MBS

MBS Mantra, LLC

September 2019 - MBS Mantra MBS High Income/Absolute Return Strategy returns:

	% Net Return	% Gross Return	2019 YTD Net	Trailing 1 year Net
Aggregated SMAs	**-0.12%**	**-0.04%**	**+5.2%**	**+5.5%**
Founder's Portfolio	**-0.10%**	**-0.02%**	**+5.3%**	**+7.1%**

Sep 2019 Income: +0.9%; Annualized: ~11.5% (Aggregated SMAs @ recent marks)
Sep 2019 Cashflow: 2.1%

Hello.

The average income rates for September were slightly higher than the recent past, with some bonds outperforming and others underperforming, as is typical. The weighted average income for the Aggregated SMA portfolio was 0.89%, almost 11.5% annualized. The monthly income range was -30.6% to +14.2% (non-annualized). Total cashflow received was 2.1% of the portfolio value at the start of the month, a little higher than last month's 1.9%.

As discussed last month, Non-Agency MBS continue to be in demand, and numerous bonds have often traded above the 'marks' for much of recent quarter. It appears, however, that our custodian's pricing service has resumed marking down legacy MBS, and as a result our income was offset by unrealized mark downs on many of our bonds. Notably flawed, one of our bonds that has been marked at $46 recently traded at $54.5 to a dealer who immediately sold it at $56, according to TRACE, FINRA's price transparency system. Marking this one bond alone at recent trading levels would add 1.5% to our return computation.

Central Banking – Powell – "Just Buying T-Bills, this is not QE"

This is absolute nonsense from the Fed. They apparently do not understand how money supply works – this is a boosting of M3 and an injection of M3-M2 – Investible Capital. No wonder stock are rallying again. Bring back M3 so we can understand risk more precisely!!!

If you have read our white paper from March 'T-Leaf Reading', you will know that the 1990 tightening of Swap Spreads was a result of T-Bill issuance, with the follow-up reduction in T-bill supply in 1997 resulting in a cascading series of "Black Swan events" : the blowup of LTCM, followed by a widening of all credit spreads and thus the Thai and Russian credit blowups, and ultimately being one of the two events without which the Great Deleveraging – the Global Financial Crisis of 2007 – would not have occurred. T-Bills matter!

MBS Mantra Income Strategy Betas

Over the past year, our newsletters and white papers have shed much light on our MBS High Income strategy. The 'MBS Income Factor' white paper from July 2019 described the strategy in detail; the year end Dec 2018 newsletter contained analysis showing how High Income protected the portfolios from price risk and how cumulative income over time allowed the strategy to dominate the returns of other benchmarks; the Mar 2018 newsletter compared our portfolio Income to that of numerous "competitors", and inferred their underlying strategies.

Our first newsletter, in Oct 2017, showed details about the low Beta and correlation our strategy has to various benchmarks, with our Rolling Betas showing how different the returns from the High Income strategy are when compared to the returns of other benchmarks. **In that newsletter, we highlighted the fact that our Betas to various benchmarks (i.e. markets and strategies) are quite volatile, resulting in very low Betas and R-Squareds.**

In this newsletter, we update the Beta analysis of our strategy, and also compare it with the Betas of some other MBS and Income funds. **Our strategy should fit the need of most allocators for "uncorrelated alpha generating strategies", and creates both a portfolio diversifier and risk reducer, but is also a standalone absolute return strategy.**

Fee compression has been a topic of conversation and featured at conferences over the past few years. This is primarily due to most funds and strategies having very high Betas – allocators and investors do not see the need to pay high fees for High Beta strategies when Beta is available at low cost through ETFs.

However, low Beta strategies should be worth more for portfolio construction and should deserver higher management fees. Previously, we have proposed some unique fee structures to institutional allocators where fees decline as Beta increases. To correctly assess the Beta of a strategy, gross returns without fees are therefore used.

