Advantages of Agency Mortgage-Backed Securities (MBS)

April 2022 | Phil Gioia, CFA

Key Takeaways

- The Bloomberg US Aggregate Bond Index (the Agg) is off to its worst start to any year since the first quarter of 1980.
- As U.S. Treasury rates rose across tenors in the first quarter, longer-duration sectors of the Agg such as investment grade (IG) corporate bonds and Treasuries underperformed Agency MBS.
- Agency MBS have historically exhibited lower volatility than the Agg and its other components.
- Agency MBS have historically offered a more attractive yield per unit of duration ratio relative to the Agg, Treasuries and IG corporate bonds.
- 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.
- Agency MBS have historically displayed lower correlations to the S&P 500 Index relative to IG corporate bonds.

First Quarter Performance

Year-to-date (YTD) through March 31, the Agg returned negative 5.93%, its worst start to the year since 1980 and its third worst quarter going back to 1976. The YTD performance has largely been attributable to the outsized negative returns of IG corporate bonds. In contrast, Agency MBS experienced the smallest drawdown of the Agg's components. *(Figure 1)*

Returns of the Bloomberg U.S. Aggregate Bond Index and Index Components | March 31, 2022

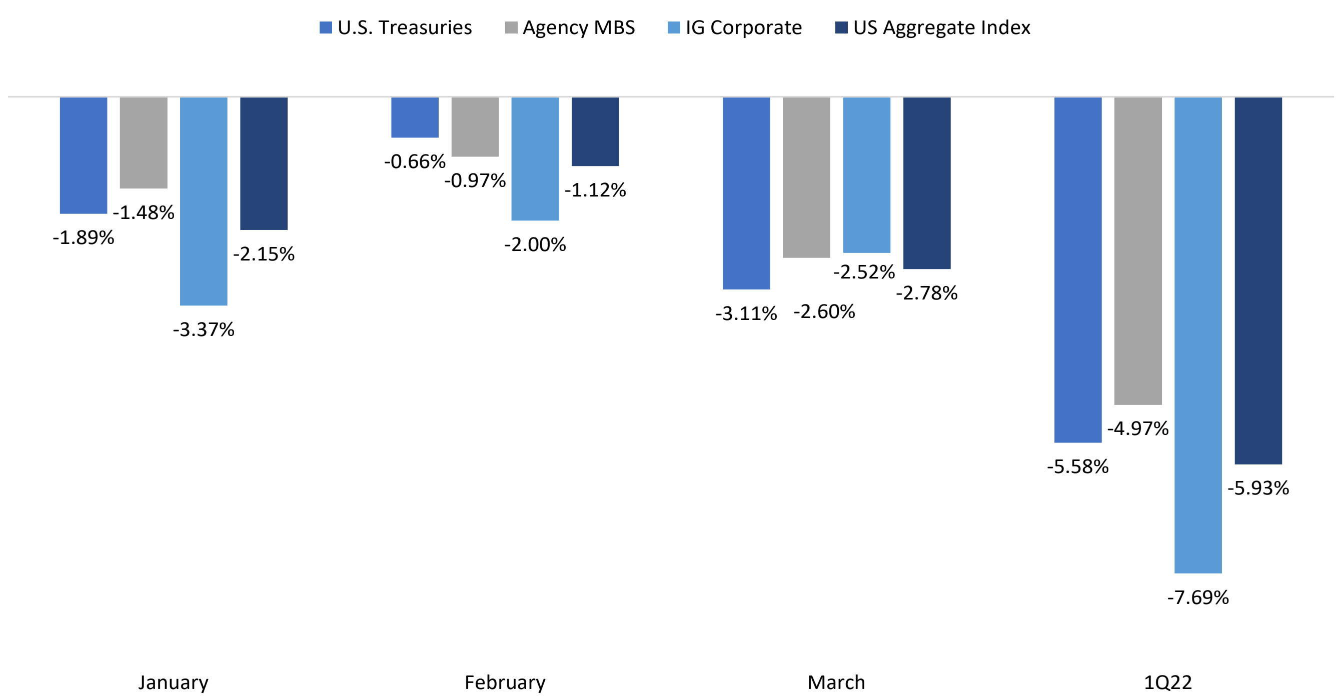

Figure 1
Source: DoubleLine, Bloomberg

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U.S. Treasury Rates

U.S. Treasury rates rose across tenors in the quarter. Short-dated Treasury yields moved substantially higher as market participants adjusted expectations for future fed funds rate hikes. The two-year Treasury yield rose 160 basis points (bps) to 2.33%, its highest level since May 2019. The backdrop of rising rates and a general risk-off sentiment contributed to the large declines across most fixed income sectors. *(Figure 2)*

