Investing with Low Volatility Mutual Funds

San Diego Chapter AAII – Risk Management SIG

Presented by Rob Bernstein, President RGB Capital Group LLC

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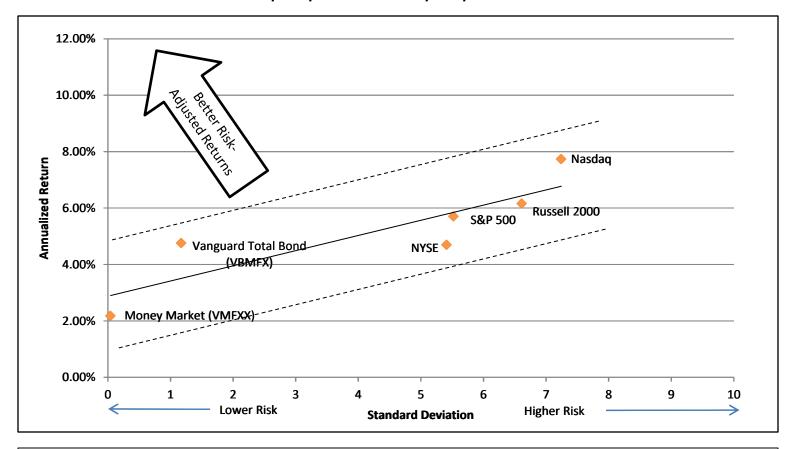
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Agenda

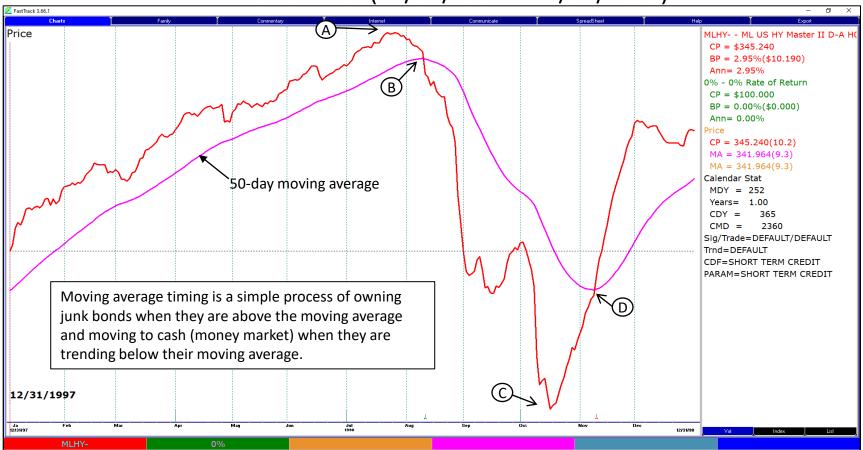
- Moving Average Timing Techniques
- How to Track the Low Volatility Market Segments
- Selecting Low Volatility Mutual Funds

Risk vs. Reward 12/31/1996 – 12/31/2018



Our goal as investors is to achieve returns outside the long-term, expected return channel by striving for better risk-adjusted returns (i.e. upper left-hand quadrant).

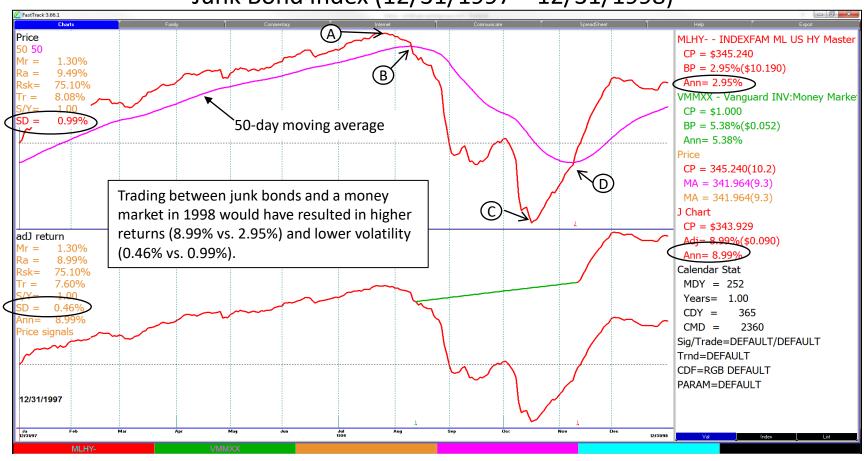
Junk Bond Index (12/31/1997 – 12/31/1998)



