LIBOR Transition Playbook

July 2020
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### Changes Summary

The table below details the list of changes since the June 2020 version of the playbook published on the Fannie Mae and Freddie Mac websites.

<table>
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<th>Section</th>
<th>Summary of changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Single-Family Credit Risk Transfer (“SF CRT”) transactions</td>
<td>Specified that the Determination Date will be 2 Business Days (2BD) prior to the beginning of the accrual period for CRT securities</td>
</tr>
<tr>
<td>5. Fannie Mae Multifamily (“MF”) ARMs and MBS</td>
<td>Clarified that Fannie Mae is currently designing a new MF SOFR-indexed “capped” ARM; Specified that MF SOFR-indexed product terms will be publicly announced in the third quarter of 2020</td>
</tr>
<tr>
<td>7. Fannie Mae Multifamily Credit Risk Transfer (“MF CRT”) transactions</td>
<td>Specified that the Determination Date will be 2 Business Days (2BD) prior to the beginning of the accrual period for CRT securities</td>
</tr>
</tbody>
</table>
Legal Information and Disclaimer

Information in the 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 This document and the analysis may be amended, superseded or replaced by subsequent summaries or actions.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 and 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.

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1 Overview

1.1 Introduction

❖ Playbook purpose and scope

To assist stakeholders in preparing for the transition from the London Interbank Offered Rate (“LIBOR”) to alternative reference rates (“ARRs”), the GSEs are jointly publishing this LIBOR Transition Playbook, targeted to readers who need information about the following products:

- Single-Family (“SF”) Adjustable Rate Mortgages (“ARMs”) and securities, i.e., Mortgage-backed Securities (“MBS”) and Participation Certificates (“PCs”)
- Single-Family Credit Risk Transfer (“SF CRT”) transactions
- Collateralized Mortgage Obligations (“CMOs”)
- Fannie Mae Multifamily (“MF”) ARMs and MBS
- Freddie Mac MF Floating Rate loans and securities
- Multifamily CRT (“MF CRT”) transactions

This playbook describes key transition milestones and recommended actions for stakeholders to consider as they manage the upcoming transition from LIBOR. This document serves as a tool to help plan and adapt business policies, procedures, and processes to support products linked to ARRs, discontinue most LIBOR-indexed products by the end of 2020 and prepare for discontinuing the use of LIBOR as an index. Details regarding transition timing and impacts will be periodically updated in this playbook as new information becomes available for various products.

Under the guidance of FHFA, the GSEs have been working together on several aspects of the LIBOR transition. Where appropriate, the GSEs have aligned policies and milestones. However, each GSE’s timelines and product details may differ. Readers should take note of these differences which are further explained in each chapter of this document.

For more details and FAQs on each GSE’s transition, refer to LIBOR/SOFR transition webpages for Fannie Mae and Freddie Mac, respectively.

Please direct any additional questions to your Fannie Mae or Freddie Mac account management teams.

❖ Why is there a need to transition from LIBOR?

LIBOR is currently the most widely used global interest rate benchmark, and it is deeply embedded in global financial products.

Recently, the long-term viability of LIBOR has been undermined due to cases of rate manipulation, low volumes for underlying interbank transactions and the reluctance of panel banks to submit quotes used to calculate LIBOR.

As a result, the Financial Conduct Authority (“FCA”), the British regulator of the LIBOR benchmark administrator, has warned that:
▪ Publication of LIBOR is not guaranteed beyond 2021;
▪ Sustainability of LIBOR is in question due to the absence of active market support; and
▪ The cessation of LIBOR poses a financial stability risk without advanced preparation.

To prepare for the transition from LIBOR, public sector and private market participants have undertaken a series of benchmark reform initiatives, including design and selection of robust ARRs and incorporating comprehensive fallback language into derivative and cash products.

❖ What is the ARRC?

The Alternative Reference Rates Committee (“ARRC”) is a group of private market participants convened by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York (“NY Fed”) to support a successful transition from U.S. Dollar (“USD”) LIBOR to an ARR. The ARRC recommended the Secured Overnight Financing Rate (“SOFR”) as a replacement index for USD LIBOR-indexed contracts.

❖ What is SOFR and why are we using it?

SOFR is an overnight interest rate based on U.S. dollar (USD) Treasury repurchase agreements (“repos”). The ARRC recommended SOFR because it is:
▪ Based on observable market transactions from a robust and well-defined market that was able to weather the global financial crisis
▪ Produced in a transparent, direct manner
▪ Produced by the NY Fed and meets international benchmark standards

On March 2, 2020, the NY Fed began daily publication of 30, 90 and 180-day compound historical averages of SOFR, which will also be available from third party vendors (e.g., Bloomberg and Refinitiv).

The GSEs will use the NY Fed’s 30-day compound historical average of SOFR (“30-day Average SOFR”) as the index in many new products (e.g., SF ARMs). When available, the GSEs may transition some SOFR-indexed products (i.e., CMOs and CRT transactions) to a forward-looking expected term version of SOFR (“Term SOFR”) derived from derivatives market transactions using SOFR, if such a rate is endorsed by the ARRC as being compliant with International Organization of Securities Commission (“IOSCO”) principles. Products using either a compound historical average or Term SOFR index are defined as “SOFR-indexed” products for the purposes of this playbook.

1.2 LIBOR transition timelines

The GSEs have established milestones leading to the transition from LIBOR to ARRs, including timelines for beginning acquisition and issuance of SOFR-indexed products and ceasing acquisition and issuance of LIBOR-indexed products.

Transition timelines are defined for major products offered by the GSEs based on timing for finalizing transition strategies and external market dependencies. Milestones will continue to be updated as necessary. For more detailed timelines, refer to the individual chapters for each product.
## Key transition milestones

<table>
<thead>
<tr>
<th>Product</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Offer SOFR products</td>
<td>No longer offer LIBOR products</td>
<td>Offer SOFR products</td>
<td>No longer offer LIBOR products</td>
</tr>
<tr>
<td>SF ARMs and securities</td>
<td>Aug. 3, 2020</td>
<td>Dec. 31, 2020</td>
<td>Nov. 16, 2020</td>
<td>Last Funding Date when sold for cash: Dec. 31, 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Last WAC ARM PC issuance date: Dec. 1, 2020</td>
</tr>
<tr>
<td>SF CRT transactions</td>
<td>Q1 2021</td>
<td>End of Q4 2020</td>
<td>Q4 2020</td>
<td>End of Q4 2020</td>
</tr>
<tr>
<td>CMOs</td>
<td>July 2020</td>
<td>October 2020</td>
<td>July 2020</td>
<td>October 2020</td>
</tr>
<tr>
<td>Fannie Mae MF ARMs and MBS</td>
<td>Q4 2020</td>
<td>Dec. 31, 2020</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Freddie Mac MF Floating Rate loans and securities</td>
<td>N/A</td>
<td>N/A</td>
<td>Floating Rate loans: Sep. 1, 2020</td>
<td>Cease purchase of LIBOR-based floating rate loans: Dec 31, 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Securities:</td>
<td>Cease issuance of LIBOR-based securities: End of Q2 2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o K-deals: Dec. 20, 2019</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>o Other securitization structures: Q4 2020</td>
<td></td>
</tr>
<tr>
<td>MF CRT transactions</td>
<td>Q1 2021</td>
<td>End of Q4 2020</td>
<td>Q4 2020</td>
<td>End of Q4 2020</td>
</tr>
</tbody>
</table>

1 The GSEs will continue to issue new resecuritizations of LIBOR-indexed CMOs (also known as “ReREMICs”), provided that such resecuritizations do not increase the total unpaid principal balance of the LIBOR-indexed CMOs outstanding.

The GSEs are actively planning transition strategies for legacy LIBOR-indexed products to ARRs. More details on the transition of existing LIBOR-indexed products to ARRs will be provided once transition strategies have been finalized.

### 1.3 Actions market participants should consider

The GSEs encourage all market participants to conduct an operational assessment and start their operational builds as early as possible. Key resources include but are not limited to:

- [ARRC User’s guide to SOFR](#)
- [ARRC Vendor survey and buy-side checklist](#)
- [ARRC Recommended Best Practices for Vendors on Completing the Transition from LIBOR](#)
- [CFPB’s Consumer handbook on adjustable-rate mortgages](#)

#### Accounting and tax considerations

The transition may have an impact on the accounting treatment for existing contracts, hedge accounting relationships or other transactions that reference LIBOR. The Financial Accounting Standards Board (“FASB”) issued a final accounting standard update to provide temporary optional guidance to ease the potential burden in transitioning from LIBOR. The
GSEs encourage market participants to evaluate the accounting standards update and the accounting relief that can be applied for transition. See below for the issued accounting standard update and additional implementation information:

- **FASB Project – Reference Rate Reform**

The transition of legacy LIBOR-indexed transactions in the future may result in tax implications. The GSEs encourage all stakeholders to review regulations issued by the Internal Revenue Service (“IRS”) and Treasury to identify potential impacts due to transitioning from LIBOR:

- **IRS proposed rule**

**Compliance considerations**

The transition of legacy LIBOR-indexed transactions may involve compliance risk related to disclosure.

Both GSEs maintain processes which provide reasonable assurance that they comply with disclosure laws and regulations.
2 Single-Family ("SF") ARMs and Securities

2.1 Introduction

The GSEs have taken the following steps, under FHFA’s guidance, to prepare for the transition from LIBOR for SF ARMs:

- Updated existing uniform ARM notes and riders to include fallback and trigger language as recommended by the ARRC
- Announced that all LIBOR ARMs must be purchased by the GSEs no later than six months from the first payment date of the loan (Fannie Mae) or note date (Freddie Mac)
- Designed (in conjunction with the ARRC) new SF ARMs that use the NY Fed’s 30-day Average SOFR as the underlying index
- Announced:
  - September 30, 2020 as the last Application Received Date for LIBOR loans to be accepted by the GSEs
  - December 1, 2020 as the last MBS/Guarantor PC issue date for LIBOR-indexed ARM pools
  - December 31, 2020 as the last date for cash/whole loan purchase of LIBOR-indexed ARMs
- Started discussing strategies for the transition of existing LIBOR-indexed ARMs

The following chapter will help you understand:

- Key milestones for the SF ARM LIBOR transition
- Differences and similarities between LIBOR-indexed vs. SOFR-indexed ARMs
- How to prepare for origination, selling, servicing and securitization of SOFR-indexed ARMs
- How to prepare for the cessation of LIBOR-indexed ARM purchases and issuance of MBS/Guarantor PCs
- High-level considerations for transitioning existing LIBOR-indexed ARMs to an ARR

2.2 SF transition milestones

The GSEs have defined key dates related to the origination, commitment, pricing and delivery processes for SOFR-indexed ARMs, as well as dates for the cessation of LIBOR-indexed ARM purchases and related securitizations. The GSEs are also working with industry participants (e.g., the ARRC) to develop a unified recommended strategy to transition existing LIBOR-indexed ARMs to an ARR.