U.S. Treasury Curve | March 31, 2022

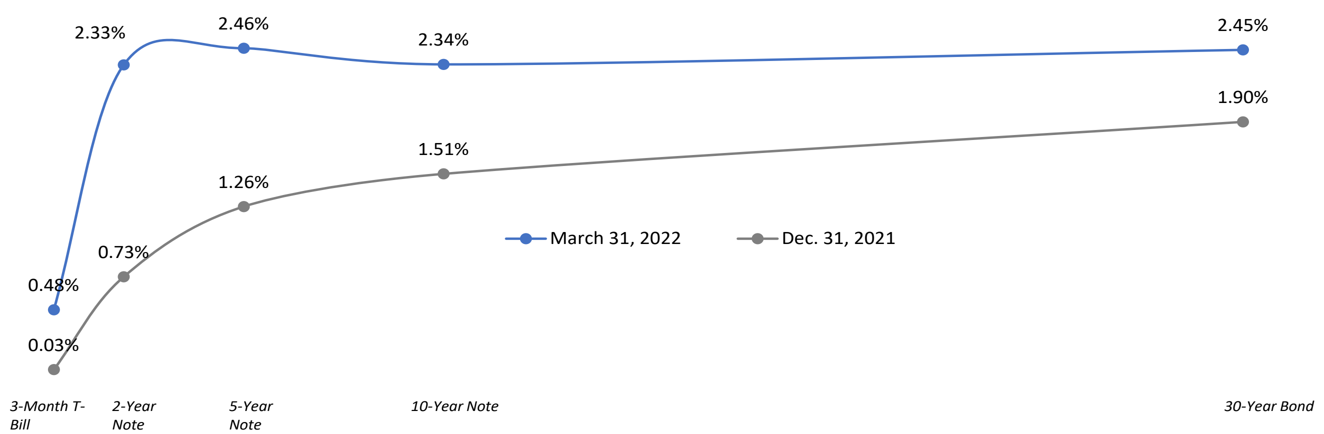

Figure 2
Source: DoubleLine, Bloomberg

Duration

Duration, which measures the sensitivity of bond prices to changes in interest rates, has been rising steadily over the last few years for the Agg, indicating that the overall interest-rate sensitivity of the index has increased. As of March 31, the Agg's duration was 6.58 years, the Bloomberg US Corporate Bond Index's was 8.15 years, and the Bloomberg US Treasury Index's was 6.78 years. The duration for the Bloomberg US MBS Index was 5.18 years, 1.4 years less than the Agg and nearly three years less than IG corporate bonds. *(Figure 3)*

