

Phil Gioia, CFA | November 2022

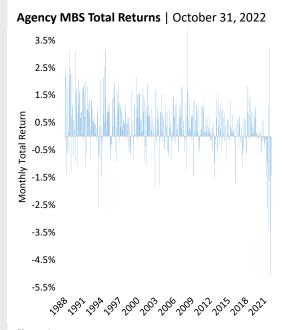
Key Takeaways

- Agency mortgage-backed securities (MBS) experienced their worst month in September, both in total return and excess return versus U.S. Treasuries.
- Agency MBS current-coupon spreads are near the widest levels in the post-Global Financial Crisis (GFC) era.
- Low dollar prices and slower expected prepayments have contributed to a modestly positive convex Agency MBS market for the first time in over 25 years.
- Historically, total returns for Agency MBS have been positive over the 12-month period following the onset of recent recessions.
- DoubleLine has a favorable outlook on Agency MBS performance broadly as spreads have widened to historically cheap levels, and are well positioned for relative-value buyers to take advantage of the recent spread widening.

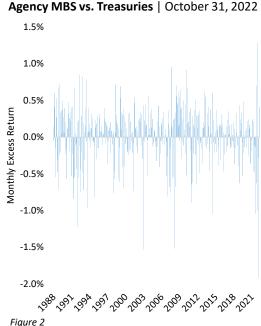


Historic Underperformance

2022 has been one of the worst years on record for many fixed income sectors. Interest rate volatility, monetary policy tightening and fears of a recession have been headwinds for performance. Government-backed bonds, including Agency MBS, have not been immune to negative returns. Agency MBS experienced their worst month since 1988 this past September, both in total return and excess returns versus Treasuries. (Figure 1) Similar underperformance to Treasuries has only been experienced during the depths of the GFC in 2008 and the dot-com refinancing wave of 2003. (Figure 2)







Source: DoubleLine, Bloomberg

¹ Inception of the Bloomberg US MBS Index was March 31, 1976.



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Attractive Valuations

Several factors have weighed on Agency MBS performance this year, including the Federal Reserve's balance-sheet runoff, a lack of bank buying, overseas selling and real estate investment trusts deleveraging. This has placed much of the responsibility on relative-value-type buyers to absorb supply. Broadly speaking, the demand from these buyers has not been enough to keep spreads from widening, as the Agency MBS current-coupon (CC) spread widened 106 basis points (bps) year-to-date (YTD) through Oct. 31 to 174 bps and was near the widest levels post-GFC.² (Figure 3)

MBS Current Coupon Spread Less Avg. 5y/10y UST Yield October 31, 2022

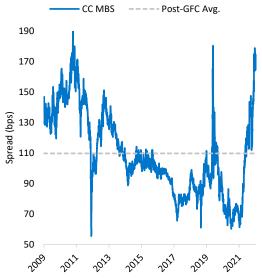


Figure 3
Source: DoubleLine, Bloomberg
Spread over Treasuries is calculated using the average of the five- and 10-year
Treasury yield. Dashed line represents the average spread.

Agency MBS spreads not only look attractive relative to history, but they also offer attractive relative value compared to corporate bonds. As of Oct. 31, Agency MBS spreads were in the 99th percentile relative to their 10-year range. Investment grade (IG) corporate bond spreads were in the 86th percentile and high yield (HY) corporate bonds in the 67th percentile. (Figure 4) This suggests that corporate bond spreads might widen further relative to Agency MBS.

10-Year Spread Data (bps)	Agency MBS	IG Corporates	HY Corporates
Max	187	387	1,139
Min	46	105	355
Average	85	154	503
Oct. 31, 2022	177	180	499
Percentile Rank	99th	86th	67th

Figure 4

Source: DoubleLine, Bloomberg

As of October 31, 2022. Max date for IG and HY corporates was March 23,

2020. Max date for Agency MBS was October 14, 2022.

(Yields) Started From the Bottom

While it has been painful to get to where we are today, spread widening alongside higher Treasury rates has led to all-in yields for Agency MBS at comparable levels to yields for U.S. HY corporate bonds at the beginning of February. (Figure 5) However, unlike the credit risk associated with HY corporate bonds, Agency MBS holders are guaranteed payment of scheduled principal and interest and bonds mature at par.