Additional details and milestones for existing loans will be provided as they become available. The subsequent timeline identifies key transition milestones for SF ARMs.
2.3 SOFR-indexed ARM characteristics

❖ LIBOR vs. SOFR ARMs

The GSEs designed SF SOFR-indexed ARM products in conjunction with other members of the ARRC Consumer Products Working Group. These products will utilize 30-day Average SOFR as published by the NY Fed. The GSEs will instruct Sellers and Servicers to use the final/revised values of the index which are published daily at approximately 2:30 p.m. ET.

The primary features of SOFR-indexed ARMs and MBS/PCs that differ from LIBOR-indexed ARMs and MBS/PCs include:

- **Interest rate index**: 30-day Average SOFR
- **Initial fixed period**: varies, with a minimum initial fixed period of 3 years for SOFR-indexed ARMs
- **Interest rate adjustment period**: 6 months
- **Interest rate adjustment cap**: +/-1 percentage point (“%”) per subsequent adjustment period
- **Margin**: will likely differ due to basis and other market-based adjustments
- **New ARM plans**: introduced for SOFR (Fannie Mae)
- **New Cash Contract and Guarantor Pooling Products**: introduced to support SOFR-indexed ARMs (Freddie Mac)

The following table summarizes key product features for both SOFR and LIBOR ARMs:

<table>
<thead>
<tr>
<th></th>
<th>LIBOR ARMs</th>
<th>SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate index</td>
<td>1-Year WSJ LIBOR</td>
<td>30-day Average SOFR</td>
</tr>
<tr>
<td>Initial fixed period</td>
<td>1, 3, 5, 7 or 10 years</td>
<td>3, 5, 7 or 10 years</td>
</tr>
<tr>
<td></td>
<td>(no 1-year initial fixed period)</td>
<td></td>
</tr>
<tr>
<td>Interest rate adjustment period</td>
<td>Changes every 1 year after initial fixed period</td>
<td>Changes every <strong>6 months</strong> after initial fixed period</td>
</tr>
</tbody>
</table>
LIBOR ARMS  |  SOFR ARMS
---|---
**Lookback period**  | New rate determined 45 days in advance  |  No change  
**Cap at first adjustment**  | +/-2% for 3- and 5-year ARMs  |  No change  
  | +/-5% for 7- and 10-year ARMs  |  
**Cap at subsequent adjustments**  | +/-2%  |  +/-1%  
**Life cap**  | Up to 5% for Fannie Mae;  |  No change for Fannie Mae  
  | Up to 5% for Freddie Mac  |  5% for Freddie Mac  
**Margin**  | 2.25% for Fannie Mae;  |  Up to 3% (Fannie Mae)  
  | Defined based on Execution for Freddie Mac  |  Min 1%/Max 3% (Freddie Mac)  

Fannie Mae has updated ARM plans and a Special Feature code (“SFC”) in support of the transition to SOFR, as detailed below:

<table>
<thead>
<tr>
<th>LIBOR ARMS</th>
<th>SOFR ARMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Import:</strong></td>
<td><strong>DU User Interface (“UI”):</strong></td>
</tr>
<tr>
<td>GEN3</td>
<td>FM GENERIC, 3 YR</td>
</tr>
<tr>
<td>GEN5</td>
<td>FM GENERIC, 5 YR</td>
</tr>
<tr>
<td>GEN7</td>
<td>FM GENERIC, 7 YR</td>
</tr>
<tr>
<td>GEN10</td>
<td>FM GENERIC, 10 YR</td>
</tr>
<tr>
<td><strong>ARM plans submitted to Desktop Underwriter® (“DU”)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ARM plans submitted to Loan Delivery</strong></td>
<td>2720 through 2729, 2737 and 3252</td>
</tr>
<tr>
<td><strong>SFC for notes with fallback language</strong></td>
<td>785</td>
</tr>
</tbody>
</table>

Freddie Mac has updated Cash Contract Products, Guarantor Security Products, Guarantor Product Types and an Investor Feature Identifier (“IFI”) in support of the transition to SOFR, as detailed below:

<table>
<thead>
<tr>
<th>LIBOR-indexed ARMs</th>
<th>SOFR-indexed ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loan Product Advisor®</strong></td>
<td>No product information is submitted</td>
</tr>
</tbody>
</table>
| **Contract products for Take Out ARM Cash Contract**  | 1/1 1-Year LIBOR-ARM 2/2/6  | 3-Year 6-Month 30-day Average SOFR ARM 2/1/5  
  | 3/1 1-Year LIBOR-ARM 2/2/5 or 6  | 5-Year 6-Month 30-day Average SOFR ARM 2/1/5  
  | 5/1 1-Year LIBOR ARM 2/2/5 or 6  | 7-Year 6-Month 30-day Average SOFR ARM 5/1/5  
  | 7/1 1-Year LIBOR ARM 5/2/5  | 10-Year 6-Month 30-day Average SOFR ARM 5/1/5  
  | 10/1 1-Year LIBOR ARM 5/2/5  |  
| **Security Products for Take Out ARM Guarantor Contract**  | NonCnvrt 1/1 1-Year LIBOR-ARM 2/2/2-6  | NonCnvrt 3-Year 6-Month 30-day Average SOFR ARM 2/1/5  
  | NonCnvrt 3/1 1-Year LIBOR ARM 2/2/2-6  | NonCnvrt 5-Year 6-Month 30-day Average SOFR ARM 2/1/5  
  | NonCnvrt 5/1 1-Year LIBOR ARM 2/2/2-6  | NonCnvrt 7-Year 6-Month 30-day Average SOFR ARM 5/1/5  
  | NonCnvrt 7/1 1-Year LIBOR ARM 5/2/5-6  | NonCnvrt 10-Year 6-Month 30-day Average SOFR ARM 5/1/5  
<p>| NonCnvrt 10/1 1-Year LIBOR ARM 5/2/5-6  |<br />
| NonCnvrt 10/1 1-Year LIBOR ARM 5/2/5-6  |<br />
| NonCnvrt 10/1 1-Year LIBOR ARM 5/2/5-6  |</p>
<table>
<thead>
<tr>
<th>LIBOR-indexed ARMs</th>
<th>SOFR-indexed ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take Out ARM Guarantor Contract</td>
<td>1/1 ARM LIBOR 3/1 ARM LIBOR 5/1 ARM LIBOR 7/1 ARM LIBOR 10/1 ARM LIBOR</td>
</tr>
<tr>
<td>IFI for notes with fallback language</td>
<td>J23</td>
</tr>
</tbody>
</table>

For more background on how the new SOFR-indexed ARM was developed, refer to the Options for Using SOFR in Adjustable Rate Mortgages published by the NY Fed in July 2019.

❖ Additional SOFR ARM details

**SOFR index calculation**

SOFR-indexed ARMs will be indexed to 30-day Average SOFR; the compound average rate will be calculated using the SOFR daily average of the preceding 30 calendar days which will then be applied to the upcoming interest accrual period.

**Index source**

The NY Fed publishes the 30, 90, and 180-day compound SOFR averages daily.

**Interest rate calculation**

There is no change as to how the borrower interest rate will be calculated when using 30-day Average SOFR.

2.4 Preparation for SF SOFR ARMs

❖ Originating and underwriting SF SOFR ARMs

Generally, the processes for originating and underwriting SOFR ARMs will be similar to the existing processes used to originate and underwrite ARMs tied to any other index, and all existing conventional ARM requirements will apply to SOFR ARMs.

**Key concepts**

The GSEs have made or are in the process of making multiple specification updates in the latest versions of their automated underwriting systems (“AUS”) in support of SOFR ARMs, including adding a new enumeration to represent the use of 30-day Average SOFR.

Fannie Mae has applied the specification updates noted below to DU Specification MISMO 3.4 (DU Spec), while Freddie Mac is in the process of applying specification updates to Loan Product Advisor specifications v4.8.01 and v5.0.06. Other existing data requirements (e.g., for margin and index value) will still be required unless otherwise noted.

Lenders should note the following AUS updates when preparing for the origination and underwriting of SOFR-indexed loans.
### Requirements

<table>
<thead>
<tr>
<th>Update timeline</th>
<th>Fannie Mae SOFR ARMs</th>
<th>Freddie Mac SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification updates complete</td>
<td>Loan Product Advisor v. 4.8.01: effective October 1, 2020</td>
<td>Loan Product Advisor v5.0.06: effective March, 2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUS version</th>
<th>DU Specification MISMO 3.4 (DU Spec)¹</th>
<th>LPA v4.8.01 and v5.0.06</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Enumerations</th>
<th>Fannie Mae SOFR ARMs</th>
<th>Freddie Mac SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>“30DayAverageSOFR” added for IndexSourceTypeDescription</td>
<td>“30DayAverageSOFR” to be added for IndexSourceTypeDescription</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> Use of enumeration is optional, as DU does not require identification of a specific ARM index for underwriting evaluation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARM index</th>
<th>Fannie Mae SOFR ARMs</th>
<th>Freddie Mac SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Populate IndexSourceType using “Other” in DU</td>
<td>Lenders to use the following data points in Loan Product Advisor:</td>
<td></td>
</tr>
<tr>
<td>Users have the option to populate IndexSourceTypeOtherDescription with “30DayAverageSOFR”</td>
<td>o IndexSourceType = “Other”</td>
<td></td>
</tr>
<tr>
<td>o IndexSourceTypeOtherDescription = “30DayAverageSOFR”</td>
<td>o IndexSourceTypeOtherDescription = “30DayAverageSOFR”</td>
<td></td>
</tr>
<tr>
<td>The data point IndexSourceType will continue to be required for all ARMs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ARM plan data</th>
<th>Fannie Mae SOFR ARMs</th>
<th>Freddie Mac SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users are still required to submit ARM plans in DU for underwriting evaluation</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Submit generic ARM plans using the InvestorProductPlanIdentifier field</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not submit lender ARM plan data or SOFR ARM plan numbers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, Lenders should note the following with respect to Uniform Mortgage Data Program (“UMDP”) requirements:

- No updates are necessary for the Uniform Loan Application Dataset (“ULAD”), since ARM indexes are not displayed on the Uniform Residential Loan Application (“URLA”)
- There are no planned updates for the Uniform Closing Dataset (“UCD”)
- The new SOFR index will be delivered using IndexType = “Other” and IndexTypeOtherDescription = SOFR
- Data point names for each GSE’s AUS vs. the UCD are different

For more information on existing SOFR impacts on UMDP requirements, [refer to this link](#).