Index Duration | March 31, 2022

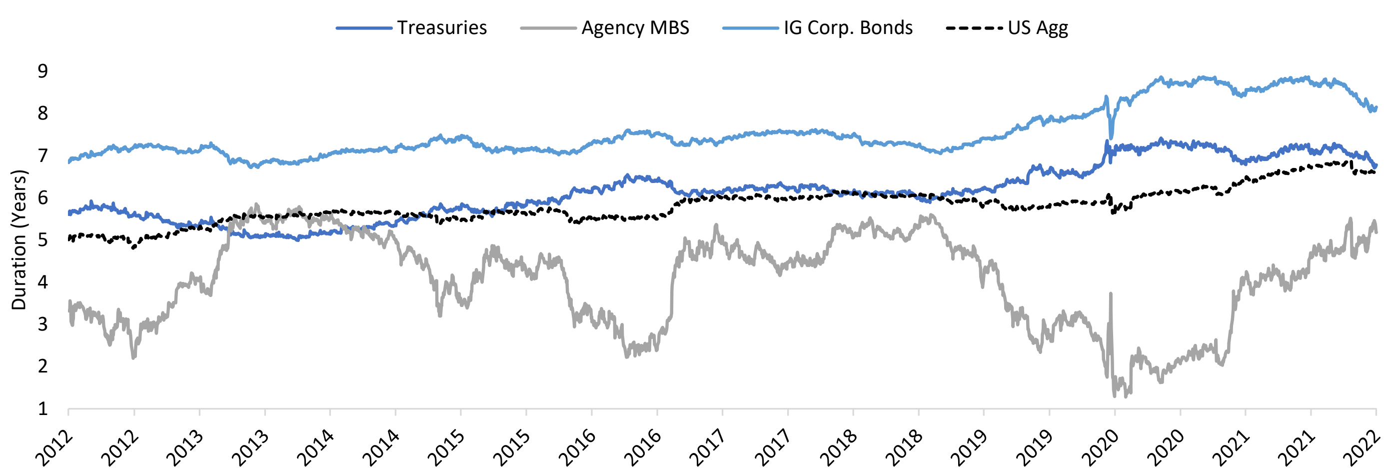

Figure 3
Source: DoubleLine, Bloomberg

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 their relatively lower duration, Agency MBS have exhibited lower volatility relative to other fixed income sectors over time. *(Figure 4)*

Standard Deviation | March 31, 2022

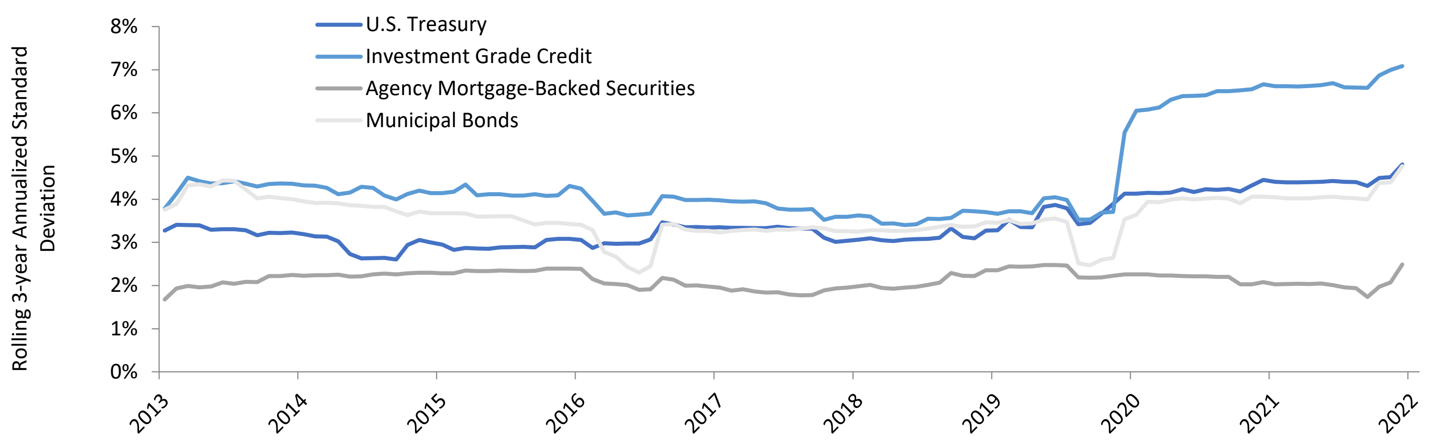

Figure 4

Source: DoubleLine, Bloomberg

Yield Per Unit of Duration

Although the duration of the Agg and its components has increased, all-in yields have recently risen given the higher Treasury rates since August. As such, investors are being compensated more for taking on additional interest-rate risk. A relatively simplistic way to quantify yield relative to interest rate risk is using a yield per unit of duration (Y/D) ratio. As of March 31, the Y/D ratio for the Agg and IG corporate bonds was 0.44, Treasuries 0.36 and Agency MBS 0.58. *(Figure 5)*