- A: Peak in junk bond index
- B: Junk bond index crosses below moving average
- C: Bottom (trough)
- D: Junk bond index moves above moving average

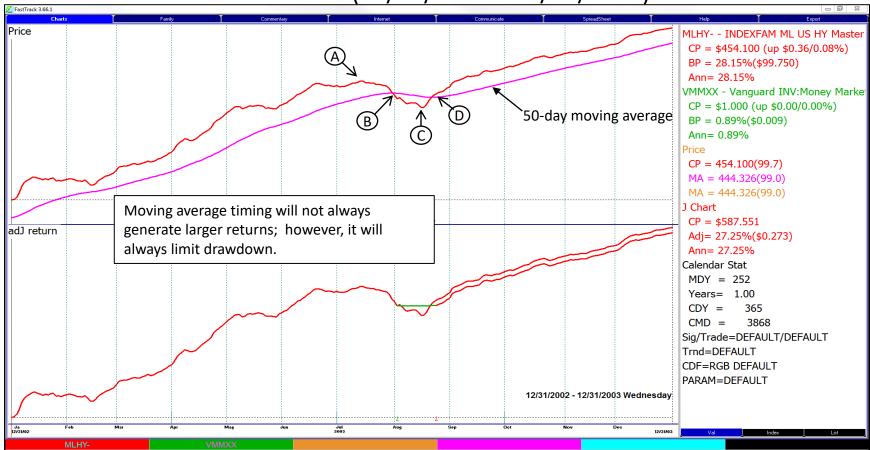
Timed drawdown (A \rightarrow B) is very predictable. Total drawdown (A \rightarrow C) is not predictable.

Moving Average Timing Junk Bond Index (12/31/1997 – 12/31/1998)



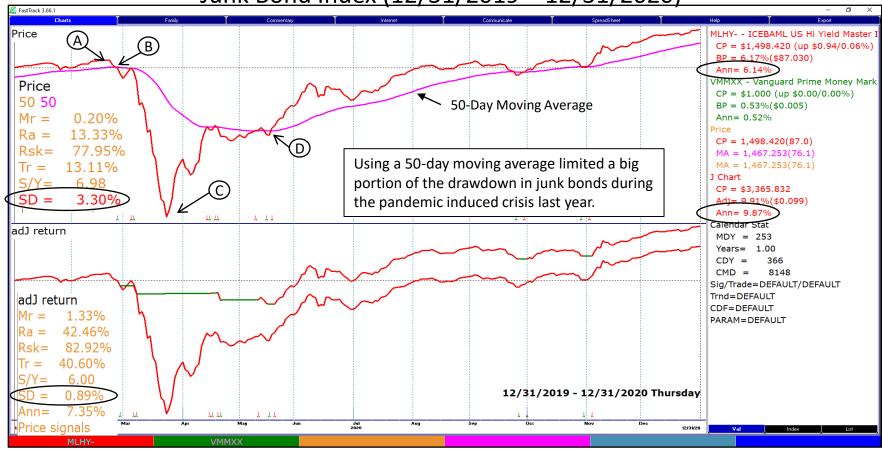
- Moving average timing can provide appropriate entry and exit points when investing in junk bonds.
- The timed drawdown (A \rightarrow B) was -1.0%; the total drawdown (A \rightarrow C) was -8.7%.
- During 1998, a 50-day moving average would have increased returns and reduced overall volatility/drawdown.

