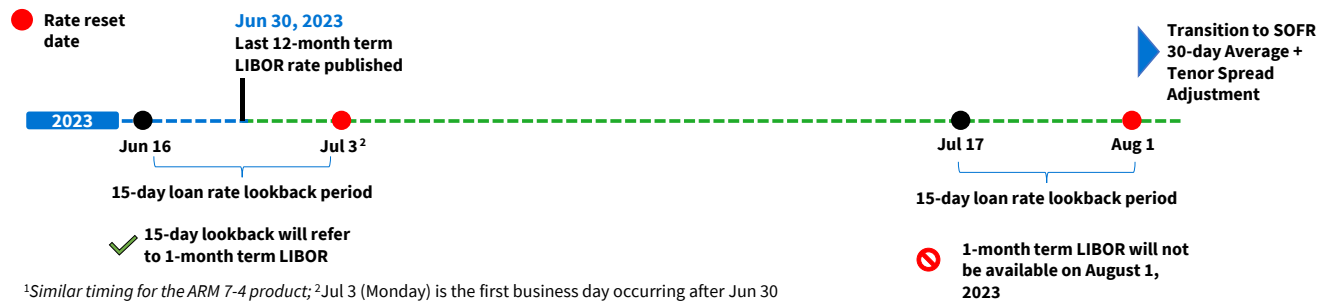
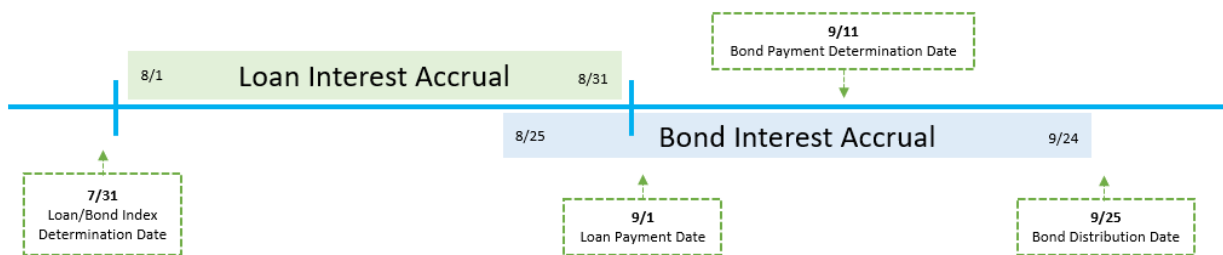


Figure 3-5: Fannie Mae Hybrid ARM post-LIBOR Transition loan and bond interest accrual timeline

Example 3: Hybrid ARM with 45-day lookback, bi-annual reset using 6-month term LIBOR



Figure 3-6: Freddie Mac MBS/PCs/K-Deals post-LIBOR Transition loan and bond interest accrual timeline*



*This timeline is specific to the substantial majority of legacy LIBOR-indexed K, Q, SB, and ML securities; Multi PCs®; and the loans collateralizing them.

3.4 Servicing legacy LIBOR-indexed MF ARMs and Floating-Rate Loans

MF ARMs and Floating-Rate Loans indexed to LIBOR will transition to the benchmark replacement, requiring borrower communications and updated payment calculations.

❖ Non-standard notes

If servicers identify any additional LIBOR ARM or LIBOR Floating-Rate Loan non-standard notes in their respective GSE servicing books, they are expected to contact the applicable GSE as soon as possible to discern if any specific accommodations are necessary. Servicers have been encouraged to initially



focus their reviews on older vintages of loans, loans originated by Sellers no longer in business, and any loans originated under policies and procedures that are known to not require use of Fannie Mae/Freddie Mac uniform instruments. Identified non-standard loans may require a change to mortgage margin or designation to a specific benchmark replacement once LIBOR is no longer in effect.

❖ **SOFR ARM index source**

Figure 3-7 shows the changes in the description of MF ARM indices for Fannie Mae servicing and Figure 3.8 shows the changes in the description for Freddie Mac Floating-Rate Loan indices.

Figure 3-7: Updated index descriptions for active Fannie Mae MF ARM indices

Pre-cessation index descriptions	Post-cessation index descriptions
1 MONTH BRITISH BANKERS LIBOR - DAILY	30-Day Average SOFR + 1-Month Spread Adjustment
6 MONTH WALL STREET JOURNAL LIBOR RATE	30-Day Average SOFR + 6-Month Spread Adjustment
6 MONTH WALL STREET JOURNAL LIBOR	30-Day Average SOFR + 6-Month Spread Adjustment
6 MONTH BRITISH BANKERS LIBOR – DAILY	30-Day Average SOFR + 6-Month Spread Adjustment

Figure 3-8: Updated index descriptions for active Freddie Mac MF Floating-Rate Loan indices

Pre-cessation index descriptions	Post-cessation index descriptions
Intercontinental Exchange (ICE) Rate for the 1 Month London Interbank Offered Rate for US Dollars	30-Day Average SOFR + 1-Month Spread Adjustment
Intercontinental Exchange (ICE) Rate for the 6 Month London Interbank Offered Rate for US Dollars	30-Day Average SOFR + 6-Month Spread Adjustment
12 Month LIBOR as published by the Wall Street Journal	30-Day Average SOFR + 12-Month Spread Adjustment

❖ **Actions to consider**

Servicers will need to incorporate the benchmark replacements into calculations and reconciliations for borrower payments. The calculations will need to be updated on an individual loan basis based on the terms of the ARM which include:

- Payment adjustment frequency
- Rate adjustment frequency
- Loan payment lookback period
- Loan rate lookback period
- Initial/next payment reset date
- Initial/next interest rate reset date



Figure 3-9: Actions to consider when servicing MF ARMs and Floating-Rate Loans

Focus areas	Actions to consider
Borrower communications	<ul style="list-style-type: none"> ▪ Provide timely notice of the change in the index to borrowers consistent with loan documents, applicable law and regulations, including those governing payment change notices ▪ Retain a copy of the notice in the servicing file
Legal documentation	<ul style="list-style-type: none"> ▪ Provide a copy of the note to the appropriate GSE if there are any variations to the ARM/Floating-Rate Loan note’s replacement language that was used just prior to recent revisions and request instructions on how to proceed
Use of a new index in rate and payment calculations	<ul style="list-style-type: none"> ▪ Update and test systems, reporting and other processes or activities related to interest rate adjustment calculations to incorporate the replacement index’s product parameters ▪ Adjust interest accrual calculations for changes in the underlying index
Transfer of servicing	<ul style="list-style-type: none"> ▪ Ensure that servicing transferees have the capability to service loans indexed to the benchmark replacement
Interest rate calculation and rounding	<ul style="list-style-type: none"> ▪ The interest rate calculation method set forth in the related Multifamily Note must be followed. In most cases, the Multifamily Notes provide that the variable interest rate calculated for each interest period is equal to the Index Rate for such interest period plus the Margin. The Index Rate for a legacy LIBOR loan is equal to the sum of the applicable LIBOR replacement index (the 30-day Average SOFR rate) plus the applicable spread adjustment. Any rounding convention to be applied should be determined pursuant to the terms of the Multifamily Note or otherwise be consistent with Freddie Mac servicing practices.

❖ Existing third-party caps

Consult your interest rate cap agreements for specific language on the transition to a new index (e.g., SOFR). Fannie Mae and Freddie Mac expect that each interest rate cap provider will select a benchmark replacement. The borrower’s obligation to purchase replacement interest rate caps as required by the loan documents for existing LIBOR-indexed ARMs and Floating-Rate Loans is unaffected.

For updates on industry efforts to advance the legacy transition, refer to the [ARRC website](#). Additional details will be released as the timeline is finalized.

3.5 Administering Legacy LIBOR-indexed MBS/PCs/K-Deals

The LIBOR transition impacts MBS/PCs/K-Deals consisting of pools of LIBOR-indexed ARMs and LIBOR-indexed Floating-Rate Loans. Unless terminated at or prior to the time of the LIBOR transition, those outstanding MBS/PCs/K-Deals will also transition to 30-day Average SOFR with a fixed tenor spread



adjustment as defined in the LIBOR Act.