¹ Fannie Mae’s EarlyCheck system also uses the DU input file. The guidance provided for DU submissions is also applicable to EarlyCheck
## Actions to consider

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Actions to consider</th>
</tr>
</thead>
</table>
| **Documentation**                       | ▪ Update FAQs and borrower ARM disclosure documentation  
▪ Update closing instructions and/or train closing agents, escrow agents and closing attorneys  
▪ Review updated procedures for printed vs. eNotes  
▪ Test printing of all updated documents (e.g., notes, riders, Closing Disclosure, other disclosures)  
▪ Update training manuals for origination staff including originators, processors, underwriters, closers, post-closers, and QC  
▪ Update broker and correspondent lending training manuals, policies and documentation                                                                                                                                                                                                 |
| **Lender systems, processes and training** | ▪ Maintain awareness of new field options for standard ARM enumerations (e.g., index type and rate reset period)  
▪ Update Loan Origination System (“LOS”) /vendor systems with new SOFR ARM-related enumerations  
▪ Update LOS product, eligibility and pricing rules  
▪ Develop and implement pricing, hedging and execution strategies  
▪ Provide training for staff including originators, processors, underwriters, closers, post-closers and QC  
  o SOFR adjusts every 6 months, not every year  
  o The minimum initial fixed period for SOFR loans is three years  
▪ Provide communications and/or training for brokers, correspondents, eNote vaults, electronic registries, Document Preparation (“Doc Prep”) and other third-party vendors                                                                                                                                 |
<table>
<thead>
<tr>
<th>Focus area</th>
<th>Actions to consider</th>
</tr>
</thead>
</table>
| GSE systems                | ▪ Directly integrated lenders, LOS and other third-party vendors should coordinate with each GSE to update their interfaces to accommodate new SOFR ARM products  
▪ **Fannie Mae only:** DU and UCD UIs are available for manual data entry, if needed  
▪ **Freddie Mac only:** Loan Product Advisor is available for manual data entry, if needed |
| Document custodian         | ▪ Be aware that as part of the note certification process, the GSEs will require that the Custodian verify, for ARM Notes with the revision date “(rev. 2/20)”, the Lifetime Floor is equal to the ARM’s Margin as stated in the note; if it does not, the discrepancy will be reported as a documentation issue and the Note will not be certified for sale  
▪ This information is reflected in Fannie Mae’s ARM Plans, and an annual update of Freddie Mac’s Document Custody Procedures Handbook will reflect this requirement |

**Helpful links**

For more information on origination and underwriting, refer to the following resources:

**Fannie Mae**

▪ [ARM Plan Matrix](#)  
▪ [ARM Note Riders and Addenda](#)  
▪ [Legal Documents web page](#)  

**Freddie Mac**

▪ [Freddie Mac’s Guide Chapter 4401](#)

❖ **Selling and delivering SOFR ARMs**

Generally, the processes for selling and delivering SOFR ARMs will be similar to the existing processes used to sell and deliver ARMs tied to any other index. Sellers should expect to see additional dropdown options available in GSE systems to reflect the addition of new SOFR offerings, as applicable.

All existing, conventional ARM requirements will apply to SOFR ARMs, including existing Uniform Loan Delivery Dataset (“ULDD”) requirements. For more information on existing UMDP requirements as well as updates to support the transition to the SOFR ARM index, refer to this link.

**Key concepts**

The GSEs have updated their respective ULDD specifications in support of SOFR ARMs, similar to updates made for AUS specifications. Users should note the following updates when
Preparing to sell SOFR-indexed loans to the GSEs.

### Requirements

<table>
<thead>
<tr>
<th></th>
<th>Fannie Mae SOFR-indexed ARMs</th>
<th>Freddie Mac SOFR-indexed ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update timeline</td>
<td>Loan Delivery system updates available August 3, 2020</td>
<td>Loan Selling Advisor system updates available November 16, 2020</td>
</tr>
<tr>
<td>Enumerations</td>
<td>▪ “30DayAverageSOFR” added to IndexSourceTypeDescription</td>
<td>▪ “Other” added to IndexSourceType</td>
</tr>
<tr>
<td></td>
<td>▪ “30DayAverageSOFR” added to IndexSourceTypeOtherDescription</td>
<td>▪ “30DayAverageSOFR” added to IndexSourceTypeOtherDescription</td>
</tr>
<tr>
<td>ARM index data</td>
<td>▪ The new index will be delivered using IndexSourceType = “Other” plus IndexSourceTypeOtherDescription = “30DayAverageSOFR”</td>
<td>▪ IndexSourceTypeDescription added as a data point</td>
</tr>
<tr>
<td></td>
<td>▪ The new index will be delivered using IndexSourceType = “Other” plus IndexSourceTypeOtherDescription = “30DayAverageSOFR”</td>
<td>▪ The new index will be delivered using IndexSourceType = “Other” plus IndexSourceTypeOtherDescription = “30DayAverageSOFR”</td>
</tr>
<tr>
<td>ARM plan data</td>
<td>▪ Sellers should submit one of the published SOFR ARM plan numbers in the ULDD sent to Loan Delivery and/or EarlyCheck; do not submit “Lender ARM Plan” or DU generic ARM plans</td>
<td>▪ N/A</td>
</tr>
</tbody>
</table>

The GSEs have also updated reference product labels, ARM plans, subtypes and pool prefixes as applicable for new SOFR-indexed loans and securities. Refer to the “Securitization of SF SOFR ARMs” section below for more detail.

**Actions to consider**

**Focus areas**

- **Seller systems, processes and training**
  - Train Capital Markets/Secondary Marketing staff to use new pricing screens available for SOFR ARM whole loan commitments, including guaranty fee amounts (“G-fee” amounts for Fannie Mae and Credit Fee in Yield amounts for Freddie Mac)
  - Identify source for current SOFR rates and update internal system feeds
  - Ensure SOFR-indexed ARM interest rates are distributed via all existing methods to all channels
  - Update LOS product, eligibility and pricing rules
  - Develop and implement pricing, hedging and execution strategies
  - Provide training for staff (e.g., capital markets/secondary, post-closers, shippers and investor relations) on all aspects of new products
### Focus areas

<table>
<thead>
<tr>
<th><strong>Actions to consider</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Provide communications and/or training for brokers, correspondents, document custodians, warehouse lenders, disbursement agents, eNote vaults, electronic registries, document file preparers and other third-party vendors</td>
</tr>
<tr>
<td>▪ GSEs’ loan delivery UIs are available for manual data entry, if needed</td>
</tr>
</tbody>
</table>

### GSE systems

<table>
<thead>
<tr>
<th><strong>Actions to consider</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Maintain awareness of how SOFR ARM characteristics are reflected in existing pricing execution, committing and delivery applications:</td>
</tr>
<tr>
<td>o Pricing menu options for cash execution</td>
</tr>
<tr>
<td>o G-fee pricing menu options for MBS execution</td>
</tr>
<tr>
<td>o Additional options for enumerations and ARM Plans (<em>Fannie Mae only</em>) for SOFR-indexed ARM loans</td>
</tr>
<tr>
<td>o Additional Cash Contract Products, Guarantor Security Products, and Guarantor Product Types for SOFR-indexed ARMs (<em>Freddie Mac only</em>)</td>
</tr>
</tbody>
</table>

### Helpful links

For more information on LIBOR transition impacts to selling and delivering SOFR ARMs, refer to:

**Fannie Mae**
- [Fannie Mae’s Selling Guide](#)

**Freddie Mac**
- [Freddie Mac’s Seller/Servicer Guide](#)

### Securitization of SF SOFR ARMs

The GSEs have developed new pool prefixes, subtypes and documentation language to support the securitization of SOFR-indexed ARMs. Impacted parties should be ready to operationalize these changes when involved in the purchase, trading or investor reporting of L1 and L2 SOFR MBS.

### Key concepts

The GSEs are introducing new prefixes and subtypes for MBS and PCs as outlined in the subsequent chart:

<table>
<thead>
<tr>
<th>Fannie Mae</th>
<th>Freddie Mac</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product description</strong></td>
<td><strong>Prefix</strong></td>
</tr>
<tr>
<td>3 Year</td>
<td>SO</td>
</tr>
</tbody>
</table>
Fannie Mae

<table>
<thead>
<tr>
<th>Product description</th>
<th>Prefix</th>
<th>ARM plan numbers</th>
<th>ARM subtype</th>
<th>Prefix</th>
<th>Pool number range</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Year</td>
<td>SO</td>
<td>4927</td>
<td>85B</td>
<td>8B</td>
<td>8B0001-8B9999</td>
</tr>
<tr>
<td>7 Year</td>
<td>SO</td>
<td>4928</td>
<td>85C</td>
<td>8C</td>
<td>8C0001-8C9999</td>
</tr>
<tr>
<td>10 Year</td>
<td>SO</td>
<td>4929</td>
<td>85D</td>
<td>8D</td>
<td>8D0001-8D9999</td>
</tr>
</tbody>
</table>

Freddie Mac will use the existing pool prefix for 30-day Average SOFR ARM Giant PCs.

<table>
<thead>
<tr>
<th>Product description</th>
<th>Prefix</th>
<th>Pool number range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various indices, WAC ARM Giant</td>
<td>84</td>
<td>840001-849999</td>
</tr>
</tbody>
</table>

In addition, the 30-day Average SOFR Hybrid ARM Index codes have been created by each GSE for L1 and L2 disclosure purposes:

- Fannie Mae plans to reflect a new index code and new subtypes in its MBS Glossary and Subtype webpage.
- Freddie Mac has added code 61 for 30-day Average SOFR. This Index code will be disclosed via the existing disclosure field for loan level (ID L-046) and security level (ID S-51). Refer to the Single-Family Disclosure Guide for disclosure file details.

