# Advantages of Agency Mortgage-Backed Securities (MBS)

**July 31, 2020** | Phil Gioia, CFA

## Key Takeaways

- Year-to-date (YTD) through July 31, the performance of the Bloomberg Barclays US Aggregate Bond Index (the Agg) has largely been driven by returns from U.S. Treasuries in the first quarter and investment grade (IG) corporate bonds from March 23.
- Spread data suggests Agency MBS offer attractive relative value compared to IG corporate bonds.
- Durations of the Bloomberg Barclays US Corporate and Bloomberg Barclays US Treasury indices have been rising steadily since the end of 2018, increasing the interest rate sensitivity of both.
- As the absolute levels of interest rates have declined, the yield per unit of duration has become favorable for Agency MBS relative to Treasuries and IG corporate bonds.
- Agency MBS have historically exhibited lower correlations to U.S. equities relative to IG corporate bonds.
- Given their lower duration, Agency MBS have historically outperformed Treasuries and IG corporate bonds during periods of rising rates.

## Bloomberg Barclays US Aggregate Bond Index YTD Performance

YTD through July 31, the Agg returned 7.72%, marking its second-best start to the year since its 1986 inception. The YTD performance has mostly been attributable to the returns of the Treasury component in the first quarter and the corporate credit component from March 23. *(Figure 1)*

**Returns of the Bloomberg Barclays U.S. Aggregate Bond Index and Index Components** | July 31, 2020

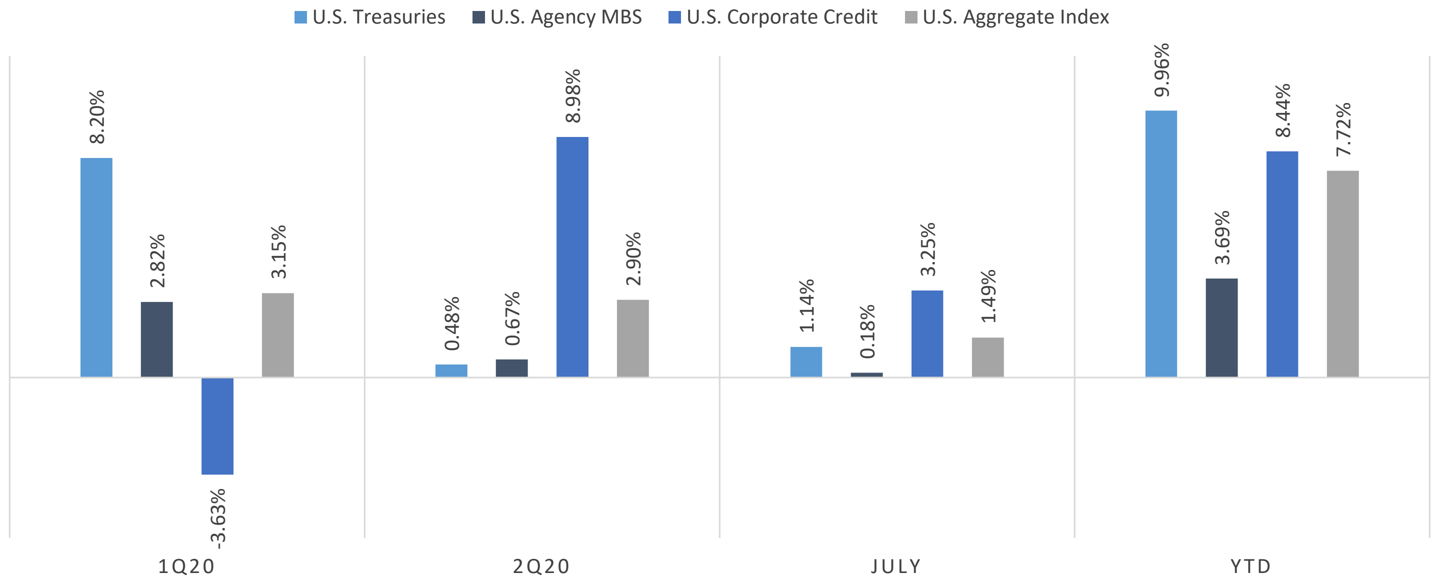


*Figure 1*
Source: DoubleLine, Bloomberg

During the first quarter, U.S. rates broadly rallied across most tenors. The two-year Treasury yield fell 132 basis points (bps) to 25 bps while the 10-year Treasury yield fell 125 bps to 67 bps as of March 31. Concurrently, credit spreads widened amid a risk-off sentiment largely driven by the COVID-19 pandemic. The backdrop of falling rates and risk-off sentiment helped propel Treasuries to their best quarterly return since the fourth quarter of 2008 as the Bloomberg Barclays US Treasury Index returned 8.20% during the first quarter of 2020.

