Yield Book Mortgage Research

Yield Book
An LSEG Business

Bank woes and RMBS: a storm in a regional teacup?

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Introduction – the new macro and financial landscape

Prior to the collapse of the Silicon Valley Bank, debt markets had priced in a scenario of "higher for longer "on Fed short rates in the fight against inflation. No rate cuts were in store for 2023, after hawkish Congressional testimony and comments from Fed Chairman Powell, with Fed funds peaking around 5%.

Financial stability issues had been junior to the Fed's concern about bringing inflation back towards the 2% target, with the economy showing few outright recessionary signals.

Unemployment was at, or near, a 50yr low (3.6%). The IMF revised higher its US GDP growth forecast for 2023, helped by lower commodity prices, despite the Fed's 450bp of tightening since March 2022 and a further 25bp on March 22.

Strong January and February data, particularly in jobs growth, meant Q1 GDP growth has been tracking at 3.2% annualized on the Atlanta Fed's GDP forecast. Only some pockets of manufacturing had started to show recessionary risks.

Recent events however, featuring two major U.S. bank failures and unfolding events at Credit Suisse in Europe, altered the supportive backdrop, and increased the probability of more turbulent scenarios ahead, namely: 1. "Not as High for as Long," 2. "Too Much Tightening, Too Late" and 3. "Higher for Longer."

In the RMBS market, the market value for typical bank portfolio MBS securities have already adjusted price and duration to the significant rates tightening through 2022. Stress testing the Yield Book's base case model shows that these securities are reasonably insulated against significant movements across a wide range of probable scenarios.

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Probable Policy and Macroeconomic Scenarios

Scenario 1. The market central case (derived from policy rate expectations).

"Higher for Longer" becomes "Not as High for as Long"; a re-boot of the original "Soft Landing" but a variant.

After the latest 25bp raise on March 22, the market now projects the Fed has pretty well finished tightening and rates fall about 75bps by year-end. Quantitatively, this reinstates the "soft landing "scenario, which was in place before the Fed turned more hawkish after the stronger January data. But qualitatively, it's for different reasons. It appears driven by financial instability risks cancelling out higher inflation risks, so even if the Fed wanted to tighten further for inflation control, it can't, because of the risk of collateral damage in the banking system, or to business and consumer confidence.

Other possible features of this scenario:

(1) More credit spread widening, particularly in financials and MBS.
(2) Diminished risk appetite. High yield credit under-performs IG.
(3) After the initial dis-inversion, a bullish flattening of the yield curve, with 10-year yields falling back towards 3%, depending on the scale of the financial shocks that unfold and speed of decline in inflation.
(4) Slower growth, as the economy flirts with recession, and unemployment begins to rise.

Scenario 2, or Tail Risk (1). "Too Much Tightening, Too Late"

Excessive Fed tightening drives a hard landing recession, with growing systemic risk concerns amongst regional banks. The 2nd most likely scenario, or the greater tail risk versus the central case?

This may have become the higher tail risk, after the SVB and Signature bank failures, and Credit Suisse's rescue in Switzerland, since markets are focused on the implications of the 475bp of tightening in 2022/23 (faster tightening than in 2005-07), and duration mismatches in the financial system. There may also be evidence financial conditions are tighter than some indicators suggest (our provisional work on US financial conditions, using a pared back indicator based on 7 variables for rates, spreads, money growth and curves, suggest they are quite tight now).

Other features of this scenario:

(1) Financials and the banking sector underperform sharply.
(2) Risk appetite and equities also fall sharply initially.
(3) Credit spreads widen further, led by HY, as credit downgrades & defaults increase. Mortgage delinquencies rise.
(4) Treasury yields fall further faster, as markets anticipate Fed easing, and QT stops. The yield curve bull steepens, as the Fed cuts rates 100 – 200bp quickly – perhaps within 3-6 months.
(5) MBS weakness initially, particularly if more banking accidents occur, and delinquencies rise, but agency-MBS outperforms on possible QE purchases, and agency guarantees.
(6) Unemployment rises & wage inflation falls. GDP contracts for 2-3 quarters, as consumers and business re-trench.

Scenario 3, or Tail Risk (2).

"Higher for Longer" returns. Fed prevents contagion from SVB, and takes rates to 5.5-6% in 2023, as labor market tightens, and inflation is sticky. Economy avoids recession. QT continues. Now the 3rd most likely scenario?