SF legal documentation, including MBS Disclosures, Prospectus and Prospectus Supplements will also be updated to include SOFR as an index.

**Eligible collateral for Freddie Mac new issue ARM Giant PCs**

The 45-day Fixed-rate and 75-day ARM Giant Collateral Prefix Eligibility Chart has been updated to include 30-day Average SOFR-indexed ARMs. In addition, the existing ARM Giant PC pooling rules are available on Freddie Mac’s Mortgage-Backed Securities website. It is not expected that changes to the ARM Giant PC pooling rules will be necessary to accommodate SOFR ARMs.

**Actions to consider**

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>▪ Note updates to base language in prospectus documents, including new index codes</td>
</tr>
<tr>
<td>GSE systems</td>
<td>▪ Note the inclusion of a new pool prefix and subtypes to represent new SOFR ARM characteristics</td>
</tr>
</tbody>
</table>
Helpful links

For more information on LIBOR transition impacts on securitization of SOFR ARMs, refer to the following resources:

**Fannie Mae**
- Fannie Mae’s Pool Prefix Glossary
- Fannie Mae’s ARM MBS Subtypes
- Fannie Mae’s updated MBS Prospectus language

**Freddie Mac**
- Freddie Mac’s Prefix Library

❖ **Servicing SF SOFR ARMs**

While a new underlying index will be used to calculate borrower payments, the calculations themselves will not change.

**Key concepts**

Servicers will need to incorporate the new SOFR index into calculations and reconciliations for borrower payments; however, the calculations are not changing.

Servicers will need to incorporate the SOFR index into their current rate and payment adjustment processes.

**Actions to consider**

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of a new index in rate and payment calculations</td>
<td></td>
</tr>
</tbody>
</table>
- Update and test systems, reporting and other processes or activities related to interest rate adjustment calculations to incorporate SOFR index product parameters  
- These include initial fixed period, current index value, margin, lookback period, and rounding method, plus the initial, subsequent and lifetime caps/ceilings and floors, underlying index, reset periods and subsequent caps |
| Transfer of servicing |  
- Ensure that servicing transferees have the capability to service SOFR loans |

**Helpful links**

For more information on LIBOR transition impacts on servicing of SOFR ARMs, refer to:

- Fannie Mae’s Single-Family Servicing Guide
- Freddie Mac’s Seller/Servicer Guide
Cessation of purchase of SF LIBOR ARMs

As previously noted, the GSEs will no longer accept LIBOR-indexed ARMs after December 31, 2020. Sellers should take note of the following as they continue to sell new LIBOR ARMs to the GSEs and monitor the risks of continuing to increase LIBOR exposure through the remainder of 2020.

Key concepts

- LIBOR ARMs seasoned more than 6 months are currently not eligible for sale to the GSEs.
- The mandate to utilize the updated uniform ARM notes and riders by June 1, 2020 applies to all ARMs (including LIBOR ARMs).
- The GSEs will not accept LIBOR ARMs with Application Received Dates after September 30, 2020.
- The GSEs will only purchase LIBOR ARMs as whole loans for cash on or before December 31, 2020 (which may be securitized thereafter) or in exchange for securities provided the related MBS/PC pools have an issuance date on or before December 1, 2020:
  - For Fannie Mae, this policy applies to all LIBOR ARM plans, including plan numbers 2720 through 2729 and 2737.
- **Fannie Mae:** Sellers have been instructed to deliver SFC 785 for any non-SOFR-indexed ARMs with a note and rider containing new fallback language.
- **Freddie Mac:** Sellers have been instructed to deliver IFI J23 for any non-SOFR-indexed ARMs with a note and rider containing new fallback language.

Actions to consider:

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lender systems, processing, and training</td>
<td>- Develop and implement processes to ensure LIBOR ARMs destined for GSE acquisition do not have an Application Received Date after September 30, 2020</td>
</tr>
<tr>
<td></td>
<td>- Develop and implement processes to ensure LIBOR ARM loan applications in pipeline destined for GSE acquisition are:</td>
</tr>
<tr>
<td></td>
<td>- Closed and purchased by December 31, 2020</td>
</tr>
<tr>
<td></td>
<td>- Changed to another eligible product (review declination and counteroffer procedures)</td>
</tr>
<tr>
<td></td>
<td><em>Note: pay special attention to LIBOR ARMs with an initial fixed period of one year; there is no comparable SOFR ARM.</em></td>
</tr>
</tbody>
</table>

Fannie Mae: Sellers have been instructed to deliver SFC 785 for any non-SOFR-indexed ARMs with a note and rider containing new fallback language.

Freddie Mac: Sellers have been instructed to deliver IFI J23 for any non-SOFR-indexed ARMs with a note and rider containing new fallback language.
<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
</table>
| **Seller systems, processes and training** | ▪ Develop and implement processes to ensure LIBOR ARMs destined for GSE acquisition do not have an Application Received Date after **September 30, 2020**  
▪ Develop and implement processes to ensure LIBOR ARM loan applications from all channels destined for GSE acquisition are:  
  o Closed and sold to GSEs by **December 31, 2020**, or  
  o Changed to another eligible product (review lock transfer procedures)  
  
  *Note: Pay special attention to LIBOR-indexed ARM loans with an initial fixed period of one year; there is no comparable SOFR ARM.*  
▪ Expect to see removal of LIBOR-indexed ARM loan options from committing and delivery applications by December 31, 2020  
▪ Ensure SFC 785 (for Fannie Mae) and IFI J23 (for Freddie Mac) are provided at delivery for all non-SOFR-indexed ARMs with notes and riders that include the new fallback language (published on February 5, 2020 and mandated for ARMs with Note Dates on or after June 1, 2020)  
  o This may require Loan Origination System LOS/LOS vendor updates and/or coordination with Doc Prep vendors. |
| **GSE systems** | ▪ Note that LIBOR ARM characteristics will no longer be reflected in existing pricing, execution and delivery applications, such as:  
  o Pricing menu options for cash execution  
  o G-fee pricing menu options for guarantor execution  
  o Index type and reset period menu options for loan delivery data sets  
  
  **Fannie Mae only:** LIBOR ARM plans will be retired |

**Helpful links**

For more information on LIBOR transition impacts on the ability to sell and deliver LIBOR ARMs, refer to:

▪ [Fannie Mae’s Selling Guide](#)  
▪ [Freddie Mac’s Seller/Servicer Guide](#)
2.5 Transitioning existing SF LIBOR ARMs

The GSEs are continuing to work with the ARRC to define the timing and strategy for transitioning legacy LIBOR ARMs to an ARR (i.e., SOFR). The GSEs are coordinating closely with FHFA on this important matter. Additional details (including details around servicing requirements, legal/document updates and other impacts) will be released as the timeline and strategy are finalized.

For updates on industry efforts to advance the legacy transition, refer to the ARRC’s website.
3 Single-Family Credit Risk Transfer (“SF CRT”) transactions

3.1 Introduction

The purpose of this chapter is to provide market participants guidance on new SOFR-indexed SF CRT issuances and the transition of legacy LIBOR-indexed SF CRT transactions in the future.

3.2 SOFR-indexed SF CRT new issuance

❖ Objectives

Freddie Mac will begin issuing SOFR-indexed SF CRT deals in Q4 2020, and Fannie Mae will begin issuing SOFR-indexed CRT deals in Q1 2021 (both subject to market conditions and investor and market readiness). Both GSEs will discontinue issuance of LIBOR-indexed SF CRT deals by the end of Q4 2020.

The move to SOFR-indexed SF CRT issuances is relatively simple for the GSEs from an operational perspective if there is a well-defined SOFR-based index to determine the coupon payments due on the notes. This is because GSE SF CRT programs use a synthetic reference pool.

❖ SOFR indices

Currently there is no Term SOFR available for use in SOFR-indexed CRT deals. However, the availability of Term SOFR is not critical for the issuance of the first SOFR SF CRT transaction.

The GSEs currently plan to structure SOFR-indexed CRT transactions so that they would:

- Initially use 30-day Average SOFR (published by the NY Fed) as the reference rate, with a Determination Date of 2 Business Days (2BD) prior to the beginning of the accrual period for CRT securities
- Subsequently transition to using an IOSCO compliant one-month Term SOFR at a later date, if the appropriate regulatory authority approves such a rate:
  - The subsequent transition would be made as soon as one-month Term SOFR can be operationalized and is administratively feasible, and the transition would make use of the same Determination Date conventions mentioned for 30-day Average SOFR above.
  - The GSEs do not anticipate that a spread adjustment will be applied when this subsequent transition to term SOFR is made.
  - This subsequent transition could occur prior to the time LIBOR ceases or is declared to be non-representative.

Once Term SOFR is operationalized and administratively feasible, the GSEs would cease any further new issuance using a compound average of SOFR and would solely utilize Term SOFR.
3.3 Timeline and milestones

The following timeline illustrates upcoming milestones related to issuing SOFR-indexed SF CRTs and ceasing to issue LIBOR-indexed SF CRTs. While the GSEs plan to be operationally ready to issue SOFR-indexed SF CRTs in Q4 2020 (Freddie Mac) and Q1 2021 (Fannie Mae), actual issuance timelines will depend on the readiness of investors, broker/dealers, trustees/global agents and data/analytics vendors to support or invest in SOFR-indexed CRT deals.

❖ Related SOFR market development

SOFR market conventions:

- **SOFR market conventions:** Fed’s calculator for computing compound averages of SOFR and a SOFR index became available on March 2, 2020.

- **Development of SOFR derivatives market:** The GSEs expect that the move to SOFR-based discounting by CME/LCH (expected October 2020) will significantly improve the liquidity of the SOFR derivatives market. This should help the issuance of SOFR SF CRT deals since the date of implementation is likely prior to the first SF CRT SOFR issuance.

- **SOFR term structure:** Currently there is no forward-looking Term SOFR available. With the development of the SOFR derivatives market, forward-looking Term SOFR (particularly one-month SOFR) could potentially become available in 2021. However, as noted above, the availability of a forward-looking term SOFR is not critical for the issuance of the first SOFR SF CRT transaction.