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The second quarter of 2020 could be categorized as a reversal to the first three months as Treasury yields were relatively unchanged while credit spreads meaningfully tightened. The option-adjusted spread (OAS) of the Bloomberg Barclays US Corporate Index tightened by 122 bps during the second quarter, ending June at 150 bps. Against a backdrop of muted interest rate volatility and tightening credit spreads, the Bloomberg Barclays US Corporate Index returned 8.98%, its best quarterly return since the second quarter of 1985. As of July 31, the OAS for the Bloomberg Barclays US Corporate Index was 133 bps.

For both quarters of 2020, the Bloomberg Barclays US MBS Index posted positive returns. However, it lagged the returns of Treasuries during the first quarter and IG corporates during the second. Of the three main components of the Agg, Agency MBS lagged the YTD returns through July 31 of the Treasury and corporate bond sectors. (The composition of the Agg as of July 31 is shown in Figure 2.)

**Composition of the Bloomberg Barclays US Aggregate Bond Index** | July 31, 2020

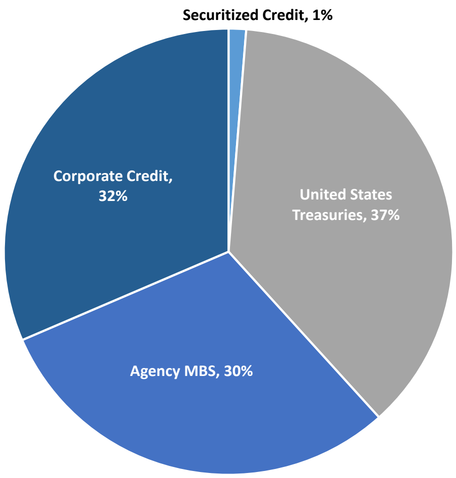


*Figure 2*
Source: DoubleLine, Bloomberg

## Valuations

The nominal spread, which measures the difference between the yield of a bond and the yield to maturity (YTM) of the closest to maturity Treasury bond, can provide a general indication of the relative value of the bond and measure the risk, i.e., the greater the perceived risk, the greater the spread should theoretically be. Given the recent degree of spread tightening, valuations within IG corporate bonds are relatively rich and are generally trading at levels that would suggest relatively low credit risk. As of July 31, the nominal spread for the Bloomberg Barclays US Corporate Index was 132 bps, compared to its 10-year average nominal spread of 140 bps. The nominal spread of the Bloomberg Barclays US MBS Index was 93 bps as of July 31, compared to its 10-year average nominal spread of 109 bps. *(Figure 3)*