The Fed and FDIC contain financial fall-out from SVB, and the Fed squeezes inflation hard, with another 75bp of tightening, and more QT. Growth and inflation fall, as consumers and businesses succumb to higher rates, but this takes some time.

Other features of this scenario:

(1) 10yr Treasury range trades but eventually breaks back above 4% and tests previous cycle high at 4.25%, as investors get squeezed by the deep negative carry on the curve.
(2) Equity market and MBS fall as all asset classes are hit by higher Fed rates and the higher correlation of negative returns continues, proving directional again (like 2022).
(3) Housing gets hit as mortgage rates grind higher, and refi activity dries up.

(4) MBS gets hit by further QT, Fed sales, negative convexity as yields rise, spreads widen.
(5) Credit spreads also widen sharply.

Using Yield Book to Address Predictive Outcomes and Scenarios

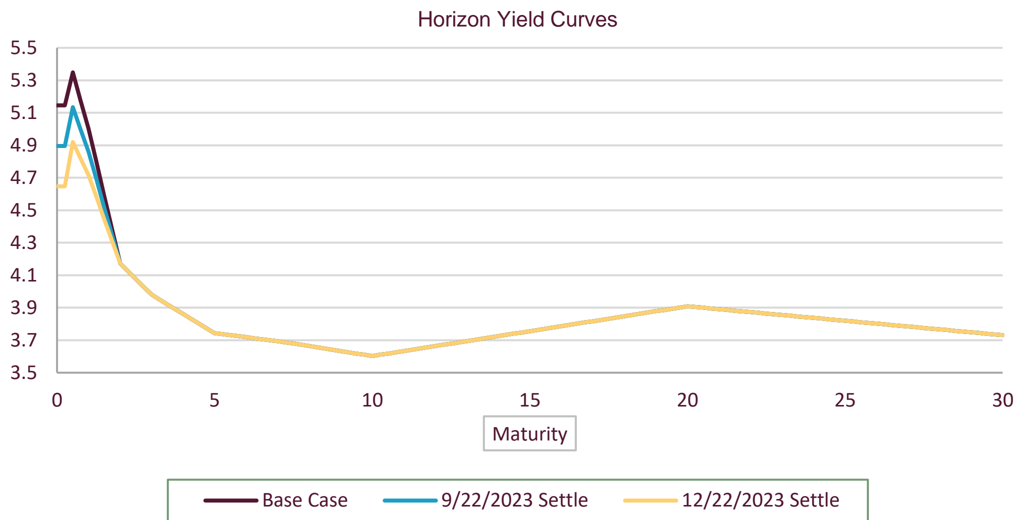
In our study, we address the scenario changes with four (4) representative RMBS bonds and generics, a few of which are staples in HTM ("held to maturity") accounts.

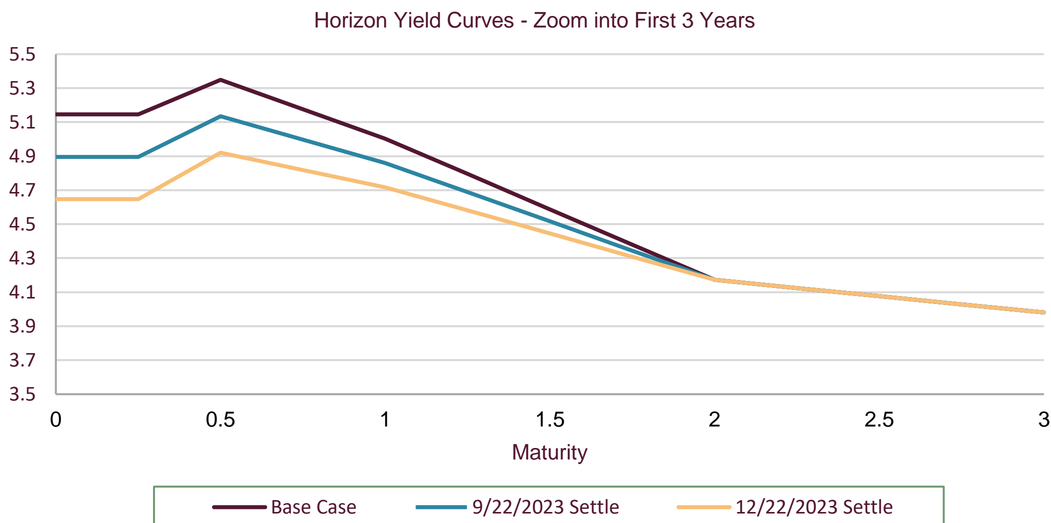
For banks, MBS assets (30yr collateral pass throughs, as well as CMOs) are typical holdings when matching longer durations to longer liabilities.