This table below shows the Beta, and strength of the relationship, of MBS Mantra's monthly Gross returns to four benchmark indices we have chosen for our monthly reporting. Computations use regressions on monthly returns from 11/2014 to 9/2019. (This is slightly different than the Betas and statistics in our Fact Sheets, that use MBSM Net returns.)

The four Benchmark Indices used are:

- "Barclays AGG": Bloomberg Barclays US Agg Total Return Value Unhedged USD Index
- "Barclays MBS": Bloomberg Barclays US Securitized: MBS/ABS/CMBS and Covered Total Return Unhedged USB Index
- "Barclays HY": Bloomberg Barclays US Corporate High Yield Total Return Value Unhedged USD Index
- "S&P 500": S&P 500 Index

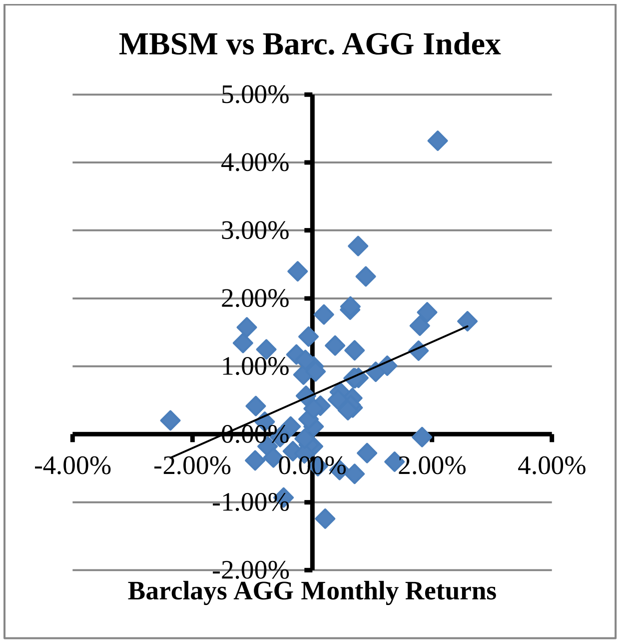
MBSM Gross Monthly Returns vs	**Barclays AGG**	**Barclays MBS**	**Barclays HY**	**S&P 500**
Beta	0.39	0.39	0.06	(0.02)
Alpha (monthly)	0.6%	0.6%	0.7%	0.7%
R-Squared	0.12	0.06	0.01	0.00
Correlation	35%	24%	10%	7%

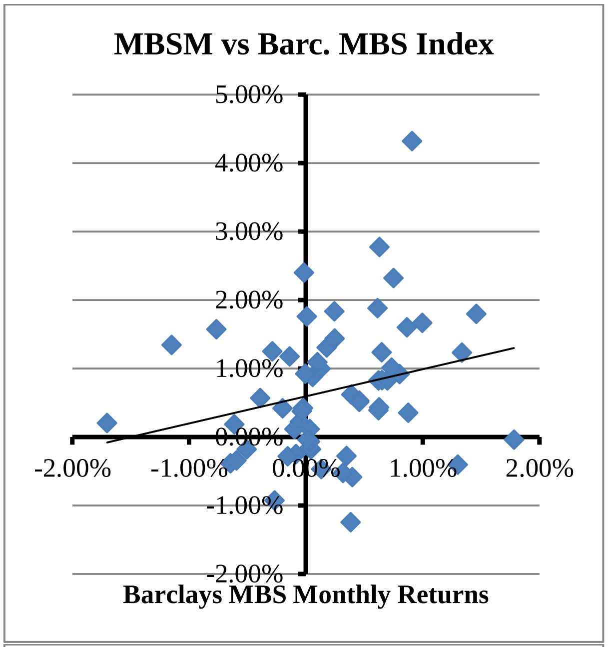
The following graphs allow one to visualize these relationships. The slope of the 'fitted line' of the scatterplots is the "Beta" of the relationship, and the intercept to the vertical axis is the "Alpha". **The scatterplots reinforce the low R-Squareds of these relationships, making the Beta's almost meaningless.** (We are not addressing Alpha in this analysis, but will simply note that is positive versus all the benchmarks.)

