Mortgages have begun to outperform after lagging behind other spread product sectors earlier this year. However, many investors are concerned that Fed rate cuts will trigger a wave of refinancing and compress MBS excess returns. How will mortgages behave during this cycle? What should investors expect regarding commercial bank and Fed destocking? How is the market discounting prepayment risk? Read today's report to find out.

ALPINEMACRO
A Unique Mind On The Markets

U.S. BOND STRATEGY

August 29, 2024

Will Prepayments Spoil The MBS Party?

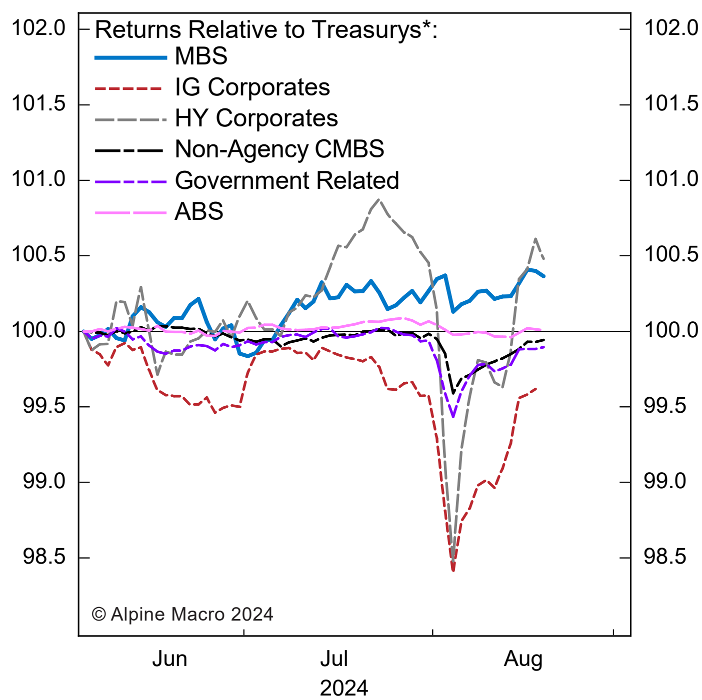
- Stay overweight MBS in U.S. fixed-income portfolios.
- Prepayments are unlikely to surge even if yields decline modestly further.
- MBS supply and demand dynamics will turn more constructive.
- Valuations are attractive compared to other high-quality sectors.
- Excess returns will outperform OAS, which incorporate rate volatility that is too elevated.

Mortgages have begun to outperform after lagging behind other spread product sectors earlier this year. While part of this outperformance is due to spread widening in riskier sectors, MBS returns have also outpaced Treasurys since May (**Chart 1**). MBS seems to be in a sweet spot, but will it last?

Alpine Macro *U.S. Bond Strategy* advocated overweighting MBS in November 2023 on the view that the sector would benefit from Fed rate cuts, the end of bank MBS shedding, limited supply and tapering interest rate volatility. This process was delayed by volatile inflation data in Q1 2024, but now seems to be unfolding.

This report revisits our MBS assessment. We believe that a macroeconomic backdrop conducive to a soft landing, improving supply-demand dynamics, attractive valuations, and overpriced prepayment

Chart 1 **MBS Have Started To Outperform**



*Duration matched
Note: Series rebased to June 2024=100

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Tipping Point In Financial Markets: A Melt-up or Meltdown?

Global financial markets are facing increasing challenges: the risk of recession is rising as tight monetary policy has entered its 28th month, while the bull market in big tech has turned parabolic and is due for a shakeout. However, inflation has fallen sharply, and the Fed is poised to ease at a time when political and geopolitical risks have greatly escalated.

At this critical juncture, Alpine Macro's strategists are joined by a group of highly respected outside experts to discuss the pressing issues facing investors, including:

- Are we at the tail-end of the bull market in equities, or does the bull have further to run? Which sectors should investors allocate their capital to, and what will be the new leaders in the marketplace?
- How should investors hedge against the rising risk of wars and conflicts?
- Harris vs. Trump: How will the election result change U.S. economic policies and affect financial markets?
- What's next for commodities and energy? Are we heading for a new super-cycle bull market, and is ESG dead?

Come and join us for a day of debate, discussion, and brainstorming on the big macro themes and how to capitalize on them in this highly uncertain environment.

This is an in-person only event, and seats are already 70% sold out. If you are interested in this event, please register now.

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Guest Speakers + Alpine Macro Strategists

Conference Details & Registration: conference.alpinemacro.com | conference@alpinemacro.com | +1 (514) 558-1414 protection will continue to benefit mortgages. We recommend an overweight allocation to this sector (4/5).

Will Rate Cuts Undermine MBS?

Agency MBS embed minimal default risk, so excess returns are not directly tied to the business cycle. While Agency MBS lacks the explicit guarantee of the U.S. government, the GSEs themselves are backed by the full faith and credit of Uncle Sam.

