

GREAT-WEST CAPITAL MANAGEMENT, LLC (GWCM) RESEARCH NOTE APRIL 2014



Making a Case for Unconstrained Bonds

Rising interest rates are generally bad for bond investors. When interest rates rise, bond prices fall—and certain bonds fall harder than others. What determines how hard a particular bond will fall opposite a rise in interest rates is a function of many factors: the duration of the bond, corresponding changes in spreads to U.S. Treasury rates, correlations between assets, etc.

It is important to point out that not all bonds are created equal. Compared to U.S. Treasuries, certain types of bonds, while still influenced by the movement of interest rates, are more driven by other fundamental and economic factors. These types of investments include high yield bonds, non-U.S. dollar-denominated bonds, emerging markets debt, convertible securities, and others.

Enter the unconstrained bond fund manager. Unlike most traditional core bond fund managers, an unconstrained manager has flexibility to vary his or her investments across various sectors outside of the sectors traditionally viewed as “core bond,” such as U.S. Treasuries, mortgage-backed securities¹, and investment-grade corporates. These more esoteric bond sectors tend to be lower or even negatively correlated with U.S. Treasury bonds.

The table below shows that while core bonds are very highly correlated to U.S. Treasuries—when securities are perfectly correlated, meaning their prices move in lockstep with one another, their correlation coefficient will be 1.0—corporate bonds are less so. Non-U.S. dollar-denominated bonds and emerging market debt are even less correlated. High yield bonds and convertibles are actually negatively correlated with U.S. Treasuries, meaning their prices tend to rise when U.S. Treasuries are falling and vice versa.

CORRELATION OF VARIOUS FIXED INCOME SECTORS TO U.S. TREASURIES²

Fixed Income Sector	Correlation to U.S. Treasuries
Core Bond	0.90
Corporates	0.64
Non-U.S. Dollar Bonds ³	0.40
Emerging Markets Debt ⁴	0.15
High Yield ⁵	-0.13
Convertibles	-0.18

Source: Morningstar[®] DirectSM. Correlation data reflects the monthly data for the period from April 1, 1994, through March 31, 2014, relative to the 10-year Treasury. Core Bond reflects the Barclays U.S. Aggregate Bond Index; Corporates reflect the Barclays U.S. Corporate Investment-Grade Index; Non-U.S. Dollar Bonds reflect the Barclays Global Aggregate Bond ex-USD Index; Emerging Markets Debt reflects the JPMorgan EMBI Global Diversified Index; High Yield reflects the Barclays U.S. Corporate High Yield Index; and Convertibles reflect the Bank of America Merrill Lynch Convertible Bonds All Qualities Index.

Unlike most traditional core bond fund managers, an unconstrained manager has flexibility to vary his or her investments across various sectors outside of the sectors traditionally viewed as “core bond.”

¹ Mortgage-backed securities are subject to prepayment and extension risks.

² U.S. Treasury securities are guaranteed as to the timely payment of principal and interest if held to maturity. Investment options are neither issued nor guaranteed by the U.S. government.

³ Foreign investments involve special risks, including currency fluctuations and political developments.

⁴ Securities of companies located in emerging markets involve greater risks than investing in more established markets, including currency fluctuations, political developments and share illiquidity.

⁵ Compared to higher rated securities, high yield bond investment options are subject to greater risk, including the risk of default.



Unconstrained bond funds, however, are not necessarily just an investment play supporting a rising rate thesis. While the intervention of global central banks in the bond markets has certainly had an impact on interest rates, a rapidly rising interest rate scenario is far from a sure thing. One needs to look no further back than the first quarter of 2014 for an example. As markets closed out 2013, the 10 year U.S. Treasury had surpassed 3%, with market pundits calling for steadily rising rates in 2014. But what happened? The opposite of what many expected. Rates crept back down, closing out the quarter at 2.73% after briefly slipping below the 2.60% level in February.⁶

Regardless of one's call on the future direction of interest rates, an unconstrained bond fund mandate has the potential to add value to an investment portfolio. Unconstrained bond funds simply have more levers to pull in their portfolios to potentially take advantage of different types of market conditions.

In 2013, GWCM added a more unconstrained bond fund, the Great-West Loomis Sayles Bond Fund,^{7,8} as an underlying fund to both the Great-West Lifetime Funds^{9,10} and Great-West Profile Funds¹⁰. The new allocation was carved out of the existing core bond sleeves in these funds. We have positioned this fund alongside our existing core bond fund managers in order to potentially benefit from increased investment flexibility to combat a variety of market conditions.