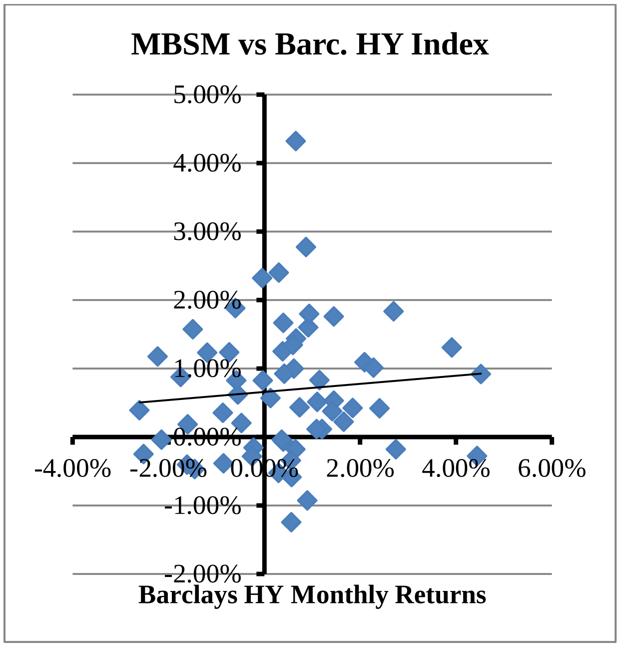
What should stand out is that, while the data on X-axis in each graph is more-or-less normally distributed, the data on the vertical Y axis are heavily skewed to positive returns (above the X-axis), and that there are few MBSM returns in the lower left quadrants of each chart.

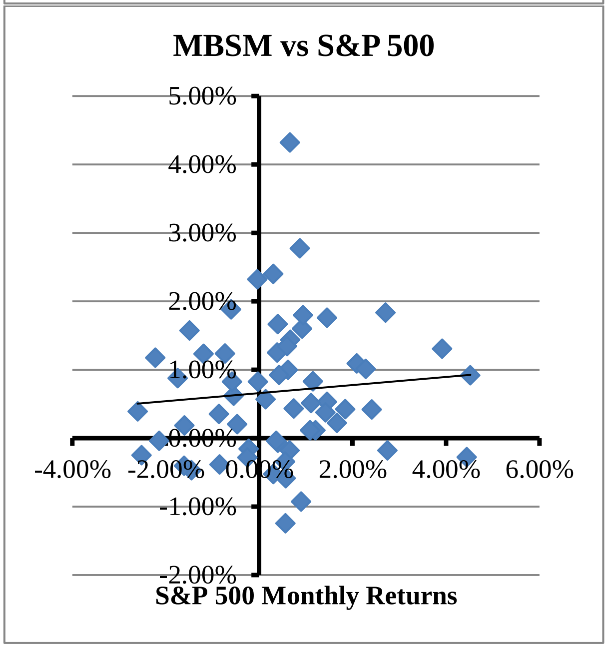
This skewed distribution is a direct consequence of the High Income of our strategy and MBS portfolios.

Most market returns and strategies depend on Returns from Price Change to generate the majority of their Total Returns, resulting in the expected normal distributions of returns for each of the benchmarks. **High Income from our MBS portfolios, on the other hand, offset and buffer negative Returns from Price downturns, and are otherwise additive to positive Returns from Price in rallies, resulting in the skew towards positive returns (along with lower drawdowns when they do happen).** (Skewness is computed in the next section.)

