FEDERAL HOUSING FINANCE AGENCY

ADVISORY BULLETIN

AB 2021-02: AGENCY COMMERCIAL MORTGAGE-BACKED SECURITIES RISK MANAGEMENT

Purpose

This Advisory Bulletin (AB) provides Federal Housing Finance Agency (FHFA) guidance regarding Federal Home Loan Banks' (individually Bank, or collectively Banks) investments in Agency Commercial Mortgage-Backed Securities (CMBS) issued and guaranteed by either the U.S. Government (Ginnie Mae) or by one of the Government-Sponsored Enterprises (Fannie Mae and Freddie Mac, or collectively the Enterprises). The guidance recommends risk management practices, including the establishment of certain limits, to address the risks associated with unexpected prepayments of Agency CMBS investments. FHFA encourages early adherence to this AB. However, by December 31, 2021, all Banks should have appropriate Agency CMBS concentration risk limits in place.

Background

The Banks have exposures to Agency CMBS within their investment portfolios.[1] Agency CMBS include prepayment protection clauses that are not offered on Agency Residential Mortgage-Backed Securities (RMBS). Prepayment (i.e., call) protection features included on the underlying loans within Agency CMBS are designed to discourage borrower prepayments and protect investors through the payment of fees if voluntary prepayments occur. The additional prepayment protection offered by Agency CMBS makes these investments attractive alternatives to Agency RMBS.

The loans included in Agency CMBS may include varying call protection features such as lockout periods, yield maintenance, point penalties, and defeasance. In addition, these loans may have complex structures, including amortization schedules beyond thirty years and floating interest rates. The variability of call protection features combined with the complexity of loan structures make estimating Agency CMBS prepayments difficult, leaving investors at risk when prepayments occur unexpectedly.

Voluntary prepayments may occur when borrowers determine that the benefits associated with prepayment exceed the cost of any resulting penalties. For example:

[1] The Federal Home Loan Bank Investments regulation permits investments in Agency CMBS. *See* 12 CFR part 1267.

- When short term interest rates rise and the interest rate curve flattens, borrowers with floating-rate loans may refinance into fixed-rate products.
- When interest rates decrease, borrowers with fixed-rate loans may refinance into lower fixed- or floating-rate loans.
- Borrowers with loans secured by properties with significant appreciation may leverage the equity through cash-out refinances or more favorable loan terms and/or rates.
- Certain loans are structured so that the penalties decline over their lives. Borrowers may be more likely to prepay these loans when they become more seasoned.

Additionally, Agency CMBS may include floating-rate loans where borrowers are assessed only partial or no penalties for early prepayments, provided the loans are refinanced with specified loan products.[2] When this occurs, Agency CMBS investors receive minimal or no compensation for voluntary prepayments.

Furthermore, involuntary prepayments, or defaults, may occur. Involuntary prepayments are more likely to occur in periods of economic downturn generally driven by weakened real estate market fundamentals, such as declining property values, rising vacancies, breaches of lender representations and warranties, and possibly rising interest rates for adjustable rate borrowers. Although Ginnie Mae and the Enterprises guarantee timely principal payments to bondholders upon default, investors do not receive any prepayment fees under these involuntary prepayment scenarios.

In summary, unexpected prepayments may force Banks to reinvest in lower yielding assets, write off any premiums when valued above par, and incur the costs of associated debt overhang and transactions to unwind hedges. Depending on the nature of Agency CMBS and prepayment, a Bank may receive limited or no penalty fees to cover these costs.

Guidance

As described above, prepayments on Agency CMBS investments expose Banks to potential losses. Agency CMBS investments with a relatively high premium to par value increase Banks' exposure to prepayment risk and the resulting losses. To minimize the risk of losses from Agency CMBS investments, Banks should consider incorporating the following risk management practices into their existing market and model risk management programs.

Pre-purchase Analytics

Banks should analyze each Agency CMBS prior to purchase. The analysis should include a careful assessment of the security's structure, including prepayment protection features, price variability, and prepayment history for a comparable benchmark Agency CMBS. Most importantly, the pre-purchase analysis should include stress scenarios to compare the amount of call protection premiums or fees the Bank will receive versus any loss of income resulting from the reinvestment

[2] For example, Fannie Mae's Structured Adjustable-Rate Mortgages (SARM) allow borrowers to convert their floating-rate loans to one of Fannie Mae's fixed-rate loan programs by paying a one percent premium which is not passed on to investors.

of the prepayment proceeds under various stressed interest rate scenarios. In addition, a Bank's pre-purchase analysis should ensure that the security the Bank is considering for purchase conforms to the Bank's investment strategy and is consistent with the Bank's board-approved strategic plans and risk appetite.

Minimum Risk-Adjusted Spread Requirement

Each Bank should establish a minimum acceptable risk-adjusted spread requirement for Agency CMBS investments. Banks should consider factors such as their risk appetite when establishing the required minimum.[3] Regardless of the approach, Banks should make certain each Agency CMBS purchase meets the established minimum risk-adjusted spread requirement.

Concentration Limits

To limit exposure to both voluntary and involuntary prepayments, Banks should diversify their Agency CMBS investments to prevent concentrations of loans with shared characteristics. To accomplish this, Banks should establish appropriate limits based on the characteristics of the underlying loans within Agency CMBS investments. For example, Banks should consider individual loan size limits within a securitization, especially for single loan pool CMBS. In addition, Banks should consider implementing limits for loans, as a percentage of all Agency CMBS loans, for the following:

- Floating-rate securities versus fixed-rate securities;
- Geographic location of collateral such as region, state, city, zip code, or Metropolitan Statistical Area (MSA);
- Collateral types – multifamily, student housing, senior living;
- Loan products with minimal or no prepayment penalties under certain conditions of refinance, as available and determined by the Bank at acquisition; and
- Loan originators.