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GWCM believes that a more unconstrained approach to bond investing, used as a complement to core bonds, can add significant value to portfolios over the long run due to both the potential for higher returns and the diversification impacts that can be obtained by investing in lower-correlation assets.

GWCM believes that there are certain factors that should be considered when evaluating an unconstrained fixed income manager beyond those in a typical fund due diligence review:

1. Detailed Track Record Analysis – When managing an unconstrained bond fund, timing is critical. A good manager will need to rotate through the various fixed income sectors depending on market conditions. A good manager will also be able to demonstrate strong performance through both rising and falling rate environments as well as successfully manage through various stages of the credit cycle. Managers with relatively short track records are unlikely to fit the bill.

2. Risk Management – A good unconstrained bond fund manager should not simply dial up a strategy's risk exposure while chasing returns. What are the limits around credit risk? Around duration? While an unconstrained bond fund typically carries a higher risk profile than a core bond, a good manager will not pursue return at any cost. The enhanced potential for returns should be balanced with effective risk controls.

⁶ Source: U.S. Treasury

⁷ A bond fund's yield, share price and total return change daily and are based on changes in interest rates, market conditions, economic and political news, and the quality and maturity of its investments. In general, bond prices fall when interest rates rise and vice versa.

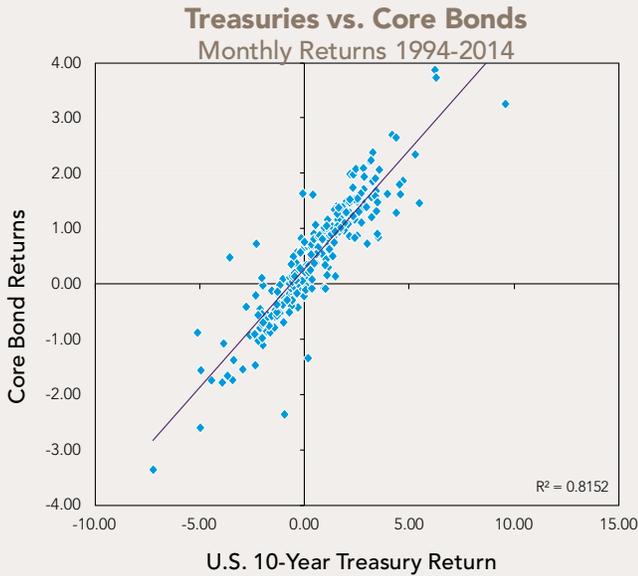
⁸ Certain Great-West Funds are managed by sub-advisers who manage other mutual funds having similar names and investment objectives. While their investment management may be similar to, or modeled after, those other mutual funds, the Great-West Funds are not directly related to any other mutual funds. Consequently, the investment performance and other features of other mutual funds and any similarly named Great-West Fund may differ substantially.

⁹ The date in a target date fund's name represents an approximate date when an investor is expected to retire (which is assumed to be at age 65) and/or begins withdrawing money. The principal value of the funds is not guaranteed at any time, including the target date. For more information, please refer to the fund prospectus and/or disclosure document.

¹⁰ Asset allocation investment options are subject to the risks of the underlying funds, which can be a mix of stocks/stock funds and bonds/bond funds. For more information, see the prospectus and/or disclosure documents.

