

Loan Distress Across CMBS Cohorts: A Lifecycle Approach

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Overview

Two structural breakpoints — the global financial crisis and the post-pandemic refinancing era — may have changed the nature of CMBS credit risk and the way it surfaces. This paper asks whether the empirical relationships established in the pre-crisis CMBS literature still characterize the modern market. Using loan-level Trepp data, we study three issuance cohorts: CMBS 1.0 (2008 or earlier), CMBS 2.0 (2010–2016), and CMBS 3.0 (2017 or later). We document large differences in realized bond losses and issuance composition, then estimate hazard models of first transition to 60+ day delinquency and logistic models of past-maturity default. Traditional underwriting variables remain predictive across cohorts, but the locus of distress has shifted: early-stage delinquency is materially lower in post-crisis cohorts, while past-maturity outcomes rise sharply after 2022. The evidence indicates that CMBS credit risk has migrated from early-stage cash-flow risk toward late-stage refinancing risk in the modern cycle.

Research Questions

- Do the relationships between underwriting variables and CMBS distress documented in the pre-crisis literature still hold across post-crisis cohorts?
- How do realized bond losses, issuance composition, and loan structures differ across CMBS 1.0, 2.0, and 3.0?
- At which point in the loan lifecycle — early-stage delinquency or late-stage maturity resolution — is credit risk most visible in the modern market?
- What roles do loan fundamentals versus refinancing conditions play in the rising rate of past-maturity loans since 2022?

Data and Approach

We use loan-level data from the Trepp CMBS database covering conduit, single-property loans across the three cohorts. Restricting to conduit, single-property loans is intentionally conservative: it minimizes measurement issues that arise from the multi-note stacks, extension options, and bespoke contractual features common in single-asset/single-borrower (SASB) deals.

The empirical work proceeds in two stages. The early-stage analysis uses a quarterly loan-level panel of roughly 100,000 loans and 2.7 million loan-quarters to model the timing of each loan's first transition to 60+ day delinquency, controlling for loan size, leverage, debt-service coverage, occupancy, interest-only structure, original term, property type, and macro-financial conditions (Treasury yield, term spread, market volatility). The late-stage analysis uses a sample of approximately 6,000 conduit loans scheduled to mature between January 2021 and March 2025, with all covariates measured one year prior to scheduled maturity, and models the probability that a loan remains unresolved beyond its scheduled maturity date.

Key Findings

- **Realized bond losses:** Cumulative losses on 2008-vintage AAA bonds reach 4.5%, and on AA and A bonds reach 62.5% and 81.2%, respectively. Post-crisis cohorts show minimal investment-grade losses, even where seasoning is sufficient that losses would have appeared by now.
- **Issuance composition:** Pre-crisis CMBS issuance was overwhelmingly conduit-driven. Post-crisis, SASB has become a persistent and at times dominant share of total volume. Within the conduit universe, full-term interest-

only loans rose from 7.2% of CMBS 1.0 to 37.7% of CMBS 3.0 — a structural shift that concentrates balloon-balance exposure.

- **Underwriting fundamentals remain core predictors of early-stage delinquency:** Higher LTV, lower DSCR, and lower occupancy raise the delinquency hazard across all cohorts. The marginal effect of leverage strengthens in post-crisis cohorts, while DSCR's protective effect attenuates as later cohorts enter with stronger and more compressed coverage profiles.
- **Macro-financial sensitivities differ across cohorts:** The yield-curve slope flips sign — a flatter curve is associated with higher delinquency in CMBS 2.0/3.0 but lower delinquency in CMBS 1.0. Market volatility (VIX) becomes a stronger predictor of distress in the modern cohorts.
- **Maturity default has risen sharply:** In the 2021–March 2025 maturity window, 18.9% of loans went past scheduled maturity. Loans maturing in 2024 and 2025 are substantially more likely to remain unresolved than 2021 maturities even after controlling for fundamentals.
- **The locus of stress has shifted:** Late in the maturity window, DSCR loses statistical significance while debt yield becomes a stronger predictor — consistent with refinancing feasibility, rather than current cash-flow coverage, becoming the binding constraint. Property-type residuals are practically meaningful: office maturity default is elevated and lodging is lower than fundamentals alone would predict.

Implications for Practice

For investors and lenders. Pre-crisis loss surfaces are a poor benchmark for post-crisis credit underwriting. Calibrate stress assumptions to cohort-specific empirical relationships. Debt yield deserves greater weight in late-cycle surveillance: as DSCR's predictive power for late-stage outcomes attenuates, debt yield more directly captures refinanceability. The growth of full-term IO in CMBS 3.0 — more than one in three conduit loans — concentrates balloon risk and warrants explicit attention in concentration limits and loss-given-default assumptions. Property-type residuals matter for sector allocation: office collateral exhibits elevated maturity default net of fundamentals; lodging exhibits lower-than-expected risk.

For owners and developers. Refinancing windows now matter more than current cash flow for late-stage outcomes. Capital plans should anticipate that the rate and valuation environment at maturity, not only property-level performance, will determine resolution paths.

For policy makers and regulators. Risk-retention rules implemented after 2016 have not eliminated the migration of higher-risk credit to private channels. Observed improvements in conduit performance partly reflect compositional selection rather than uniform underwriting improvement. Modeling CMBS credit risk as a single event obscures meaningful lifecycle dynamics; surveillance frameworks should treat early-stage delinquency and late-stage maturity resolution as distinct margins of stress.