Junk Bonds (12/31/2002 – 12/31/2003)



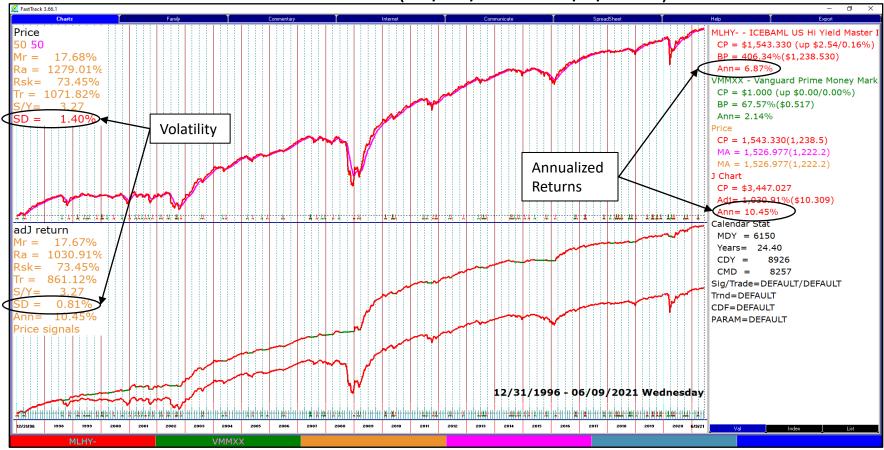
- In 2003, the timed drawdown (point A \rightarrow B) was -2.0%; total drawdown (point A \rightarrow C) was only -3.7%.
- In this case, trading when MLHY- crossed the 50-day moving average resulted in a whipsaw, creating slightly less return.

Junk Bond Index (12/31/2019 - 12/31/2020)



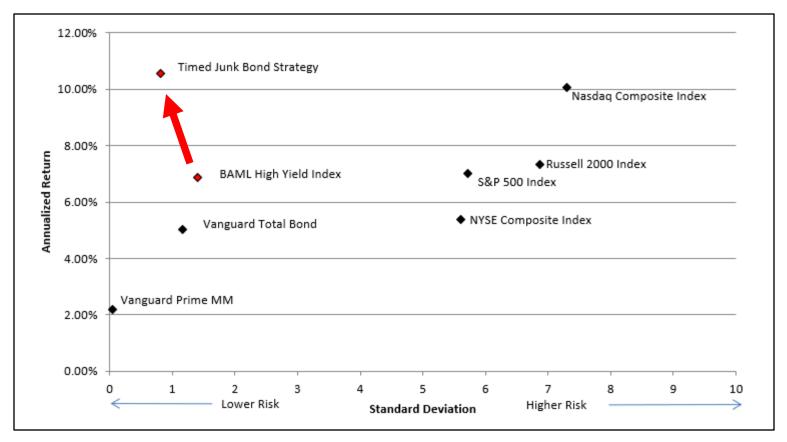
• Timed drawdown for MLHY- (A \rightarrow B) was -2.1%; a lot better than the total drawdown (A \rightarrow C) of -21.5%.

Junk Bond Index (12/31/1996 – 6/9/2021)



- Over the 20-year history of MLHY-, using a 50-day moving average has resulted in higher annualized returns and lower volatility.
- The maximum drawdown for the timed strategy is less than 6%.

Risk vs. Reward 12/31/1996 – 12/31/2020



Simply investing in a buy-and-hold strategy of junk bonds would have provided better risk-adjusted returns. Applying a 50-day moving average produces even better risk-adjusted returns and is consistent with most investors desire to achieve higher returns on lower volatility.

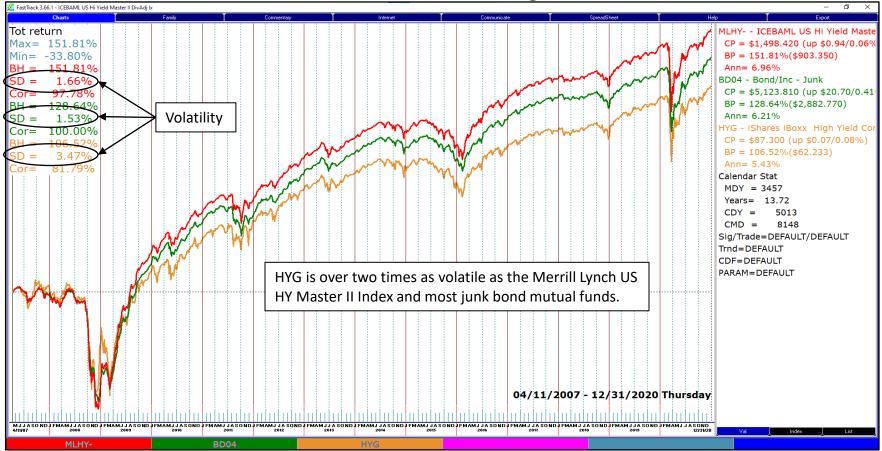
Junk Bond Mutual Funds A Good Proxy for Merrill Lynch US High-Yield Master II Index