It is important to note that the applicable LIBOR index is all that is changing. Upon LIBOR cessation, the applicable LIBOR index will transition to the applicable spread-adjusted 30-day Average SOFR replacement index. Securities mechanics will not change from those currently in practice on outstanding Multifamily LIBOR-based securities, and bond payments will continue to be made on the 25th day of the month or the succeeding business day.

Please also note that Fannie Mae and Freddie Mac Multifamily will refrain from taking any steps that would result in the conversion of any existing SOFR-indexed ARMs and securities from 30-Day Average SOFR to Term SOFR based on any provision that calls for such conversion when operationally, administratively, and technically feasible.

❖ **Determining Person**

The fallback language in all legacy Freddie Mac and Fannie Mae LIBOR-based securities documents identifies a Determining Person who is responsible for deciding what the replacement index will be. The Determining Person may be Fannie Mae or Freddie Mac (or Freddie Mac’s trustee or certificate administrator with Freddie Mac’s consent). In all cases where Fannie Mae or Freddie Mac is the Determining Person or Freddie Mac has consent rights, LIBOR will transition to the applicable spread-adjusted 30-day Average SOFR. In all cases where the Trustee/Certificate Administrator is the Determining Person, we expect the applicable Trustee/Certificate Administrator to select the applicable spread-adjusted 30-day Average SOFR index as the replacement index consistent with the Board’s final rulemaking.

❖ **Actions to consider**

Investors and vendors will need to maintain awareness of index and calculation changes. MF MBS subtypes and index codes will not change, however, index descriptions associated with subtypes and index codes will be updated in Fannie Mae and Freddie Mac applications and disclosure reporting.

Figure 3-10: Actions to consider when administering MF MBS/PCs

Focus areas	Actions to consider
Investor awareness	<ul style="list-style-type: none"> ▪ Maintain awareness of the updates to impacted pools
Use of a new index in rate and payment calculations	<ul style="list-style-type: none"> ▪ Update and test systems, reporting and other processes or activities related to interest rate adjustment calculations to incorporate the benchmark replacements’ product parameters

❖ **Additional Considerations for Freddie Mac MBS/PCs/K-Deals**

The following dates are the critical transition dates for Freddie Mac MBS/PCs/K-Deals*:

- June 30: The last day LIBOR will be published and the final index Determination Date where LIBOR will be used for legacy LIBOR loans and securities



Fannie Mae™



- July 31: First index Determination Date where SOFR will be used for legacy LIBOR loans and securities
- September 1: First loan payment date with interest accrual indexed to SOFR
- September 25: First securities Distribution Date with interest accrual indexed to SOFR

*These dates are specific to the substantial majority of legacy LIBOR-indexed K, Q, SB, and ML securities; Multi PCs®; and the loans collateralizing them.

Freddie Mac Multifamily securities will all transition to a spread-adjusted 30-Day Average SOFR rate. For additional nuances to consider, please refer to [section 12.7 of the appendix](#).



4. CRT Transactions

4.1 Introduction

On December 22, 2022, the GSEs announced their selection of 30-day Average SOFR plus a fixed tenor spread adjustment as the benchmark replacement for their LIBOR-indexed CRTs following the cessation of LIBOR. This decision aligns with the Board-selected benchmark replacements for cash transactions that are FHFA-regulated-entity contracts and is applicable to CRTs for which the GSEs are responsible for selecting the benchmark replacement.

Certain CRT deals issued following March 2020 may include contractual language indicating a benchmark replacement of Term SOFR. Please note that Fannie Mae and Freddie Mac will refrain from taking any steps that would result in the conversion of any existing SOFR-indexed CRTs from 30-Day Average SOFR to term SOFR based on any provision that calls for such conversion when operationally, administratively, and technically feasible.

Legacy transition considerations are not applicable to Freddie Mac MF CRTs due to their fixed rate nature. Freddie Mac MF does not plan to issue any LIBOR-indexed CRT deals in the future.

The following section will help you understand:

- Key milestone dates for transitioning LIBOR-indexed CRTs
- Guidance on benchmark replacements and associated spread adjustments
- High-level considerations for transitioning legacy LIBOR-indexed CRTs
- Guidance on legacy LIBOR-indexed CRTs

For more information on legacy transition can be found on Fannie Mae’s [LIBOR Transition website](#).

4.2 Transition milestones

The GSEs defined key dates related to the transition of legacy LIBOR-indexed CRTs. Milestones will continue to be updated as necessary. Figure 4-1 identifies key transition milestones for CRTs.

Figure 4-1: CRT transition timeline



4.3 Replacement rate determination and spread methodology

❖ Benchmark replacement determination

The LIBOR Act required the Board to publish regulations identifying a Board-selected benchmark replacement based on SOFR. On December 16, 2022, the Board published its final rulemaking confirming the LIBOR benchmark replacements. Based on this, the GSEs will transition from 1-month



LIBOR to the 30-day Average SOFR rate published by the NY Fed, plus an applicable tenor spread adjustment (0.11448% for one-month tenor). 30-day Average SOFR for an Index Determination Date will be the applicable compounded average of SOFR for 30 days published for such Index Determination Date as such rate appears on the NY Fed's Website at 3:00 p.m. ET.

The first date on which spread-adjusted 30-day Average SOFR rate will be used as the replacement index for LIBOR-indexed CRT transactions will be July 21, 2023. The replacement index will be used for calculating accrued interest during the July 25 – August 24, 2023 Accrual Period, and the payments will be made to bondholders on the August 25, 2023 Payment Date.

❖ **SOFR spread adjustment methodology**

Under the LIBOR Act, a pre-determined fixed tenor spread adjustment will be applied to the benchmark replacement immediately following the cessation of LIBOR. The spread adjustment will be 0.11448% for the 1-month tenor, meaning the spread adjustment will be fixed at 0.11448% for legacy CRT transactions after June 30, 2023. Figure 4-2 depicts the LIBOR benchmark replacements and spread adjustment methodology for SF and MF CRTs (for Fannie Mae) as defined by the LIBOR Act.

For updates on regulatory and industry efforts to advance the legacy transition, refer to [the Board's final rulemaking](#) and [ARRC's website](#).

Figure 4-2: Benchmark replacement guidance for CRTs

Board Final Rule Category	Current LIBOR Index	Spread-adjusted SOFR Replacement Index	All-In Replacement Rate Calculation
FHFA-Regulated-Entity Contract	1M LIBOR	30-Day Average SOFR + 1-Month Spread Adjustment	30-Day Average SOFR + 0.11448 (percent)

4.4 Administering legacy LIBOR-indexed CRTs

❖ **Actions to consider**

Investors and vendors will need to maintain awareness of potential impacts of the LIBOR transition including index and calculation changes. The GSEs will transition from 1-month LIBOR to the 30-day Average SOFR rate published by the NY Fed, plus an applicable tenor spread adjustment (0.11448% for one month-tenor) as defined in the LIBOR Act.

Figure 4-3: Actions to consider when administering CRTs

Focus areas	Actions to consider
Investor awareness	<ul style="list-style-type: none"> Maintain awareness of the updates to impacted CRTs
Use of a new index in rate and payment calculations	<ul style="list-style-type: none"> Update and test systems, reporting and other processes or activities related to interest rate adjustment calculations to incorporate the benchmark replacement's product parameters



11. Appendix: Multifamily CRTs

11.1 Introduction

The purpose of this chapter is to provide market participants guidance on new SOFR-indexed MF CRT issuances, which are known as Multifamily Structured Credit Risk Notes (“Multifamily SCR Notes” or “MSCR Notes”) for Freddie Mac and Multifamily Connecticut Avenue Securities (MCAS) for Fannie Mae.