Instead, investors must consider how the current interest rate cycle affects liquidity and prepayment risk premiums, which are the primary sources of MBS excess return (see **Box 1**). Both premiums should benefit mortgages in a soft-landing scenario.

Interest rate hikes have historically been more gradual than rate cuts, which is why MBS have often performed well during rate hikes in the past. However, the post-pandemic rate hike cycle and the coincident rise in bond yields were exceptionally steep, resulting in one of the largest periods of MBS underperformance.

MBS performance in the coming quarters will depend on the pace and extent of Fed rate cuts. If our soft-landing base case plays out, rate cuts should be steady and shallower than in past cycles. Currently, money markets expect about 235 basis points of rate cuts, with the Fed funds rate bottoming in 22 months. The implied pace of rate cuts would be near half the average since 1990 (**Table 1**).

Box 1: Liquidity And Prepayment Risk Premiums

Liquidity risk premiums accrue gradually but are often surrendered during recessions. With a less liquid market than Treasurys, investors may be forced to sell MBS at a discount during liquidity crunches, as observed during rate cut cycles that coincided with the early 1990s recession and the GFC. MBS could underperform if the current slowdown turns into a recession, although this is not our base case.

Liquidity premiums may also be influenced by the wholesale destocking or accumulation of MBS by major market participants such as the Fed, households, or commercial banks (see the next section for supply and demand dynamics).

Prepayment risk arises when interest rates move rapidly, causing bond yields to become highly volatile. High realized or implied interest rate volatility disproportionately penalizes MBS due to negative convexity. Investors demand a larger spread over Treasurys to compensate for this risk.

This applies to sharp bond yield gyrations in both directions. A rapid rise in bond yields slows prepayments. This extends the duration of MBS and amplifies losses. Conversely, rate cuts that rapidly lower yields shorten MBS duration as borrowers rush to refinance, limiting the gain from the bond rally.

Table 1 A Gentle Rate Cut Cycle

Start of Rate Cuts	Change In Fed Funds Rate (Bps)	Months to Floor in Fed Funds Rate	Monthly Speed Of Cuts (Bps/Month)**
May-74	-820	20	41
Feb-80	-1050	4	263
Aug-84	-560	24	23
May-89	-680	40	17
Nov-00	-550	31	18
Aug-07	-500	17	29
Jun-19	-225	9	25
Current cycle*	**-235**	**21**	**11**

*Based on market expectations
**Average monthly pace of decline in nominal fed funds rate

Table 2 Most Mortgages Will Not Be In Refinancing Range

Change In Mortgage Rates (Bps)	% Of Mortgages "In The Money"	% Of Mortgages Likely To Experience Sharp Refinancing*
100	4.0%	0.0%
50	9.3%	0.8%
0	14.9%	4.0%
-50	19.6%	9.3%
-100	24.0%	14.9%
-150	30.0%	19.6%
-200	37.5%	24.0%
-250	48.6%	30.0%
-300	69.0%	37.5%

*Mortgages over 100 Bps in the money.

One of our recent reports offered perspective on how much the 10-year Treasury yield could decline in three macro scenarios.[1] The 10-year yield could drop to the 3.5-3.6% range over the next 6 months in a soft landing, where real GDP growth decelerates to 1.5% for a few quarters. This is only 20-30 basis points below the current 10-year yield level. It would require zero growth or a mild contraction in real GDP to drag the 10-year yield down to around 3%.

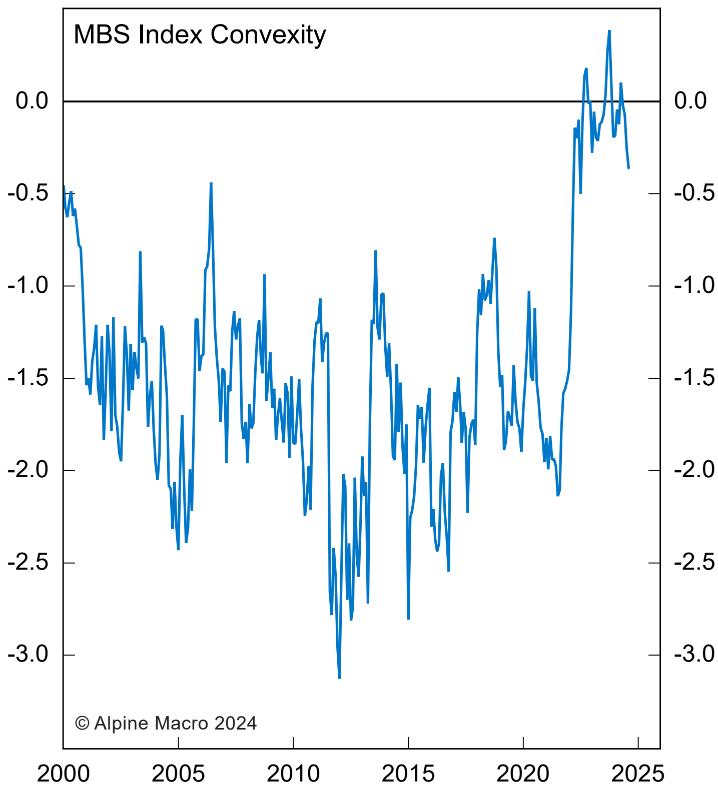
1 Alpine Macro *U.S. Bond Strategy* "Any Juice Left in Duration and Curve Plays?" (August 8, 2024).