 You can not invest in the Merrill Lynch US High-Yield Master II Index. However, junk bond mutual funds do a reasonable job of tracking the overall high-yield market as represented by the Merrill Lynch US High-Yield Master II Index.

Junk Bond ETFs

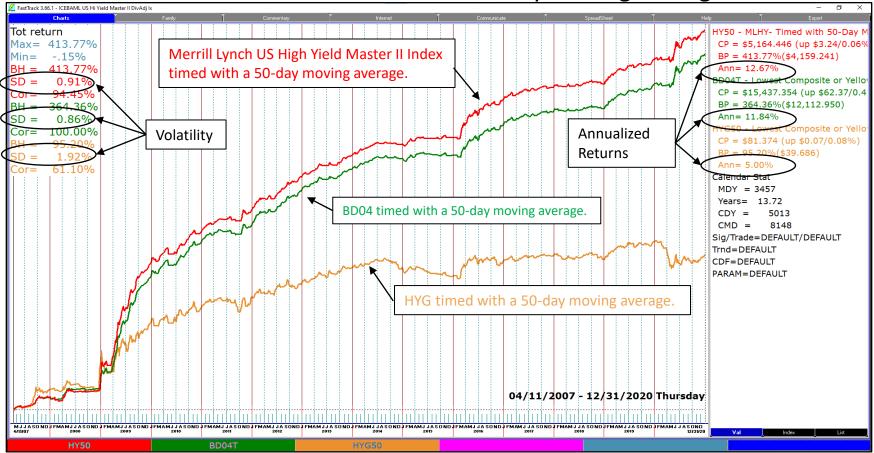
Junk Bond ETFs do a Poor Job of Tracking the Junk Bond Market



- Junk bond ETFs follow the general trend of the Merrill Lynch US High-Yield Master II Index and most junk bond mutual funds, however on increased volatility.
- The effectiveness of timing investments with a moving average is reduced as volatility increases.

Mutual Funds vs. ETFs

Can I use Junk Bond ETFs with 50-day Moving Average?



 You can use junk bond ETFs with a 50-day moving average. However, using a 50-day moving average on HYG resulted in lower returns than MLHY- and higher volatility which is generally inconsistent with investors' desire for better risk-adjusted returns.

Low Volatility Bond / Income Groups

The following groups tend to take on low volatility trends that make them suitable for moving average timing.

Interest Rate Sensitive Groups

- US Treasury Bonds
- Corporate Bonds
- Municipal Bonds
- Inflation-Adjusted Bonds

Economic Sensitive Groups

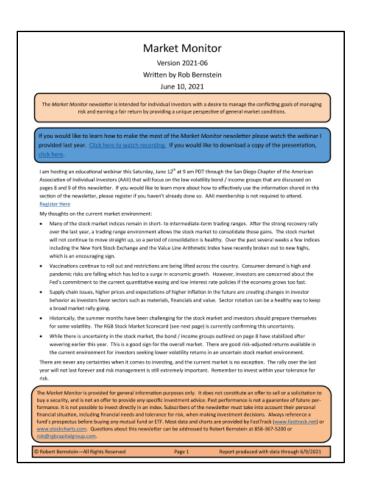
- Floating Rate Bonds
- Junk Bonds
- High-Yield Municipal Bonds
- Emerging Bonds
- Preferred Securities
- Non-Agency MBS

<u>Mutual funds</u> that track these groups have historically shown the propensity to take on low volatility trends which can provide increased probability of better risk-adjusted returns.