11.2 SOFR-indexed CRT new issuance

❖ Objectives

Fannie Mae achieved operational readiness to issue MF SOFR-indexed CRT deals in 2021. Freddie Mac completed its first SOFR-indexed MF CRT issuance, MSCR 2021-MN1, in January 2021. Prior to its first SOFR issuance, Freddie Mac issued three Multifamily SCR Notes, all of which were fixed-rate notes, between 2016 and 2017, so there are no Legacy MF CRT LIBOR securities to transition to a benchmark replacement. Fannie Mae has not yet issued its first SOFR-indexed MF CRT issuance but is operationally ready to do so. Please refer to Section 4.4 Legacy LIBOR-indexed CRTs for more information on Fannie Mae Legacy MF CRT issuances.

❖ SOFR indices

Fannie Mae plans to structure SOFR-indexed MF CRT transactions utilizing the same SOFR based terms and parameters defined in SF’s executed CRT transactions and will remain in line with SF CRT ongoing. Please refer to Appendix 8.2 SOFR-indexed SF CRT new issuance and market developments for more information on SOFR-indexed CRTs.

11.3 Alignment with SF CRT

The GSEs, with the support of FHFA, intend to align to the SF CRT offering and minimize potential disruptions to the CRT market. In addition, Freddie Mac’s STACR program and MSCR programs and Fannie Mae’s MCAS program will be aligned to the following:

- Selection of the index as the replacement of LIBOR for new issuance CRT deals
- Benchmark replacement and methodology
- Fallback triggers and waterfall

Freddie Mac’s Multifamily SCR Notes program is looking to attract large investors from STACR. Thus, alignment with SF CRT is essential to ensure broad market acceptance.



12. Appendix: Multifamily Floating-Rate Loans and Securities (Freddie Mac)

12.1 Introduction

Floating-rate and Hybrid loans are a key component of all Multifamily lines of business: Conventional, Seniors Housing, Targeted Affordable Housing (“TAH”) and Small Balance Loans (“SBL”). Freddie Mac recognizes the importance of offering financing solutions with diverse loan structures and intends to preserve all existing floating-rate products throughout the transition to SOFR.

Product information is available on Freddie Mac’s [website](#).

12.2 Product modifications

Transitioning to SOFR is a complex undertaking, so our objective is to mitigate the complexity by avoiding non-essential product modifications. The summary below includes critical product modifications that support our shared mission to adopt SOFR.

❖ Conventional, Seniors Housing, and TAH

For our Conventional, Seniors Housing, and TAH business lines, SOFR-indexed loans are indexed to a compound average of SOFR. The compound average rate is 30-day Average SOFR (published by the [NY Fed](#)), which will then be applied to the upcoming interest accrual period (“SOFR Index”).

Certain SOFR-indexed loans and related securities may include contractual language indicating a benchmark replacement of Term SOFR. Please note that Freddie Mac will refrain from taking any steps that would result in the conversion of any existing SOFR-indexed Floating-Rate Loans and related securities from 30-Day Average SOFR to Term SOFR based on any provision that calls for such conversion when operationally, administratively, and technically feasible.

The NY Fed publishes 30-, 90- and 180-day SOFR averages on their website, along with index values for use in calculating the SOFR average of alternative day counts.

Freddie Mac will use the [NY Fed's](#) published rates on its website for index determination.

Similar to its LIBOR-indexed loan products, Freddie Mac’s SOFR-indexed loans continue to feature calendar-month interest accrual periods. LIBOR is determined on the business day preceding the beginning of the interest accrual period and 30-day Average SOFR is determined after 3:00 p.m. ET on the business day preceding the beginning of the interest accrual period.

Note that even though the SOFR index is determined based on a 30-day “lookback,” the rate is applied “in advance” of the applicable interest accrual period. For example, for a January accrual period, the SOFR index will be determined based on the daily SOFR rates from the 30 days preceding the last business day of December.

That index will be applied to calculate interest throughout January, which will then be payable on February 1.

Freddie Mac generally requires all floating-rate loan borrowers to obtain third-party interest rate caps. For existing and new SOFR-indexed, Floating-Rate Loans, these caps will be indexed to SOFR. For existing LIBOR-indexed Floating-Rate Loans, these caps will be indexed to LIBOR and will transition to a SOFR index only in accordance with their governing documents and the loan documents. To address



the possibility that LIBOR-indexed caps will not be available at any point after December 31, 2021, we asked primary servicers in mid-2021 to encourage borrowers to replace existing LIBOR-indexed caps before that date with LIBOR-indexed caps that expire on or after LIBOR cessation in June 2023. Doing so would ensure that the affected loans and caps are indexed to the same rate prior to LIBOR cessation. If LIBOR-indexed caps are not available for borrowers with maturing LIBOR-indexed caps, those borrowers may purchase SOFR-indexed replacement caps.

As of January 15, 2021, SOFR-indexed, floating-rate loan borrowers were no longer permitted to purchase initial LIBOR-indexed cap agreements. Instead, only SOFR-indexed cap agreements are permitted.

❖ **SBL Hybrid Floating-Rate Loans**

Unlike other Multifamily lines of business, Small Balance Loans offer delegated quoting. SOFR-related modifications to the SBL Hybrid loans origination are minor, however, any changes deemed necessary have been tailored to the delegated quote process. Details on the SOFR-indexed SBL Hybrid loan structure have been included below:

SOFR-indexed SBL Hybrids will be indexed to 30-day Average SOFR during the floating-rate period. Freddie Mac will use the [NY Fed's](#) published rates on its website for index determination.

It is important to note that the rate reset frequency will remain unchanged and will continue to reset every six months during the floating-rate period. Similarly, interest rate protection will remain unchanged and will continue to have an embedded structure.

If any aspect of the SOFR-indexed SBL Hybrid loan structure is not mentioned in this playbook, no change is currently planned relative to the existing loan structure for SBL Hybrids with a floating-rate period indexed to LIBOR.

12.3 Selling and delivering MF SOFR Floating-Rate Loans

❖ **What's changing?**

Loan Documents have been revised to reflect the SOFR index.

❖ **What's not changing?**

The Delivery process will remain unchanged. SOFR will impact the index language in the legal documents and the Purchase team will review to ensure the appropriate index is referenced as agreed to in the Commitment.

12.4 MF floating-rate securities indexed to SOFR

As part of Freddie Mac's broader LIBOR transition efforts, floating-rate K-Deals now include at least one bond class with a coupon indexed to SOFR. The SOFR-indexed bonds are collateralized by loans indexed to either LIBOR or SOFR.

❖ **KF SOFR bonds with LIBOR-indexed collateral ("LIBOR-SOFR Bonds")**

Freddie Mac Multifamily priced its first floating-rate K-Deal (KF73) with bonds indexed to SOFR and collateralized by LIBOR-indexed loans in December 2019. The intent was to provide support to the SOFR bond market ahead of a SOFR loan offering, create liquidity, and provide proof of concept, thus easing the ultimate transition to SOFR. KF73 provided such proof of concept.



The classes of securities issued are similar to prior LIBOR floating-rate K-Deals with a couple of changes. First, Class A certificates are split into two pro-rata classes of securities:

- LIBOR-indexed Class AL
- SOFR-indexed Class AS

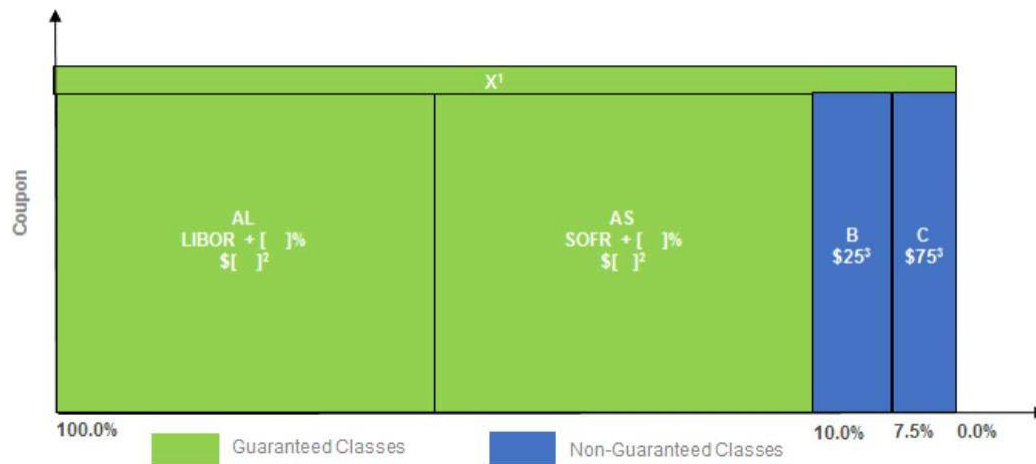
Second, Class X Interest calculation has also been updated. Class X (formerly split into Class XI and Class XP) certificate holders receive interest-only payments indexed to LIBOR. Solely for the purpose of determining the interest amount payable to the Class X certificate holders, Class AS is calculated as a LIBOR-indexed bond (not a SOFR-indexed bond).