Index Yield Per Unit of Duration | March 31, 2022

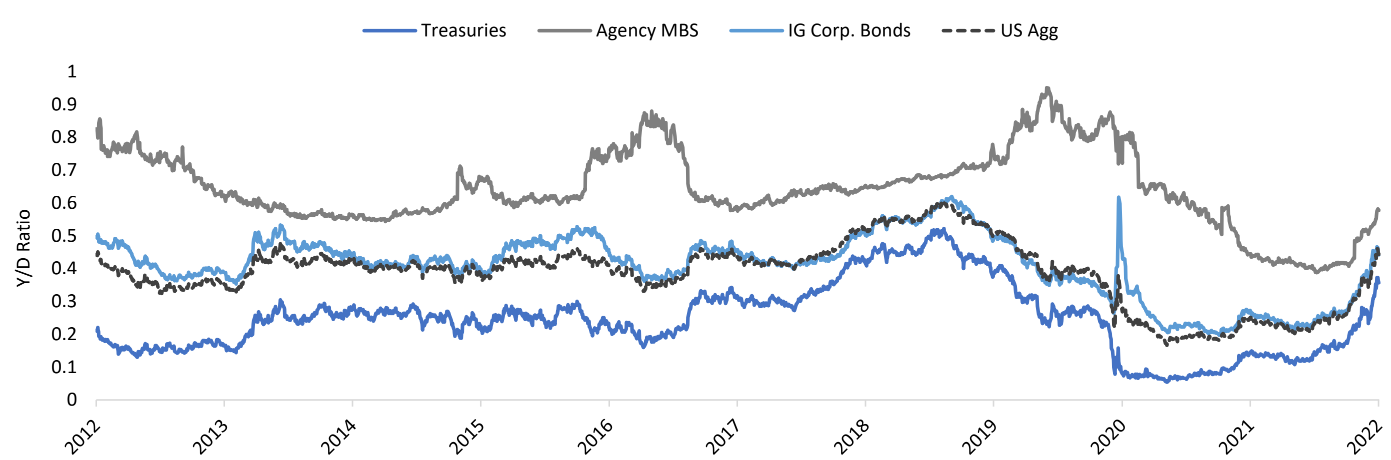

Figure 5

Source: DoubleLine, Bloomberg

Generally speaking, a Y/D ratio of 0.44 implies that if interest rates were to rise 44 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 ratio of 0.58 implies that interest rates could rise 58 bps over one year, and the yield would offset the price decline from higher interest rates. This indicates that Agency MBS offer a more attractive Y/D ratio relative to the Agg, Treasuries and IG corporate bonds.

Agency MBS Duration 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 15 separate occasions. *(Figure 6)* The Agg produced positive returns in four of those 15 periods. Agency MBS fared better than the Agg during those periods, as the Bloomberg US MBS Index provided positive returns in six of the 15 periods. Additionally, the Agency MBS Index:

- Outperformed Treasuries 15 out of 15 times
- Outperformed the Agg 15 out of 15 times
- Outperformed IG corporates bonds 12 out of 15 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 US MBS Index	Bloomberg US Treasury Index	Bloomberg US Aggregate Bond Index	Bloomberg US Corporate Bond 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	153	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	219	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%
0.51	1.74	123	8/4/2020	3/31/2021	-0.99%	-6.06%	-3.70%	-3.62%
1.17	2.47	130	8/3/2021	3/25/2022	-6.78%	-7.68%	-8.08%	-10.32%

Figure 6
Source: DoubleLine, Bloomberg
*= Barclays used month end figures for pre-1994 and daily figures for post-1994 data points.

Correlations to Equities

Agency MBS have historically displayed lower correlations to the S&P 500 relative to IG corporate bonds. As of March 31, the five-year correlation of the Bloomberg US MBS Index to the S&P 500 was negative 0.06 while the Bloomberg US Corporate Bond Index was positively correlated at 0.44. *(Figure 7*)

Five-Year Correlation*	S&P 500 Index	Bloomberg US MBS Index	Bloomberg US Corporate Index	Bloomberg US Treasury Index
S&P 500 Index	**1.00**	-0.06	0.44	-0.22
Bloomberg US MBS Index	-0.06	**1.00**	0.36	0.77
Bloomberg US Corporate Index	0.44	0.36	**1.00**	0.45
Bloomberg US Treasury Index	-0.22	0.77	0.45	**1.00**

Figure 7
Source: DoubleLine, Bloomberg

A negative correlation to equities can potentially be beneficial to investors' portfolios during volatile periods. Recent bouts of equity market volatility are an example of how Agency MBS can potentially reduce portfolio drawdowns. The last three times the S&P 500 declined by 10% or more from peak to trough, Agency MBS returns were positive in two of the three periods. In contrast, IG corporate bond returns were negative in all three periods and suffered a 12.28% drawdown during the COVID-19 sell-off. *(Figure 8)*