❖ GSE alignment

The GSEs are aligned on the choice of an ARR that will be utilized for future SF CRT securities. This alignment will ensure the SF CRT transitions are consistent between the GSEs and will minimize potential disruptions to the SF CRT market. Specifically, Fannie Mae’s CAS program and Freddie Mac’s STACR program will be aligned on the following:

1Actual issuance dates will be based on readiness timelines for investors, broker/dealers, trustees/global agents and data/analytics vendors
Selection of SOFR as the index for new issuance SF CRT deals
- SOFR index and methodology (e.g., 30-day Average SOFR or a forward-looking one-month Term SOFR)
- Fallback triggers and waterfall for SOFR new issuances

❖ **Actions market participants should consider**

The GSEs encourage all SF CRT market participants to conduct an internal operational readiness assessment and start any operational build needed to participate in SOFR-indexed SF CRT transactions as early as practicable. Investment guidelines and other key governance documentation should be reviewed to ensure that they can transact in SOFR. Please refer to section 1.3, Actions market participants should consider, for FAQs and other resources related to the SF CRT LIBOR transition.

### 3.4 Legacy SF CRT transition

❖ **Objectives**

As of March 31, 2020, Fannie Mae and Freddie Mac have $32.5 billion and $27 billion respectively of outstanding SF CRT notes that are indexed to one-month LIBOR. The GSEs are continuing to work with FHFA and the ARRC to define the timing and strategy for transitioning outstanding SF CRT notes to an ARR, and additional details will be released as the timeline and strategy are finalized.

In moving existing LIBOR-indexed SF CRT notes to an ARR, the GSEs will consider, among other things, the following:
- Maintaining the economics of the existing notes
- Minimizing negative impact to the liquidity of existing notes
- Transparency and consistency with industry solutions

❖ **Trigger events in existing SF CRT deals**

The GSEs have different contract language for their deals and expect to provide more updates later this year on the transition plan for legacy SF contracts. For more information on trigger events and fallback language for existing deals, refer to the following links for Fannie Mae and Freddie Mac.
4 Collateralized Mortgage Obligations ("CMOs")

4.1 Introduction

The ARRC endorsed SOFR as its recommended alternative rate to LIBOR in anticipation of the potential cessation of LIBOR as early as 2022.

To prepare for a potential cessation of LIBOR, the GSEs recently adopted a slightly modified version of the ARRC securitization waterfall for new-issue LIBOR-indexed CMOs. This waterfall language generally provides for the use of Term SOFR as the first alternative rate. If Term SOFR is not available, the next alternative rate is 30-day Average SOFR.

The GSEs plan to offer SOFR-indexed CMOs for settlement beginning in July 2020. Additionally, under the guidance of FHFA, Freddie Mac and Fannie Mae will cease offering new LIBOR-indexed CMOs for issuance starting as of October 2020. The GSEs will continue to issue new resecuritizations of LIBOR-indexed CMOs (also known as “ReREMICs”), provided that such resecuritizations do not increase the total unpaid principal balance of the LIBOR-indexed CMOs outstanding.

4.2 Overview

There are a variety of ways to implement a SOFR CMO rate structure. The feasibility of these options depends on events that have not yet occurred or other variables (potential emergence/publication of Term SOFR rates, operational capabilities at both GSEs, the NY Fed, and Common Securitization Solutions, etc.).

The GSEs currently plan to structure new-issue Delay and Non-Delay SOFR-indexed CMOs so that they would:

- Initially use 30-day Average SOFR published by the NY Fed as the reference rate, with a Determination Date of 2 Business Days (2BD) prior to the beginning of the accrual period for 45-day, 55-day, and 75-day Delay and Non-Delay securities (same as current LIBOR-indexed CMOs)
  - The CMO program will transition to a Term SOFR rate at the GSEs’ discretion at a later date if the appropriate regulatory authority approves such a rate (for this purpose, “appropriate regulatory authority” generally refers to the Federal Reserve, the NY Fed or applicable official committee (e.g., the ARRC))
  - The transition would be made as soon as the Term SOFR rate can be operationalized and is administratively feasible, and the transition would make use of the same Determination Date conventions mentioned for 30-day Average SOFR above
  - This transition could occur prior to the time LIBOR ceases or is declared to be non-representative
- Utilize at-issuance disclosure and operative documents that would provide that the CMO securities would accrue interest in accordance with the bullets above
Once a Term SOFR rate is operationalized and administratively feasible, the GSEs would cease any further new issuance using 30-day Average SOFR and would utilize solely the Term SOFR rate.

### 4.3 Eligible collateral

For new-issue SOFR-indexed CMOs, the GSEs plan to accept all collateral that is currently acceptable for LIBOR-indexed structures at each respective entity. For more information on how collateral may be affected by the transition, refer to “Securitization of SOFR ARMs” in section 2.4 Preparation for SF SOFR ARMs.

### 4.4 Issuance

#### Delay and Non-Delay (30-day Average SOFR)

**Key updates**

The Determination Date for 45-day, 55-day, and 75-day Delay and Non-Delay securities based on 30-day Average SOFR is 2BD prior to the beginning of the accrual period. This is the same as the current practice for LIBOR-indexed securities.

If the GSEs transition the Delay and Non-Delay securities from 30-day Average SOFR to Term SOFR, there will be no change to the Determination Date. The Determination Date will continue to be 2BD prior to the beginning of the accrual period.

### 4.5 Administration

#### Delay

**Key updates: 45-day, 55-day and 75-day Delay CMOs**

For 45-day, 55-day and 75-day Delay CMOs based on 30-day Average SOFR (or “Compounded SOFR” per the subsequent timelines), the Determination Date will be 2BD prior to the beginning of the accrual period. This is the same as for LIBOR-indexed CMOs, which also have a Determination Date of 2BD prior to the accrual period (prior month). The graphics on the subsequent pages display the timing:
45-day Delay

Current State: One-Month LIBOR

Hypothetical Implementation: Compounded SOFR

Hypothetical Availability: Term SOFR

55-day Delay

Current State: One-Month LIBOR

Hypothetical Implementation: Compounded SOFR

Hypothetical Availability: Term SOFR

Legend
- Rate Aligns with Accrual Period
- Rate Does Not Align with Accrual Period
75-day Delay

Non-Delay

Key updates: 45-day, 55-day and 75-day Non-Delay CMOs

For 45-day, 55-day and 75-day Non-Delay CMOs based on 30-day Average SOFR, the Determination Date will be 2BD prior to the beginning of the accrual period. This is the same as for LIBOR-indexed CMOs, which have a Determination Date of 2BD prior to their respective accrual periods (the 13th for 45-day, or the 23rd for 55-day) of the month preceding payment, or the 13th (75-day) of the second month preceding payment. The graphics on the subsequent pages display the timing:
### Disclosure changes

#### Key updates

Index rate disclosure files now contain a new column titled “Current Month Payment Indicator” which contains a “Y” if the rate applies to the current month’s payment factor calculation and an “N” if it does not.

CSS will publish index rate files on BD1 (for all Delay securities), on the 15th of the month minus 2 business days (for Non-Delay 45-day and 75-day securities), and the 25th of the month minus 2 business days (for Non-Delay 55-day securities) at **6:30 PM**; the previous schedule had the posting of files at 4:30 PM for Freddie Mac.

#### Actions to consider

Discuss changes to disclosures with your disclosure vendor to ensure that your system can correctly apply the new “Current Month Payment Indicator” value.
4.7 Approach for transitioning legacy CMOs

The GSEs are continuing to work on defining the timing and strategy for transitioning legacy LIBOR-based CMOs to an ARR. The GSEs are coordinating closely with FHFA on this important matter. The Enterprises each recently announced that they intend for their respective legacy LIBOR-indexed CMOs to be treated the same as their new-issue LIBOR-indexed CMOs in the event LIBOR ceases to be published or is declared to no longer be representative, in that the legacy LIBOR-indexed CMOs would also transition to Term SOFR (depending on its availability) or Compounded SOFR. For more information, see the announcements made by Fannie Mae and Freddie Mac.
5  Fannie Mae Multifamily ("MF") ARMs and MBS

5.1  Introduction

The Multifamily borrower community relies on a wide range of variable rate financing options from Fannie Mae. In order to ensure stability across all product lines, Fannie Mae is developing SOFR-indexed offerings for Structured ARM ("SARM"), 7/6 ARM and Hybrid ARM products. In addition, Fannie Mae will provide an additional SOFR-indexed capped ARM structure to ensure a broad range of financing solutions.

More product information can be found on Fannie Mae’s Multifamily website.

❖  Transition preparation

Fannie Mae is taking the following steps to prepare for the transition from LIBOR for MF ARMs:

▪  Under FHFA’s guidance, announced:
  o  September 30, 2020 as last application date for LIBOR loans to be accepted at Fannie Mae
  o  December 1, 2020 as the last MBS pool issue date for LIBOR-indexed ARM pools
  o  December 31, 2020 as the last date for cash/whole loan purchase of LIBOR-indexed ARMs
▪  Developing SOFR-indexed offerings using existing product structures (i.e. SARM, ARM 7/6 and Hybrid ARM products)
▪  Designing a new MF capped ARM product that uses 30-day Average SOFR as the underlying index
▪  Developing a comprehensive plan for the transition of existing LIBOR-indexed ARMs on Fannie Mae’s book to an ARR once LIBOR is no longer available
▪  Providing information and training throughout the process to ensure a smooth transition

5.2  Transition milestones

Fannie Mae will stop purchasing and securitizing LIBOR-indexed ARMs by the end of 2020. Fannie Mae intends to begin purchasing SOFR-indexed ARMs no later than Q4 2020. By doing this, Fannie Mae anticipates being able to meet demand for variable rate loans without disruption.

Fannie Mae is working toward a coordinated strategy, in advance of LIBOR cessation, with ARRC, FHFA and industry stakeholders to transition legacy LIBOR-indexed instruments.
**Timeline** | **Milestone**
--- | ---
1 | By Q4 2020
- MF will release a SOFR-indexed capped ARM product and begin offering SOFR-indexed SARMs, 7/6 ARMs and Hybrid ARMs
- System capabilities will be in place for Lenders to deliver SOFR-indexed ARMs with an embedded cap and SOFR-indexed uncapped ARMs. See below for notes on the external cap market
- Investors will be able to invest in Fannie Mae issued MBS based on a capped SOFR-indexed ARM

2 | October 1, 2020
Applications for LIBOR-indexed ARMs will no longer be accepted (i.e., must be designated as “Under Application” in DUS Gateway® on or before September 30, 2020).