Tracking the Low Volatility Groups

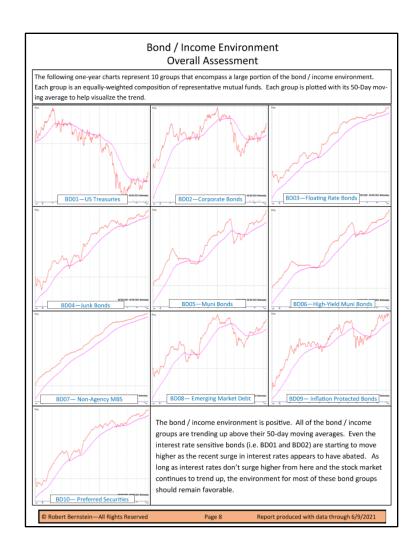
- RGB Market Monitor
- Complimentary
- Published monthly
- Structure:
 - a) My Thoughts / Commentary (page 1)
 - b) Stock Market Scorecard (pages 2-7)
 - c) Bond / Income (pages 8 & 9)
 - d) Overall Assessment (page 10)
- To be added to the distribution send a request to:

lois@rgbcapitalgroup.com



RGB Market Monitor Bond / Income Environment (page 8)

- Proprietary indices for each of the 10 bond / income categories.
- Indices created with an equalweighted average of mutual funds that represent each group.
- 1-Year charts
- Plotted with a 50-day moving average to help visualize the trend



RGB Market Monitor Bond / Income Environment (page 9)

- Quantitative analysis of bond / income groups.
- Ranking across time period(s).
- General assessment / comments regarding these groups.

Bond / Income Environment Detailed Analysis

When evaluating different segments of the bond / income market, I like to assess the groups over multiple time frames. This provides an opportunity to see how they performed under different market environments. The charts below include the ranking of the bond/income groups over two different time periods. The first time period is the last ten months (73/1/2020 through 6/9/2021) which is the period when interest rates started to climb following the pandemic. The second time period is from 3/19/2021 through 6/9/2021 which represents the period of time in which interest rates started to stabilize. Each chart is sorted by UPI, a measure of risk-addisided return.

Symbl	Description	Statistics for 7/31/20 - 6/9/21							One Year
		Return	Annual Return	ULCER	UPI	MaxDrawDown	SD	Return	Return
BD07	Bond/Inc - Non-Agency MBS	13.25%	15.71%	0.01	1022.64	-0.10%	0.33%	4.95%	17.839
BD03	Bond/Inc - Floating Rate	8.94%	10.56%	0.17	54.74	-0.89%	0.49%	3.17%	9.509
BD10	Bond/Inc - Preferred Securities	10.39%	12.29%	0.41	27.84	-1.70%	0.76%	2.81%	12.959
BD04	Bond/Inc - Junk	10.47%	12.38%	0.53	21.5	-2.34%	0.93%	3.47%	13.225
BD06	Bond/Inc - High Yield Muni	9.05%	10.69%	0.71	13.71	-2.24%	0.55%	4.57%	13.069
BD05	Bond/Inc - Muni Bond	3.82%	4.49%	0.8	4.35	-2.06%	0.47%	1.91%	6.539
BD09	Bond/Inc - Inflation Protected	3.48%	4.10%	0.85	3.63	-2.55%	0.95%	1.05%	7.159
BD08	Bond/Inc - Emerging Market Debt	6.20%	7.31%	2.41	2.62	-5.76%	1.40%	-0.71%	9.319
BD02	Bond/Inc - Corporate	0.38%	0.45%	1.75	-0.31	-3.99%	0.96%	-1.28%	3.839
BD01	Bond/Inc - US Treasuries	-4.77%	-5.57%	4.01	-1.64	-7.02%	1.22%	-2.97%	-2.219

The economic sensitive bond groups dominate the top half of the UPI ranked list above. As these groups tend to trend in the sam direction as the stock market, it is not surprising they are at the top of the list during the recovery from the pandemic induced selloff last year.