Reporting

Banks should monitor and report on Agency CMBS investments as a separate investment segment. A Bank's Asset-Liability Committee (ALCO) and a responsible board committee should receive quarterly reporting on Agency CMBS investments. At a minimum, quarterly reporting should include the following:

1. *Minimum Risk-adjusted Spread* – Current minimum acceptable risk-adjusted spread requirement and monthly conformance with this minimum.

2. *Concentration Limits* – Current limits for Agency CMBS loans with specific characteristics and monthly conformance with these limits.

[3] If a Bank cannot use an option-adjusted spread approach to determine the risk-adjusted spread for each Agency CMBS, then the Bank may choose to apply a purchase price premium, duration, or net interest income spread approach.

3. *Earnings* - Income or loss associated with Agency CMBS investments.

4. *Strategy* – Any planned changes to the existing funding and hedging strategies for purchases and portfolio rebalancing.

Prepayment Projections

Currently, Banks use static prepayment assumptions and/or vendor supplied multifamily prepayment models for Agency CMBS valuations. To support and improve the accuracy of Agency prepayment projections, Banks may use Bank-derived curves or vendor models which meet the principles outlined in FHFA AB 2013-07, and should further consider the following:

1. Developing research-based prepayment curves for fixed- and floating-rate Agency CMBS. Once developed, Banks should perform periodic reevaluations of the constructed curves by comparing them to appropriate third-party curves (if using static prepayment assumptions).

2. Performing prepayment back-testing at appropriate levels to provide meaningful assessments of the Agency CMBS portfolio's performance.

3. When relying on a prepayment model, benchmarking the model's performance against third-party prepayment projections as appropriate.

4. Based on portfolio composition, periodically assessing and stress-testing the key drivers of prepayment performance, for example, stressful interest rate levels, yield curve shape changes, and spread widening scenarios.

5. Establishing appropriate analytical threshold(s) for prepayment differences ascertained during prepayment back-testing and benchmarking analyses that would trigger investigations into the causes of differences in prepayment behavior and changes to prepayment modeling assumptions.

While the above actions will improve upon current prepayment estimations, a Bank may need a vendor-provided prepayment model in concert with a stochastic interest rate model to more accurately estimate the prepayment behavior of Agency CMBS. Each Bank should carefully evaluate the available modeling alternatives and determine if any single model, or a combination of multiple models, is suitable to meet its Agency CMBS portfolio's analytical needs. In acquiring the model(s), Banks should make certain that the model's estimation process fully and accurately incorporates the prepayment penalties charged to borrowers and passed on to the investors. Any mitigating risk factors such as tranche priority in sequential pay structures should be documented.

Related Guidance and Regulations

The following provides a summary of some of FHFA's regulation and guidance for governance and investments:

- *Responsibilities of Boards of Directors, Corporate Practices, and Corporate Governance Regulation.* This regulation provides that the management of each regulated entity shall be

by or under the direction of its board of directors.[4] It states, "while a board of directors may delegate the execution of operational functions to officers and employees of the regulated entity, the ultimate responsibility of each entity's board of directors for that entity's oversight is non-delegable."[5] Included in the responsibilities of each Bank's board of directors is the establishment of a risk management program that aligns with the Bank's risk appetite and that each of the Bank's business lines has appropriate risk limitations.[6]

- *Prudential Management and Operating Standards (PMOS).* FHFA addresses limits on investments and management of assets in guidelines set out in the appendix to its PMOS regulation, including the following:[7]

  - Standard 3 (Management of Market Risk Exposure) which highlights the expectation that each regulated entity has a clearly defined and well documented strategy for managing market risk and establishes responsibilities for the board and senior management;
  - Standard 4 (Management of Market Risk – Measurement Systems, Risk Limits, Stress Testing, and Monitoring and Reporting) includes guidelines for market risk management in these areas;
  - Standard 6 (Management of Asset and Investment Portfolio Growth);
  - Standard 7 (Investments and Acquisitions of Assets);
  - Standard 8 (Overall Risk Management Processes) includes responsibilities for internal audit, the board, and senior management along with an independent risk management function; and
  - Standard 9 (Management of Credit and Counterparty Risk).

  The failure to meet any of the PMOS may constitute an unsafe or unsound practice for purposes of FHFA's administrative enforcement authority.[8] If FHFA determines that a Bank has failed to meet a standard, it also may require the Bank to submit a corrective plan.[9]

FHFA has statutory responsibility to ensure the safe and sound operations of the regulated entities and the Office of Finance. Advisory bulletins describe FHFA supervisory expectations for safe and sound operations in particular areas and are used in FHFA examinations of the regulated entities and the Office of Finance. Questions about this advisory bulletin should be directed to SupervisionPolicy@fhfa.gov.

[4] 12 CFR § 1239.4.
[5] 12 CFR § 1239.4(a).
[6] 12 CFR § 1239.11(a).
[7] 12 CFR part 1236, Appendix.
[8] 12 CFR § 1236.3(d). FHFA has authority to address unsafe or unsound practices through issuance of an order to cease-and-desist, assessment of civil money penalties, or removal from office. *See* 12 U.S.C. §§ 4631(a)(1), 4636(b)(2)(A), 4636a(a)(1), 4636a(a)(2)(A).
[9] 12 CFR § 1236.4.