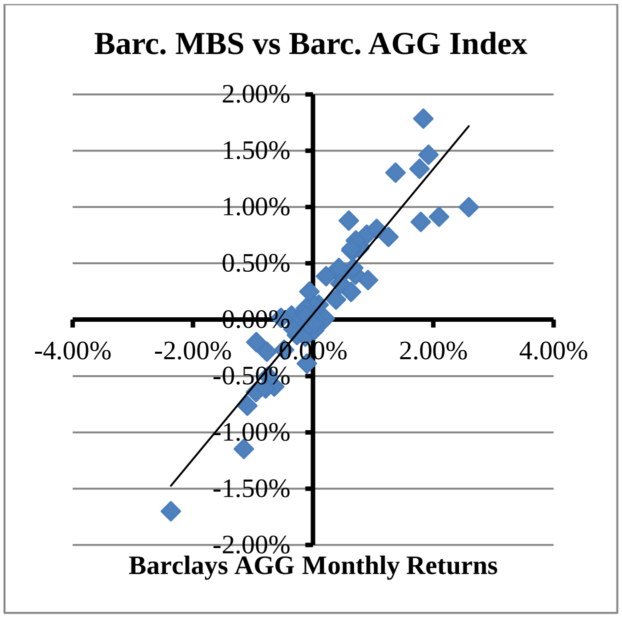


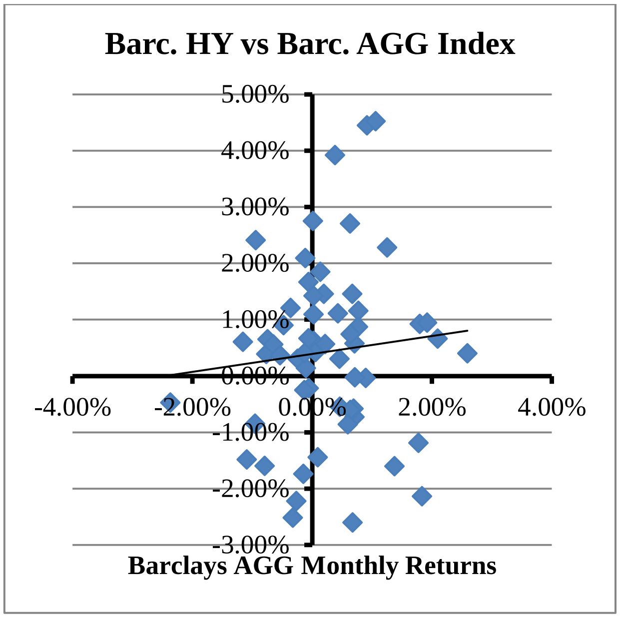






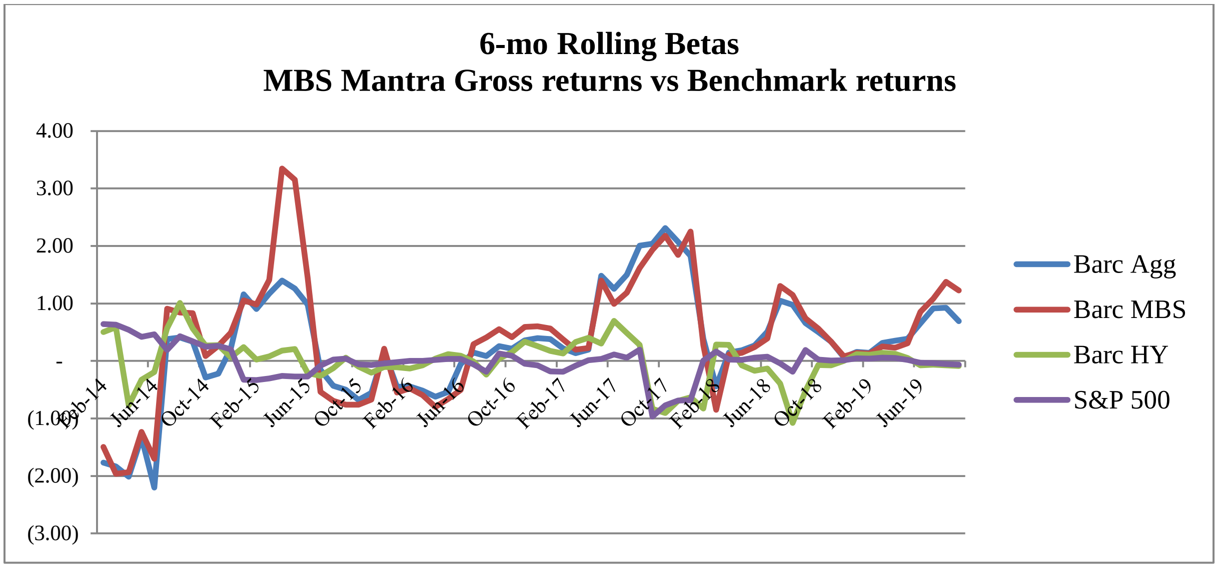
Below are the returns of the MBS Index (high Beta) and the HY Index (low Beta) vs the AGG to show examples of relationships and return distributions that are more 'normal', as they are dominated by Return from Price.