Agency MBS vs. U.S. HY Corporates | October 31, 2022



Figure 5
Source: DoubleLine, Bloomberg
Dashed line represents the yield-to-worst for Agency MBS as of October 31, 2022.

² Nominal spread for a par-priced security.



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Issuance Is Slowing

Issuance has significantly declined this year alongside a slowdown in overall housing activity. YTD through Sept. 30, total gross issuance was approximately \$1.5 trillion, down nearly 50% year-over-year. With mortgage rates over 7% as of Oct. 28, the supply outlook going forward could become much more favorable.³ Daily originations are expected to drop below \$2 billion per day, down from almost \$8 billion per day at the peak in 2021. (Figure 6)

Mortgage Originations and Rates | October 28, 2022



Figure 6
Source: DoubleLine, Citi Velocity, Bloomberg

This would help keep supply and demand balanced, as the Fed's balance-sheet runoff in September was \$23 billion and is projected to be roughly \$20 billion per month going forward. Meanwhile, prepayment speeds continued to fall as borrowers with lower mortgage rates are less likely to refinance at higher rates. Currently, less than 1% of existing conventional mortgages have an economic incentive to refinance.⁴

Convexity Has Improved

As prepays slowed, the duration of the Bloomberg US MBS Index extended to the longest going back to 1987. At the same time, higher Treasury rates led to price declines, with the dollar price of the index at its lowest level since 1984. (Figure 7)

Low dollar prices and slower expected prepayments have contributed to a modestly positive convex Agency MBS market for the first time in over 25 years. (Figure 8) This implies a better return per unit of risk for Agency MBS investors going forward.

Agency MBS Price and Duration | October 31, 2022

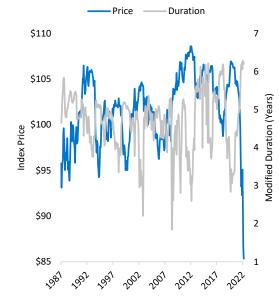


Figure 7
Source: DoubleLine, Bloomberg

Agency MBS Convexity | October 31, 2022

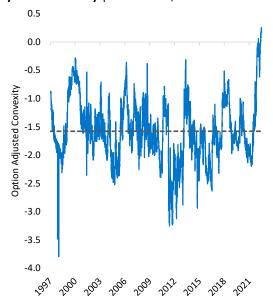


Figure 8
Source: DoubleLine, Bloomberg US MBS Index
Dashed line represents the average.

³ Mortgage Bankers Association Weekly Application Survey, U.S. 30-Year Contract Rate

⁴ BofA Global Research



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Performance During Recessions

Agency MBS have historically displayed lower correlations to equities than IG corporate bonds. A negative correlation to equities can be beneficial to investors' portfolios during volatile periods for risk assets. Since the inception of the Bloomberg US MBS Index in 1976, there have been six recessions. Total returns for Agency MBS were positive over the 12-month period following the onset of each recession. Apart from the 2020 recession, Agency MBS outperformed IG corporate bonds five out of the six periods.⁵ (Figure 9)

Post-Recession Performance

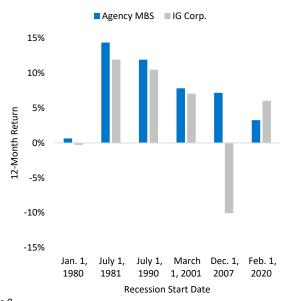


Figure 9
Source: Bloomberg, DoubleLine

Outlook

Going forward, we are positive on Agency MBS performance broadly as spreads have widened to historically cheap levels. On a relative value basis, Agency MBS spreads look attractive versus corporate bonds spreads and are well positioned for relative-value buyers to take advantage of the recent spread widening. (Figure 10) Further, should the U.S. enter a recession, the government-backed nature of Agency MBS could contribute to relative outperformance versus credit-sensitive corporate bonds. These factors, coupled with the potential continued slowdown in supply, could provide tailwinds for future performance.