3 | January 1, 2021
Multifamily will no longer purchase LIBOR-indexed ARMs (i.e., must be purchased on or before December 31, 2020 as a Cash Mortgage Loan or MBS Mortgage Loan with an Issue Date on or before December 1, 2020)

4 | 2021
Legacy LIBOR-indexed ARM products will be converted to an ARR at MF’s discretion upon LIBOR no longer being available

5.3 **SOFR-indexed ARM characteristics**

**Product conventions**

In accordance with the transition timeline, specific product features will be made available at an appropriate time such that all relevant market participants are properly prepared to support Fannie Mae MF SOFR-indexed ARMs.

Product conventions are described at a high level in the table below:

<table>
<thead>
<tr>
<th>LIBOR ARMs</th>
<th>SOFR ARMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate determination</td>
<td>Survey of inter-bank lending</td>
</tr>
<tr>
<td>Floating-rate index</td>
<td>1-month, 3-month or 6-month LIBOR</td>
</tr>
<tr>
<td>Cap requirement</td>
<td>Embedded or 3rd party caps available</td>
</tr>
</tbody>
</table>

The underlying index for MF SOFR-indexed ARMs, the 30-day Average SOFR, is published by the NY Fed at approximately 2:30 p.m. ET and can be found on the [New York Fed](https://www.newyorkfed.gov) website. The new index will also be available from third party vendors (e.g., Bloomberg and Refinitiv).
❖ **Interest rate calculation**

Fannie Mae’s MF SOFR-indexed products will accrue interest based on the same calendar-month accrual periods that exist for LIBOR-indexed ARMs.

On each interest rate change date, the interest rate is adjusted to equal the sum of the mortgage margin plus the latest index value available as of the date that precedes the interest rate change date by the number of days set forth in the mortgage note (1 business day for all MF SOFR-indexed ARM loans).

The following sample timeline exhibits how the interest rate is determined for a January accrual month.

1. **Last Day of December**
   - 30-Day Average SOFR Rate published at 2:30pm E.T.

2. **First Day of January**
   - Rate change date.
   - Interest rate adjusts based on prior days published 30-Day Average SOFR Rate.

3. **First Day of February**
   - Borrower payment due, including interest accrued in January.

❖ **External cap market**

The availability of 3rd party SOFR interest rate caps is necessary for offering and acquiring uncapped MF SOFR-indexed ARMs. While it is possible that interest rate cap providers may begin offering interest rate caps when Fannie Mae begins issuing SOFR-indexed loans, it is not guaranteed. Multifamily is actively engaging with 3rd party interest rate cap providers to prepare for and understand developments in the market for 3rd party interest rate caps.

For more information on the transition of existing LIBOR-indexed caps, refer to the Transitioning existing MF LIBOR ARMs section below.

❖ **MBS features**

Fannie Mae will create new ARM plans and subtypes to support SOFR-indexed ARM MBS. Once defined, these new ARM features will be updated on Fannie Mae’s website.

Fannie Mae has also created new pool prefixes, which will be added to the Pool Prefix glossary once available.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF</td>
<td>Conventional Adjustable-Rate Mortgages, Secured Overnight Financing Rate, Actual/360 interest day basis calculation; Multifamily</td>
</tr>
</tbody>
</table>
### Prefix | Description
--- | ---
MF | Conventional Adjustable-Rate Mortgages, Secured Overnight Financing Rate, 30/360 interest day basis calculation; Multifamily
HW | Conventional Adjustable-Rate Supplemental Lien Mortgages, Secured Overnight Financing Rate, Actual/360 interest day basis calculation; Multifamily
XF | Adjustable-Rate Mega backed by Conventional Adjustable-Rate Mortgages indexed to the Secured Overnight Financing Rate; Actual/360 interest day basis calculation; Multifamily
YF | Adjustable-Rate Mega backed by Conventional Adjustable-Rate Mortgages indexed to the Secured Overnight Financing Rate; 30/360 interest day basis calculation; Multifamily
XW | Adjustable-Rate Mega backed by Conventional Adjustable Rate Supplemental Lien Mortgages indexed to the Secured Overnight Financing Rate; Actual/360 interest day basis calculation; Multifamily
HC | Conventional Hybrid Adjustable-Rate Mortgages; initial Fixed-Rate period followed by an Adjustable-Rate period for the remaining term; Secured Overnight Financing Rate, Actual/360 interest day basis calculation; Multifamily
MC | Conventional Hybrid Adjustable-Rate Mortgages; initial Fixed-Rate period followed by an Adjustable-Rate period for the remaining term; Secured Overnight Financing Rate, 30/360 interest day basis calculation; Multifamily
HU | Conventional Hybrid Adjustable-Rate Supplemental Lien Mortgages; initial Fixed-Rate period followed by an Adjustable-Rate period for the remaining term; Secured Overnight Financing Rate, Actual/360 interest day basis calculation; Multifamily

#### 5.4 Preparation for MF SOFR-indexed ARMs

❖ **Originating and underwriting MF SOFR-indexed ARMs**

Originators and underwriters will be impacted by the change in index as well as new terms that may arise from SOFR-indexed ARM loan products. Originators also play a central role in educating Multifamily borrowers on Fannie Mae ARM products and impacts resulting from the transition from LIBOR. Specific product terms will be publicly announced in the third quarter of 2020, providing originators with a plan to address impacts to origination and underwriting processes.

**Key updates**

- New index publication source
- Floating rate adjustment period
- Cap structure
Margin resulting from change in index
Product terms of capped SOFR-indexed ARMs

Actions to consider

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrower communications</td>
<td>Work with Fannie Mae to develop communication plans to explain changes resulting from the LIBOR transition and availability of SOFR-indexed ARMs to Multifamily borrowers</td>
</tr>
</tbody>
</table>
| System identification and update | Conduct an inventory of impacted processes and systems  
                                           ▪ Update origination processes and underwriting systems to accommodate MF SOFR-indexed ARMs |
| Information             | Follow industry developments and announcements and determine impacts to origination and underwriting that may arise  
                                           ▪ Read Multifamily communications and attend product trainings related to MF SOFR-indexed ARMs |

Other considerations

The Multifamily Guide will be updated to reflect MF SOFR-indexed ARMs.

Helpful links

For more information on LIBOR transition impacts to origination and underwriting, refer to:

▪ [ARRC website](#)  
▪ [Multifamily Guide](#)

❖ Selling and delivering MF SOFR-indexed ARMs

The process for selling and delivering SOFR-indexed ARMs will not vary substantially from the current process for LIBOR-indexed ARMs. Updates to Fannie Mae systems will be made to align with the availability of SOFR-indexed ARMs.

There may be a period during which both MF SOFR- and MF LIBOR-indexed ARMs are offered by Fannie Mae. Fannie Mae systems will reflect the ability to sell and deliver both SOFR- and LIBOR-indexed ARMs during any period in which products based on either index are eligible for delivery. Lenders should reach out to Fannie Mae to address any issues that may arise from selling and delivering a SOFR-indexed ARM.

Lenders who continue to sell LIBOR-indexed ARMs should plan for and consider the following updates as they continue to sell LIBOR-indexed ARMs to Fannie Mae and monitor the risks of continuing to increase LIBOR exposure ahead of the anticipated LIBOR cessation date.

Key updates

▪ The last day for LIBOR-indexed ARMs to be under application in DUS Gateway is
- All LIBOR-indexed ARMs must be purchased on or before December 31, 2020 as a Cash Mortgage Loan or have an Issue Date before December 1, 2020 for an MBS Mortgage Loan.
- Fannie Mae systems will reflect options and dropdowns for SOFR-indexed ARMs as SOFR rollouts occur.
- Options and dropdowns for LIBOR-indexed loan products will remain visible in the systems until the application deadline.

**Actions to consider**

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>System identification and update</td>
<td>▪ Conduct an inventory of impacted processes and systems</td>
</tr>
<tr>
<td></td>
<td>▪ Update selling and delivery systems and processes to accommodate SOFR-indexed ARMs</td>
</tr>
<tr>
<td>Information</td>
<td>▪ Attend trainings and read FAQs and job aids released by Fannie Mae providing details related to selling and delivering SOFR-indexed ARMs</td>
</tr>
</tbody>
</table>

**Helpful links**

For more information on selling and delivering, refer to:
- [Multifamily Learning Center](#)

❖ **Securitization of MF SOFR-indexed ARMs**

Fannie Mae-issued SOFR-indexed MBS will include new attributes to facilitate securitization and accurate disclosure in the capital markets. The process will mirror issuance of existing LIBOR-indexed securities, but investors should be prepared to understand differences between LIBOR- and SOFR-indexed ARMs that underpin the MBS they invest in.

**Key updates**

- As detailed in previous sections, new MF ARM plans have been created and added to Multifamily systems to represent SOFR-indexed ARMs.
- Pool prefixes have been created to detail security characteristics.
- Legal documentation will be updated to note the inclusion of SOFR as a valid underlying index.

**Actions to consider**

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor awareness</td>
<td>▪ Investors should maintain awareness of market developments and impacts that a new underlying index may have when investing in SOFR-indexed MBS</td>
</tr>
<tr>
<td>Legal documentation</td>
<td>▪ Review updates to base prospectus documents</td>
</tr>
</tbody>
</table>
Focus areas | Actions to consider
--- | ---
Security characteristics | ▪ Note the inclusion of pool prefixes and subtypes to represent new SOFR-indexed ARM characteristics

Helpful links
For more information on LIBOR transition impacts on securitization of MF SOFR-indexed ARMs, refer to:
▪ DUS Disclose

❖ Servicing MF SOFR-indexed ARMs
Servicers will be required to manage ARM payments throughout the life of newly originated SOFR-indexed loans. Servicing systems will require updates to manage calculations and reconciliations for borrower payments using the new index rate. If a servicing transfer is necessary, the existing servicer must also be aware of the ability for new servicers to conduct activities using a new index.