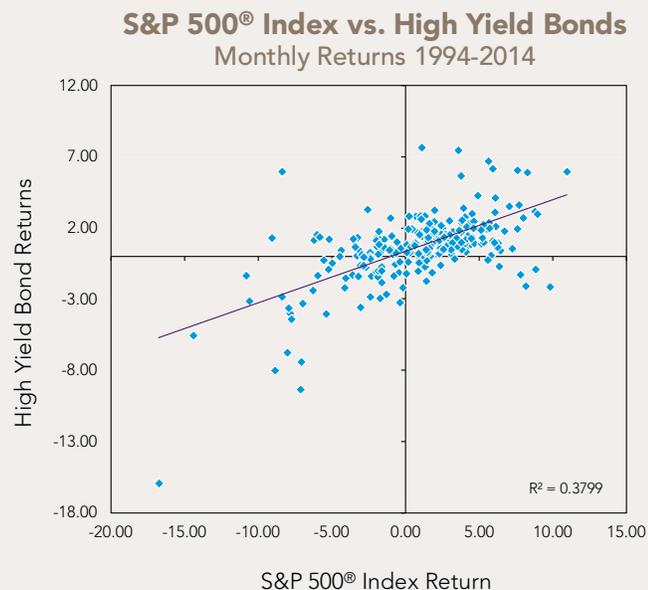
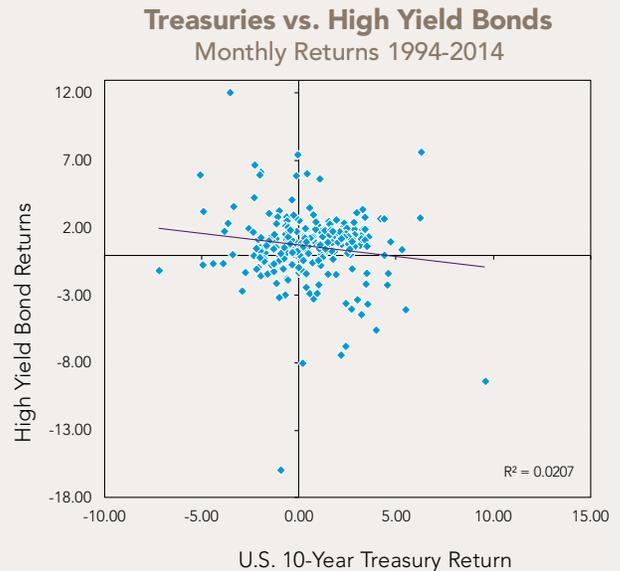


CORRELATION: A PRACTICAL EXAMPLE



Core bonds are highly correlated to U.S. Treasuries. On average, when Treasuries do well, core bonds also do well. Note, of course, that the Barclays U.S. Aggregate Bond Index contains a 36% allocation to Treasury securities.

The relationship between Treasuries and high yield bonds, however, is more muddled. The lack of a clear linear relationship in the chart to the right indicates that Treasury bond returns have virtually nothing to do with the returns of high yield bonds. Instead, high yield bonds, which are rated below investment-grade by the rating agencies, are more dependent on the capacity of the particular borrowers to repay the bonds—which is influenced by wider economic conditions as a whole.



Because high yield bonds are driven by the capacity of the issuers to service their debt, they are largely influenced by the overall health of the economy. For example, as the economy improves, consumers spend more money and companies typically perform better, making it easier for issuers to service their bonds. When these bonds are perceived as having lower default risk, prices tend to increase. Because the value drivers for high yield bonds are often similar to those factors that drive the stock market, high yield bonds tend to be more highly correlated with the equity markets than with core bonds.



GWCM believes that an unconstrained bond fund manager is best positioned in a portfolio alongside a more traditional core bond offering. Why? Because, inherently, unconstrained bond fund managers have the potential to increase risk for the portfolio. A core bond sleeve helps anchor the portfolio and provides diversification and some downside protection traditionally associated with fixed income sleeves. As discussed on the next page, certain types of assets typically available to unconstrained managers, such as high yield, can exhibit equity-like return patterns. When constructing and optimizing portfolios, one must account for these additional risks. However, GWCM believes that when managed appropriately, these additional risks can be balanced against the increased return and diversification potential associated with unconstrained bond funds.

THE GREAT-WEST LOOMIS SAYLES BOND FUND

One solution that investors may wish to evaluate when considering unconstrained bond funds is the Great-West Loomis Sayles Bond Fund. The fund has been managed by Dan Fuss and his team since its inception in 1994. Over that nearly 20-year period, the team has demonstrated a remarkable ability to manage through a variety of interest rate environments. The team was nominated for Morningstar’s fixed income Manager-of-the-Year award in 2013 for the management of a non-Great-West Fund. Although Fuss and his team didn’t win in 2013, they previously won the title in 1995 and 2009 for the management of a non-Great-West Fund.^{11,12}

Currently, the fund holds only a very limited allocation to U.S. Treasuries and a much larger allocation to U.S. credit. Approximately 42% of the portfolio is invested in credit securities (comprising both investment-grade and high yield). The exposure to U.S. high yield is material at 18.4%. Currently, nearly a quarter of the portfolio’s assets are invested in non-U.S. dollar-denominated securities. Additionally, more than 9% of the portfolio is invested in convertible securities and preferred securities.