The implication is that the downside potential for the 30-year mortgage rate is only about 50 basis points.

The share of MBS up for refinancing will remain small if mortgage rates fall by 50 basis points. Unlike past cycles, most borrowers have locked in rates far lower than those prevailing today.

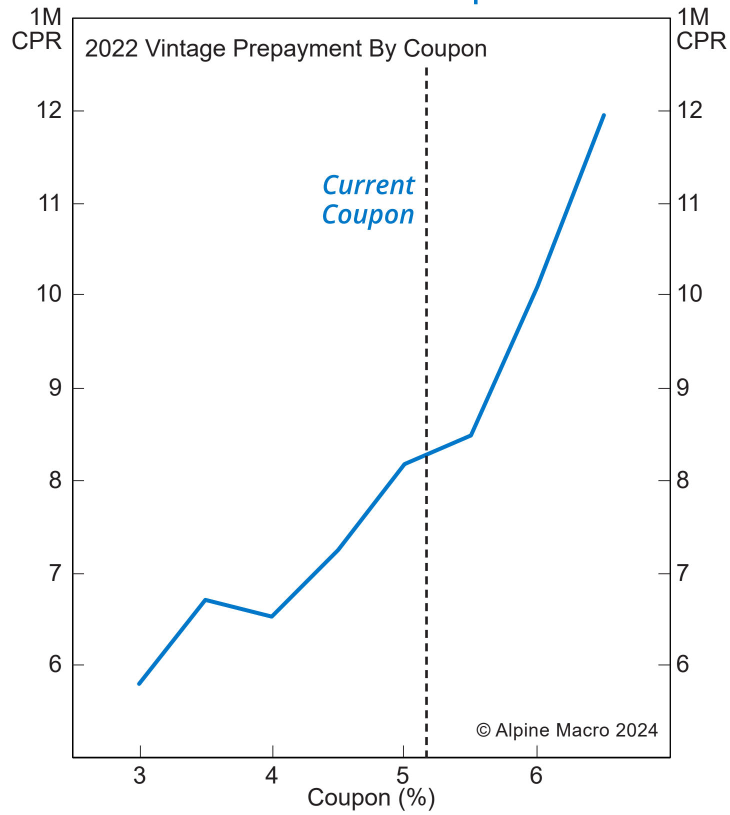
Table 2 estimates the proportion of the MBS market that would be in refinance territory at different coupon levels. It suggests that it would take

Chart 2 Convexity Remains Near Record Highs



Source: Bloomberg Finance L.P.

Chart 3 Prepayments Accelerate 100 Bps Above Current Coupon



a decline of the 30-year mortgage rate over 200 basis points from today's level before prepayments begin to really ramp up. Currently, prepayment risk is still low with convexity only slightly negative (**Chart 2**).

Mortgages are generally considered "in the money" when the prevailing mortgage rate falls 50 basis points below the rate being paid. The incentive to refinance typically ramps up dramatically when borrowers can shave off over 100 basis points from their mortgage rate. **Chart 3** shows the prepayment rate for various coupons of the 2022 vintages. The prepayment rate starts to ramp up for mortgages with a 6% coupon and above, which is roughly 100 basis points above the current coupon rate.

Moreover, many borrowers whose mortgage is "in the money" today obtained their loan recently, and typically do not refinance right away.

Should bond yields fall closer to 3% in a mild recession, leading to an 80 basis point drop in mortgage rates, it would still generate a limited amount of refinancing as per **Table 2**. In this case, MBS may perform roughly on par with Treasurys. However, a larger drop in bond yields in a hard landing would be much more painful for MBS.

Bottom line: A soft economic landing would limit the downside potential for Treasury yields and 30-year mortgage rates. Given the coupon structure of the MBS market, it would require significantly lower mortgage yields to trigger a painful prepayment wave for the MBS index as a whole.

Improving Supply And Demand Dynamics

Supply and demand dynamics that have previously suppressed MBS returns are now improving. Both the Fed and commercial banks, which were significant buyers of MBS at the onset of the pandemic, began offloading these assets in 2022. However, this destocking pressure is largely behind us (**Chart 4**).

Deposits exited commercial banks in favor of higher money market yields when the Fed started hiking rates. Banks decided to reduce MBS holdings as an offset for two main reasons:

(1) The rapid rise in rates amplified mark-to-market losses due to the negative convexity profile of MBS. The regional bank scare of March 2023 exacerbated this line of thinking.