**Nominal Spread in Basis Points of US MBS Index versus US Corporate Index** | July 31, 2020

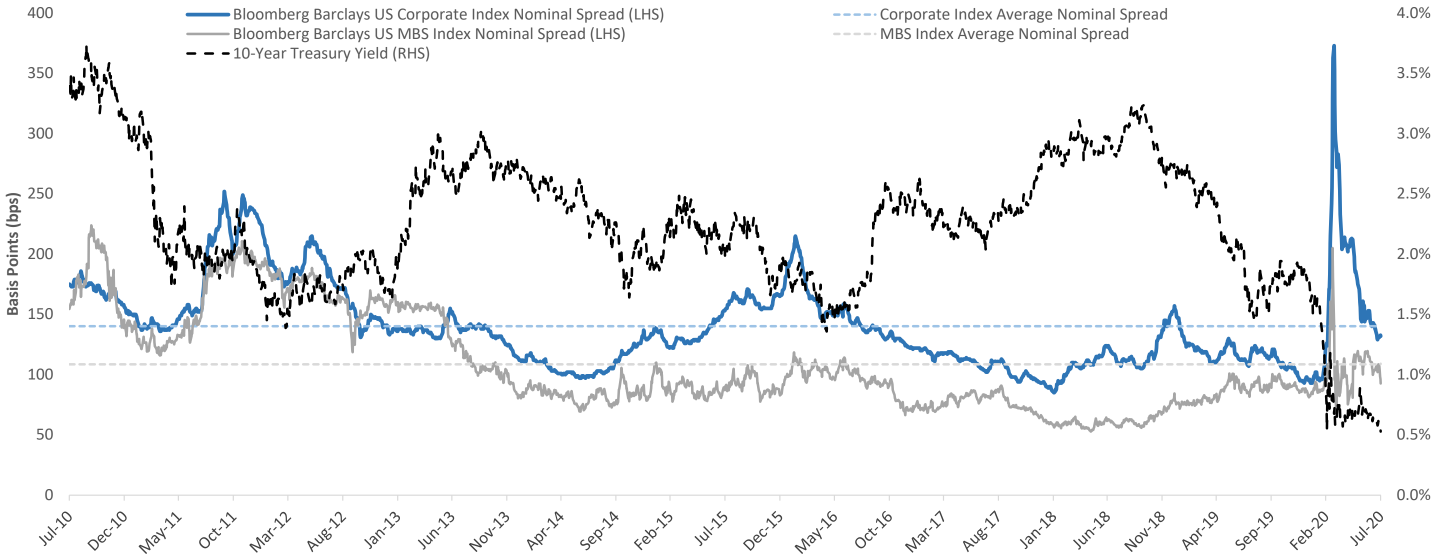


*Figure 3*
Source: DoubleLine, Bloomberg

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Relative to IG corporate credit, Agency MBS offer a comparable yield without the same level of credit risk inherent in IG corporate bonds. Credit risk is the risk of loss resulting from the borrower failing to make full and timely payments of interest and/or principal. Most corporate bonds are debentures, meaning they are not secured by collateral. Investors in such bonds must assume credit risk, the chance that the corporate issuer will default on its debt obligations. In contrast, given that Agency MBS are guaranteed by Ginnie Mae or one of the government-sponsored enterprises (GSEs) of timely payment of the scheduled principal and interest, the credit risk of the bonds is largely removed.

For investors that are concerned about potential defaults or loss of principal from corporate bonds, the government guarantee of timely principal and interest for Agency MBS mitigates that risk while providing a nominal spread that is comparable to IG corporate bonds. As of July 31, the 10-year Treasury yield was 53 bps, an all-time low. For investors in search of a greater yield than Treasuries without adding credit risk, Agency MBS bonds offer a greater than 90 bps yield advantage to similar maturity Treasuries. Therefore, we believe that Agency MBS offer attractive relative value compared to both Treasuries and IG corporate bonds.

## Duration

Duration, which measures the sensitivity of bond prices to changes in interest rates, has been rising steadily over the last few years for both the Bloomberg Barclays US Corporate and Bloomberg Barclays US Treasury indices. This indicates that the overall interest rate sensitivity for both indices has increased. As of July 31, the duration for the Bloomberg Barclays US Corporate Index reached was 8.79 years; 0.01 years less than the all-time high set on July 23, 2020. The duration of the Bloomberg Barclays US Treasury Index was 7.28 years. Both indices are approximately 1.5 years above their 10-year average durations. Conversely, the duration of the Bloomberg Barclays US MBS Index was only 1.68 years as of July 31, roughly two years less than its 10-year average. *(Figure 4)*