Key changes
▪ Interest payments calculated based on SOFR
▪ New index location
▪ Relevant systems and processes will require updates to reflect the new index and adjustment period

Actions to consider

<table>
<thead>
<tr>
<th>Focus areas</th>
<th>Actions to be taken</th>
</tr>
</thead>
</table>
| Interest payment calculations | ▪ Update and test systems, reporting and other processes or activities so that they may:  
  o Process/incorporate the SOFR index  
  o Adjust interest accrual calculations for changes in the underlying index, reset periods and subsequent caps |
| Transfer of servicing | ▪ Ensure that potential servicing transferees have the capability to service SOFR-indexed ARMs |
| System updates | ▪ Catalogue impacted systems and execute system updates for the delivery of SOFR-indexed ARMs |

Helpful links
For more information on LIBOR transition impacts to servicing SOFR-indexed ARMs, refer to:
▪ Practical Implementation Checklist for SOFR Adoption
▪ CRE Finance Council LIBOR Transition Updates
5.5 Transitioning existing MF LIBOR-indexed ARMs

Fannie Mae is continuing to participate in industry discussions through the ARRC on the timing and strategy for transitioning legacy LIBOR-indexed ARMs to an ARR. In addition, Fannie Mae is coordinating with FHFA on these topics.

❖ Existing third-party caps

Consult your interest rate cap agreements for specific language on the transition to an ARR. Fannie Mae expects that each interest rate cap provider will select a market accepted alternative. The borrower’s obligation to purchase replacement interest rate caps as required by the loan documents for existing LIBOR-indexed ARMs is unaffected.

Fannie Mae will develop a transition strategy for loans with third party LIBOR-indexed caps and maturities past January 1, 2022.

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.
Freddie Mac Multifamily (“MF”) Floating Rate Loans and Securities

6.1 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 intend to preserve all existing floating-rate products throughout the transition to SOFR.

Product information is available on our website at https://mf.freddiemac.com/product/.

6.2 Planned 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 will support our shared mission to adopt SOFR.

❖ Conventional, Seniors Housing, Targeted Affordable Housing (TAH)

SOFR index calculation

For our Conventional, Seniors Housing, and TAH business lines, SOFR-indexed loans will initially be indexed to a compound average of SOFR. At this time, the compound average rate is anticipated to be the 30-day Average SOFR (as published by the NY Fed) which will then be applied to the upcoming interest accrual period (“Anticipated SOFR Index”)

Index source

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 intends to use the Federal Reserve’s published rates on their website for index determination.

Interest rate calculation

Similar to our LIBOR-indexed loan products, SOFR-indexed loans will continue to feature calendar-month interest accrual periods. Like LIBOR which is determined on the business day preceding the beginning of the interest accrual period, 30-day Average SOFR will be determined after 2:30 p.m. ET on the business day preceding the beginning of the interest accrual period.

Note that even though the Anticipated SOFR Index will be determined based on a 30-day “lookback”, the rate will be applied “in advance” of the applicable interest accrual period. For example, for a January accrual period, the Anticipated 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 then be applied to calculate interest throughout January, which will then be payable on February 1.
Interest rate protection

Interest rate protection will be required for our SOFR-indexed loans. As with LIBOR-indexed loan products, Freddie Mac may require borrowers to obtain third-party caps. At this time, third-party caps that reference a SOFR-based index are not available. Freddie Mac is closely monitoring market developments and, as Freddie Mac gets closer to quoting SOFR-indexed loans, Freddie Mac will notify our customers of their interest rate protection options.

❖ Small Balance Loan Hybrid Floating Rate loans

Product level details for SBL Hybrid Floating Rate loans indexed to SOFR are in development and will be published in the near future. Similar to Conventional loans, non-essential product changes will be minimized to support a smooth transition to SOFR.

Unlike other Multifamily lines of business, Small Balance Loans offer delegated quoting. SOFR-related modifications to the SBL Hybrid Floating Rate loans origination process is expected to be minor, however, any changes deemed necessary will be tailored to the delegated quote process.

6.3 Origination & underwriting process impacts

❖ Conventional, Seniors Housing, TAH

Quote submission

(a) Specify the requested index:
There may be an overlap period where both LIBOR- and SOFR-indexed loans will be available for quote. During any overlap period, all quote request packages should specify the requested index type. An indication should be provided in the narrative, and when available, in the Loan Submission Template (LST) and Digital Loan Submission.

(b) Refinance Test verification:
To assess maturity risk, our Refinance Test considers the loan’s index to project future floating-rate debt service payments. Freddie Mac is working to add SOFR as an index option. Ahead of quote submission, the Optigo® Lender should confirm that the latest Refinance Test with SOFR optionality has been used, and that the correct index has been chosen.

The Refinance Test is available on our website at https://mf.freddiemac.com/lenders/uw/.

(c) Review your quote:
When you receive a floating-rate quote during the transition to SOFR, Freddie Mac recommends a thorough review of the quoted loan terms and stipulations. If clarification is needed on any of the items in your quote – whether they are key dates or stipulations – Freddie Mac encourages you to reach out to your Freddie Mac producer.

Note: Timing for delivery of both the Full Underwriting Package and Final Delivery Package for loans with a LIBOR index will be clearly communicated in the quote. There will be no flexibility on the specified dates given the hard stop of December 31, 2020 for purchase of loans indexed to LIBOR.
Underwriting & full underwriting package

(a) Specify the requested index:
Freddie Mac expects an overlap period where both LIBOR- and SOFR-indexed loans will be in underwriting. To ensure accurate loan tracking, all Mortgage Transaction Narratives should specify the loan’s index type, and the correct selection should be made in the LST.

(b) Refinance Test verification:
The Optigo Lender should verify that the latest Refinance Test with SOFR optionality has been used, and that the correct index has been chosen.

The Refinance Test is available on our website at https://mf.freddiemac.com/lenders/uw/.

(c) Refer to the Commitment:
As a reminder, the Commitment contains key loan terms such as the applicable index and interest rate cap requirements. Commitment modifications will be required to accommodate SOFR-indexed loans, so Freddie Mac strongly recommends an extensive review, particularly ahead of spread locking the initial SOFR-indexed loans originated by your firm. Your Freddie Mac underwriter is available to answer Commitment-related questions, and other aspects of the underwriting process that may be impacted by the transition to SOFR.

Please note, Freddie Mac anticipates additional process changes will be required if embedded interest rate caps are deemed necessary. This section will be amended to address the process changes if needed.

❖ Small Balance Loan Hybrid Floating Rate loans
Product level details for SBL Hybrid Floating Rate loans indexed to SOFR are in development and will be published in the near future. Similar to Conventional loans, non-essential product changes will be minimized to support a smooth transition to SOFR.

6.4 Selling and delivering MF SOFR Floating Rate loans

❖ What’s changing?
Loan Documents will be 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.

6.5 MF Floating Rate securities indexed to SOFR

❖ KF SOFR Bonds with LIBOR-indexed Collateral
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 LIBOR-indexed loans.
Freddie Mac Multifamily priced its first floating-rate K-Deal (KF73) with bonds indexed to SOFR 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 other recent LIBOR floating-rate K-Deals with a couple of changes:

(a) *The Class A certificates are split into two pro-rata classes of securities:*
   - (i) LIBOR-indexed Class AL, and
   - (ii) SOFR-indexed Class AS

(b) *Class X Interest calculation:*

   The 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).

1. The Class X Certificates 1) receive interest-only payments indexed to LIBOR and notional to Classes AL, AS, B, and C, and 2) are entitled to Static Prepayment Premiums.
2. Class AL is paid pro rata with Class AS. The Class AL and AS Principal Balances are sized based on investor demand.
3. For illustrative purposes only, class sizes do not reflect actual bond offering.

(c) *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
will cover any cash flow shortfalls to the SOFR-indexed bonds due to the mismatch between amounts collected on the LIBOR-indexed loans and amounts due on the SOFR-indexed bonds.

- **Example 1** 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%.

1. Interest income received by the Trust from the underlying LIBOR-indexed loans (assumed to be 2.00% for illustrative purposes)
2. Interest due to Class AS certificate holders calculated using monthly SOFR (assumed to be 2.05% for illustrative purposes)
3. 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%).

Example 2 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.
1. Interest income received by the Trust from the underlying LIBOR-indexed loans (assumed to be 2.05% for illustrative purposes)
2. Interest due to Class AS certificate holders calculated using monthly SOFR (assumed to be 2.00% for illustrative purposes)
3. 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%).

The LIBOR-indexed loans and LIBOR-indexed bonds are expected to convert to an ARR, which will be SOFR, when LIBOR ceases to be published.

**SOFR calculation**

The Federal Reserve Bank of New York (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.

**K-F73 — K-F76:**
Freddie Mac calculates the SOFR rate based on a calendar month compound average using the Fed’s published index. Said differently, Freddie Mac built a SOFR calculator using a calculation methodology similar to the Fed’s Data and Calculation Methodology for SOFR Averages and Index. Freddie Mac discloses the calculated rates on its website (See “Vendor Readiness” section below for instructions).

**Beginning with K-F77:**
The applicable SOFR rate is the 30-day Average SOFR as published on the NY Fed’s website.

❖ **Interest Accrual / Rate Determination**

**KF SOFR bonds**
Interest due to Class AS will be calculated “in advance” of interest being due.

**K-F73 – K-F76:**
The SOFR bond has a SOFR Determination Date on the first business day of the Loan Interest Accrual Period.
- Until conversion, LIBOR-indexed bonds and LIBOR-indexed loans will continue to have
a LIBOR Determination Date on the last business day of the month prior to the Loan Interest Accrual Period.

- As always bond payments will be made on the 25th day of the calendar month (or the succeeding business day) in which the Loan Payment Date occurs. The following example illustrates the loan interest accrual and the bond interest accrual timelines.

Example Bond Timeline: October Payment

1. The current LIBOR-indexed bonds have a LIBOR Determination Date the business day prior to the Loan Interest Accrual Period.
2. 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.

Beginning with K-F77:

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

- As always bond payments will be made on the 25th day of the calendar month (or the succeeding business day) in which the Loan Payment Date occurs. The following example illustrates the loan interest accrual and the bond interest accrual timelines:

Example Timeline: October Payment

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

❖ Vendor readiness

K-F73 – K-F76:

Freddie Mac discloses the calculated rate on its website via the monthly SOFR rate disclosure (https://freddiemac.mbs-securities.com/freddie/account/datafiles/multiclass/reset). Here are the instructions:
If you haven’t done so, create an account. In the top right-hand corner, click “Login” to get started.

Once you’re logged in, click the blue dot in the upper right-hand corner. In the drop-down menu, click "Data Files and Reports."

On the menu on the left-hand side of the page, under "Multi-Class" you’ll see 3 options. Click "Reset."

At the top of the page in blue, click "Report" and select "Off-Platform Deal Indices." Then, click "Year" in blue, and select "2020." Finally, click “Month” in blue and select the appropriate month.