(2) Basel III rules, which are being finalized, may attribute sizable risk weights to MBS. This would force banks to hold additional capital against MBS.

The interest rate environment has significantly shifted this year, and regulators are revising Basel III rules after receiving market feedback. There is speculation that regulators might water down the final rules given the market pushback against the previous version. Commercial bank deposits have stabilized and have been trending upward in recent quarters (**Chart 5**). These developments remove the incentive for banks to continue shedding MBS.

Households have stepped in to buy the MBS that the Fed and banks did not want. Initially, these were "weak hand" investors requiring a discount on MBS.

Chart 4 Slower Destocking By Commercial Banks And The Fed

Chart 5 Commercial Banks Should Buy MBS As Deposits Rise

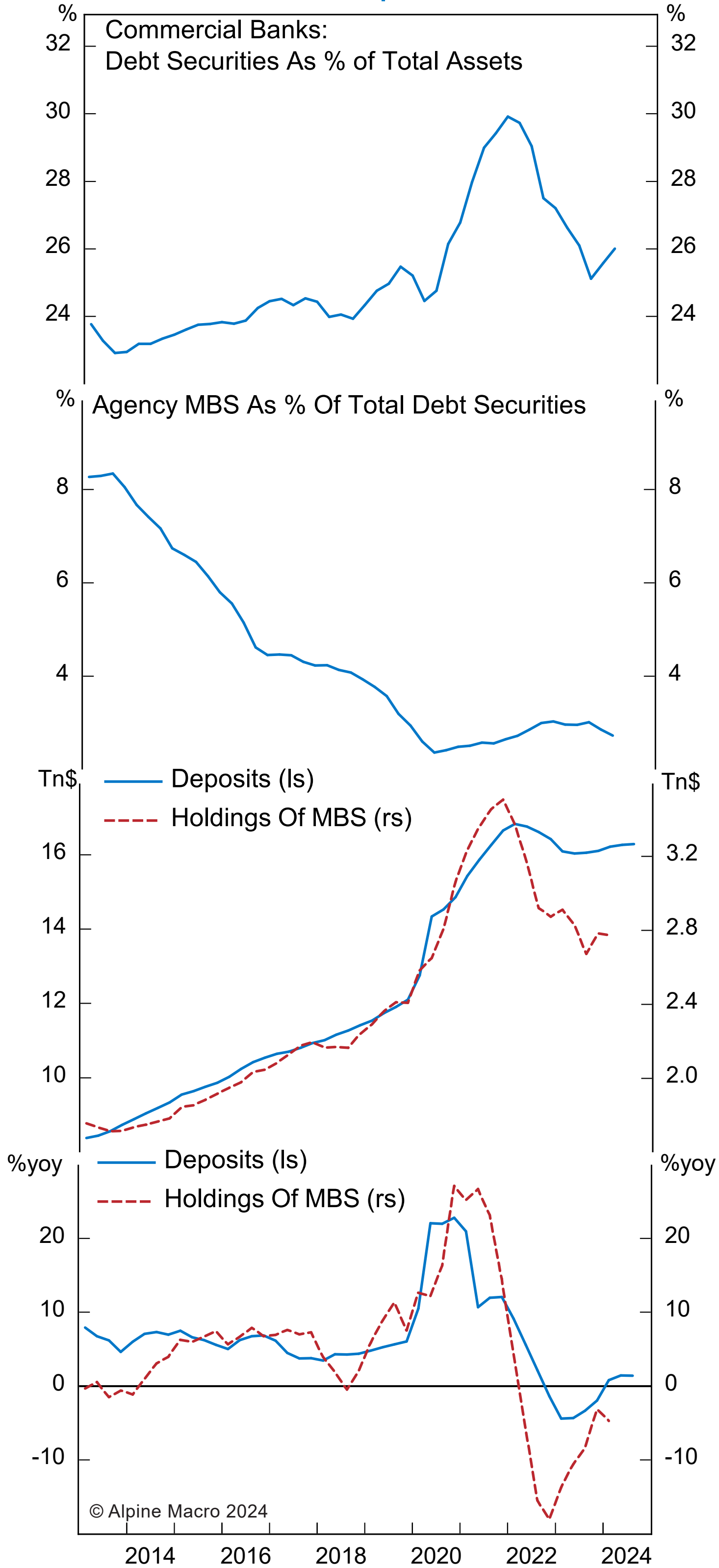
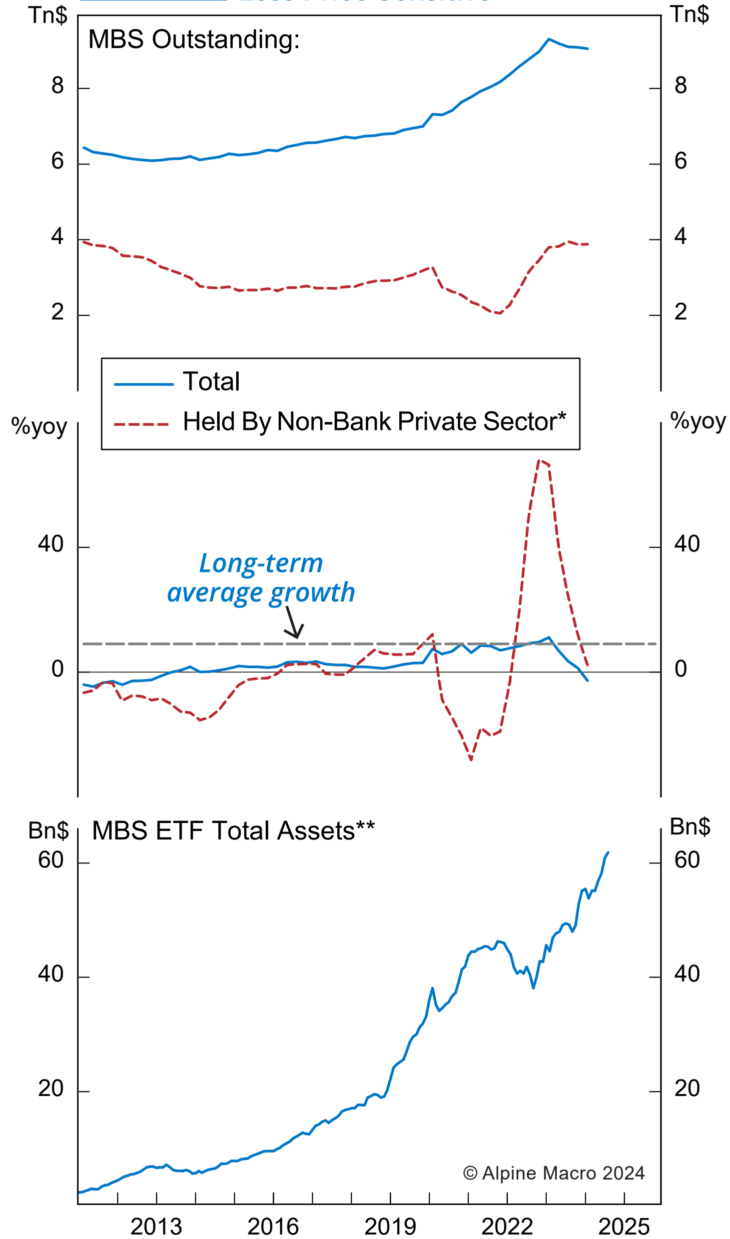