Rolling Betas

The previous table with Beta's shows long term Betas of MBS Mantra's returns to various benchmarks. However, as the Rolling Betas graph below shows, the Beta's are not stable over time, even to bond and MBS markets. **The implication of this Beta volatility is that our strategy is orthogonal to other benchmarks, and not inherently hedgable by any benchmark financial instrument. Relative to other strategies, this can only be viewed as either a new asset class (we consider MBS to be a Variable Income asset class) or as an Absolute Return strategy. This makes it valuable for portfolio construction and diversification. The MBS High Income strategy thus inherently solves for the investment problems of 'Too Little Income' and 'Too Much Beta'!**



A New Absolute Return Strategy, or a Complement to the 60/40 portfolio?

The rolling Beta's graph shows periods in which MBS Mantra's returns exhibit offsetting Betas to the High Yield/S&P pair and the AGG/MBS pair, suggesting a "credit exposure" to our returns. This led us to investigate if our strategy and portfolio could be replicated by or be a substitute for an AGG/S&P portfolio, an AGG/HY/S&P portfolio, or a AGG/HY portfolio.

The results of three regressions indicate that the MBS Mantra High Income Strategy has some limited exposure to rates (AGG), and is different from High Yield and Equity credit exposure.

This supports **our thesis that an MBS High Income portfolio can be viewed as a new diversifying asset class that can complement the typical bond+equity portfolio allocation**. Even if you view MBS as Fixed Income (which we do not), at the very least, this is the investment strategy within the MBS market that captures the Alpha that is available.

We hint at this in our Fact Sheet, in the Statistical Analysis table in the lower right corner, where **we show that a 50/50 MBSM/S&P portfolio has a 1.1 Sharpe ratio compared to 0.7 for the S&P500 alone.**

Regression 1: MBSM vs Barc Agg/Barc HY/S&P500

	Coefficients	T-Stats	Regression Statistics
Intercept (Alpha)	**0.58%**	4.3	
Barc Agg Beta	**0.35**	2.4	
Barc HY Beta	**0.10**	0.8	
S&P500 Beta	**-0.04**	-0.7	
R-Square			**0.14**
Adjusted R-Sq			**0.09**
Correlation			**36.9%**

Regression 2: MBSM vs Barc Agg/S&P500

	Coefficients	T-Stats	Regression Statistics
Intercept (Alpha)	**0.58%**	4.3	
Barc Agg Beta	**0.39**	2.8	
S&P500 Beta	**0.00**	-0.1	
R-Square			**0.12**
Adjusted R-Sq			**0.09**
Correlation			**35.3%**

Regression 3: MBSM vs Barc Agg/Barc HY

	Coefficients	T-Stats	Regression Statistics
Intercept (Alpha)	**0.56%**	4.3	
Barc Agg Beta	**0.38**	2.8	
Barc HY Beta	**0.04**	0.5	
R-Square			**0.13**
Adjusted R-Sq			**0.10**
Correlation			**35.8%**