The Class X Certificates:

- 1.) Receive interest-only payments indexed to LIBOR and notional to Classes AL, AS, B, and C
- 2.) are entitled to Static Prepayment Premiums

Class AL is paid pro rata with Class AS. The Class AL and AS Principal Balances are sized based on investor demand.

Figure 12-1: LIBOR-SOFR bond structure¹



¹ For illustrative purposes only. Class sizes do not reflect actual bond offering.

❖ **Basis risk guarantee**

Should SOFR exceed LIBOR, an additional Freddie Mac guarantee covers any basis mismatch between the SOFR-indexed bonds and the LIBOR-indexed loans:

- Freddie Mac is providing a Basis Risk Guarantee that is in addition to the standard K- Deal Credit Guarantee
- The Credit Guarantee continues to cover credit losses while the Basis Risk Guarantee covers any cash flow shortfalls to the LIBOR-SOFR bonds due to the mismatch between amounts collected on the LIBOR-indexed loans and amounts due on the SOFR-indexed bonds
- Figure 12-2 illustrates what happens in the event SOFR is greater than LIBOR. LIBOR is assumed to be 2.00%, and SOFR is assumed to be 2.05%. In this example, there is not enough interest on the LIBOR loans to pay the SOFR bond coupon creating an interest shortfall. The 2.00% LIBOR loan interest is passed through to certificate holders, and Freddie Mac provides a Basis Risk Guarantee Cap Payment to cover the shortfall of 0.05%

Figure 12-2: Payment Example 1: SOFR is greater than LIBOR



- Interest income received by the Trust from the underlying LIBOR-indexed loans (assumed to be 2.00% for illustrative purposes)
- Interest due to Class AS certificate holders calculated using monthly SOFR (assumed to be 2.05% for illustrative purposes)
- Freddie Mac provides a Guarantee Cap Payment to the Trust to cover the interest shortfall caused by the mismatch between LIBOR loan inflows and SOFR bond outflows due to Class AS certificate holders (0.05%)

Figure 12-3 illustrates the case where LIBOR is greater than SOFR creating an interest excess. LIBOR is assumed to be 2.05%, and SOFR is assumed to be 2.00%. 2.00% of the 2.05% LIBOR loan interest is passed through to certificate holders, and Freddie Mac receives the 0.05% interest excess in the form of a Basis Risk Guarantee Fee.



Figure 12-3: Payment Example 2: LIBOR is greater than SOFR



- Interest income received by the Trust from the underlying LIBOR-indexed loans (assumed to be 2.05% for illustrative purposes)
- Interest due to Class AS certificate holders calculated using monthly SOFR (assumed to be 2.00% for illustrative purposes)
- Freddie Mac receives a Basis Risk Guarantee Fee equal to the interest surplus caused by the mismatch between LIBOR loan inflows and SOFR bond outflows due to Class AS certificate holders (0.05%)

. See Section 12.7 for details on how the LIBOR indexed loans and bonds will convert at LIBOR cessation.

❖ **LIBOR-SOFR bond index**

The NY Fed publishes 30-, 90- and 180-day SOFR averages on their website along with index values for use in calculating the SOFR average of alternative day counts. Interest due to LIBOR-SOFR Bond classes will be calculated “in advance” of interest being due.

K-F73 through K-F76

Freddie Mac calculates the SOFR rate based on a calendar month compound average using the NY Fed’s published index. Said differently, Freddie Mac built a SOFR calculator based on the [calculation methodology](#) published by the NY Fed/ARRC on November 4, 2019. Freddie Mac discloses the calculated rates on its website (See “Vendor Readiness” section below for instructions).

K-F77 through K-F94

The applicable SOFR rate is 30-day Average SOFR, which is published by the [NY Fed](#). The 30-Day Average SOFR rate that is available as of 3:00 p.m. ET should be used for calculations.



❖ **LIBOR-SOFR bond index determination**

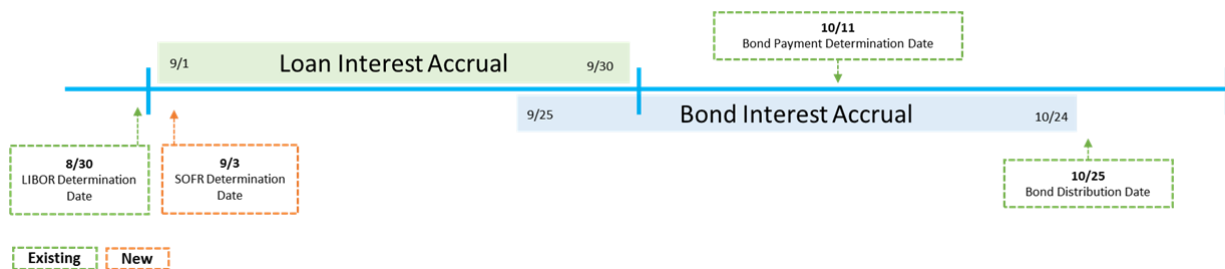
K-F73 through K-F76

The LIBOR-SOFR bond has a SOFR Determination Date on the first business day of the Loan Interest Accrual Period. LIBOR-indexed bonds and LIBOR-indexed loans have a LIBOR Determination Date on the last business day of the month prior to the Loan Interest Accrual Period.

As always, bond payments are made on the 25th day of the calendar month (or the succeeding business day) in which the Loan Payment Date occurs. Figure 12-4 illustrates the loan interest accrual and the bond interest accrual timelines.

Figure 12-4: LIBOR-SOFR loan and bond interest accrual timelines (K-F73 through K-F76)

Example Bond Timeline: October Payment



The current LIBOR-indexed bonds have a LIBOR Determination Date the business day prior to the Loan Interest Accrual Period. Since SOFR is published one business day after its effective date, SOFR-indexed bonds have a SOFR Determination Date on the first business day of the Loan Interest Accrual Period.

As with LIBOR-indexed bonds, the SOFR index applicable to the LIBOR-SOFR bonds in K-F73 through K-F94 cannot be less than zero.

K-F77 through K-F94

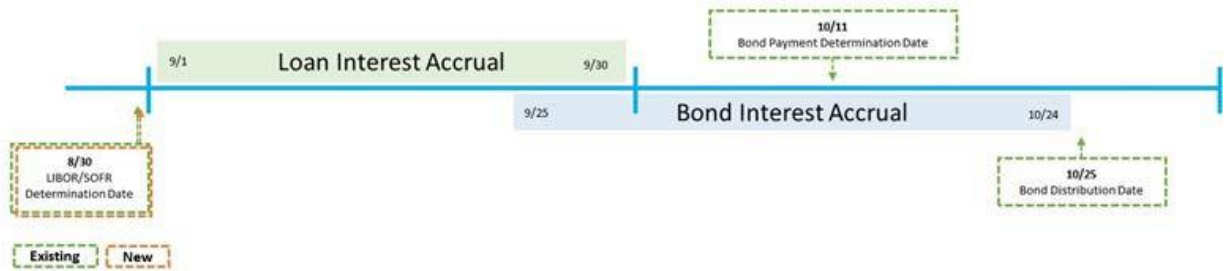
Similar to LIBOR, the SOFR Determination Date is the business day prior to the Loan Interest Accrual Period.

As always, bond payments are made on the 25th day of the calendar month (or the succeeding business day) in which the Loan Payment Date occurs. Figure 12-5 illustrates the loan interest accrual and the bond interest accrual timelines.