S&P 500 Peak-to-Trough Drawdown | March 31, 2022

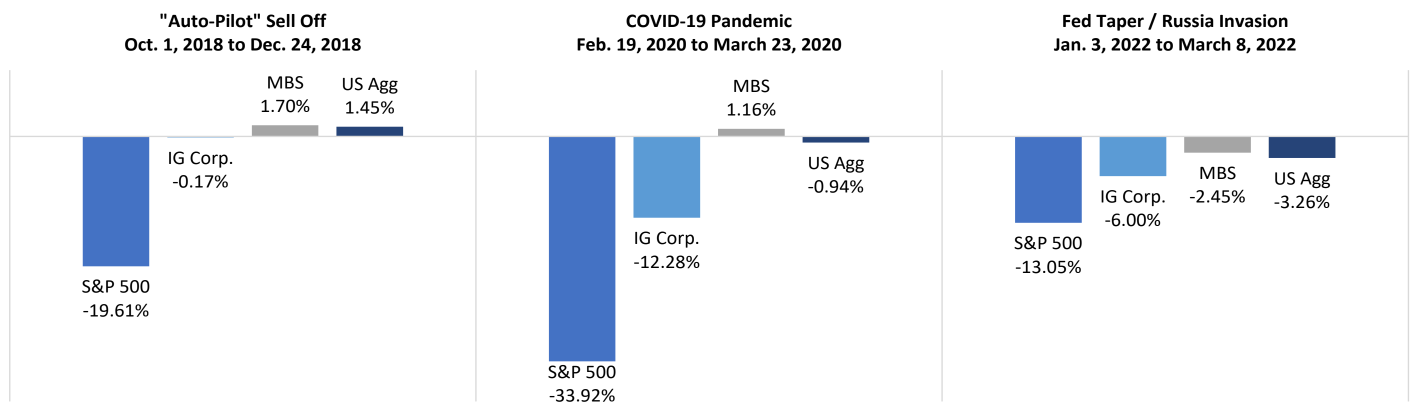

Figure 8
Source: DoubleLine, Bloomberg

Investment Implications

Monetary policy tightening, in response to elevated inflation and a strong labor market, will likely lead to increased interest-rate volatility this year. Just as quantitative easing and low interest rates have aided the performance of risk assets over the past decade, a reduction in the Federal Reserve and other central banks' footprints within markets could force investors to reconsider return expectations for various asset classes, particularly longer-duration fixed income.

DoubleLine expects elevated interest-rate volatility to persist in 2022 and stresses the importance of active management for interest rate positioning. In a rising rate environment, the lower duration of Agency MBS and higher Y/D ratio could bode well for the asset class. Further, should broader risk-off sentiment persist, the lower correlation of Agency MBS relative to equities might provide downside protection. ■

For our views on Agency MBS and what a Fed taper might mean for the asset class, see DoubleLine Agency MBS Update.

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Definitions

Bloomberg US Aggregate Bond Index – This index represents securities that are SEC registered, taxable and dollar denominated. It covers the U.S. investment grade, fixed-rate bond market, with components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indexes that are calculated and reported on a regular basis.

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 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).

Bloomberg US Treasury Index – This index measures U.S. dollar-denominated, fixed-rate nominal debt issued by the U.S. Treasury with a remaining maturity of one year or more. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

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

Federal Funds Rate – Target interest rate, set by the Federal Reserve at its Federal Open Market Committee (FOMC) meetings, at which commercial banks borrow and lend their excess reserves to each other overnight. The Fed sets a target federal funds rate eight times a year, based on prevailing economic conditions.

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.

Quantitative Easing (QE) – An unconventional monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective. A central bank implements quantitative easing by buying specified amounts of financial assets from commercial banks and other private institutions, thus raising the prices of those financial assets and lowering their yield, while simultaneously increasing the monetary base.

S&P 500 Index – This unmanaged capitalization-weighted index of the stocks of the 500 largest publicly traded U.S. companies is designed to measure performance of the broad domestic economy through changes in the aggregate market value of the 500 stocks, which represent all major industries.

Standard Deviation – Measure of the variation or dispersion of a set of data from its mean or expected/budgeted value. A low standard deviation indicates that the data points tend to be very close to the mean, whereas a high standard deviation indicates that the data is spread out over a large range of values. A measure of an investment's volatility.

You cannot invest directly in an index.

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