The MBS High Income Factor - MBS Mantra Beta to other MBS and Income funds

This section aims to answer two questions:

- **If you are already invested in an MBS or an Income fund with a manager, do you have exposure to the MBS High Income Factor?**
- **Do any other MBS managers invest using the MBS High Income Factor?**

In the March 2019 newsletter, we conducted a detailed analysis of the MBS Income of 5 different Income funds, and found that their Income from MBS ranged from 2.1% to 5.6%, **half or less than MBS Mantra's MBS Income**.

Here, we conduct Beta analysis (using our Net Returns) of a broad selection of MBS, Total Return and Income funds that have existed before 11/2014. We use public data – we do not have returns for private MBS Hedge funds. However, many of these managers also have Hedge Funds, and as they are all fiduciaries and have to "allocate fairly", I doubt that their hedge funds will have significantly different results.

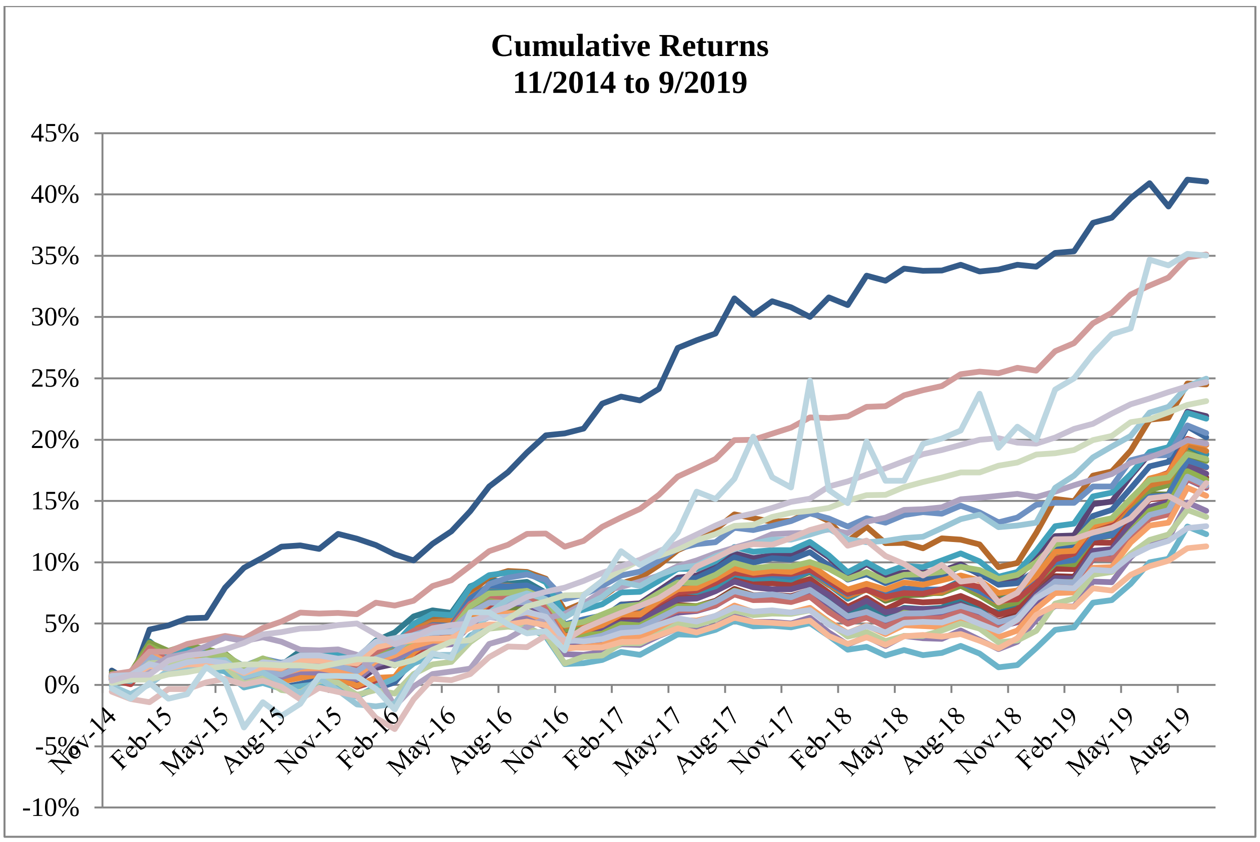
The data below is sorted by Beta to MBS Mantra's Net returns. **The highest Beta to MBSM is 0.40**. **This suggests that these managers have not discovered the MBS Income Factor. Most of the funds exhibit high Betas to the AGG, with similar average returns.**