Figure 12-5: LIBOR-SOFR loan and bond interest accrual timelines (K-F77 through K-F94)

Example Timeline: October Payment



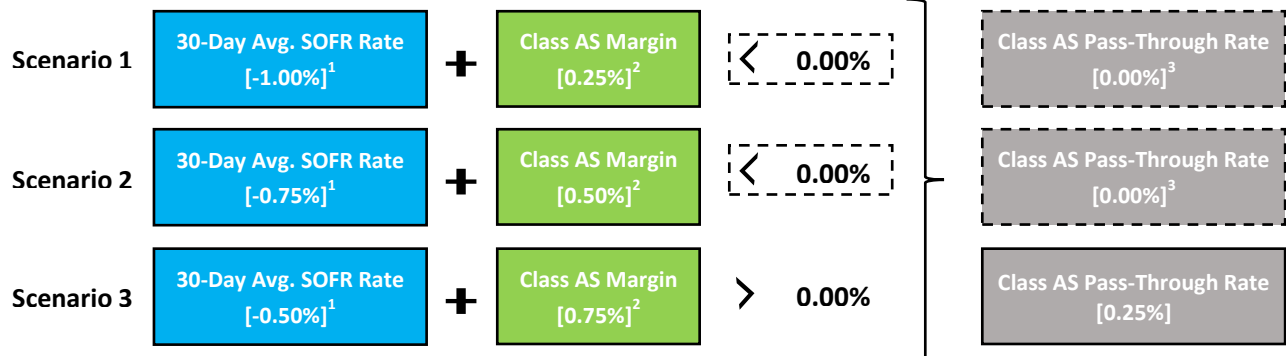
The current LIBOR-indexed bonds have a LIBOR Determination Date the business day prior to the Loan Interest Accrual Period. The SOFR-indexed bonds have a SOFR Determination Date that is also the business day prior to the Loan Interest Accrual Period.

In Figure 12-6, the following assumptions are made for illustrative purposes:

- 30-Day Average SOFR is -1.00%, -0.75% and -0.50%, respectively
- Class AS Margin is 0.25%, 0.50% and 0.75%, respectively

Since the LIBOR-SOFR Bond in K-F77 through K-F94 cannot have a pass-through rate less than zero, the Class AS Pass-Through Rates in Scenarios 1 and 2 are floored at 0.00%. LIBOR-SOFR bonds in K-F77 through K-F94 will in no event have a pass-through rate less than zero.

Figure 12-6: Class AS LIBOR pass-through rate floor (K-F77 through K-F94)



❖ KF SOFR bonds with SOFR-indexed collateral (“SOFR-SOFR Bonds”)

Freddie Mac Multifamily began offering SOFR-indexed loans on September 1, 2020 and stopped purchasing LIBOR-indexed loans after December 31, 2020. K-F95 was the first floating-rate K-Deal with bonds indexed to SOFR and collateralized by SOFR-indexed loans.

The current bond structure of the securities issued is similar to existing LIBOR floating-rate K-Deals with the principal variance being that the SOFR-SOFR Bonds (Classes AS, BS, CS, and XS) and their SOFR loan collateral is indexed to the 30-day Average SOFR rate.

Freddie Mac Multifamily may or may not offer LIBOR bonds (Classes AL, BL, CL, and XL) collateralized by LIBOR-indexed loans in the same KF transaction in which SOFR-SOFR bonds are offered. If LIBOR bonds are offered, underlying mortgage loans are group directed such that:

- LIBOR bonds are collateralized exclusively by LIBOR-indexed loans

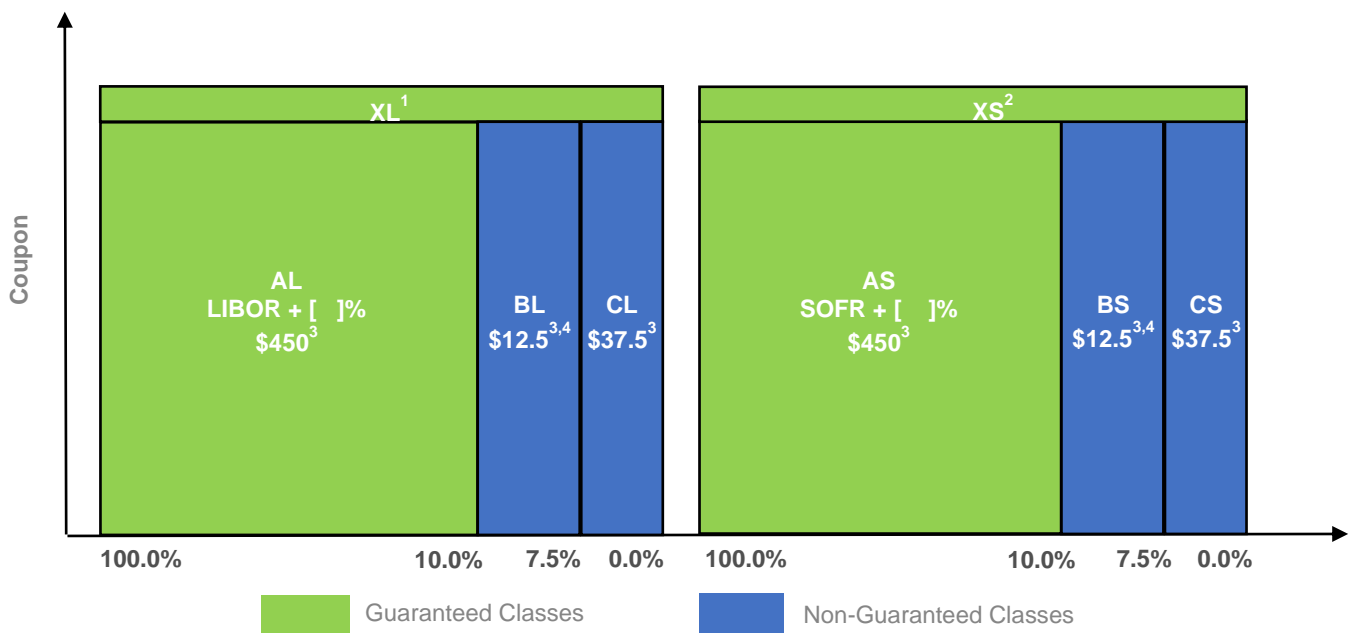


- SOFR-SOFR bonds are collateralized exclusively by SOFR-indexed loans

Figure 12-7 demonstrates the following characteristics of SOFR-SOFR bond classes:

- The Class XL Certificates 1) receive interest-only payments indexed to LIBOR and notional to Classes AL, BL, and CL, and 2) are entitled to Static Prepayment Premiums
- The Class XS Certificates 1) receive interest-only payments indexed to SOFR and notional to Classes AS, BS, and CS, and 2) are entitled to Static Prepayment Premiums
- MF may not offer Class BL or BS Classes. If Class BL and BS are not offered, Classes AL and AS may extend to the 7.5% credit enhancement level

Figure 12-7: SOFR-SOFR bond structure²



❖ **SOFR-SOFR bond index**

Interest due to SOFR-SOFR bond classes will be calculated “in advance” of interest being due. The applicable SOFR rate is 30-day Average SOFR, which is published by the [NY Fed](#). The 30-Day Average SOFR rate that is available as of 3:00 p.m. ET should be used for calculations.

❖ **SOFR-SOFR bond index determination**

Similar to LIBOR bonds, the SOFR Determination Date is the business day prior to the loan interest accrual period.