**Duration of US MBS Index, US Corporate Index, and US Treasury Index** | July 31, 2020

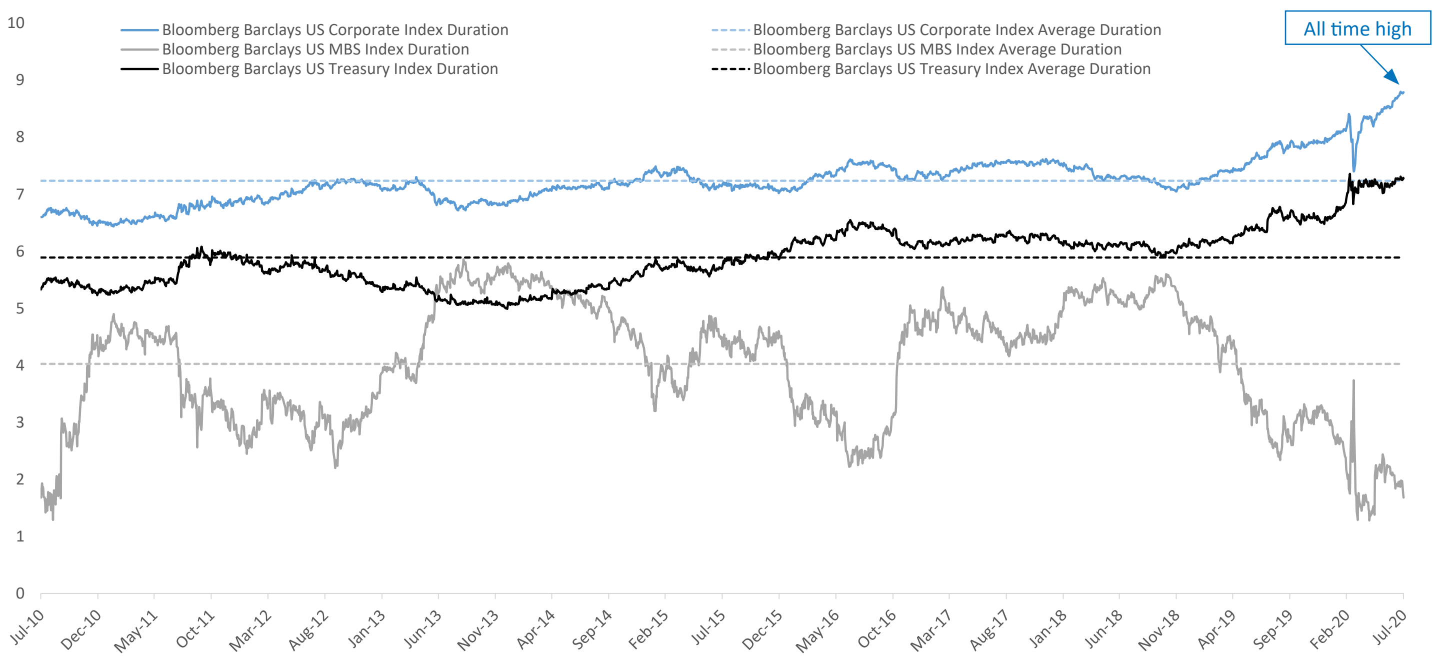


*Figure 4*

Source: DoubleLine, Bloomberg

A higher duration generally indicates the price of a bond will have greater sensitivity to changes in interest rates. Bond prices are inversely related to changes in interest rates, meaning that as rates increase, a bond that exhibits a positive duration will fall in value and vice versa. Risk-averse investors, or those concerned about wide fluctuations in the principal values of their bonds, could potentially benefit from bonds with a lower duration. Given its relatively lower duration, the Bloomberg Barclays US MBS Index has exhibited lower volatility relative to the other sectors of the Agg over time. *(Figure 5)*