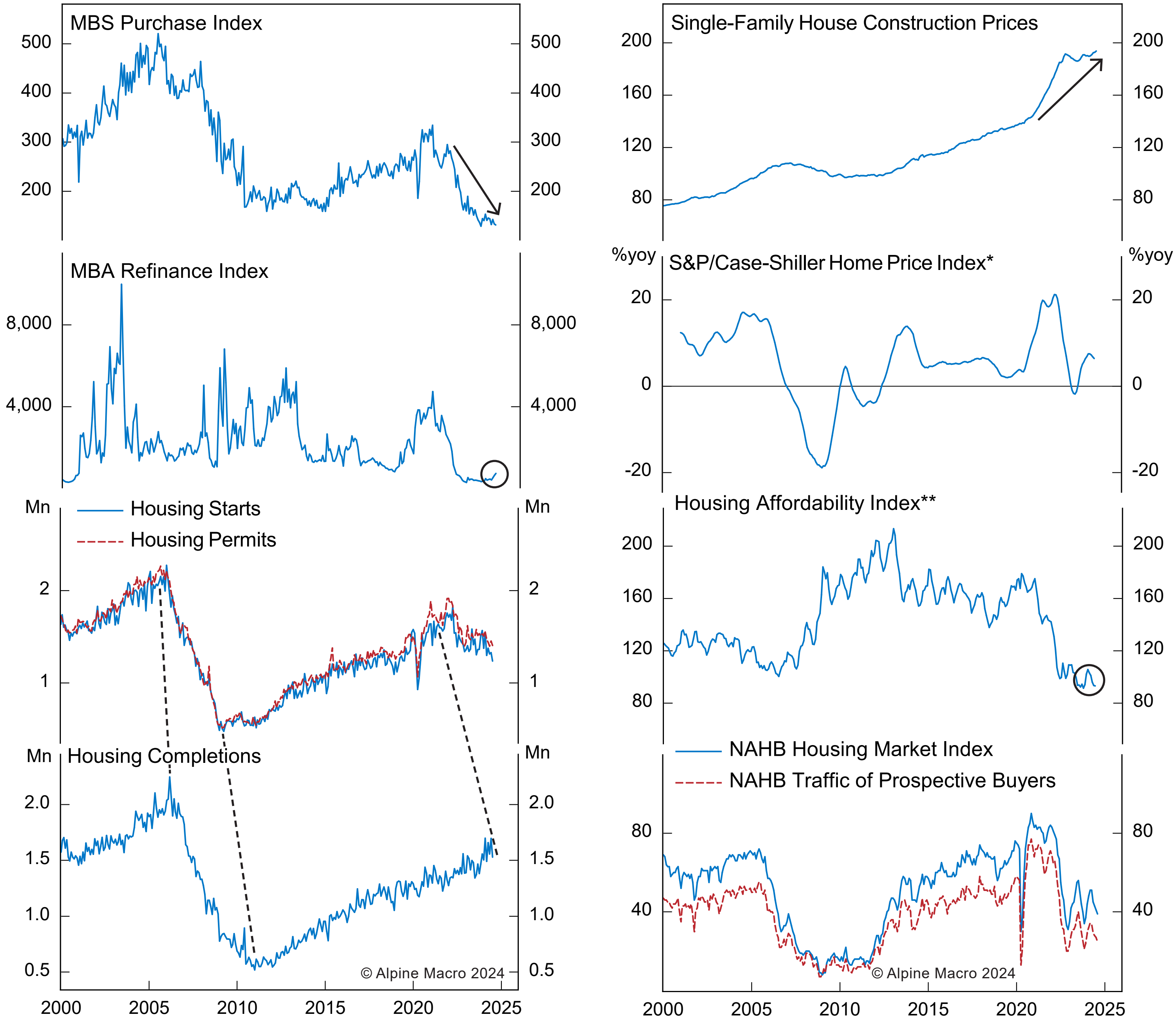
Chart 6 Non-Bank Private Sector Demand To Decline But Become Less Price Sensitive