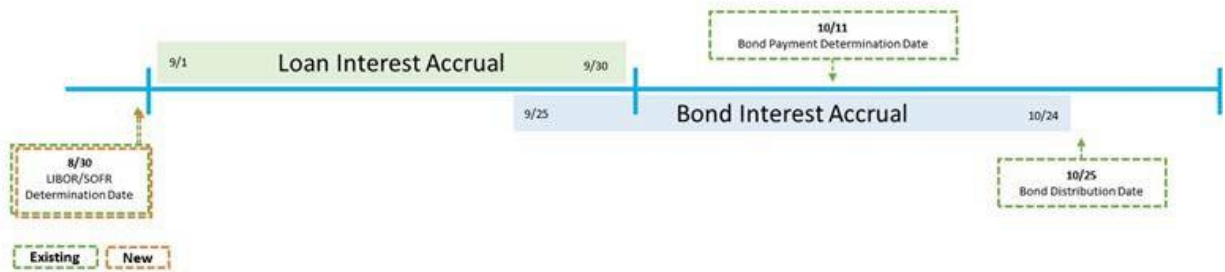
As always, bond payments are made on the 25th day of the calendar month (or the succeeding business day) in which the Loan Payment Date occurs. Figure 12-8 illustrates the loan interest accrual and the bond interest accrual timelines.

² For illustrative purposes only. Class sizes do not reflect actual bond offerings.



Figure 12-8: SOFR-SOFR loan and bond interest accrual timeline

Example Timeline: October Payment

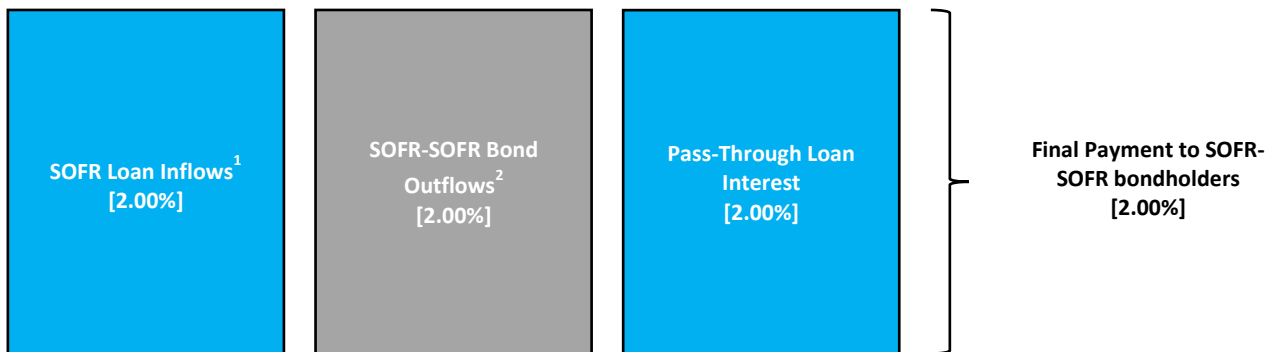


Current LIBOR-indexed bonds have a LIBOR Determination Date the business day prior to the Loan Interest Accrual Period. SOFR-SOFR bonds have a SOFR Determination Date that is also the business day prior to the Loan Interest Accrual Period.

Similar to LIBOR bonds, the SOFR index applicable to SOFR-SOFR bonds cannot be less than zero. The following assumptions are made in Figure 12-9 for illustrative purposes:

- Interest income received by the Trust from underlying SOFR based loans is 2.00%
- Interest due to SOFR-SOFR (class AS, BS, CS, or XS) bondholders calculated is 2.00%

Figure 12-9: SOFR pass-through rate floor (K-F95+)



❖ Vendor readiness

The NY Fed publishes 30-day Average SOFR on its [website](#) on or about 2:30 p.m. ET. The 30-Day Average SOFR rate that is available as of 3:00 p.m. ET should be used for calculations. Freddie Mac discloses the calculated rate on its [website](#) via the monthly SOFR rate disclosure. The instructions to retrieve the calculated rate from Freddie Mac’s website are below.

1. Access Freddie Mac’s datafiles via its [website](#)
2. In the top right corner, click “Login” to get started. An account must be created prior to accessing the calculated rate
3. After logging in, click the blue dot in the top right corner. From the drop-down menu, select "Data Files and Reports"
4. Using the menu on the left side of the page, select “Reset” from the options below "Multi-Class"
5. Select “Report” at the top of the page (in blue) and then select "Off-Platform Deal Indices"



6. Click "Year" and select "2023"
7. Click "Month" and select the appropriate month
8. Select the desired file name and save it as a text file
9. For example, for January 2020 the title of the data can be found on the far right of the file
10. Copy all of the text in the string. Paste the test string into an Excel as "Text." This will allow the contents to be sorted into appropriate columns, which will make the file functional

❖ **PC securities**

On account of its pass-through nature, SOFR-indexed Multi PCs will only be issued if the underlying loan for a PC is SOFR-indexed. Freddie Mac cannot issue a SOFR-indexed Multi PC with an underlying loan indexed to LIBOR. Since a Multi PC is a pass-through, the SOFR index on a PC will be the same as the SOFR index on the underlying loan; index determination will be in sync with the index determination on the underlying loan. SOFR-indexed Multi PCs will have the same accrual period and method as the underlying SOFR-indexed loan with a 55-day delay convention.

Freddie Mac has only issued floating-rate Multi PCs indexed to LIBOR in the past. The transition of such LIBOR-indexed Multi PCs will be addressed to be consistent with other legacy MF LIBOR loan and bond approaches.

12.5 Servicing MF SOFR Floating-Rate Loans

This section focuses on Floating-Rate Loans that have been tied to a SOFR index since origination and will not require conversion upon LIBOR cessation.

❖ **Reporting and remitting**

Generally, servicing of a SOFR-indexed floating-rate loan is not expected to be materially different from the servicing of a LIBOR-indexed loan. In particular, Freddie Mac does not anticipate there will be any impact to the following:

- Floating-rate calculation
- Servicer reporting and remittance deadlines
- Systems and processes used to report to Freddie Mac
- Data reported to Freddie Mac
- Interest day basis and accrual periods
- Custodial accounts tied to underlying loans

A SOFR-indexed loan does present some fundamental differences compared to a LIBOR-indexed loan, including in the following areas:

- Published source of the index value
- Index value availability timing
- Index determination methodology

❖ **Master servicing**

The servicing impact for SOFR loans is becoming operationally prepared to calculate a SOFR-based interest rate. This occurs at the primary servicing level. Master servicers will need to become familiar with SOFR index calculation protocols and ensure that their primary servicers are equally capable of processing rate changes under the new SOFR index environment.



❖ **Transfer of servicing**

Similar to any servicing transfer, it is the responsibility of the transferor to ensure the transferee, as the receiving servicer, is aware and able to support SOFR loans without interruption. Particular attention should be taken to confirm transferees know the published source of indices, timing of availability, and calculations.

❖ **What actions may servicers take to be ready?**

Readiness for SOFR requires an assessment of internal processes and systems prior to implementation. There are a number of industry resources that provide guidance on actions and best practices for the implementation of SOFR, including the following:

- CRE Finance Council (“CREFC”) produces [updates and guidance](#) associated with SOFR
- The ARRC published “[Practical Implementation Checklist for SOFR Adoption](#)” in September 2019

Additionally, the following considerations apply to servicers:

- Servicers should anticipate that more than one SOFR index may be offered (e.g., 30- day, 90- day, calendar month, etc.)
- Servicers should understand how the applicable index is determined and calculated and know the officially published sources for the index
- Servicers will need to determine if their systems are operationally able to process the monthly recalculation of the SOFR index
- Servicers will need to determine if this recalculation can be done automatically or manually to correctly have the entire accrual period calculated using the new floating-rate

12.6 Discontinuation of originating and selling MF LIBOR Floating-Rate Loans

❖ **Timeline leading up to the cessation of purchasing LIBOR Floating-Rate Loans**

Below are the milestones that have passed relating to our transition of our new products from LIBOR to SOFR.

- September 1, 2020: Freddie Mac ceased issuing quotes for LIBOR-indexed loans; all new floating-rate quotes are for SOFR-indexed loans. For SBL, Optigo® lenders can no longer issue applications for SBL hybrid loans with a floating-rate period indexed to LIBOR; all new hybrid loan applications issued are SOFR-indexed
- November 9, 2020: The last day for submission of underwriting package for LIBOR-indexed floating-rate and hybrid loans to Freddie Mac
- December 11, 2020: Last day for submission of final delivery package for LIBOR-indexed floating-rate and hybrid loans to Freddie Mac
- December 31, 2020: Last day for Freddie Mac to purchase LIBOR-indexed floating-rate and hybrid loans, regardless of the loan application or the date of the note

❖ **What’s not changing?**

The Delivery process will remain unchanged. The Purchase team will review to ensure the appropriate



Fannie Mae

Freddie Mac

index is referenced as agreed to in the Commitment. As loans are designated for securitization, the Loan Sales team will package the applicable mortgage and servicing files and forward them to the Trustees and Master Servicers.