FIXED INCOME SECTOR ALLOCATIONS AS OF JANUARY 31, 2014

Sector	%
U.S. Treasuries	16.5
U.S. Agencies	0.0
Gov't Related	0.0
Securitized Credit	0.1
U.S. Invest-Grade Credit	18.4
U.S. High Yield	24.7
Emerging Markets	0.0
Non-U.S. Dollar	23.0
Convertibles	8.7
Preferreds	0.4
Other	3.9
Cash and Equivalents	4.4
Total	100.0

Source: Loomis Sayles

While the investments across the various sectors will vary over time, Fuss and his team do not have complete free rein on how the portfolio is managed. They are subject to limitations in terms of caps on the allocations to particular sectors. High yield positions are subject to a cap of 35%. Additionally, there are caps around the amount of non-U.S. dollar and preferred securities that the fund may hold (both at 20%). Finally, the fund will not invest more than 25% of its assets in any one industry. These limits are important for limiting the overall risk to the portfolio should some of the investments turn against Fuss and his team.

In terms of historical performance, for the 10 year period ended March 31, 2014, the fund’s returns rank within the fifth percentile of its Morningstar category, outperforming the average multisector bond fund by more than 2.0% on an annualized basis. The fund also ranked in the top decile for the one-, three- and five-year trailing periods.

¹¹ <http://news.morningstar.com/articlenet/article.aspx?id=624046>

¹² Past performance is not a guarantee or prediction of future performance.



In addition to very strong returns, the fund has a track record of making efficient use of the additional risk that it has taken on. With respect to risk-adjusted returns, the fund has generated a higher Sharpe Ratio¹³ and a higher Information Ratio¹³ than other similar funds, meaning that the team has been more successful than the average manager at converting its risk into returns for investors. The table on the next page details the performance characteristics for the fund, its Morningstar category, and its benchmark (the BofA Merrill Lynch Corporate/Government Index).

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	Overall Morningstar Rating™	Trailing Periods Ended 3/31/2014				Risk-adjusted Returns	
		1-Year	3-Year	5-Year	10-Year	Sharpe Ratio	Information Ratio
Great-West Loomis Sayles Bond Init	★★★★	7.80	8.85	15.58	8.32	0.77	0.49
Ticker: MXLMX; Inception: 11/1/1994	Percentile rank	5	7	9	5		
	Rank	(16/315)	(15/223)	(16/178)	(6/115)		
BofA ML U.S. Corp and Govt Master Index ¹⁴		-0.45	4.17	5.15	4.41	0.67	N/A
Morningstar Multisector Bond Category		2.97	5.69	11.73	6.08	0.66	0.20

Source: Morningstar Direct. Sharpe and Information Ratios reflect the 10-year period ended March 31, 2014. Information Ratio is measured in relation to the Bank of America Merrill Lynch U.S. Corporate and Government Master Index.

Current performance may be lower or higher than performance data shown. Performance data quoted represents past performance and is not a guarantee or prediction of future results. For performance data current to the most recent month-end, please visit www.greatwestfunds.com. The investment return and principal value of an investment will fluctuate so that, when redeemed, shares/units may be worth more or less than their original cost. Please consider the investment objectives, risks, fees and expenses carefully before investing. For this and other important information, you may obtain mutual fund prospectuses from your registered representative or at www.greatwestfunds.com. Read them carefully before investing.

For each fund with at least a three-year history, Morningstar calculates a Morningstar Rating based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of funds in each category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars and the bottom 10% receive 1 star. (Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages.) The Overall Morningstar Rating for a fund is derived from a weighted average of the performance figures associated with its three-, five- and ten-year (if applicable) Morningstar Rating metrics. Great-West Loomis Sayles Bond Fund Initial Class Shares was rated against the following numbers of U.S.- domiciled multisector bond funds over the following time periods: 223 funds in the last three years, 178 funds in the last five years, and 115 funds in the last ten years. With respect to these multisector bond funds, Great-West Loomis Sayles Bond Fund Initial Class Shares received a Morningstar Rating of five stars, four stars and four stars for the three-, five- and ten-year periods, respectively. Past performance is no guarantee of future results.

¹³ Sharpe Ratio and Information Ratios are metrics used to describe the performance of an investment portfolio on a risk-adjusted basis. Sharpe Ratio is intended to measure the risk-adjusted return of a particular investment, relative to a risk-free U.S. Treasury Bill. Information Ratio is intended to measure the risk-adjusted return of a particular investment, relative to a market benchmark.

¹⁴ A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of a fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index.



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