*Excludes commercial bank and federal reserve holdings
**Sum MBB, VMBS, SPMB, JMBS

The growth of supply to non-bank private sector is has slowed and may even go negative if banks start buying (**Chart 6**). New demand from this segment may also become less price sensitive given strong ETF flows.

Chart 7 MBS Supply To Remain Constrained



We also expect supply to remain subdued. The MBA refinancing index has turned up but remains extremely depressed versus history. Several indicators suggest that mortgage activity on **new homes** is unlikely to be a major source of MBS supply (**Chart 7**):

- The MBA purchase index remains near rock-bottom.
- Housing permits and starts have been falling.
- Construction completions typically lag housing starts. While these lags have been particularly

long this cycle, we expect completions to roll over soon.

- There is limited incentive to build more homes as construction costs have increased, compressing homebuilder profits.
- Home price increases have slowed, indicating softening demand at current prices.
- Housing affordability remains depressed.
- NAHB traffic of prospective buyers remains weak.

The Fed will continue to reduce its MBS holdings for some time, but markets have already adapted to this pace of destocking. The Fed has been running off at a pace of $17 billion per month, far lower than the originally-planned $35 billion cap.

Bottom line: We expect the improvement in MBS demand to outpace supply, creating a favorable technical backdrop.

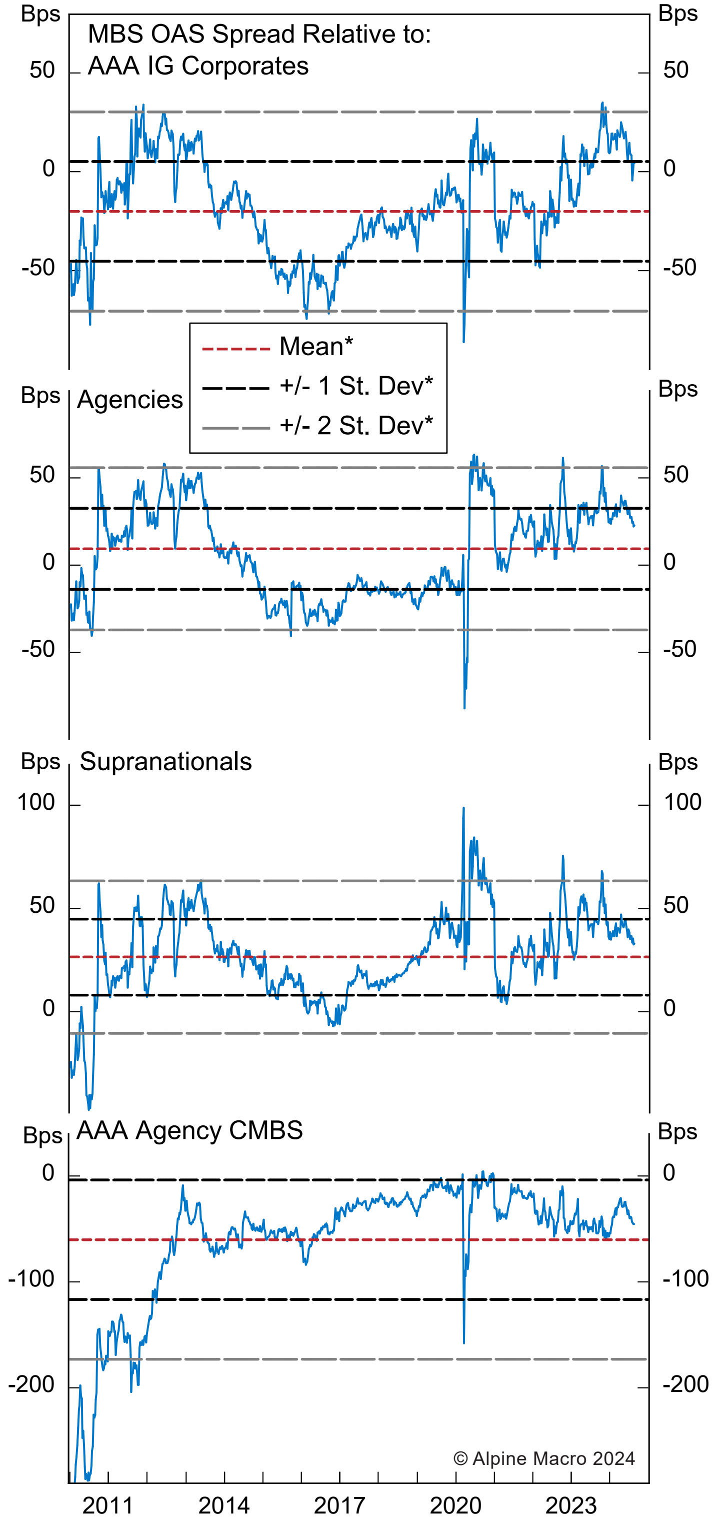
How Are MBS Valuations?

The overall valuation picture for MBS is relatively positive. Although spreads are slightly tighter than the long-term average, they are on the wider side relative to the post-GFC period.

Valuations are more compelling when compared to other high-quality assets. Spreads are attractive versus AAA IG Corporates, Agencies, and Supranationals (Chart 8).

The comparison between Agencies and Agency-MBS is particularly informative since both have the same credit profile. The gap between the two spreads is largely attributable to prepayment and liquidity risks. The current spread is nearly 0.6 sigma above average.

Chart 8 MBS Valuations Are Attractive



*Excludes GFC values from calculation
Source: Bloomberg Finance L.P.

Excess Returns To Exceed OAS Estimates

MBS are not only attractive based on current OAS, but we also believe option-adjusted spreads are compressed by unduly high expectations of interest rate volatility. This has artificially boosted perceived prepayment risk.

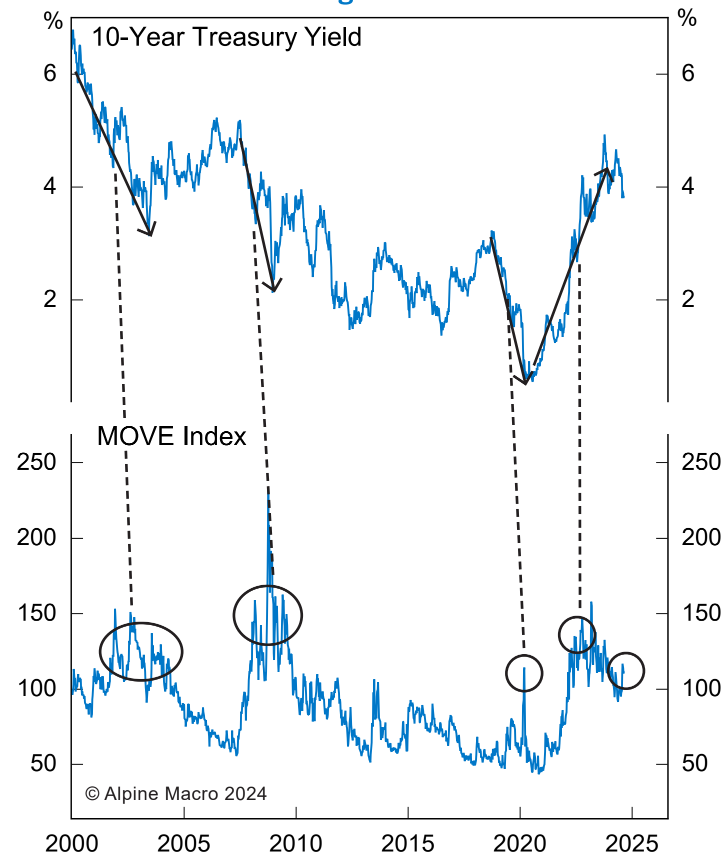
Volatile yields favor borrowers at the expense of MBS holders because borrowers have the option to prepay. Wider interest rate swings increase the likelihood that the borrower's prepayment option will be exercised.