			Statistics for 3/19/21 - 6/9/21						
Symbl	Description	Return	Annual Return	ULCER	UPI	MaxDrawDown	SD	Return	Return
BD07	Bond/Inc - Non-Agency MBS	1.72%	7.98%	0	1605.74	-0.02%	0.13%	4.95%	17.83%
BD06	Bond/Inc - High Yield Muni	3.89%	18.73%	0.03	548	-0.13%	0.39%	4.57%	13.06%
BD05	Bond/Inc - Muni Bond	2.53%	11.91%	0.06	194.66	-0.19%	0.35%	1.91%	6.53%
BD03	Bond/Inc - Floating Rate	1.58%	7.29%	0.05	127.58	-0.15%	0.34%	3.17%	9.50%
BD10	Bond/Inc - Preferred Securities	2.80%	13.23%	0.15	84.1	-0.55%	0.48%	2.81%	12.95%
BD04	Bond/Inc - Junk	3.29%	15.67%	0.2	74.95	-0.56%	0.63%	3.47%	13.22%
BD09	Bond/Inc - Inflation Protected	2.70%	12.74%	0.2	59.45	-0.61%	0.83%	1.05%	7.15%
BD02	Bond/Inc - Corporate	2.76%	13.05%	0.27	45.21	-0.80%	0.89%	-1.28%	3.83%
BD08	Bond/Inc - Emerging Market Debt	3.71%	17.79%	0.41	41.18	-1.47%	1.06%	-0.71%	9.31%
BD01	Bond/Inc - US Treasuries	2.11%	9.86%	0.37	23.66	-0.96%	1.00%	-2.97%	-2.21%

Over the recent time period (3/19/21—6/9/21), muni and high-yield muni bonds have accelerated providing strong returns on very low volatility. During this period, muni and high-yield munis have had a maximum drawdown of less than -0.2%. The nonagency MBS funds continue to provide reasonable returns on virtually no volatility (note the 0.02% max drawdown for this group).



If we create an equal-weight portfolio with the top six groups (BD07, BD06, BD05, BD03, BD10, BD04) from the second chart above you might expect to see results similar to the red line in this chart, which is trending up at approximately a 9% annualized rate. To help put this chart in perspective, I have plotted it along with the S&P 500 Index, which is trending up at approximately 32.5% annualized return, albeit with significantly higher volatility (the hypothetical portfolio has 1/10th the volatility as measured by standard deviation). The goal of investors who want to manage risk is to achieve a reasonable returns on lower volatility. The S&P 500 Index is unlikely to continue to trend up at this rate without a meaningful correction so the current bond / income market is providing a good opportunity to achieve this goal.

Report produced with data through 6/9/2021

RGB Market Monitor

Quantitative Analysis (page 9)

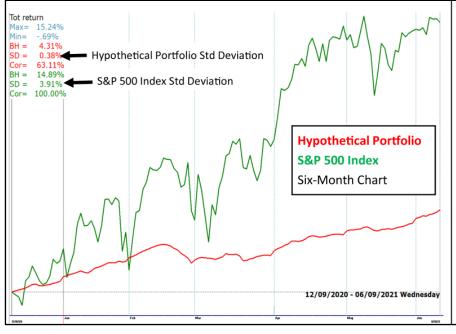
Sorted by UPI

	Description	Statistics for 3/19/21 - 1/21							One Year
Symbl		Return	Annual Return	ULCER	UPI	MaxDrawDown	SD	Return	Return
BD07	Bond/Inc - Non-Agency MBS	1.72%	7.98%	0	1605.74	-0.02%	0.13%	4.95%	17.83%
BD06	Bond/Inc - High Yield Muni	3.89%	18.73%	0.03	548	-0.13%	0.39%	4.57%	13.06%
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BD03	Bond/Inc - Floating Rate	1.58%	7.29%	0.05	127.58	-0.15%	0.34%	3.17%	9.50%
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BD04	Bond/Inc - Junk	3.29%	15.67%	0.2	74.95	-0.56%	0.63%	3.47%	13.22%
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BD01	Bond/Inc - US Treasuries	2.11%	9.86%	0.37	23.66	-0.96%	1.00%	-2.97%	-2.21%

Metric	Definition
Return	Return for the period stated
Annal Return	Return on an annualized basis
ULCER*	Ulcer Index is a downside volatility metric (lower value implies lower volatility)
UPI*	Ulcer Performance Index is a measure of risk-adjusted return. Higher values reflect better risk-adjusted returns.
MaxDrawDown	Maximum decline during the period stated
SD	Standard deviation, a volatility measurement. Lower values represent lower volatility.
YTD Return	Return from the beginning of the year to the date of the report.
One Year Return	Return for the prior 12-month time period.