Near the bottom of the list, there are 3 funds with low Beta's to MBSM and to the AGG that should be interesting for asset allocation. The last fund on the list (TSI) appears to be doing a good job beating the AGG albeit with a high Beta to the AGG and an almost 0 Beta to MBSM. A combination with MBSM should be interesting.

Name	Ticker	Beta to MBSM	Beta to AGG	R-Sq to MBSM	RSq to AGG	Avg Mthly Return	Avg Annual Return	Std Dev	Skew-ness
MBS Mantra Net		**1.00**	**0.39**	**1.00**	**0.12**	**0.59%**	**7.31%**	**1.00%**	**0.88**
Barclays AGG		**0.31**	**1.00**	**0.12**	**1.00**	**0.27%**	**3.28%**	**0.89%**	**0.12**
PIMCO Total Return Fund	PTTRX	0.40	0.93	0.19	0.82	0.29%	3.52%	0.92%	0.14
PGIM Total Return Bond Fund	PDBAX	0.38	1.08	0.14	0.92	0.34%	4.17%	1.00%	(0.12)
DFA Investment Grade Portfolio	DFAPX	0.38	1.09	0.15	0.96	0.30%	3.62%	0.99%	0.17
Western Asset Core Plus Bond F	WACPX	0.36	1.01	0.13	0.78	0.38%	4.62%	1.02%	(0.03)
USAA Income Fund	USAIX	0.35	0.97	0.14	0.85	0.32%	3.87%	0.94%	(0.06)
SIMT Core Fixed Income Fund	TRLVX	0.34	0.98	0.15	0.98	0.28%	3.42%	0.89%	0.10
BlackRock Total Return Fund	MAHQX	0.34	0.95	0.15	0.95	0.29%	3.52%	0.87%	0.21
Russell Strategic Bond Fund	RFCTX	0.34	1.03	0.13	0.96	0.27%	3.34%	0.94%	(0.11)
SIIT Core Fixed Income Fund	SCOAX	0.33	0.98	0.14	0.98	0.30%	3.62%	0.88%	0.02
Baird Aggregate Bond Fund	BAGIX	0.32	0.99	0.13	0.99	0.30%	3.66%	0.89%	0.13
Sanford C Bernstein Fund Inc -	SNIDX	0.32	0.95	0.14	0.96	0.28%	3.43%	0.87%	0.04
John Hancock Bond Fund	JHNBX	0.31	0.86	0.14	0.83	0.31%	3.74%	0.84%	0.08
BlackRock Core Bond Portfolio	BFMCX	0.31	0.96	0.13	0.98	0.27%	3.24%	0.86%	0.26
T Rowe Price New Income Fund I	PRCIX	0.31	0.96	0.13	0.97	0.26%	3.13%	0.87%	0.04
Western Asset Core Bond Fund	WATFX	0.31	0.96	0.12	0.92	0.34%	4.13%	0.90%	(0.14)
Hartford Total Return Bond HLS	HIABX	0.31	0.88	0.13	0.85	0.31%	3.75%	0.85%	(0.06)
Guggenheim- Total Return Bond	GIBAX	0.30	0.65	0.21	0.75	0.32%	3.90%	0.67%	0.27
TIAA-Cref Bond Index Fund	TBIIX	0.30	1.02	0.11	0.99	0.26%	3.14%	0.91%	0.10
DoubleLine Core Fixed Income F	DBLFX	0.30	0.77	0.17	0.88	0.29%	3.53%	0.73%	(0.12)