This increased benefit to borrowers reduces expected MBS excess returns over Treasurys and is reflected in a compression of the OAS. However, if current implied volatility is "too high" and actual volatility comes in lower as the Fed cuts rates in the coming months, then realized excess returns should exceed those implied by the current OAS.

The MOVE index illustrates current market expectations for interest rate volatility. The latest readings are at the 78th percentile of the long-term range. The recent high readings of the MOVE index are likely due to lingering fears of the interest rate volatility experienced during the inflation surge.

Historically, the MOVE index at current levels has been associated with financial distress, such as the failure of LTCM, the crash in March 2020, or the two recessions of the 2000s. All of these periods were associated with rapid moves in bond yields of more than 2% in a few months, which is highly unlikely in the near future (Chart 9).

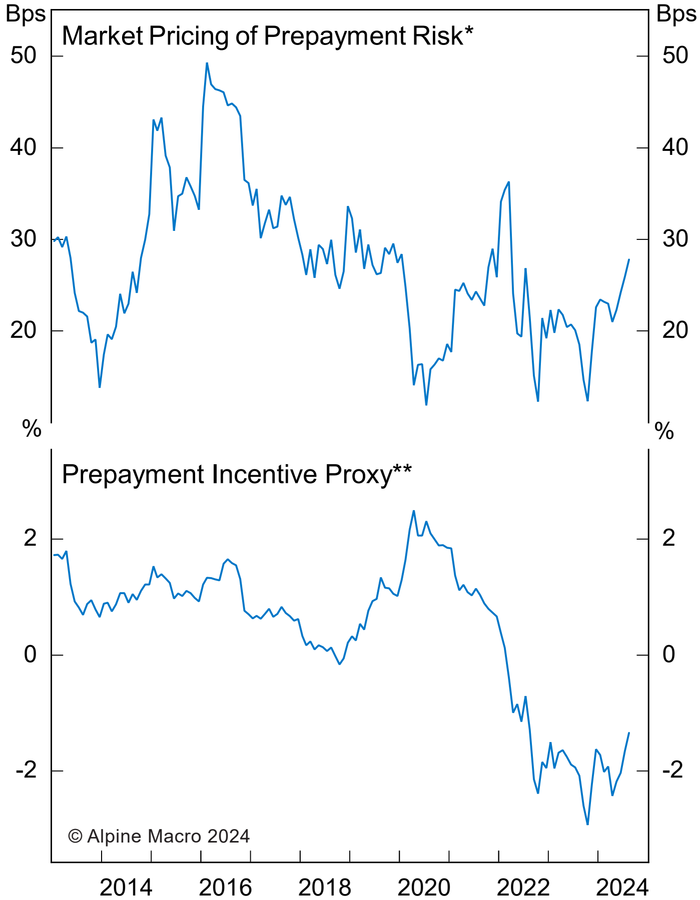
Chart 9 Expected Interest Rate Volatility Is Too High



The gap between the Z-spread and OAS is an estimate of the market's pricing of prepayment risk. The Z-spread assumes no prepayment options, while the OAS does. The market pricing of prepayment risk is near the post-GFC average based on this measure. However, actual prepayment risk, proxied by the gap between the current coupon and the weighted average coupon of the MBS index, is near all-time lows (Chart 10). Based on this chart, the OAS could be artificially depressed by up to 10 basis points.

Bottom line: MBS valuations are attractive, and expected returns should be higher than what is implied by the OAS.

Chart 10 Overpriced Prepayment Risk



*MBS Z-spread minus option-adjusted spread
**MBS average coupon rate minus yield-to-maturity

Investment Conclusions

The economy is softening, but a recession is not our base case. A lot of Fed rate cuts are already discounted in the curve, limiting the downside potential for 30-year mortgage rates. Given the high starting point for the policy rate, and the coupon structure of the mortgage pass-through market, we expect that limited prepayment activity will support MBS outperformance versus Treasurys and other high-quality parts of the Bloomberg Barclays Aggregate Index. Investors should overweight Agency MBS within a fixed-income portfolio.

Table 3 Most Mortgages Will Not Be In Refinancing Range

Cohort by Coupons (%)	Option-Adjusted Spread (Bps)	Z-spread (Bps)	Market Pricing of Prepayment Discount (Bps)
3.5	39	61	22
4	37	67	30
4.5	37	82	46
5	39	107	68
5.5	43	116	74
6	50	111	61
6.5	57	105	47

The 5.0% coupon range appears to be a sweet spot for MBS investors if our base case plays out. If mortgage rates only decline by 50 basis or so, borrowers in the 5% coupon range are unlikely to refinance en masse as the incentive is relatively small. However, the bond market has priced in substantial prepayment risk for this segment. Table 3 shows that the prepayment risk, proxied by the gap between the Z-spread and OAS, is quite elevated for the 5.0% coupon segment.

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