IG Corporates Minus MBS Current Coupon SpreadAs of October 31, 2022

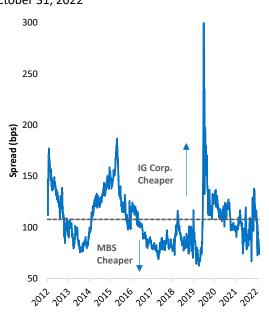


Figure 10
Source: DoubleLine, Bloomberg

MBS represented by MBS represented by the Morgan Stanley 30Y Conventional Current Coupon (\$100) OAS Index. Corporate represented by the Bloomberg US Credit Index. Dashed line represents the average.

⁵ Bloomberg US MBS Index and Bloomberg US Corporate Bond Index



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Product Specialist

Mr. Gioia joined DoubleLine in 2018. He is a member of the Product Specialist Team. In this capacity, he is responsible for various aspects of DoubleLine product marketing, investment strategy updates, portfolio communications and competitive analysis, with a focus on DoubleLine's Structured Product strategies. Mr. Gioia is also responsible for producing market commentary and dedicated strategy content. As part of the Product Specialist Team he attends the Fixed Income Asset Allocation, Macro Asset Allocation, and Structured Product meetings. Prior to DoubleLine, Mr. Gioia was an Investment Product Manager for Fidelity Investments. He holds a BS in Financial Management and Business Administration with a minor in Accounting from Salve Regina University. Mr. Gioia is a CFA® charterholder and holds the Series 7 and 63 Licenses.

Terms and Definitions

Agency – Mortgage securities whose principal and interest are guaranteed by a U.S. government agency such as Fannie Mae (FNMA) or Freddie Mac (FHLMC).

Basis Points (BPS) – Basis points (or basis point (bp)) refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01% or 0.0001, and is used to denote the percentage change in a financial instrument. The relationship between percentage changes and basis points can be summarized as: 1% change = 100 basis points; 0.01% = 1 basis point.

Bloomberg US Corporate Bond Index – This index measures the investment grade, fixed-rate taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg US Credit Index – This index is the U.S. credit component of the Bloomberg US Government/Credit Index. It consists of publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity and quality requirements. To qualify, bonds must be SEC registered. The US Credit Index is the same as the former US Corporate Index.

Bloomberg US Mortgage-Backed Securities (MBS) Index – This index measures the performance of investment grade, fixed-rate, mortgage-backed, pass-through securities of the government-sponsored enterprises (GSEs): Federal Home Loan Mortgage Corp. (Freddie Mac), Federal National Mortgage Association (Fannie Mae) and Government National Mortgage Association (Ginnie Mae).

Duration – Measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates.

High Yield (HY) – Bonds that pay higher interest rates because they have lower credit ratings than investment grade (IG) bonds. HY bonds are more likely to default, so they must pay a higher yield than IG bonds to compensate investors.

Investment Grade (IG) – Rating that signifies a municipal or corporate bond presents a relatively low risk of default. Bonds below this designation are considered to have a high risk of default and are commonly referred to as high yield (HY) or "junk bonds." The higher the bond rating the more likely the bond will return 100 cents on the U.S. dollar.

Mortgage Bankers Association (MBA) Weekly Application Survey – Covers over 75 percent of all U.S. retail residential mortgage applications and has been conducted weekly since 1990. Respondents include mortgage bankers, commercial banks and thrifts. Base period and value for all indexes is March 16, 1990 = 100.

Option-Adjusted Spread (OAS) – Measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is then adjusted to take into account an embedded option. Typically, an analyst uses U.S. Treasury yields for the risk-free rate. The spread is added to the fixed-income security price to make the risk-free bond price the same as the bond.

Par – Short for "par value," par can refer to bonds, preferred stock, common stock or currencies, with different meanings depending on the context. Par most commonly refers to bonds, in which case, it means the face value, or value at which the bond will be redeemed at maturity.

Spread – Difference between yields on differing debt instruments, calculated by deducting the yield of one instrument from another. The higher the yield spread, the greater the difference between the yields offered by each instrument. The spread can be measured between debt instruments of differing maturities, credit ratings or risk.

Yield to Worst (YTW) – The lowest yield of a bond that can be received short of default.

You cannot invest directly in an index.



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