**Rolling 3-Year Volatility** | July 31, 2020

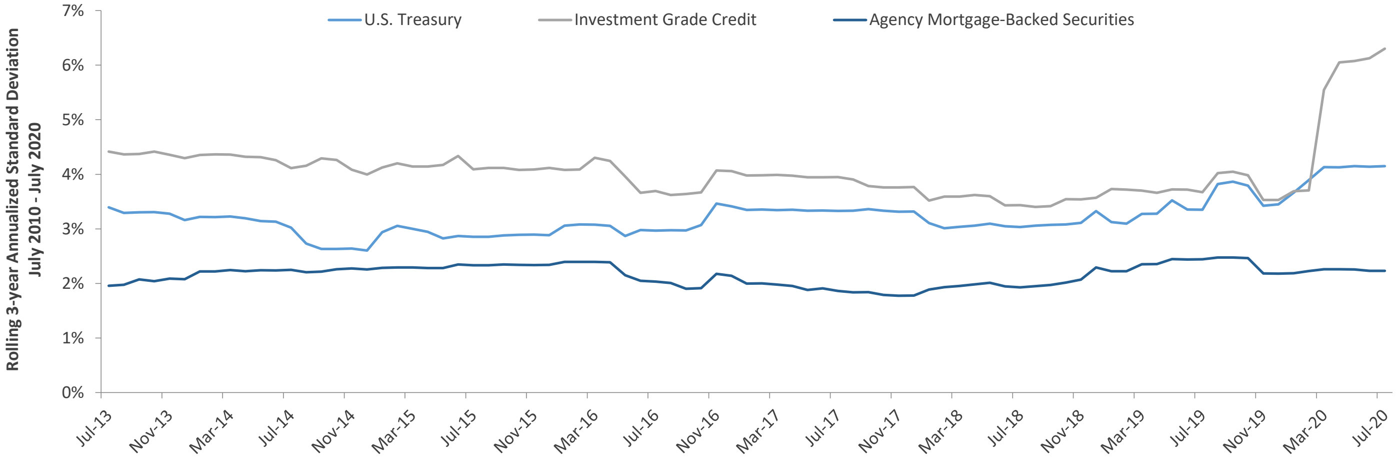


*Figure 5*

Source: DoubleLine, Bloomberg

## Yield per Unit of Duration (Y/D)

While the durations of the Bloomberg Barclays US Corporate and Bloomberg Barclays US Treasury indices have been increasing, the yield to worst (YTW) has been decreasing as the absolute level of interest rates has fallen. This implies that investors are being compensated less for taking on additional interest rate risk. As of July 31, the yield per unit of duration (Y/D) for the Bloomberg Barclays US Corporate Index was 0.21, while the Y/D for the Bloomberg Barclays US Treasury Index was 0.06, which represent the lowest historical Y/D ratio for both indices. In contrast, the Y/D for the Bloomberg Barclays US MBS Index was 0.64 as of July 31. *(Figure 6)*

**Yield per unit of Duration (Y/D) of US MBS Index, US Corporate Index and US Treasury Index** | July 31, 2020

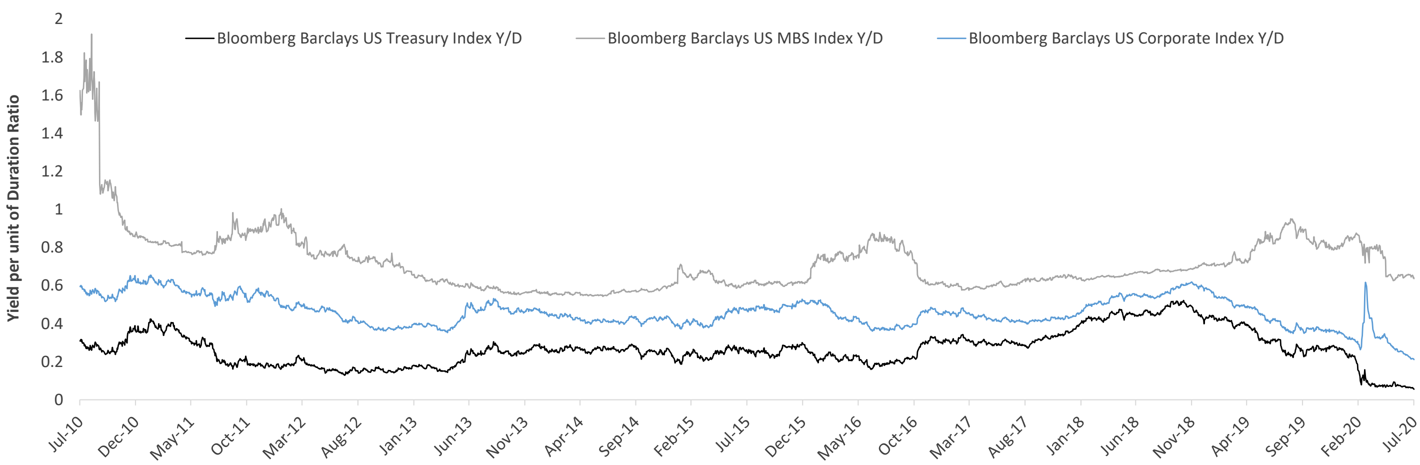


*Figure 6*

Source: Bloomberg, DoubleLine

Generally speaking, a Y/D of 0.21 implies that if interest rates were to rise by 21 bps over one year, the yield component would offset the price decline driven by higher interest rates, ceteris paribus. Under the same scenario, a bond with a Y/D of 0.64 implies that interest rates could rise by 64 bps over one year, and the yield would offset the price decline from higher interest rates.