^{*}For more information on Ulcer Index and UPI, please see UI-UPI Guide here.

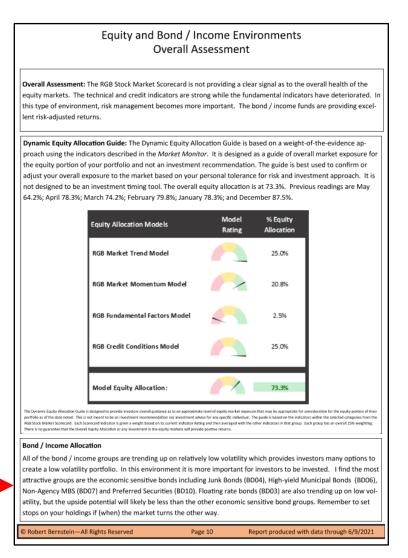
RGB Market Monitor General Assessment / Comments (page 9)



If we create an equal-weight portfolio with the top six groups (BD07, BD06, BD05, BD03, BD10, BD04) from the second chart above you might expect to see results similar to the red line in this chart, which is trending up at approximately a 9% annualized rate. To help put this chart in perspective, I have plotted it along with the S&P 500 Index, which is trending up at approximately 32.5% annualized return, albeit with significantly higher volatility (the hypothetical portfolio has $1/10^{th}$ the volatility as measured by standard deviation). The goal of investors who want to manage risk is to achieve a reasonable returns on lower volatility. The S&P 500 Index is unlikely to continue to trend up at this rate without a meaningful correction so the current bond / income market is providing a good opportunity to achieve this goal.

RGB Market Monitor Overall Assessment (page 10)

- Provides an overall assessment of the stock market and bond / income environments.
- Bond / Income Allocation (bottom of page) provides insights into which groups are providing best risk-adjusted returns and other thoughts given current market conditions.



RGB Market Monitor

Overall Assessment: Bond / Income Allocation (page 10)

June 10, 2021

Bond / Income Allocation

All of the bond / income groups are trending up on relatively low volatility which provides investors many options to create a low volatility portfolio. In this environment it is more important for investors to be invested. I find the most attractive groups are the economic sensitive bonds including Junk Bonds (BD04), High-yield Municipal Bonds (BD06), Non-Agency MBS (BD07) and Preferred Securities (BD10). Floating rate bonds (BD03) are also trending up on low volatility, but the upside potential will likely be less than the other economic sensitive bond groups. Remember to set stops on your holdings if (when) the market turns the other way.

Market Monitor Newsletter

Overall Assessment (Page 9)

March 12, 2020

Bond / Income Allocation

The bond / income groups are in downtrends or indicating possible topping patterns with the exception of US Treasuries. If you use a moving average as a stop for your bond / income holdings, you would most likely have sold by this point. Cash is an attractive asset class when compared to these other groups. While the returns on money markets are not great, it is best to protect your capital during volatile periods such as this. There will be a great buying opportunity down the road and if we protect our capital now, we can take full advantage of the opportunity when it presents itself. Spend the time now to prepare for the eventual bottom in the market.

April 9, 2020

Bond / Income Allocation

The steep declines in the bond / income groups have created a unique opportunity for investors to benefit from the potential rebound in these groups. While most have not crossed above their 50-day moving averages, all but the most conservative investors might consider stepping back into the market to take advantage of the potential recovery as the Federal Reserve quantitative easing program provides support, either directly or indirectly, for these groups. If you do re-enter the market, remember to set 'mental' stops to so that if the market turns down, you know your risk exposure.

Selecting Low Volatility Mutual Funds

You will need a charting tool to assist with the investment decision making process. I use FastTrack (www.investorsfasttrack.com) as my preferred charting and analysis tool for mutual funds.

InvestorsFastTrack



\$65 - \$100 / month



\$46 - \$80 / month

Selecting Specific Mutual Funds

- Fasttrack Demonstration
- FastTrack Training