For January 2020, the file is named "OP2001." Select the desired file name and save it.

The file is a text file. Scroll all the way over to the right. At the end of the text string, you’ll see it. For January 2020, it is: "SOFR KEOM|1.54741|Fed. SOFR Rate 1 Month Lookback Average."

Copy all of the text in the string, Paste Special in Excel, and choose "Text" to paste the contents into appropriate Excel columns, which will make the file contents readily functional.

*If you already have an account created, click the link above, login to the site, and be patient. It is a long running script that will take you through step 3 above.

**Beginning with K-F77:**

- 30-day Average SOFR is published on the [NY Fed’s website](https://www.nyfed.gov)
- As above, the 30-day SOFR Average rate is disclosed on Freddie Mac’s website via the monthly SOFR rate disclosure

**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 calculation on a PC will be the same as the underlying SOFR loan; rate determination will be in sync with the underlying SOFR loan rate reset. SOFR Multi PCs will have the same accrual period and method as the underlying SOFR 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.

**6.6 Servicing MF SOFR Floating Rate loans**

This chapter focuses on floating rate loans that have been tied to a SOFR index since origination and will not require conversion upon LIBOR cessation.
❖ What’s changing vs. what’s not changing?

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?

Best practices and actions servicers may take to prepare
Readiness for SOFR requires an assessment of internal processes and systems prior to implementation. There are a number of industry resources where servicers can find guidance on 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
Additional considerations for 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.

6.7 Discontinuation of originating and selling MF LIBOR Floating Rate loans

❖ Timeline leading up to the cessation of purchasing LIBOR Floating Rate loans

The detailed information concerning the discontinuation of LIBOR loans is being developed and will be communicated in a timely fashion. Two mandatory deadlines have been publicly communicated.

- All LIBOR-indexed loans require purchase by December 31, 2020.
- The loan application date for LIBOR-indexed loans must be no later than September 30, 2020 to be eligible for purchase.

Timing for delivery of both the Full Underwriting Package and Final Delivery Package for loans with a LIBOR index will be clearly communicated in the quote. There will be no flexibility on the specified dates given the hard stop of December 31, 2020 for purchase of loans indexed to LIBOR.

❖ What’s not changing?

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

❖ Best practices

Pipeline management during LIBOR-SOFR overlap

Accurate identification of LIBOR- and SOFR-indexed loans during the overlap period is critical to protecting from operational issues. Freddie Mac recommends introducing an indicator to your internal loan processing systems to identify the loan index and using the indicator to ensure compliance with LIBOR cut-off dates.
Open communication with Freddie Mac

If you suspect that your loan may not meet the mandatory LIBOR cut-off dates, Optigo Lenders should notify Freddie Mac as soon as possible. For example, if your LIBOR-indexed loan requires purchase by December 31, 2020, but the underwriting process has been prolonged because of challenges collecting due diligence, communicating your concerns to Freddie Mac will benefit all parties involved in the transaction. Adequate lead time will allow us to partner with you to find a solution, so don’t hesitate to reach out – we’re here to help.

Borrower outreach

Freddie Mac encourages ongoing borrower outreach, including discussions regarding the mandatory LIBOR cut-off dates and related to opting for a SOFR-indexed loan ahead of the LIBOR cut-off dates. Our Production team is well-equipped to support your outreach efforts through conference calls and in-person meetings. Additionally, the MFLIBOR@freddiemac.com mailbox is operational, and the Freddie Mac LIBOR transition team is ready to assist.

6.8 Legacy MF LIBOR Floating Rate loans transition

The GSEs are continuing to work with the ARRC to define the timing and strategy for transitioning legacy LIBOR-indexed Floating Rate loans to an ARR. We are coordinating closely with FHFA on this important matter. Additional details will be released as the timeline and strategy are finalized.
7 Fannie Mae Multifamily Credit Risk Transfer (“MF CRT”) transactions

7.1 Introduction

The purpose of this chapter is to provide market participants guidance on Fannie Mae Multifamily’s new SOFR-indexed MF CRT issuances and the transition of legacy LIBOR-indexed MF CRT transactions in the future.

MF CRT transaction details are divided into two sections: (1) New issuance CRT transition and (2) Legacy CRT transition.

7.2 SOFR-indexed CRT new issuance

❖ Objectives

Fannie Mae plans to be operationally prepared to issue MF SOFR-indexed CRT deals in Q1 2021 with the ultimate timing of a SOFR-indexed MF CRT transaction depending upon market readiness. Because the Multifamily Connecticut Avenue Securities (“MCAS”) program is synthetic and does not rely on the cash flows of the underlying loans from the reference pool, the move to SOFR-indexed MF CRT issuance is expected to be relatively simple for Fannie Mae from an operational perspective as long as there is a well-defined SOFR-based index to determine the coupon payments due on the MCAS notes.

❖ SOFR indices

Currently there is no Term SOFR available for use in SOFR-indexed CRT deals. However, the availability of Term SOFR is not critical for the issuance of the first SOFR MF CRT transaction.

Fannie Mae currently plans to structure SOFR-indexed MF CRT transactions so that they would:

▪ Initially use a 30-day Average SOFR (published by the NY Fed) as the reference rate, with a Determination Date of 2 business days (2BD) prior to the beginning of the accrual period for CRT securities
▪ Subsequently transition to using an IOSCO compliant Term SOFR at Fannie Mae’s discretion at a later date, if the appropriate regulatory authority approves such a rate:
  o The subsequent transition would be made as soon as Term SOFR can be operationalized and is administratively feasible, and the transition would make use of the same Determination Date conventions mentioned for the 30-day Average SOFR above.
  o The GSEs do not anticipate that a spread adjustment will be applied when this subsequent transition to term SOFR is made.
  o This subsequent transition could occur prior to the time LIBOR ceases or is declared to be non-representative.
Once Term SOFR is operationalized and administratively feasible, Fannie Mae would cease any further new issuance using a compound average of SOFR and would solely utilize Term SOFR.

❖ Timeline and milestones

The following timeline illustrates upcoming milestones related to issuing SOFR-indexed MF CRTs and ceasing to issue LIBOR-indexed MF CRTs. While Fannie Mae plans to be operationally ready to issue SOFR-indexed MF CRTs in Q1 2021, actual issuance timelines will depend on the readiness of investors, broker/dealer, trustees/global agents and data/analytics vendors to support or invest in SOFR-indexed CRT deals.

❖ Related SOFR market development

- **SOFR market conventions**: The Fed’s calculator for computing compound averages of the SOFR and a SOFR index became available on March 2, 2020.
- **Development of SOFR derivatives market**: It is expected that the move to SOFR-based discounting by CME/LCH (expected October 2020) will significantly improve the liquidity of the SOFR derivatives market.
- **SOFR term structure**: Currently there is no forward-looking Term SOFR available. With the development of the SOFR derivatives market, forward-looking Term SOFR could potentially become available, possibly in 2021. This is not critical for the issuance of the first MF SOFR CRT transaction.

❖ Actions market participants should consider

Fannie Mae encourages all CRT market participants to conduct an internal operational readiness assessment and start any operational build needed to participate in SOFR-indexed CRT transactions as early as practicable. Investment guidelines and other key governance documentation should be reviewed to ensure that they can transact in SOFR. Please refer to section 1.3, Actions Market Participants Should Consider, for FAQs and other resources related to the MF CRT LIBOR transition.
7.3 Legacy CRT transition

Fannie Mae Multifamily had approximately $0.9 billion of outstanding CRT notes that are indexed to one-month LIBOR as of April 30, 2020. Fannie Mae is continuing to work with Freddie, FHFA and the ARRC to define the timing and strategy for transitioning outstanding MF CRT notes to an ARR. The goal is to achieve a smooth transition for all LIBOR-indexed CRT transactions in the future.

In moving existing LIBOR-indexed MF CRT notes to an ARR, Fannie Mae will consider, among other things, the following:

- Maintaining the economics of the existing notes
- Minimizing negative impact to the liquidity of existing notes
- Transparency and consistency with industry solutions

Additional details will be released as the timeline and strategy are finalized.
8 Freddie Mac MF CRT transactions

8.1 Introduction

The purpose of this chapter is to provide market participants guidance on Freddie Mac Multifamily’s plan to issue new SOFR-indexed CRT floating rate securities in the future.

Because Freddie Mac’s MF CRT security, Structured Credit Risk Notes (“SCR Notes”), are synthetic and do not rely on the cash flows of the underlying loans from the reference pool, the introduction of a non-LIBOR indexed floating rate CRT issuance is relatively simple for Freddie Mac from an operational perspective as long as there is a well-defined index to determine the coupon payments due on the SCR notes.

Multifamily has had three SCR Notes issuances since its inception in 2016, all of which are fixed rate notes, so there are no Legacy MF CRT LIBOR securities to transition to an alternative rate.

Timeline and milestones

Freddie Mac plans to be operationally prepared to begin issuing SOFR-indexed MF CRTs in Q4 2020. Actual issuance dates will be based on readiness timelines for investors, broker/dealers, trustees/global agents and data/analytics vendors.

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.

8.2 Legacy CRT transition

Legacy transition considerations are not applicable to Freddie Mac MF CRTs, as Freddie Mac Multifamily has not executed any floating rate CRT to date.

8.3 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. Specifically, Freddie Mac’s STACR program and SCR programs will be aligned as to the following: (1) the selection of the index as the replacement of LIBOR for new issuance CRT deals; (2) the alternative index and methodology; (3) the fallback triggers and waterfall.

As a smaller player in the CRT space, Freddie Mac’s Multifamily SCR Notes program is looking to attract large investors from STACR. Thus, alignment with SF CRT is essential to ensure seamless market readiness.
9 Change Summary Inventory

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<thead>
<tr>
<th>Section</th>
<th>Summary of changes</th>
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<tbody>
<tr>
<td>June 2020</td>
<td>Updated the date of the first SOFR-indexed CMO issuance from June 2020 to July 2020</td>
</tr>
<tr>
<td>1.2 LIBOR transition milestones</td>
<td>Updated the date of the first SOFR-indexed CMO issuance from June 2020 to July 2020; Changed the “Determination Date” to 2 Business Days (2BD) prior to the beginning of the accrual period; Updated graphics to reflect a Determination Date of 2 BD prior to the beginning of the accrual period for 45-day, 55-day and 75-day delay and Non-Delay Compounded SOFR-indexed securities (per investor deck)</td>
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