This indicates that the Bloomberg Barclays US MBS Index offers a much more attractive yield per unit of duration ratio relative to the Bloomberg Barclays US Corporate and Bloomberg Barclays US Treasury indices.

## Correlations to Equities

Agency MBS have historically displayed lower correlations to the S&P 500 Index relative to IG corporate bonds. As of July 31, the 10-year correlation of the Bloomberg Barclays US MBS Index to the S&P 500 was negative 0.21 while the Bloomberg Barclays US Corporate Index, at 0.34, was positively correlated to the equity market. *(Figure 7)*

**10-year Correlation of US MBS, US Corporate, and US Treasury Indices to S&P 500 Index** | July 31, 2020

| 10-year Correlation* | S&P 500 Index | Bloomberg Barclays US MBS Index | Bloomberg Barclays US Corporate Index | Bloomberg Barclays US Treasury Index |
|---|---|---|---|---|
| S&P 500 Index | **1.00** | -0.21 | 0.34 | -0.45 |
| Bloomberg Barclays US MBS Index | -0.21 | **1.00** | 0.49 | 0.81 |
| Bloomberg Barclays US Corporate Index | 0.34 | 0.49 | **1.00** | 0.45 |
| Bloomberg Barclays US Treasury Index | -0.45 | 0.81 | 0.45 | **1.00** |

*Figure 7*
Source: Bloomberg, DoubleLine
*Calculated monthly

A negative correlation to equities can be beneficial to investors' portfolios during volatile periods. The recent bout of volatility in March is an example of how Agency MBS can potentially act as a risk-off hedge. The peak of the S&P 500 occurred on February 19, 2020, at 3,425. Roughly one month later on March 23, the S&P 500 had dropped to 2,268, a percentage decline of nearly 34%. Over that same time period, the Bloomberg Barclays US Corporate Index returned negative 12.28% while the Bloomberg Barclays US MBS Index returned 1.16%. *(Figure 8)*

**S&P 500 Peak-to-Trough Drawdown** | February 19, 2020 to March 23, 2020

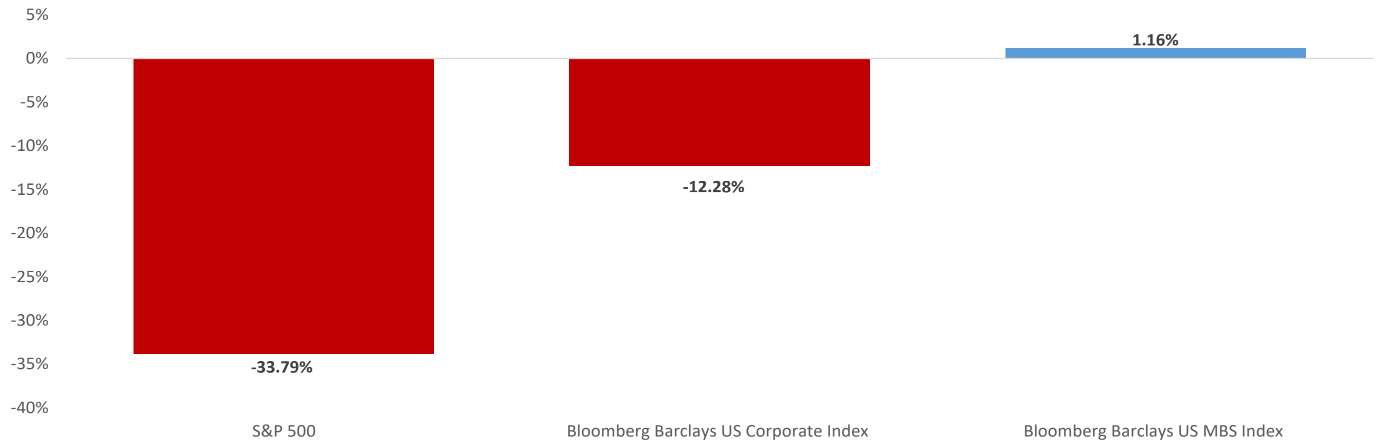


*Figure 8*
Source: Bloomberg, DoubleLine

## Agency MBS During Periods of Rising Rates

Due to their shorter duration, Agency MBS have historically been one of the best-performing asset classes within the Agg during periods of rising rates.