12.7 Multifamily Legacy LIBOR Transition

❖ **Freddie Mac Multifamily securities will all transition to a spread-adjusted 30-Day Average SOFR rate with some nuances to consider:**

1. Legacy Floating-Rate K-Deals through KF72, Floating-Rate Multi PCs® and Q008 – These deals only include certificates and underlying loans indexed to 1MO LIBOR. All certificates and bonds will convert to the 30-day Average SOFR plus the 1MO Adjustment Factor upon LIBOR cessation. Please note that the loans collateralizing Q008 are Hybrid ARMs that have all converted to floating-rate and are currently indexed to 1MO LIBOR.
2. KSKY and Floating-Rate KL, KJ, KS (excluding KS09 and KS19) and SASB K-Deals – These esoteric deals may contain both fixed and floating-rate certificates. The floating-rate certificates and their underlying loan collateral are indexed to 1MO LIBOR and will convert to 30-day Average SOFR plus the 1MO Adjustment Factor upon LIBOR cessation. Please note that KSKY is collateralized by taxable and tax-exempt municipal housing bonds issued by the New York State Housing Finance Agency (“NYSFHA”). Pursuant to the underlying municipal housing bond documents, Bank of New York Mellon, in its role as Bond Trustee, selects the fallback rate upon LIBOR cessation with the consent of Freddie Mac. No basis mismatch is expected to exist between the underlying municipal housing bonds and the KSKY certificates.
3. KF73-KF76 – The Class AS certificates are indexed to the calendar month compounded average of published SOFR rates calculated and published by Freddie Mac and will continue to be for the life of each deal. The Class AL and subordinate certificates and all of the underlying loans are indexed to 1MO LIBOR and will convert to 30-Day Average SOFR plus the 1MO Adjustment Factor similar to the legacy LIBOR deals discussed above. The Basis Risk Guarantee for these Class AS certificates will apply for the life of each deal. Any excess interest will flow to the Basis Risk Guarantee Fee paid to Freddie Mac.
4. KF77-KF94 and KS14 - The Class AS certificates are indexed to 30-day Average SOFR. The Class AL and subordinate certificates and all of the underlying loans are indexed to 1MO LIBOR and will convert to the 30-day Average SOFR plus the 1MO Adjustment Factor similar to the legacy LIBOR deals discussed above. The Basis Risk Guarantee for the Class AS certificates will apply for the life of each deal. Any excess interest resulting from the Adjustment Factor that will be added to the fallback index on the loans will flow to the Basis Risk Guarantee Fee paid to Freddie Mac.
5. KF95-KF98 and KF100 - The Class AS certificates and their underlying loans are indexed to 30-day Average SOFR. The Class AL certificates and their underlying loans are indexed to 1MO LIBOR and will convert to 30-day Average SOFR plus the 1MO Adjustment Factor similar to the legacy LIBOR deals discussed above. The subordinate certificates are WAC capped meaning they interest paid to investors will not exceed the weighted-average coupon (“WAC”) of the underlying loans.
6. Legacy Small Balance FRESB Deals through SB82 (excluding SB3) – These transactions contain Hybrid certificates at different tenors (5-, 7-, and 10-yr) that pay a fixed-rate until the last underlying Hybrid ARM loan in each related Hybrid ARM loan group converts to a floating-rate



indexed to 6MO LIBOR, at which point, the related, guaranteed Hybrid bonds will convert to 1MO LIBOR. All guaranteed Hybrid bonds and Hybrid ARM loans that have converted to either 1MO or 6MO LIBOR will transition to 30-day Average SOFR plus either the 1MO or 6MO Adjustment Factor as applicable upon LIBOR cessation. Otherwise, the guaranteed Hybrid bonds and Hybrid ARM loans still paying a fixed-rate as of the LIBOR Cessation Date will convert to 30-day Average SOFR plus either the 1MO or 6MO Adjustment Factor as applicable on their respective conversion dates. The Hybrid bonds will continue to be WAC capped. Please note that the FRESB subordinate Class B certificates will receive a fixed-rate from each loan group until the related Hybrid certificates convert to floating-rate indexed to 1MO LIBOR, at which point the rate contributed to the Class B certificates from the related Hybrid ARM loan groups will convert to a floating-rate indexed to 6MO LIBOR. Upon LIBOR cessation, the rate contributed to the Class B certificates from the related Hybrid ARM loan groups will be indexed to 30-day Average SOFR plus the 6MO Adjustment Factor. Any excess interest will flow to the IO bonds.

7. **SB83-SB92** – These transactions **do not include floating-rate certificates indexed to LIBOR**. That said, they do contain Hybrid certificates at different tenors (5-, 7-, and 10-yr) that pay a fixed-rate until the last underlying Hybrid ARM loan in each related Hybrid ARM loan group converts to a floating-rate, which may be indexed to either 6MO LIBOR or 30-day Average SOFR. All Hybrid ARM loans indexed to 6MO LIBOR will convert to 30-day Average SOFR plus the 6MO Adjustment Factor on their respective conversion dates, all of which occur after the LIBOR Cessation Date. All Hybrid ARM loans indexed to 30-day Average SOFR will transition to 30-day Average SOFR on their respective conversion dates. The related guaranteed Hybrid Certificates will convert to a floating-rate indexed to 30-day Average SOFR once the last underlying Hybrid ARM loan in each related Hybrid ARM loan group converts to its respective floating rate and will be WAC capped. Please note that the subordinate Class B certificates will receive a fixed-rate from each loan group until the related Hybrid certificates convert to floating-rate, at which point, the rate contributed to the Class B certificates from the related Hybrid ARM loan groups will convert to a floating-rate indexed to 30-day Average SOFR. Any excess interest will flow to the IO bonds.
8. **SB3** - This 3rd-party transaction contains Hybrid certificates at different tenors (3-, 5-, 7-, and 10-yr) that pay a fixed-rate until the last underlying Hybrid ARM loan in each related Hybrid ARM loan group converts to a floating-rate indexed to 12MO LIBOR, at which point the related Hybrid certificates will convert to a floating-rate indexed to 1MO LIBOR and are WAC capped. All existing Hybrid certificates and Hybrid ARM loans that have converted to LIBOR will transition to 30-day Average SOFR plus the applicable 1MO or 12MO Adjustment Factor upon LIBOR cessation. Otherwise, the existing Hybrid certificates and Hybrid ARM loans still paying a fixed-rate as of the LIBOR Cessation Date will convert to 30-day Average SOFR plus the applicable 1MO or 12MO Adjustment Factor on their respective conversion dates. The Hybrid bonds will continue to be WAC capped. Please note that the FRESB subordinate Class B certificates will receive a fixed-rate from each loan group until the related Hybrid certificates convert to floating-rate, at which point, the rate contributed to the Class B certificates from the related Hybrid ARM loan groups will convert to a floating-rate indexed to 6MO LIBOR. Upon LIBOR cessation, the rate contributed to the Class B certificates from the related Hybrid ARM loan groups will be indexed to 30-day Average SOFR plus the 6MO Adjustment Factor.