Additionally, we have included an RMBS Jumbo 2.0 tranche as well as a shorter floating rate CRT bond (Credit Risk Transfer) to canvass the curve.

Yield Book allows users to shock the yield curve at each tenor for any period in the future.

For example, here we translate the sentiment of scenario 1 into shocks resulting in this collection of yield curves:





In addition, Yield Book allows users to adjust the mortgage lending rate that borrowers will face at each factor date. This rate will feed into our computation of incentive to refinance at that point in time. From the implementation perspective, we

decompose mortgage rate into CCM102 + Primary / Secondary Spread and users can apply their view of the mortgage lending rate by adding to the Current Coupon.

Yield Book Analytics for Representative Securities for Each Scenario

Below we present Yield Book computed analytics for our base case and each scenario after shocking both the yield curve (short term/Fed moves) and adjusting mortgage lending rates. We set OAS constant from the base case results.

	FNMA 2.5% '21 prod				FH 4996 PA				CAS 23-R02				SEQ 23-2 A1			
Scenario	Base Case	1	2	3	Base Case	1	2	3	Base Case	1	2	3	Base Case	1	2	3
Price	87.00	87.07	87.15	86.94	90.14	90.26	90.34	90.12	101.35	101.39	101.45	101.30	99.18	99.07	99.08	99.05
OAS	24.00	24.00	24.00	24.00	42.00	42.00	42.00	42.00	171.00	171.00	171.00	171.00	38.00	38.00	38.00	38.00
Eff Duration	6.65	6.62	6.59	6.68	5.58	5.50	5.48	5.55	-0.16	-0.17	-0.17	-0.16	3.49	3.44	3.44	3.46
Eff Convexity	-0.65	-0.65	-0.66	-0.63	-0.73	-0.68	-0.66	-0.70	0.00	0.00	0.00	0.01	-1.12	-1.14	-1.15	-1.08
Projected ROR																
Total Return	4.47	4.50	4.56	4.37	4.74	4.82	4.86	4.71	6.89	6.73	6.40	7.43	5.21	5.08	5.06	5.12
Principal	1.44	1.50	1.59	1.32	1.25	1.35	1.43	1.18	-0.28	-0.24	-0.19	-0.32	0.07	-0.03	-0.01	-0.05
Interest	3.03	3.01	2.98	3.05	3.49	3.47	3.42	3.53	7.17	6.97	6.59	7.75	5.13	5.11	5.07	5.17
* at 12 Month Horizon																

In general, we find durations are consistent while total returns offer the most variance.

The HTM bonds alluded to (FNMA 2.5%s and FH4996 PA) have weathered the greatest part of the storm already since their 2020-21 issuance period. The long collateral piece has dropped 13 points from its initial par price, while the PA tranche (PAC bond), is insulated to extension or shortening if the prepayment band isn't corrupted (speeds to get outside the prescribed range). In this respect, their imperviousness to shock is the result of seasoning and structure.

Similarly, the senior most offered bonds for the CRT and Jumbo near Prime deals are also fairly resilient to the shocks in these test scenarios.

Timing and Sequencing of Central Case and the Tail Risks

None of three scenarios outlined are mutually exclusive, and it's quite feasible that the US economy and markets oscillate between the central case and the tail risks outlined for the next several months, particularly if there are further financial shocks, given their deflationary nature.

But if the Fed does ride out this storm, and raises rates further, recent events suggest a greater risk of more financial instability. It appears unlikely that SVB and Signature are the only financial and corporate casualties of significant duration mismatches and failures to hedge against a period of sharply rising rates, after more than a decade of rates between zero and about 3%.

Therefore, these risks mean make it more likely "Higher for Longer" could, and would, morph into a deeper recession eventually. Market recognition of these risks may help explain the persistent inversion of the Treasury curve.

Yield Book Offers a Comprehensive Platform for Scenario Analysis

In this paper, we highlight only a few of the many ways to run scenario analysis in Yield Book products. The Yield Book scenario analysis tool allows users to shock a wide variety of variables including rates, spreads, volatilities, prepayments, HPA, unemployment, and more. Please contact sales@yieldbook.com to schedule a demo of our capabilities. The Yield Book Add-In template used to run the scenarios discussed above is available upon request.

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