Since the Agg's inception in 1986, the 10-year Treasury yield rose by 100 bps or more on 13 separate occasions. *(Figure 9)* The index produced positive returns in four of those 13 periods. Agency MBS fared better than the Agg during those periods as the Bloomberg Barclays US MBS Index provided positive returns in six of the 13 time periods. Additionally, the Agency MBS Index:

- Outperformed Treasuries 13 out of 13 times
- Outperformed the Agg 13 out of 13 times
- Outperformed corporates nine out of 13 times

| 10-Year U.S. Treasury Yield | | | Rising-Rate Periods | | Domestic Fixed Income Sectors, Cumulative Total Return | | | |
|---|---|---|---|---|---|---|---|---|
| Trough (Percent) | Peak (Percent) | Δ in Basis Pts | Trough | Peak | Bloomberg Barclays US MBS Index | Bloomberg Barclays US Treasury Total Return | Bloomberg Barclays Aggregate US Bond Index | Bloomberg Barclays US Corporate Index |
| 6.92 | 9.59* | 267 | 8/29/1986 | 9/30/1987 | 2.51% | -2.55% | -0.72% | 0.01% |
| 8.15* | 9.28* | 113 | 2/29/1988 | 3/31/1989 | 4.77% | 3.56% | 4.17% | 4.93% |
| 7.80* | 9.02* | 122 | 7/31/1989 | 4/30/1990 | 2.59% | 0.11% | 0.95% | 0.52% |
| 5.47* | 8.03 | 256 | 10/29/1993 | 11/7/1994 | -2.51% | -5.33% | -4.59% | -6.22% |
| 5.53 | 7.06 | 154 | 1/18/1996 | 6/12/1996 | -1.91% | -4.09% | -3.54% | -4.83% |
| 4.16 | 6.79 | 263 | 10/5/1998 | 1/20/2000 | 1.37% | -4.57% | -2.35% | -3.86% |
| 4.18 | 5.43 | 125 | 11/7/2001 | 4/1/2002 | -0.53% | -4.85% | -2.44% | -2.78% |
| 3.11 | 5.30 | 218 | 6/13/2003 | 6/12/2007 | 14.56% | 5.51% | 10.06% | 9.20% |
| 2.06 | 3.99 | 193 | 12/30/2008 | 4/5/2010 | 6.87% | -3.95% | 6.79% | 19.97% |
| 2.39 | 3.74 | 135 | 10/7/2010 | 2/8/2011 | -1.56% | -4.64% | -3.02% | -3.37% |
| 1.39 | 3.03 | 164 | 7/24/2012 | 12/31/2013 | -1.27% | -3.62% | -1.71% | 0.53% |
| 1.36 | 2.63 | 127 | 7/8/2016 | 3/13/2017 | -2.35% | -5.44% | -3.78% | -3.18% |
| 2.04 | 3.24 | 120 | 9/7/2017 | 11/8/2018 | -2.31% | -3.58% | -2.96% | -3.01% |

*Figure 9*

Source: DoubleLine, Bloomberg, Barclays

*= Barclays used month end figures for pre-1994 and daily figures for post-1994 data points.

## Investment Implications

Longer-duration assets and credit spread products have been large contributors to YTD returns through July 31 of the Bloomberg Barclays US Aggregate Bond Index. Looking ahead, Agency MBS appear to offer attractive relative value compared to Treasuries and IG corporate bonds. Based on historical evidence, Agency MBS could provide investors with excess return over Treasuries and IG corporate bonds, with potentially less interest rate sensitivity, a higher yield per unit of duration and a lower correlation to equities relative to IG corporate bonds.

Additionally, the Federal Reserve has pledged support to Agency MBS, having net purchased over $650 billion since the announcement on March 15, 2020, of its fourth round of quantitative easing (QE4). At the July Federal Open Market Committee (FOMC) meeting, the Fed affirmed a pace of $40 billion of net purchases per month. J.P. Morgan estimates that the Fed is on pace to bring its total net purchases close to $800 billion by year's end. We believe these factors bode well for the potential outperformance of Agency MBS relative to Treasuries and IG corporate bonds. ■

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