9. ML01-ML04, KS09 and KW04 – These deals include floating-rate Class A certificates indexed to 1MO LIBOR. The underlying loans are fixed-rate. The certificates will transition to 30-day Average SOFR plus the 1MO Adjustment Factor upon LIBOR cessation. The Basis Risk Guarantee for the floating-rate Class A certificates will apply for the life of each deal.
10. Q003, Q007, Q010, Q011, Q013 – Each class of certificates pays a floating-rate based on the WAC of the related loan group collateralizing each class of certificates. The underlying 3rd-party Hybrid ARM loan collateral in each related loan group converts to a floating-rate indexed to either 12MO LIBOR or 6MO LIBOR. All existing Hybrid ARM loans that have converted to either 12MO LIBOR or 6MO LIBOR will transition to 30-day Average SOFR plus the applicable 12MO Adjustment Factor or 6MO Adjustment Factor upon LIBOR cessation. Otherwise, the existing Hybrid ARM loans still paying a fixed-rate as of the LIBOR Cessation Date will convert to 30-day Average SOFR plus the applicable 12MO Adjustment Factor or 6MO Adjustment Factor on their respective conversion dates. The Hybrid bonds will continue to be based on the WAC of the related loan group.

Figure 12-10: Summary of Freddie Mac Multifamily Securities replacement indices

Deal Name	LIBOR Bond Applicable LIBOR Rate	Replacement Index	SOFR Bond Applicable SOFR Rate
Legacy MF Deals through KF72 SASB, KSKY, KL, KJ, and KS (excluding KS09 and KS14)	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	NA
KF73-KF76	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	Calendar month compounded average of published SOFR rates
KF77-KF94, KS14	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	Published 30-day SOFR average
KF95-KF98; KF100	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	Published 30-day SOFR average
Deal Name	LIBOR Bond Applicable LIBOR Rate	Replacement Index	SOFR Bond Applicable SOFR Rate
Legacy Small Balance FRESB Deals through SB82 (excluding SB3)	The guaranteed bond classes are indexed to 1 month LIBOR; Class B bonds are indexed to 6 month LIBOR; All are WAC capped <i>*Note:</i> The SB45, SB49, SB52, and SB56 certificates are composed of multiple components	The guaranteed bonds will transition to Published 30-day SOFR average + 1 month Adjustment Factor and remain WAC capped; Class B bonds will transition to Published 30-day SOFR average + 6 month Adjustment Factor <i>*Note:</i> The underlying loans will convert to Published 30-day SOFR average + 6 month Adjustment Factor	NA
SB3	The guaranteed bond classes are indexed to 1 month LIBOR; Class B bonds are indexed to 6 month LIBOR; All are WAC capped	The guaranteed bonds will transition to Published 30-day SOFR average + 1 month Adjustment Factor and remain WAC capped; Class B bonds will transition to Published 30-day SOFR average + 6 month Adjustment Factor <i>*Note:</i> The underlying loans will convert to Published 30-day SOFR average + 12 month Adjustment Factor	NA
Deal Name	LIBOR Bond Applicable LIBOR Rate	Replacement Index	SOFR Bond Applicable SOFR Rate
ML01-ML04, KS09 and KW04	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	NA
Deal Name	LIBOR Bond Applicable LIBOR Rate	Replacement Index	SOFR Bond Applicable SOFR Rate
Q008	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	NA
Q003, Q007, Q010, Q011, Q013	WAC of underlying loan groups with loans indexed to 6 and/or 12 month LIBOR	The Hybrid Bonds will continue to be based on the WAC of the related loan group. Loans in all loan applicable loan groups will convert to the 30-Day SOFR average + the applicable 6 or 12 month Adjustment Factor	NA
Deal Name	LIBOR Bond Applicable LIBOR Rate	Replacement Index	SOFR Bond Applicable SOFR Rate
WV0005 and WV2001	1 month LIBOR	Published 30-day SOFR average + 1 month Adjustment Factor	NA



Fannie Mae™



13. Appendix: Multifamily Credit Risk Transfer Transactions (Freddie Mac)

13.1 Introduction

The purpose of this chapter is to provide market participants guidance on transitioning LIBOR-based MF CRT, which are known as Multifamily Structured Credit Risk Notes (“Multifamily SCR Notes” or “MSCR Notes”), to SOFR-indexed indices.

Freddie Mac completed its first SOFR-indexed MF CRT issuance, MSCR 2021-MN1, in January 2021. Prior to its first SOFR issuance, Freddie Mac issued three Multifamily SCR Notes, all of which were fixed-rate notes, between 2016 and 2017, so there are no Legacy MF CRT LIBOR securities to transition to a benchmark replacement.



14. Summary of Prior Changes

Section	Summary of changes
August 2020	
6. Freddie Mac Multifamily Floating-Rate Loans and Securities	<ul style="list-style-type: none"> ▪ Updated SOFR-indexed loan offering details, including loan structure, interest rate protection, and origination and underwriting process changes
September 2020	
6. Freddie Mac Multifamily Floating-Rate Loans and Securities	<ul style="list-style-type: none"> ▪ Updated Interest rate protection section with details on availability and interest rate caps. Also updated Small Balance Loan Hybrid Floating-Rate Loans section ▪ Deleted details regarding overlap period in the Conventional, Seniors Housing, TAH section. Updated link for “Refinance Test” ▪ Updated to indicate that as of Sep. 1, 2020, Freddie Mac ceased issuing quotes for LIBOR-indexed loans ▪ Made grammatical and tense changes to the section 6
October 2020	
6. Freddie Mac MF Credit Risk Transfer Transactions	<ul style="list-style-type: none"> ▪ Removed “In the event that Freddie Mac believes it is necessary to issue new SCR Notes again prior to market readiness and interest in MF CRT Floating-Rate securities based on an ARR, Freddie Mac expects the SCR Notes will be a LIBOR Floating-Rate CRT issuance and will be structured in alignment with the STACR program.”
November 2020	
6. Freddie Mac Multifamily Floating-Rate Loans and Securities	<ul style="list-style-type: none"> ▪ Updated language to include SOFR-indexed bonds ▪ Added details on K-F-73, K-F76, K-F77, K-F94, SOFR-SOFR bonds ▪ Updated verbiage and added explanation of remaining key dates
March 2021	
6. Freddie Mac Multifamily Floating-Rate Loans & Securities	<ul style="list-style-type: none"> ▪ Updated language to address termination of LIBOR Cap option; removed requirements for purchasing a LIBOR-indexed Cap ▪ Modified tenses to reflect what has been done and what is still to be done ▪ Updated language to indicate that the SOFR-SOFR bond structure that started in K-F95 is the current structure in use ▪ Removed various subsections that contained outdated information ▪ Removed pipeline management, communications, and borrower outreach best practices from section 6.6
8. Freddie Mac MF CRT Transactions	<ul style="list-style-type: none"> ▪ Updated content to reflect completion of Freddie Mac’s first SOFR-indexed MF CRT issuance ▪ Removed “Timeline and milestones” section ▪ Updated Legacy CRT transition section to reflect the plan to not issue any LIBOR based CRT deals in the future
October 2021	



6. Freddie Mac Multifamily Floating-Rate Loans and Securities	<ul style="list-style-type: none"> ▪ 6.2 Planned product modifications: Added language about the use of Term SOFR and the determination of its administrative feasibility; added a statement about the availability of LIBOR-indexed interest rate caps ▪ Figure 6-1: Moved clarification from figure to footnotes ▪ 6.4 MF Floating-Rate securities indexed to SOFR: Removed an outdated statement about the conversion of LIBOR-indexed loans and bonds ▪ Figure 6-7: Moved clarification from figure to footnotes
January 2023	
3. MF ARMs and Securities	<ul style="list-style-type: none"> ▪ Combined Fannie Mae and Freddie Mac MF ARMs and Securities information into one section ▪ Added consolidated transition milestone timeline ▪ Updated content throughout to describe the replacement rate determination and other details related to the transition of LIBOR-indexed MF products
April 2023	
3. MF ARMs and Securities	<ul style="list-style-type: none"> ▪ Updated section 3 to reflect naming conventions for Freddie Mac Multifamily Floating Rate Loans ▪ Updated index description and all-in replacement rate calculation information in Section 3.3 ▪ Updated and restructured Section 3.4 to include additional illustrations of the impact of the transition on Fannie Mae Multifamily MBS products
June 2023	
1. Multifamily ARMs, Floating-Rate Loans, and Securities	<ul style="list-style-type: none"> ▪ Updated loan and bond interest accrual timeline illustrations in Section 3.3