TCW Core Fixed Income Fund	TGFNX	0.30	0.94	0.12	0.99	0.23%	2.78%	0.84%	0.31
MFS Total Return Bond Fund	MRBBX	0.29	0.92	0.12	0.93	0.20%	2.43%	0.85%	0.14
Metropolitan West Total Return	MWTRX	0.29	0.92	0.12	0.99	0.25%	3.00%	0.83%	0.19
BNY Mellon Bond Fund	MPBFX	0.29	0.91	0.12	0.97	0.26%	3.15%	0.83%	0.02
Voya Securitized Credit Fund	VSCFX	0.27	0.41	0.32	0.56	0.51%	6.33%	0.49%	(0.18)
Franklin Total Return Fund	FBDAX	0.26	0.80	0.10	0.74	0.22%	2.69%	0.83%	(0.19)
Angel Oak Multi-Strategy Incom	ANGLX	0.25	0.03	0.15	0.00	0.31%	3.74%	0.64%	(1.73)
JPMorgan Income Fund	JGIAX	0.17	0.47	0.04	0.25	0.38%	4.68%	0.84%	0.09
HC Capital Trust - The US Mort	HCASX	0.14	0.62	0.05	0.84	0.18%	2.22%	0.60%	(0.16)
Vanguard Mortgage-Backed Secur	VMBS	0.14	0.63	0.05	0.85	0.21%	2.53%	0.61%	(0.42)
Western Asset Total Return Unc	WAARX	0.12	0.17	0.02	0.03	0.26%	3.20%	0.93%	(0.07)
GMO Opportunistic Income Fund	GMODX	0.08	0.02	0.07	0.00	0.35%	4.33%	0.30%	0.23
Semper MBS Total Return Fund	SEMMX	0.08	(0.08)	0.06	0.05	0.38%	4.60%	0.33%	(1.51)
TCW Strategic Income Fund Inc	TSI	0.01	1.04	0.00	0.16	0.54%	6.63%	2.31%	(0.13)

This graph shows the cumulative returns. The lines that stand out from the crowd are: MBSM, VSCFX and, more recently, TSI.



In conclusion, we do not believe that other managers have discovered the MBS Income Factor, and do not appear to invest using an MBS High Income framework. Having an MBS fund investment is not the same as having MBS Mantra's High Income/Absolute Return Strategy as part of your portfolio.

Footnote - if you do not have a statistics background, you mind find this link useful

https://www.investopedia.com/ask/answers/012615/whats-difference-between-rsquared-and-correlation.asp

To understand the ‘Skewness’ measure, this link and excerpt explain it quite well:

Interpreting Skewness:

From https://brownmath.com/stat/shape.htm

If skewness is positive, the data are positively skewed or skewed right, meaning that the right tail of the distribution is longer than the left. If skewness is negative, the data are negatively skewed or skewed left, meaning that the left tail is longer.

If skewness = 0, the data are perfectly symmetrical. But a skewness of exactly zero is quite unlikely for real-world data, so ***how can you interpret the skewness number****? Bulmer (1979) — a classic — suggests this rule of thumb:*

- *If skewness is less than −1 or greater than +1, the distribution is* ***highly skewed****.*
- *If skewness is between −1 and −½ or between +½ and +1, the distribution is* ***moderately skewed****.*
- *If skewness is between −½ and +½, the distribution is* ***approximately symmetric****.*

We welcome your questions and comments.

Regards, Samir

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