

# The High Yield Spread and the MRI

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Essential Beta has been holding high yield bonds since March of 2011 as a hybrid asset class which offers unique characteristics. In September 2013 we increased the risk allocation of high yield bonds to 12.5% once the Market Risk Index (MRI) moved to 0.00, resulting in high yield taking half of the bond risk budget. The reasons for this were outlined in our September 2013 note “High Yield Bonds as a Government Bond Alternative in a Rising Interest Rate Environment.” Basically to recap, at lower levels of uncertainty high yield bonds give a similar level of diversification with equities as sovereign bonds, but are not as susceptible to inflationary pressures.

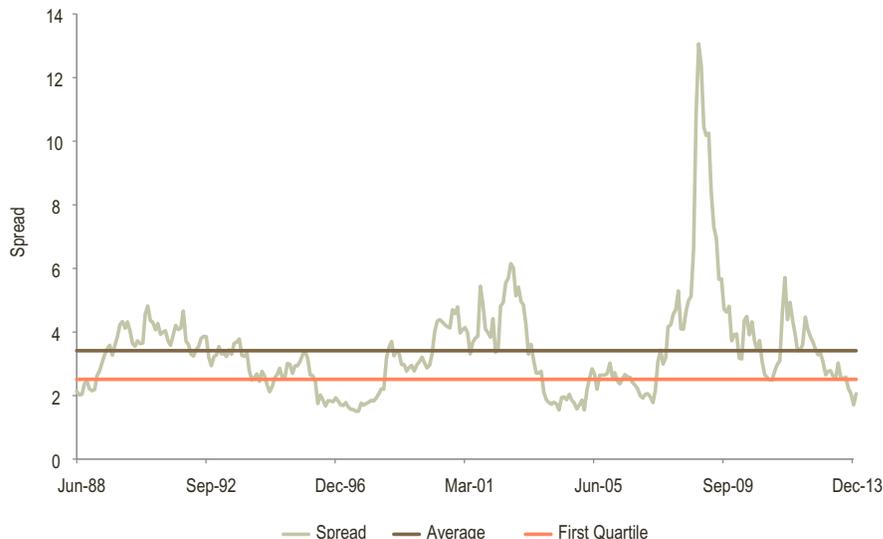
Now with the yield spread between high yield and treasury bonds reaching low levels, one can question whether high yield bonds will continue to deliver a sufficient risk premium. Contrary to conventional wisdom, we will show that high yield bonds tend to have their highest Sharpe Ratio when the yield spread is the narrowest.

The chart below shows the historical spread.

The red line shows the bottom quartile of the spread since 1988, and we can see that the spread is now in this lower quartile. Additionally, we can see that in the past when the spread has reached this level it has generally stayed there for several years. The question is, why?

These periods correspond with more expansionary, low volatility phase of the market cycle. During this period high yield bonds have volatility which is about the same (and often lower) than intermediate government bonds. In fact, it is easy to see that the level of the spread is directly

**EXHIBIT 1: YIELD SPREAD BETWEEN 10 YEAR US T-NOTE AND MERRILL HIGH YIELD MASTER INDEX (June 1988 - December 2013)**

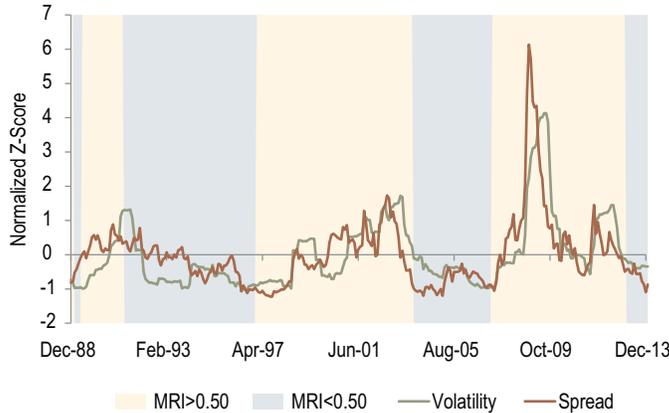


Sources: Datastream, Global Financial Data

Past performance is no guarantee of future results. Potential for profit is accompanied by possibility of loss.

related to the level of high yield volatility. In the next graph we show the spread along with the trailing 12 month volatility of the Merrill Lynch High Yield Master Index. Both are being shown as normalized Z-scores so they can be viewed together.

**EXHIBIT 2: HIGH YIELD 12 MONTH VOLATILITY VS 10 YEAR TREASURY SPREAD**  
 (December 1988 - December 2013)



Sources: Datastream, Global Financial Data

We see that the spread rises and falls as volatility rises and falls. We also see that these periods coincide with macro uncertainty as measured by the MRI. So the risk of default as measured by the spread is largely related to the level of macro uncertainty in the markets. Since we have only been in the current low uncertainty

environment for about a year, we expect this low yield spread level to persist for some time.

We also note that while the yield spread is at its lowest when the MRI = 0.00, that is also when high yield bonds tend to have their highest Sharpe Ratio. So contrary to conventional wisdom which implies when the high yield spread is narrow, the risk premium for high yield is small, the exact opposite happens due to the drop in volatility:

**SHARPE RATIO**  
 (December 1988 - December 2013)

	High Yield Index	10 Year T-Note
MRI>0.50	0.31	1.25
MRI<0.50	1.75	1.12

As uncertainty increases both the spread and volatility of high yield will increase as well. So as the MRI rises, the capital and risk allocation to high yield will also drop back to a 4% risk allocation when the MRI equals 1.00. That appears some time off, so we can feel confident that given current macro conditions high yield bonds will continue to behave in a similar fashion to government bonds and offer the same level of diversification. If an unexpected exogenous shock were to occur and high yield were to begin to act like equities, then we have in place additional equity option exposure to hedge the portfolio.

Sources: Datastream, Global Financial Data